

*Ranger5G.com*

2019 **RANGER** Owner's Manual



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## California Proposition 65



**WARNING:** Operating, servicing and maintaining a passenger vehicle or off-highway motor vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to [www.P65Warnings.ca.gov/passenger-vehicle](http://www.P65Warnings.ca.gov/passenger-vehicle).



**WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.  
**Wash your hands after handling.**



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# Introduction

## ABOUT THIS MANUAL

Thank you for choosing Ford. We recommend that you take some time to get to know your vehicle by reading this manual. The more that you know about your vehicle, the greater the safety and pleasure you will get from driving it.



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

**Note:** This manual describes product features and options available throughout the range of available models, sometimes even before they are generally available. It may describe options not fitted to the vehicle you have purchased.

**Note:** Some of the illustrations in this manual may show features as used in different models, so may appear different to you on your vehicle.

**Note:** Always use and operate your vehicle in line with all applicable laws and regulations.

**Note:** Pass on this manual when selling your vehicle. It is an integral part of your vehicle.

This manual may qualify the location of a component as left-hand side or right-hand side. The side is determined when facing forward in the seat.



E154903

- A Right-hand side.
- B Left-hand side.

## SYMBOLS GLOSSARY

These are some of the symbols you may see on your vehicle.



Air conditioning system



Air conditioning system lubricant type



Anti-lock braking system



Avoid smoking, flames or sparks



Battery



Battery acid



Brake fluid - non petroleum based



Brake system

# Introduction



Brake system



Flammable



Cabin air filter



Front airbag



Check fuel cap



Front fog lamps



Child safety door lock or unlock



Fuel pump reset



Child seat lower anchor



Fuse compartment



Child seat tether anchor



Hazard flashers



Cruise control



Heated rear window



Do not open when hot



Windshield defrosting system



Engine air filter



Interior luggage compartment release



Engine coolant



Jack



Engine coolant temperature



Keep out of reach of children



Engine oil



Lighting control



Explosive gas



Low tire pressure warning



Fan warning



Maintain correct fluid level



Fasten seatbelt



Note operating instructions

# Introduction



Horn control



Panic alarm



Parking aid



Parking brake



Power steering fluid



Power windows front/rear



Power window lockout



Requires registered technician



Safety alert



See Owner's Manual



See Service Manual



Service engine soon



Passenger airbag activated



Passenger airbag deactivated



Side airbag



Shield the eyes



Stability control



Hill descent control



Trail control



Windshield wiping system



Windshield wash and wipe

## DATA RECORDING

### Service Data Recording

Service data recorders in your vehicle are capable of collecting and storing diagnostic information about your vehicle. This potentially includes information about the performance or status of various systems and modules in the vehicle, such as engine, throttle, steering or brake systems. In order to properly diagnose and service your vehicle, Ford Motor Company (Ford of Canada in Canada), and service and repair facilities may access or share among them vehicle diagnostic information received through a direct connection to your vehicle when diagnosing or servicing your vehicle. Additionally, Ford Motor Company (Ford of Canada, in Canada) may, where permitted by law, use vehicle diagnostic information for vehicle improvement or with other information we may have about you, (for example, your contact information), to offer you products or services that may interest you. Data may be provided to our service providers such

# Introduction

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as part suppliers that may help diagnose malfunctions, and who are similarly obligated to protect data. We retain this data only as long as necessary to perform these functions or to comply with law. We may provide information where required in response to official requests to law enforcement or other government authorities or third parties acting with lawful authority or court order, and such information may be used in legal proceedings. For U.S. only (if equipped), if you choose to use connected apps and services, such as SYNC Vehicle Health Report or MyFord Mobile App, you consent that certain diagnostic information may also be accessed electronically by Ford Motor Company and Ford authorized service facilities, and that the diagnostic information may be used to provide services to you, personalizing your experience, troubleshoot, and to improve products and services and offer you products and services that may interest you, where permitted by law. For Canada only, for more information, please review the Ford of Canada privacy policy at [www.ford.ca](http://www.ford.ca), including our U.S. data storage and use of service providers in other jurisdictions who may be subject to legal requirements in Canada, the United States and other countries applicable to them, for example, lawful requirements to disclose personal information to governmental authorities in those countries. See **SYNC™** (page 323).

## Event Data Recording

**This vehicle is equipped with an event data recorder. The main purpose of an event data recorder is to record, in certain crash or near crash-like situations, such as an airbag deployment or hitting a road obstacle;**

**this data will assist in understanding how a vehicle's systems performed. The event data recorder is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less.**

**The event data recorder in this vehicle is designed to record such data as:**

- **How various systems in your vehicle were operating;**
- **Whether or not the driver and passenger safety belts were buckled/fastened;**
- **How far (if at all) the driver was depressing the accelerator and/or the brake pedal; and**
- **How fast the vehicle was traveling; and**
- **Where the driver was positioning the steering wheel.**

**This data can help provide a better understanding of the circumstances in which crashes and injuries occur.**

**Note:** *Event data recorder data is recorded by your vehicle only if a non-trivial crash situation occurs; no data is recorded by the event data recorder under normal driving conditions and no personal data or information (e.g., name, gender, age, and crash location) is recorded (see limitations regarding 911 Assist and Traffic, directions and Information privacy below). However, parties, such as law enforcement, could combine the event data recorder data with the type of personally identifying data routinely acquired during a crash investigation.*

**To read data recorded by an event data recorder, special equipment is required, and access to the vehicle or the event data recorder is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have such special equipment, can read**

# Introduction

the information if they have access to the vehicle or the event data recorder. Ford Motor Company and Ford of Canada do not access event data recorder information without obtaining consent, unless pursuant to court order or where required by law enforcement, other government authorities or other third parties acting with lawful authority. Other parties may seek to access the information independently of Ford Motor Company and Ford of Canada.

**Note:** *Including to the extent that any law pertaining to Event Data Recorders applies to SYNC or its features, please note the following: Once 911 Assist (if equipped) is enabled (set ON), 911 Assist may, through any paired and connected cell phone, disclose to emergency services that the vehicle has been in a crash involving the deployment of an airbag or, in certain vehicles, the activation of the fuel pump shut-off. Certain versions or updates to 911 Assist may also be capable of being used to electronically or verbally provide to 911 operators the vehicle location (such as latitude and longitude), and/or other details about the vehicle or crash or personal information about the occupants to assist 911 operators to provide the most appropriate emergency services. If you do not want to disclose this information, do not activate the 911 Assist feature. See SYNC™ (page 323).*

**Additionally, when you connect to Traffic, Directions and Information (if equipped, U.S. only), the service uses GPS technology and advanced vehicle sensors to collect the vehicle's current location, travel direction, and speed ("vehicle travel information"), only to help provide you with the directions, traffic reports, or business searches that you request. If you do not want**

**Ford or its vendors to receive this information, do not activate the service. For more information, see Traffic, Directions and Information, Terms and Conditions. See SYNC™ (page 323).**

## PERCHLORATE

Certain components in your vehicle such as airbag modules, seatbelt pretensioners and remote control batteries may contain perchlorate material. Special handling may apply for service or vehicle end of life disposal.

**For more information visit:**

Web Address
<a href="http://www.dtsc.ca.gov/hazardouswaste/perchlorate">www.dtsc.ca.gov/hazardouswaste/perchlorate</a>

## REPLACEMENT PARTS RECOMMENDATION

We have built your vehicle to the highest standards using quality parts. We recommend that you demand the use of genuine Ford and Motorcraft parts whenever your vehicle requires scheduled maintenance or repair. You can clearly identify genuine Ford and Motorcraft parts by looking for the Ford, FoMoCo or Motorcraft branding on the parts or their packaging.

# Introduction

## Scheduled Maintenance and Mechanical Repairs

One of the best ways for you to make sure that your vehicle provides years of service is to have it maintained in line with our recommendations using parts that conform to the specifications detailed in this Owner's Manual. Genuine Ford and Motorcraft parts meet or exceed these specifications.

## Collision Repairs

We hope that you never experience a collision, but accidents do happen. Genuine Ford replacement collision parts meet our stringent requirements for fit, finish, structural integrity, corrosion protection and dent resistance. During vehicle development we validate that these parts deliver the intended level of protection as a whole system. A great way to know for sure you are getting this level of protection is to use genuine Ford replacement collision parts.

## Warranty on Replacement Parts

Genuine Ford and Motorcraft replacement parts are the only replacement parts that benefit from a Ford Warranty. The Ford Warranty may not cover damage caused to your vehicle as a result of failed non-Ford parts. For additional information, refer to the terms and conditions of the Ford Warranty.

## SPECIAL NOTICES

If converting or modifying your vehicle from production specification, please see your authorized Ford dealer.

## New Vehicle Limited Warranty

For a detailed description of what is covered and what is not covered by your vehicle's New Vehicle Limited Warranty, see the Warranty Manual that is provided to you along with your Owner's Manual.

## Special Instructions

For your added safety, your vehicle is fitted with sophisticated electronic controls.



**WARNING:** You risk death or serious injury to yourself and others if you do not follow the instruction highlighted by the warning symbol. Failure to follow the specific warnings and instructions could result in personal injury.



**WARNING:** NEVER use a rearward facing child restraint on a seat protected by an ACTIVE AIRBAG in front of it, DEATH or SERIOUS INJURY to the CHILD can occur.

## On Board Diagnostics Data Link Connector



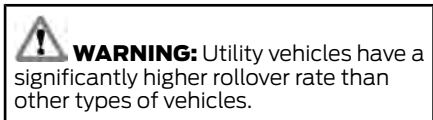
**WARNING:** Do not connect wireless plug-in devices to the data link connector. Unauthorized third parties could gain access to vehicle data and impair the performance of safety related systems. Only allow repair facilities that follow our service and repair instructions to connect their equipment to the data link connector.

Your vehicle has an OBD Data Link Connector (DLC) that is used in conjunction with a diagnostic scan tool for vehicle diagnostics, repairs and reprogramming services. Installing an aftermarket device that uses the DLC during normal driving for purposes such as

# Introduction

remote insurance company monitoring, transmission of vehicle data to other devices or entities, or altering the performance of the vehicle, may cause interference with or even damage to vehicle systems. We do not recommend or endorse the use of aftermarket plug-in devices unless approved by Ford. The vehicle Warranty will not cover damage caused by an aftermarket plug-in device.

## Notice to Owners of Pickup Trucks and Utility Type Vehicles



Before you drive your vehicle, please read this Owner's Guide carefully. Your vehicle is not a passenger car. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of vehicle control, vehicle rollover, personal injury or death.

## Using Your Vehicle With a Snowplow

### Do not use this vehicle for snowplowing.

Your vehicle does not have a snowplowing package.

## Using Your Vehicle as an Ambulance

### Do not use this vehicle as an ambulance.

Your vehicle does not have the Ford Ambulance Preparation Package.

## Using a Slide-In Camper

We do not recommend using your pickup for carrying a slide-in camper.

## Fleet Telematics Modem (If Equipped)

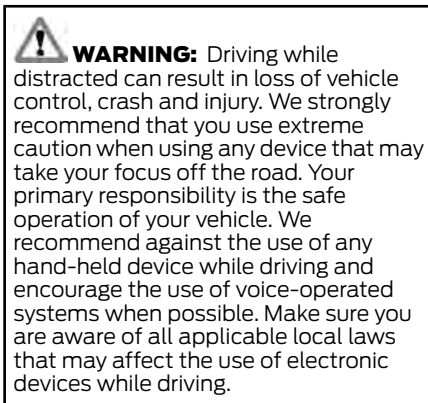
The onboard modem provides access to data to support telematics services such as location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. To explore data, telematics services, third party service provider support and to manage existing telematics accounts, refer to [www.commercialsolutions.ford.com](http://www.commercialsolutions.ford.com) or call 833-FCS-FORD

**Note:** *This is not available with FordPass Connect.*

## FordPass Connect (If Equipped)

With a FordPass Connect-equipped vehicle, you can use FordPass to track your vehicle's location and remotely access vehicle features such as start, lock and unlock and vehicle status including fuel level and approximate mileage. Message and data rates may apply. Services may be limited by mobile phone network coverage area. For additional information, refer to [www.fordpass.com](http://www.fordpass.com).

## MOBILE COMMUNICATIONS EQUIPMENT





# Introduction

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Using mobile communications equipment is becoming increasingly important in the conduct of business and personal affairs. However, you must not compromise your own or others' safety when using such equipment. Mobile communications can enhance personal safety and security when appropriately used, particularly in emergency situations. Safety must be paramount when using mobile communications equipment to avoid negating these benefits. Mobile communication equipment includes, but is not limited to, cellular phones, pagers, portable email devices, text messaging devices and portable two-way radios.

# Environment

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## **PROTECTING THE ENVIRONMENT**

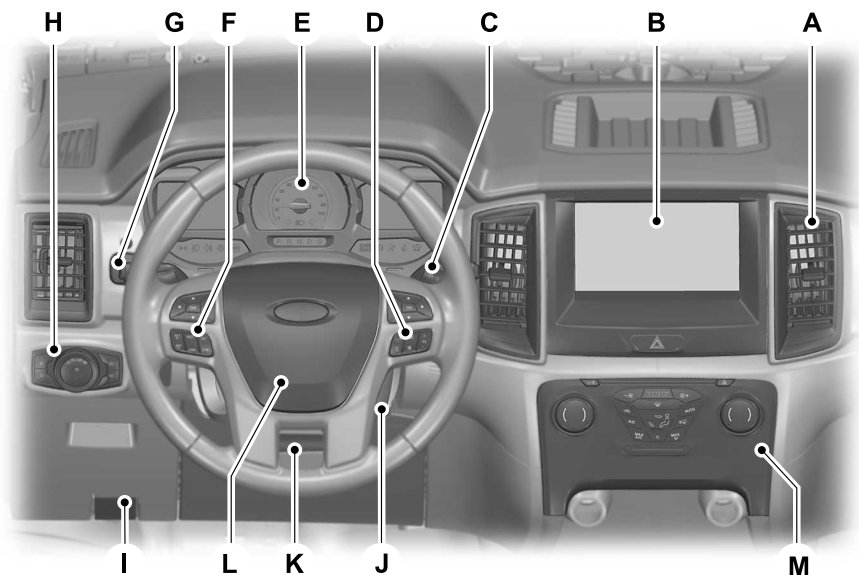
You should play your part in protecting the environment. Correct vehicle usage and the authorized disposal of waste, cleaning and lubrication materials are significant steps toward this aim.

**For details about Ford Motor Company's sustainability progress and initiatives visit:**

<b>Web Address</b>
<a href="http://www.sustainability.ford.com">www.sustainability.ford.com</a>

## At a Glance

## INSTRUMENT PANEL OVERVIEW



E266455

- A Air vents.
- B Multi-function display. See **General Information** (page 87).
- C Windshield wipers. See **Wipers and Washers** (page 66).
- D Audio control. See **Audio Control** (page 63). Voice control. See **Voice Control** (page 64).
- E Instrument cluster. See **Instrument Cluster** (page 80).
- F Cruise control switches. See **Cruise Control** (page 64).
- G Direction indicators. See **Direction Indicators** (page 72).
- H Lighting control. See **Lighting Control** (page 68).
- I Hood release lever. See **Opening and Closing the Hood** (page 245).
- J Ignition switch. See **Ignition Switch** (page 130).
- K Steering wheel adjustment lever. See **Adjusting the Steering Wheel** (page 63).
- L Horn.
- M Climate control. See **Climate Control** (page 108).

# Child Safety

## GENERAL INFORMATION

See the following sections for directions on how to properly use safety restraints for children.



**WARNING:** Always make sure your child is secured properly in a device that is appropriate for their height, age and weight. Child safety restraints must be bought separately from your vehicle. Failure to follow these instructions and guidelines may result in an increased risk of serious injury or death to your child.



**WARNING:** All children are shaped differently. The National Highway Traffic Safety Administration and other safety organizations, base their recommendations for child restraints on probable child height, age and weight thresholds, or on the minimum requirements of the law. We recommend that you check with a NHTSA Certified Child Passenger Safety Technician

(CPST) to make sure that you properly install the child restraint in your vehicle and that you consult your pediatrician to make sure you have a child restraint appropriate for your child. To locate a child restraint fitting station and CPST, contact NHTSA toll free at 1-888-327-4236 or go to [www.nhtsa.dot.gov](http://www.nhtsa.dot.gov). In Canada, contact Transport Canada toll free at 1-800-333-0371 or go to [www.tc.gc.ca](http://www.tc.gc.ca) to find a Child Car Seat Clinic in your area. Failure to properly restrain children in child restraints made especially for their height, age and weight, may result in an increased risk of serious injury or death to your child.



**WARNING:** On hot days, the temperature inside the vehicle can rise very quickly. Exposure of people or animals to these high temperatures for even a short time can cause death or serious heat related injuries, including brain damage. Small children are particularly at risk.

# Child Safety

## Recommendations for Safety Restraints for Children

Child	Child size, height, weight, or age	Recommended restraint type
Infants or toddlers	Children weighing 40 lb (18 kg) or less (generally age four or younger).	Use a child safety seat (sometimes called an infant carrier, convertible seat, or toddler seat).
Small children	Children who have outgrown or no longer properly fit in a child safety seat (generally children who are less than 4 ft. 9 in. (1.45 m) tall, are greater than age four and less than age 12, and between 40 lb (18 kg) and 80 lb (36 kg) and upward to 100 lb (45 kg) if recommended by your child restraint manufacturer).	Use a belt-positioning booster seat.
Larger children	Children who have outgrown or no longer properly fit in a belt-positioning booster seat (generally children who are at least 4 ft. 9 in. (1.45 m) tall or greater than 80 lb (36 kg) or 100 lb (45 kg) if recommended by child restraint manufacturer).	Use a vehicle seatbelt having the lap belt snug and low across the hips, shoulder belt centered across the shoulder and chest, and seatback upright.

- You are required by law to properly use safety seats for infants and toddlers in the United States and Canada.
- Many states and provinces require that small children use approved booster seats until they reach age eight, a height of 4 feet 9 inches (1.45 meters) tall, or 80 lb (36 kg). Check your local and state or provincial laws for specific requirements about the safety of children in your vehicle.
- When possible, always properly restrain children 12 years of age and under in a rear seating position of your vehicle. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in a front seating position. See **Front Passenger Sensing System** (page 41).

## INSTALLING CHILD RESTRAINTS

### Child Restraints



E142594

# Child Safety

Use a child restraint (sometimes called an infant carrier, convertible seat, or toddler seat) for infants, toddlers, or children weighing 40 lb (18 kg) or less (generally age four or younger).

## Using Lap and Shoulder Belts



**WARNING:** Do not place a rearward facing child restraint in front of an active airbag. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Properly secure children 12 years old and under in a rear seating position whenever possible. If you are unable to properly secure all children in a rear seating position, properly secure the largest child on the front seat. If you must use a forward facing child restraint on the front seat, move the seat as far back as possible. Failure to follow these instructions could result in personal injury or death.



**WARNING:** Depending on where you secure a child restraint, and depending on the child restraint design, you may block access to certain seatbelt buckle assemblies and LATCH lower anchors, rendering those features potentially unusable. To avoid risk of injury, make sure occupants only use seating positions where they are able to be properly restrained.

When installing a child restraint with combination lap and shoulder belts:

- Use the correct seatbelt buckle for that seating position.
- Insert the belt tongue into the proper buckle until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.

- Keep the buckle release button pointing up and away from the child restraint, with the tongue between the child restraint and the release button, to prevent accidental unbuckling.
- Place the vehicle seat upon which the child restraint will be installed in the upright position.
- Put the seatbelt in the automatic locking mode. This vehicle does not require the use of a locking clip.

Perform the following steps when installing the child restraint with combination lap and shoulder belts:

**Note:** *Although the child restraint illustrated is a forward facing child restraint, the steps are the same for installing a rear facing child restraint.*



E142528

1. Position the child restraint in a seat with a combination lap and shoulder belt.

# Child Safety



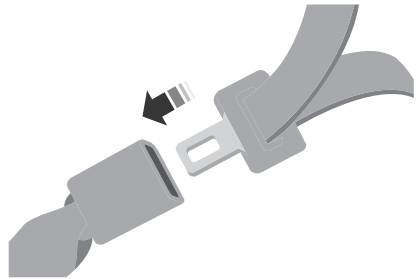
E142529

2. Pull down on the shoulder belt and then grasp the shoulder belt and lap belt together.



E142530

3. While holding the shoulder and lap belt portions together, route the tongue through the child restraint according to the child restraint manufacturer's instructions. Make sure the belt webbing is not twisted.



E142531

4. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) for that seating position until you hear a snap and feel the latch engage. Make sure the tongue is latched securely by pulling on it.



E142875

5. To put the retractor in the automatic locking mode, grasp the shoulder portion of the belt and pull downward until you pull all of the seatbelt out.

**Note:** The automatic locking mode is available on the front passenger and rear seats. This vehicle does not require the use of a locking clip.

6. Allow the belt to retract to remove slack. The belt clicks as it retracts to indicate it is in the automatic locking mode.

# Child Safety

7. Try to pull the seatbelt out of the retractor to make sure the retractor is in the automatic locking mode (you should not be able to pull more belt out). If the retractor is not locked, unbuckle the belt and repeat Steps 5 and 6.



E142533

8. Remove remaining slack from the belt. Force the seat down with extra weight, for example, by pressing down or kneeling on the child restraint as you pull up on the shoulder belt to force slack from the belt. This is necessary to remove the remaining slack that exists once you add the extra weight of the child to the child restraint. It also helps to achieve the proper snugness of the child restraint to your vehicle. Sometimes, a slight lean toward the buckle helps to remove remaining slack from the belt.
9. Attach the tether strap (if the child restraint is equipped).



E142534

10. Before placing the child in the seat, forcibly move the seat forward and back to make sure the seat is securely held in place.

To check this, grab the seat at the belt path and attempt to move it side to side and forward and back. There should be no more than 1 in (2.5 cm) of movement for proper installation.

We recommend checking with a NHTSA Certified Child Passenger Safety Technician to make certain the child restraint is properly installed. In Canada, check with Transport Canada for referral to a Child Car Seat Clinic.

## Using Lower Anchors and Tethers for Children (LATCH)



**WARNING:** Do not attach two child safety restraints to the same anchor. In a crash, one anchor may not be strong enough to hold two child safety restraint attachments and may break, causing serious injury or death.



# Child Safety



**WARNING:** Depending on where you secure a child restraint, and depending on the child restraint design, you may block access to certain seatbelt buckle assemblies and LATCH lower anchors, rendering those features potentially unusable. To avoid risk of injury, make sure occupants only use seating positions where they are able to be properly restrained.

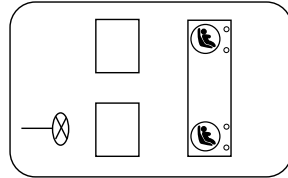
The LATCH system is composed of three vehicle anchor points: two lower anchors where the vehicle seat backrest and seat cushion meet (called the seat bight) and one top tether anchor behind that seating position.

LATCH compatible child restraints have two rigid or webbing mounted attachments that connect to the two lower anchors at the LATCH equipped seating positions in your vehicle. This type of attachment method eliminates the need to use seatbelts to attach the child restraint. However, you can still use the seatbelt to attach the child restraint if the lower anchors are not used.

For forward-facing child restraints, you must also attach the top tether strap to the proper top tether anchor if a top tether strap has been provided with your child restraint.

Your vehicle has LATCH lower anchors for child restraint installation at the following seating positions.

## SuperCrew



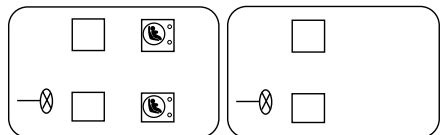
E274695



E166695

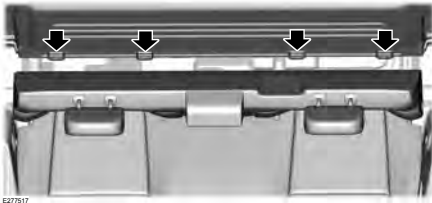
For SuperCrew vehicles, the lower LATCH anchors are at the rear section of the rear seat between the cushion and the seat backrest.

## SuperCab



E281347

# Child Safety



For SuperCab vehicles, the lower LATCH anchors are at the back panel behind the rear seats.

Follow the child restraint manufacturer's instructions to properly install a child restraint with LATCH attachments.

Follow the instructions later in this chapter on attaching child restraints with tether straps.

Attach LATCH lower attachments of the child restraint only to the anchors shown.

## Use of Inboard Lower Anchors from the Outermost Seating Positions (Center Seating Use)



**WARNING:** The standardized spacing for LATCH lower anchors is 11 in (280 mm) center to center. Do not use LATCH lower anchors for the center seating position unless the child restraint manufacturer's instructions permit and specify using anchors spaced at least as far apart as those in this vehicle.

The lower anchors at the center of the second row rear seat are spaced 25.7 in (652 mm) apart. The standardized spacing for LATCH lower anchors is 11.0 in (280 mm) center to center. You cannot install a child restraint with rigid LATCH attachments at the center seating position. LATCH compatible child restraints (with attachments on belt webbing) can only be

used at this seating position provided that the child restraint manufacturer's instructions permit use with the anchor spacing stated. Do not attach a child restraint to any lower anchor if an adjacent child restraint is attached to that anchor.

Each time you use the child restraint, check that the seat is properly attached to the lower anchors and tether anchor, if applicable. Tug the child restraint from side to side and forward and back where it is secured to the vehicle. The seat should move less than 1 in (2.5 cm) when you do this for a proper installation.

If the child restraint is not anchored properly, the risk of a child being injured in a crash greatly increases.

## Combining Seatbelt and LATCH Lower Anchors for Attaching Child Restraints

When used in combination, either the seatbelt or the LATCH lower anchors may be attached first, provided a proper installation is achieved. Attach the tether strap afterward, if included with the child restraint.

## Using Tether Straps

Many forward-facing child restraints include a tether strap which extends from the back of the child restraint and hooks to an anchoring point called the top tether anchor. Tether straps are available as an accessory for many older child restraints. Contact the manufacturer of your child restraint for information about ordering a tether strap, or to obtain a longer tether strap if the tether strap on your child restraint does not reach the appropriate top tether anchor in the vehicle.

The passenger seats of your vehicle may have built-in tether strap anchors behind the seats.

# Child Safety

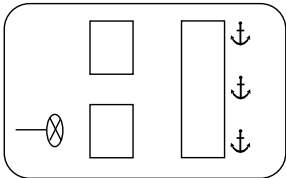
For SuperCrew vehicles, the tether anchors are anchor brackets behind the seat on the rear edge of the seat cushion.

For SuperCab vehicles, the tether anchors in your vehicle are loops of webbing above the seat backrest.

The rear seat in the SuperCab has two straps along the top of the seat backrest that function as both routing loops for the tether straps and anchor loops.

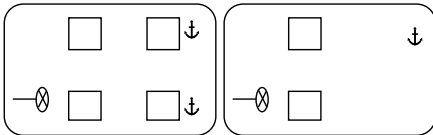
The tether strap anchors in your vehicle are in the following positions (shown from top view):

## SuperCrew

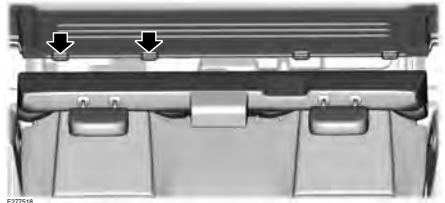


E274697

## SuperCab



E278365



For SuperCab vehicles without rear seats, use either of the two passenger side rear rigid anchors on the back panel as a top tether for the front passenger seat.

Attach the tether strap only to the appropriate tether anchor as shown. The tether strap may not work properly if attached somewhere other than the correct tether anchor.

If you install a child restraint with rigid LATCH attachments, do not tighten the tether strap enough to lift the child restraint off the vehicle seat cushion when the child is seated in it. Keep the tether strap just snug without lifting the front of the child restraint. Keeping the child restraint just touching the vehicle seat gives the best protection in a severe crash.

Once you have installed the child restraint using either the seatbelt, the lower anchors of the LATCH system, or both, you can attach the top tether strap.

## Front Seat Tether Strap Attachment (SuperCab)

If the tether strap is clipped incorrectly, the child restraint may not be retained properly in the event of a crash.

If the child restraint is not anchored properly, the risk of a child being injured in a crash greatly increases.

If your child restraint system has a tether strap, and the child restraint manufacturer recommends its use, we also recommend its use.

# Child Safety

1. Route the child restraint tether strap over the back of the seat and under the head restraint.

**Note:** For vehicles with adjustable head restraints, route the tether strap under the head restraint and between the head restraint posts, otherwise route the tether strap over the top of the seat backrest.

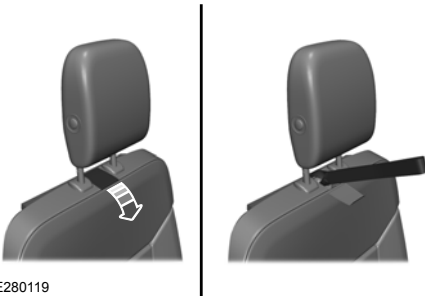
2. Locate the correct anchor for the selected seating position. Make sure the seat is locked in the upright position before installing the child restraint.
3. Clip the tether strap to either of the anchors on the back panel.
4. Tighten the child restraint tether strap according to the manufacturer's instructions.

If the tether strap is clipped incorrectly, the child restraint may not be retained properly in the event of a crash.

If the child restraint is not anchored properly, the risk of a child being injured in a crash greatly increases.

If your child restraint system has a tether strap, and the child restraint manufacturer recommends its use, we also recommend its use.

## Rear Seat Tether Strap Attachment (SuperCab)



E280119

There are two loops of webbing just above the back of the rear seat (along the bottom edge of the rear window). Use these loops as both routing loops and anchor loops for up to two child restraint tether straps.

For example, you can use the driver side loop as a routing loop for a child restraint in the driver side rear seat and as an anchoring loop for child restraints installed in the passenger side rear seat.

Many tether straps cannot be tightened if the tether strap is hooked to the loop directly behind the child restraint.

To provide a tight tether strap:



E162715

1. Route the vehicle tether loop between the head restraint posts. Then route the child restraint tether strap through the loop, forward of the head restraint.
2. Hook the strap to the vehicle tether anchor loop in the adjacent seating position. Always put the tether strap through the routing loop. The head restraint support post holds the child restraint tightly, but the head restraint post is not strong enough to hold the child restraint during a crash.
3. Tighten the tether strap according to the child restraint manufacturer's instructions.

If the child restraint is not anchored properly, the risk of a child being injured in a crash greatly increases.

# Child Safety

If your child restraint system has a tether strap, and the child restraint manufacturer recommends its use, we also recommend its use.

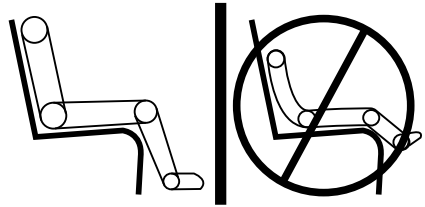
## BOOSTER SEATS



**WARNING:** Do not put the shoulder section of the seatbelt or allow the child to put the shoulder section of the seatbelt under their arm or behind their back. Failure to follow this instruction could reduce the effectiveness of the seatbelt and increase the risk of injury or death in a crash.

Use a belt-positioning booster seat for children who have outgrown or no longer properly fit in a child safety restraint (generally children who are less than 57 in (1.45 m) tall, are greater than age 4 and less than age 12, and between 40 lb (18 kg) and 80 lb (36 kg) and upward to 100 lb (45 kg) if recommended by your child restraint manufacturer). Many state and provincial laws require that children use approved booster seats until they reach age eight, a height of 57 in (1.45 m) tall, or 80 lb (36 kg).

Booster seats should be used until you can answer YES to ALL of these questions when seated without a booster seat:



E142595

- Can the child sit all the way back against their vehicle seat backrest with knees bent comfortably at the edge of the seat cushion?
- Can the child sit without slouching?
- Does the lap belt rest low across the hips?
- Is the shoulder belt centered on the shoulder and chest?
- Can the child stay seated like this for the whole trip?

Always use booster seats in conjunction with your vehicle lap and shoulder belt.

## Types of Booster Seats



E68924

- Backless booster seats

# Child Safety

If your backless booster seat has a removable shield, remove the shield. If a vehicle seating position has a low seat backrest or no head restraint, a backless booster seat may place your child's head (as measured at the tops of the ears) above the top of the seat. In this case, move the backless booster to another seating position with a higher seat backrest or head restraint and lap and shoulder belts, or consider using a high back booster seat.



E70710

- High back booster seats

If, with a backless booster seat, you cannot find a seating position that adequately supports your child's head, a high back booster seat would be a better choice.

Children and booster seats vary in size and shape. Choose a booster that keeps the lap belt low and snug across the hips, never up across the stomach, and lets you adjust the shoulder belt to cross the chest and rest snugly near the center of the shoulder. The following drawings compare the ideal fit (center) to a shoulder belt uncomfortably close to the neck and a shoulder belt that could slip off the shoulder. The drawings also show how the lap belt should be low and snug across the child's hips.



E142596

# Child Safety



E142597

If the booster seat slides on the vehicle seat upon which it is being used, placing a rubberized mesh sold as shelf or carpet liner under the booster seat may improve this condition. Do not introduce any item thicker than this under the booster seat. Check with the booster seat manufacturer's instructions.

## CHILD RESTRAINT POSITIONING



**WARNING:** Do not place a rearward facing child restraint in front of an active airbag. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Properly secure children 12 years old and under in a rear seating position whenever possible. If you are unable to properly secure all children in a rear seating position, properly secure the largest child on the front seat. If you must use a forward facing child restraint on the front seat, move the seat as far back as possible. Failure to follow these instructions could result in personal injury or death.



**WARNING:** Always carefully follow the instructions and warnings provided by the manufacturer of any child restraint to determine if the restraint device is appropriate for your child's size, height, weight, or age. Follow the child restraint manufacturer's instructions and warnings provided for installation and use in conjunction with the instructions and warnings provided by your vehicle manufacturer. A safety seat that is improperly installed or utilized, is inappropriate for your child's height, age, or weight or does not properly fit the child may increase the risk of serious injury or death.



**WARNING:** Do not allow a passenger to hold a child on their lap when your vehicle is moving. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.



**WARNING:** Do not use pillows, books or towels to boost your child's height. Failure to follow this instruction could result in personal injury or death.

# Child Safety



**WARNING:** Properly secure child restraints or booster seats when they are not in use. They could become projectiles in a sudden stop or crash. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Do not put the shoulder section of the seatbelt or allow the child to put the shoulder section of the seatbelt under their arm or behind their back. Failure to follow this instruction could reduce the effectiveness of the seatbelt and increase the risk of injury or death in a crash.



**WARNING:** Do not leave children or pets unattended in your vehicle. Failure to follow this instruction could result in personal injury or death.

## Recommendations for Attaching Child Safety Restraints for Children

Restraint Type	Combined Weight of Child and Child Restraint	Use Any Attachment Method as Indicated Below by X				
		LATCH (Lower Anchors and Top Tether Anchor)	LATCH (Lower Anchors Only)	Seatbelt and Top Tether Anchor	Seatbelt and LATCH (Lower Anchors and Top Tether Anchor)	Seatbelt Only
Rear facing child restraint	Up to 65 lb (29.5 kg)		X			X
Rear facing child restraint	Over 65 lb (29.5 kg)					X
Forward facing child restraint	Up to 65 lb (29.5 kg)	X		X	X	
Forward facing child restraint	Over 65 lb (29.5 kg)			X	X	



# Child Safety

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**Note:** The child restraint must rest tightly against the vehicle seat upon which it is installed. It may be necessary to lift or remove the head restraint. See **Seats** (page 115).

## **CHILD SAFETY LOCKS (IF EQUIPPED)**

When these locks are set, the rear doors cannot be opened from the inside.



E112197

The childproof locks are located on the rear edge of each rear door and must be set separately for each door.

### **Left-Hand Side**

Turn counterclockwise to lock and clockwise to unlock.

### **Right-Hand Side**

Turn clockwise to lock and counterclockwise to unlock.

# Seatbelts

## PRINCIPLE OF OPERATION



**WARNING:** Always drive and ride with your seatback upright and the lap belt snug and low across the hips.



**WARNING:** Children must always be properly restrained.



**WARNING:** Do not allow a passenger to hold a child on their lap when your vehicle is moving. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.



**WARNING:** All occupants of your vehicle, including the driver, should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided. Failure to properly wear your seatbelt could seriously increase the risk of injury or death.



**WARNING:** It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a crash, people riding in these areas are more likely to be seriously injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and seatbelts. Make sure everyone in your vehicle is in a seat and properly using a seatbelt. Failure to follow this warning could result in serious personal injury or death.



**WARNING:** In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seatbelt.



**WARNING:** Each seating position in your vehicle has a specific seatbelt assembly made up of one buckle and one tongue designed to be used as a pair. Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. Never use a single seatbelt for more than one person.



**WARNING:** Properly secure children 12 years old and under in a rear seating position whenever possible. If you are unable to properly secure all children in a rear seating position, properly secure the largest child on the front seat. If you must use a forward facing child restraint on the front seat, move the seat as far back as possible. Failure to follow these instructions could result in personal injury or death.



**WARNING:** Seatbelts and seats may be hot in a vehicle that is in the sunshine. The hot seatbelts or seats may burn a small child. Check seat covers and buckles before you place a child anywhere near them.



**WARNING:** All occupants of your vehicle, including the driver, should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided. Failure to properly wear your seatbelt could seriously increase the risk of injury or death.

All seating positions in this vehicle have lap and shoulder seatbelts. All occupants of the vehicle should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided.

# Seatbelts

The seatbelt system consists of:

- Lap and shoulder seatbelts.
- Shoulder seatbelt with automatic locking mode, (except driver seatbelt).
- Height adjuster at the front outermost seating positions (if equipped).
- Seatbelt pretensioner at the front outermost and rear outermost seating positions.



- Seatbelt warning light and chime.



- Crash sensors and monitoring system with readiness indicator.

The seatbelt pretensioners are designed to tighten the seatbelts when activated. In frontal and near-frontal crashes, the seatbelt pretensioners may be activated alone or, if the crash is of sufficient severity, together with the front airbags. In side crashes and rollovers, the pretensioners will be activated when the Safety Canopy is activated.

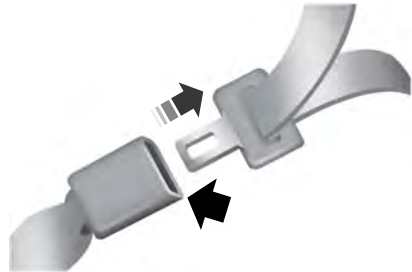
## FASTENING THE SEATBELTS

The front outboard and rear safety restraints in the vehicle are combination lap and shoulder belts.



E142587

1. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) until you hear a snap and feel it latch. Make sure that you securely fasten the tongue in the buckle.



E142588

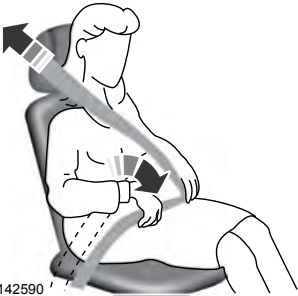
2. To unfasten, press the release button and remove the tongue from the buckle.

# Seatbelts

## Using Seatbelts During Pregnancy



**WARNING:** Always ride and drive with your seatback upright and properly fasten your seatbelt. Fit the lap portion of the seatbelt snugly and low across the hips. Position the shoulder portion of the seatbelt across your chest. Pregnant women must follow this practice. See the following figure.



E142590

Pregnant women should always wear their seatbelt. Position the lap belt portion of a combination lap and shoulder belt low across the hips below the belly and worn as tight as comfort allows. Position the shoulder belt to cross the middle of the shoulder and the center of the chest.

## Seatbelt Locking Modes



**WARNING:** If your vehicle is involved in a crash, have the seatbelts and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

All safety restraints in the vehicle are combination lap and shoulder belts. The driver seatbelt has the first type of locking mode, and the front outboard passenger and rear seat seatbelts have both types of locking modes described as follows:

### Vehicle Sensitive Mode

This is the normal retractor mode, which allows free shoulder belt length adjustment to your movements and locking in response to vehicle movement. For example, if the driver brakes suddenly or turns a corner sharply, or the vehicle receives an impact of about 5 mph (8 km/h) or more, the combination seatbelts lock to help reduce forward movement of the driver and passengers.

In addition, the design of the retractor is to lock if you pull the webbing out too quickly. If the seatbelt retractor locks, slowly lower the height adjuster to allow the seatbelt to retract. If the retractor does not unlock, pull the seatbelt out slowly then feed a small length of webbing back toward the stowed position. For rear seatbelts, recline the rear seat backrest or push the seat backrest cushion away from the seatbelt. Feed a small length of webbing back toward the stowed position.

### Automatic Locking Mode

In this mode, the shoulder belt automatically pre-locks. The belt retracts to remove any slack in the shoulder belt. The automatic locking mode is not available on the driver seatbelt.

### When to Use the Automatic Locking Mode

Use this mode any time you install a child safety seat, except a booster, in passenger front or rear seating positions. Properly restrain children 12 years old and under in a rear seating position whenever possible. See **Child Safety** (page 17).

# Seatbelts

## How to Use the Automatic Locking Mode



E142591

1. Buckle the combination lap and shoulder belt.
2. Grasp the shoulder portion and pull downward until you pull the entire belt out. Allow the belt to retract. As the belt retracts, you will hear a clicking sound. This indicates the seatbelt is now in the automatic locking mode.

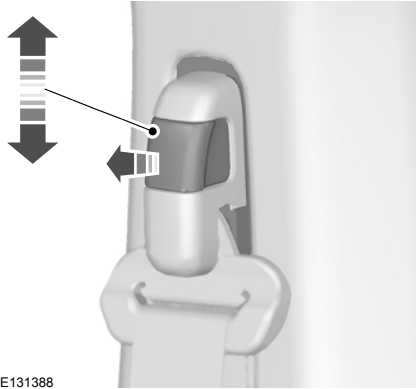
## How to Disengage the Automatic Locking Mode

Unbuckle the combination lap and shoulder belt and allow it to retract completely to disengage the automatic locking mode and turn on the vehicle sensitive (emergency) locking mode.

## SEATBELT HEIGHT ADJUSTMENT



**WARNING:** Position the seatbelt height adjuster so that the seatbelt rests across the middle of your shoulder. Failure to adjust the seatbelt correctly could reduce its effectiveness and increase the risk of injury in a crash.



E131388

To adjust the shoulder belt height:

1. Pull the locking button and slide the height adjuster up or down.
2. Release the button and pull down on the height adjuster to make sure it is locked in place.

## SEATBELT WARNING LAMP AND INDICATOR CHIME



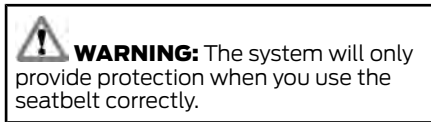
This lamp illuminates and an indicator chime will sound if the driver seatbelt has not been fastened when the vehicle's ignition is turned on.

# Seatbelts


## Conditions of operation

If	Then
The driver seatbelt is not buckled before the ignition switch is turned to the on position...	The seatbelt warning lamp illuminates and the indicator chime sounds for a few seconds.
The driver seatbelt is buckled while the warning lamp is illuminated and the indicator chime is sounding...	The seatbelt warning lamp and indicator chime turn off.
The driver seatbelt is buckled before the ignition switch is turned to the on position...	The seatbelt warning lamp and indicator chime remain off.

## SEATBELT REMINDER




This system monitors all seating positions and provides audio and graphic feedback.

 This lamp illuminates and a warning tone sounds if you do not fasten your seatbelt when you switch the ignition on. The lamp and tone switch off when you fasten your seatbelt or about one minute has elapsed.

When the initial warning expires for the driver, more warnings are provided for the driver and front passenger. This lamp illuminates and a warning tone sounds if you or your front passenger do not fasten the seatbelt buckle and the vehicle speed exceeds 6 mph (9.7 km/h). To deactivate the warning, see Deactivating and Activating the Belt-Minder Feature.

**Note:** To avoid inadvertent warnings, do not place large objects on the seat.

 This lamp illuminates when you switch the ignition on, identifying the number of seating positions with fastened buckles. It illuminates again when a seating position changes from unfastened to fastened.



E283584

This warning displays and a tone sounds if an occupant unfastens the rear seatbelt buckle or it becomes unfastened.

**Note:** If a rear seat is unoccupied, or an occupant never fastens the seatbelt buckle to begin with, the warning will not display.

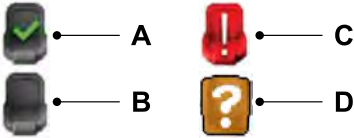
**Note:** Front seating positions appear in this warning display. Warnings for unfastened front seatbelt buckles appear in the initial warning lamp.

# Seatbelts

## Seatbelt Status



E281361



E274703

- A Seatbelt fastened.
- B Seatbelt not fastened.
- C Seatbelt recently unfastened.
- D Fault

To view the seatbelt status, use the information display controls on the steering wheel.

## Deactivating and Activating the Seatbelt Reminder (Front Seats Only)



**WARNING:** While the system allows you to deactivate it, this system is designed to improve your chances of being safely belted and surviving an accident. We recommend you leave the system activated for yourself and others who may use the vehicle.

**Note:** The driver and front passenger warnings switch on and off independently. When you perform this procedure for one seating position, do not buckle the other position as this terminates the process.

Read Steps 1 - 4 before starting the procedure.

Make sure that:

- You set the parking brake.
  - The transmission is in park (P).
  - The ignition is off.
  - You close all vehicle doors.
  - You unbuckle the driver and front passenger seatbelts.
1. Switch the ignition on. Do not start the engine.
  2. Wait until the seatbelt warning lamp turns off (about one minute). After Step 2, wait an additional five seconds before proceeding with Step 3. Once you start Step 3, you must complete the procedure within 60 seconds.
  3. For the seating position you are switching off, buckle then unbuckle the seatbelt three times at a moderate speed, ending in the unbuckled state. After Step 3, the seatbelt warning lamp turns on.
  4. When the seatbelt warning lamp is on, buckle then unbuckle the seatbelt. After Step 4, the seatbelt warning lamp flashes for confirmation.
    - This switches the feature off if it is currently on.
    - This switches the feature on if it is currently off.

# Seatbelts

## CHILD RESTRAINT AND SEATBELT MAINTENANCE

Inspect the vehicle seatbelts and child safety seat systems periodically to make sure they work properly and are not damaged. Inspect the vehicle and child restraint seatbelts to make sure there are no nicks, tears or cuts. Replace if necessary. All vehicle seatbelt assemblies, including retractors, buckles, front seatbelt buckle assemblies, buckle support assemblies (slide bar-if equipped), shoulder belt height adjusters (if equipped), shoulder belt guide on seat backrest (if equipped), child safety seat LATCH and tether anchors, and attaching hardware, should be inspected after a crash. Read the child restraint manufacturer's instructions for additional inspection and maintenance information specific to the child restraint.

We recommend that all seatbelt assemblies in use in vehicles involved in a crash be replaced. However, if the crash was minor and an authorized dealer finds that the belts do not show damage and continue to operate properly, they do not need to be replaced. Seatbelt assemblies not in use during a crash should also be inspected and replaced if either damage or improper operation is noted.

Properly care for seatbelts. See **Vehicle Care** (page 261).

## SEATBELT EXTENSION



**WARNING:** Persons who fit into the vehicle's seatbelt should not use an extension. Unnecessary use could result in serious personal injury in the event of a crash.



**WARNING:** Only use extensions provided free of charge by Ford Motor Company dealers. The dealer will provide an extension designed specifically for this vehicle, model year and seating position. The use of an extension intended for another vehicle, model year or seating position may not offer you the full protection of your vehicle's seatbelt restraint system.



**WARNING:** Never use seatbelt extensions to install child restraints.



**WARNING:** Do not use a seatbelt extension with an inflatable seatbelt.



**WARNING:** Do not use extensions to change the fit of the belt across the torso, over the lap or to make the seatbelt buckle easier to reach.

If, because of body size or driving position, it is not possible to properly fasten the seatbelt over your lap and shoulder, an extension that is compatible with the seatbelts is available free of charge from Ford Motor Company dealers. Only Ford seatbelt extensions made by the original equipment seatbelts manufacturer should be used with Ford seatbelts. Ask your authorized dealer if your extension is compatible with your Ford vehicle restraint system.



# Personal Safety System™

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The Personal Safety System provides an improved overall level of frontal crash protection to front seat occupants and is designed to help further reduce the risk of airbag-related injuries. The system is able to analyze different occupant conditions and crash severity before activating the appropriate safety devices to help better protect a range of occupants in a variety of frontal crash situations.

The Vehicle Personal Safety System consists of:

- Driver and passenger dual-stage airbag supplemental restraints.
- Front seat outboard seatbelts with pretensioners, energy management retractors and seatbelt usage sensors.
- Driver seat position sensor.
- Front passenger sensing system.
- Passenger airbag status indicator.
- Front crash severity sensors.
- Restraints control module with impact and safing sensors.
- Restraint system warning lamp and tone.
- The electrical wiring for the airbags, crash sensors, seatbelt pretensioners, front seatbelt usage sensors, driver seat position sensor, front passenger sensing system and indicator lights.

## **How Does the Personal Safety System Work?**

The Personal Safety System can adapt the deployment strategy of the safety devices according to crash severity and occupant conditions. A collection of crash and occupant sensors provides information to the restraints control module. During a crash, the restraints control module may deploy the seatbelt pretensioners, one or both stages of the dual-stage airbags based on crash severity and occupant conditions.

# Supplementary Restraints System

## PRINCIPLE OF OPERATION



**WARNING:** Airbags do not inflate slowly or gently, and the risk of injury from a deploying airbag is the greatest close to the trim covering the airbag module.



**WARNING:** All occupants of your vehicle, including the driver, should always properly wear their safety belts, even when an airbag supplemental restraint system is provided. Failure to properly wear your safety belt could seriously increase the risk of injury or death.



**WARNING:** Always transport children 12 years old and under in the back seat and always properly use appropriate child restraints. Failure to follow this could seriously increase the risk of injury or death.



**WARNING:** Never place your arm over the airbag module as a deploying airbag can result in serious arm fractures or other injuries.



**WARNING:** Airbags can kill or injure a child in a child seat. Never place a rear-facing child seat in front of an active airbag. If you must use a forward-facing child seat in the front seat, move the seat upon which the child seat is installed all the way back.



**WARNING:** Do not attempt to service, repair, or modify the airbag supplemental restraint systems or its fuses as you could be seriously injured or killed. Contact your authorized dealer as soon as possible.



**WARNING:** Several airbag system components get hot after inflation. To avoid risk of injury, do not touch them after inflation.



**WARNING:** If the airbag has deployed, the airbag will not function again and must be replaced immediately. If the airbag is not replaced, the unrepaired area will increase the risk of injury in a crash.

The airbags are a supplemental restraint system and are designed to work with the safety belts to help protect the driver and right front passenger from certain upper body injuries. Airbags do not inflate slowly; there is a risk of injury from a deploying airbag.

**Note:** *You will hear a loud bang and see a cloud of harmless powdery residue if an airbag deploys. This is normal.*

The airbags inflate and deflate rapidly upon activation. After airbag deployment, it is normal to notice a smoke-like, powdery residue or smell the burnt propellant. This may consist of cornstarch, talcum powder (to lubricate the bag) or sodium compounds (for example, baking soda) that result from the combustion process that inflates the airbag. Small amounts of sodium hydroxide may be present which may irritate the skin and eyes, but none of the residue is toxic.

While the system is designed to help reduce serious injuries, contact with a deploying airbag may also cause abrasions or swelling. Temporary hearing loss is also a possibility as a result of the noise associated with a deploying airbag. Because airbags must inflate rapidly and with considerable force, there is the risk of death or serious injuries such as fractures, facial and eye injuries or internal injuries, particularly to occupants who are not

# Supplementary Restraints System

properly restrained or are otherwise out of position at the time of airbag deployment. Thus, it is extremely important that occupants be properly restrained as far away from the airbag module as possible while maintaining vehicle control.

Routine maintenance of the airbags is not required.

## DRIVER AND PASSENGER AIRBAGS



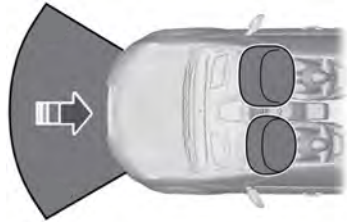
**WARNING:** Do not place your arms on the airbag cover or through the steering wheel. Failure to follow this instruction could result in personal injury.



**WARNING:** Keep the areas in front of the airbags free from obstruction. Do not affix anything to or over the airbag covers. Objects could become projectiles during airbag deployment or in a sudden stop. Failure to follow this instruction could result in personal injury or death.



**WARNING:** Airbags can kill or injure a child in a child restraint. Never place a rear-facing child restraint in front of an active airbag. If you must use a forward-facing child restraint in the front seat, move the seat upon which the child restraint is installed all the way back.



E151127

The driver and passenger front airbags will deploy during significant frontal and near frontal crashes.

The driver and passenger front airbag system consists of:

- Driver and passenger airbag modules.
- Front passenger sensing system.



• Crash sensors and monitoring system with readiness indicator. See **Crash Sensors and Airbag Indicator** (page 45).

## Proper Driver and Front Passenger Seating Adjustment



**WARNING:** National Highway Traffic Safety Administration (NHTSA) recommends a minimum distance of at least 10 in (25 cm) between an occupant's chest and the driver airbag module.

To properly position yourself away from the airbag:

- Move your seat to the rear as far as you can while still reaching the pedals comfortably.
- Recline the seat slightly (one or two degrees) from the upright position.

# Supplementary Restraints System

After all occupants have adjusted their seats and put on seatbelts, it is very important that they continue to sit properly. Properly seated occupants sit upright, lean against the seat back, and center themselves on the seat cushion, with their feet comfortably extended on the floor. Sitting improperly can increase the chance of injury in a crash event. For example, if an occupant slouches, lies down, turns sideways, sits forward, leans forward or sideways, or puts one or both feet up, the chance of injury during a crash greatly increases.

## Children and Airbags

**WARNING:** Airbags can kill or injure a child in a child restraint. Never place a rear-facing child restraint in front of an active airbag. If you must use a forward-facing child restraint in the front seat, move the seat upon which the child restraint is installed all the way back.



E142846

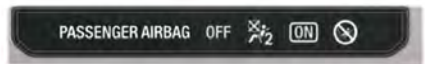
Children must always be properly restrained. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in the front seating position. Failure to follow these instructions may increase the risk of injury in a crash.

## FRONT PASSENGER SENSING SYSTEM

**WARNING:** Even with advanced restraints systems, properly restrain children 12 and under in a rear seating position. Failure to follow this could seriously increase the risk of injury or death.

**WARNING:** Sitting improperly, out of position or with the seatback reclined too far can take weight off the seat cushion and affect the decision of the passenger sensing system, resulting in serious injury or death in the event of a crash. Always sit upright against your seat back, with your feet on the floor.

**WARNING:** Any alteration or modification to the front passenger seat may affect the performance of the front passenger sensing system. This could seriously increase the risk of injury or death.



E181984

The front passenger sensing system uses a passenger airbag status indicator which illuminates indicating that the front passenger frontal airbag is either on (enabled) or off (disabled). The indicator lamp is in the center stack of the instrument panel.

# Supplementary Restraints System

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**Note:** *When you first switch the ignition on, the passenger airbag status indicator off and on lamps illuminate for a short period to confirm they are functional.*

The front passenger sensing system is designed to disable (will not inflate) the front passenger frontal airbag under certain conditions:

- The front passenger seat is unoccupied.
- The system determines an infant is present in a child restraint.
- A passenger takes their weight off of the seat for a period of time.
- If there is a problem with the airbag system or the passenger sensing system.

Even with this technology, parents are **strongly** encouraged to always properly restrain children in the rear seat.

- When the front passenger sensing system disables (will not inflate) the front passenger frontal airbag, the passenger airbag status indicator illuminates the off lamp and stays lit to remind you that the front passenger frontal airbag is disabled.
- If you have installed the child restraint and the passenger airbag status indicator illuminates the on lamp, then switch your vehicle off, remove the child restraint from your vehicle and reinstall the restraint following the child restraint manufacturer's instructions.

The front passenger sensing system works with sensors that are part of the front passenger seat and seatbelt. The sensors are designed to detect the presence of a properly seated occupant and determine if the front passenger frontal airbag should be enabled.

- When the front passenger sensing system enables the front passenger frontal airbag (may inflate), the passenger airbag status indicator illuminates the on lamp and remains illuminated.

If a person of adult size is sitting in the front passenger seat, but the passenger airbag status indicator off lamp is lit, it is possible that the person is not sitting properly in the seat. If this happens:

- Switch your vehicle off and ask the person to place the seat backrest in an upright position.
- Have the person sit upright in the seat, centered on the seat cushion, with the person's legs comfortably extended.
- Restart your vehicle and have the person remain in this position for about two minutes. This allows the system to detect that person and enable the passenger frontal airbag.
- If the indicator off lamp remains lit even after this, you should advise the person to ride in the rear seat.

After all occupants have adjusted their seats and put on seatbelts, it is very important that they continue to sit properly. A properly seated occupant sits upright, leaning against the seat backrest, and centered on the seat cushion, with their feet comfortably extended on the floor. Sitting improperly can increase the chance of injury in a crash event. For example, if an occupant slouches, lies down, turns sideways, sits forward, leans forward or sideways, or puts one or both feet up, the chance of injury during a crash greatly increases.

If you think that the state of the passenger airbag status indicator lamp is incorrect, check for the following:

- Objects lodged underneath the seat.
- Objects between the seat cushion and the center console.

# Supplementary Restraints System

- Objects hanging off the seat backrest.
- Objects stowed in the seat backrest map pocket.
- Objects placed on the occupant's lap.
- Cargo interference with the seat
- Other passengers pushing or pulling on the seat.
- Rear passenger feet and knees resting or pushing on the seat.

The conditions listed above may cause the weight of a properly seated occupant to be incorrectly interpreted by the front passenger sensing system. The person in the front passenger seat may appear heavier or lighter due to the conditions described in the previous list.



Make sure the front passenger sensing system is operating properly. See **Crash Sensors and Airbag Indicator** (page 45).

If the airbag readiness light is lit, do the following:

The driver and adult passengers should check for objects lodged underneath the front passenger seat or cargo interfering with the seat.

If objects are lodged or cargo is interfering with the seat, take the following steps to remove the obstruction:

- Pull your vehicle over.
- Switch your vehicle off.
- Driver or adult passengers should check for any objects lodged underneath the front passenger seat or cargo interfering with the seat.
- Remove the obstruction(s) (if found).
- Restart your vehicle.

- Wait at least two minutes and verify that the airbag readiness light in the instrument cluster is no longer illuminated.
- If the airbag readiness light in the instrument cluster remains illuminated, this may or may not be a problem due to the front passenger sensing system.

Do not attempt to repair or service the system. Take your vehicle immediately to an authorized dealer.

If it is necessary to modify an advanced front airbag system to accommodate a person with disabilities, contact your Customer Relationship Center.

## SIDE AIRBAGS



**WARNING:** Do not place objects or mount equipment on or near the airbag cover, on the side of the front or rear seatbacks, or in areas that may come into contact with a deploying airbag. Failure to follow these instructions may increase the risk of personal injury in the event of a crash.



**WARNING:** Do not use accessory seat covers. The use of accessory seat covers may prevent the deployment of the side airbags and increase the risk of injury in an accident.



**WARNING:** Do not lean your head on the door. The side airbag could injure you as it deploys from the side of the seatback.

# Supplementary Restraints System



**WARNING:** Do not attempt to service, repair, or modify the supplementary restraint system or associated components. Failure to follow this instruction could result in personal injury or death.



**WARNING:** If a supplementary restraint system component has deployed, it will not function again. Have the system and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

The side airbags are on the outermost side of the seat backrests of the front seats. The airbag was designed to inflate between the door panel and occupant to further enhance the protection provided to occupants in certain side impact crashes.



E152533

The system consists of the following:

- A label or embossed side panel indicating that your vehicle has side airbags.
- Side airbags inside the driver and front passenger seat backrests.



Crash sensors and monitoring system with readiness indicator. See **Crash Sensors and Airbag Indicator** (page 45).

The design and development of the side airbag system included recommended testing procedures that were developed by a group of automotive safety experts known as the Side Airbag Technical Working Group. These recommended testing procedures help reduce the risk of injuries related to the deployment of side airbags.

## SAFETY CANOPY™



**WARNING:** Do not place objects or mount equipment on or near the headliner at the siderail that may come into contact with a deploying curtain airbag. Failure to follow these instructions may increase the risk of personal injury in the event of a crash.



**WARNING:** Do not lean your head on the door. The curtain airbag could injure you as it deploys from the headliner.



**WARNING:** Do not attempt to service, repair, or modify the supplementary restraint system or associated components. Failure to follow this instruction could result in personal injury or death.



**WARNING:** All occupants of your vehicle, including the driver, should always properly wear their seatbelts, even when an airbag supplemental restraint system is provided. Failure to properly wear your seatbelt could seriously increase the risk of injury or death.

# Supplementary Restraints System

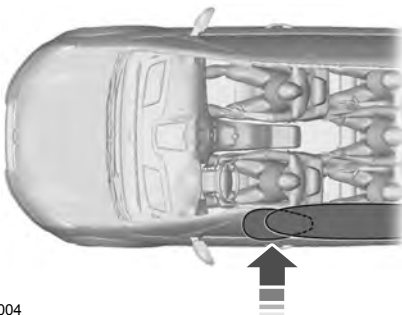


**WARNING:** To reduce risk of injury, do not obstruct or place objects in the deployment path of the airbag.



**WARNING:** If a supplementary restraint system component has deployed, it will not function again. Have the system and associated components inspected as soon as possible. Failure to follow this instruction could result in personal injury or death.

The Safety Canopy deploys during significant side crashes or when a certain likelihood of a rollover event is detected by the rollover sensor. The Safety Canopy is mounted to the roof side rail sheet metal, behind the headliner, above each row of seats. In certain sideways crashes or rollover events, the Safety Canopy will be activated, regardless of which seats are occupied. The Safety Canopy is designed to inflate between the side window area and occupants to further enhance protection provided in side impact crashes and rollover events.



E75004

The system consists of the following:

- Safety Canopy curtain airbags above the trim panels over the front and rear side windows identified by a label or wording on the headliner or roof-pillar trim.
- A flexible headliner which opens above the side doors to allow air curtain deployment



• Crash sensors and monitoring system with a readiness indicator. See **Crash Sensors and Airbag Indicator** (page 45).

Properly restrain children 12 years old and under in the rear seats. The Safety Canopy will not interfere with children restrained using a properly installed child or booster seat because it is designed to inflate downward from the headliner above the doors along the side window opening.

The design and development of the Safety Canopy included recommended testing procedures that were developed by a group of automotive safety experts known as the Side Airbag Technical Working Group. These recommended testing procedures help reduce the risk of injuries related to the deployment of side airbags (including the Safety Canopy).

## CRASH SENSORS AND AIRBAG INDICATOR



**WARNING:** Modifying or adding equipment to the front end of your vehicle (including hood, bumper system, frame, front end body structure, tow hooks and hood pins) may affect the performance of the airbag system, increasing the risk of injury. Do not modify or add equipment to the front end of your vehicle.



# Supplementary Restraints System

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Your vehicle has a collection of crash and occupant sensors which provide information to the restraints control module. The restraints control module deploys (activates) the front and rear seatbelt pretensioners, driver airbag, passenger airbag, seat mounted side airbags and the Safety Canopy. Based on the type of crash, the restraints control module deploys the appropriate safety devices.

The restraints control module also monitors the readiness of the above safety devices plus the crash and occupant sensors. The readiness of the safety system is indicated by a warning indicator light in the instrument cluster or by a backup tone if the warning light is not working. Routine maintenance of the airbag is not required.

A difficulty with the system is indicated by one or more of the following:



The readiness light will not illuminate immediately after you switch the ignition on.

- The readiness light either flashes or stays lit.
- A series of five beeps is heard. The tone pattern repeats periodically until the problem, the light or both are repaired.

If any of these things happen, even intermittently, have the supplemental restraint system serviced at an authorized dealer immediately. Unless serviced, the system may not function properly in the event of a crash.

The seatbelt pretensioners and the front airbag supplemental restraint system are designed to activate when the vehicle sustains frontal deceleration sufficient to cause the restraints control module to deploy a safety device.

The fact that the seatbelt pretensioners or front airbags did not activate for all occupants in a crash does not mean that something is wrong with the system. Rather, it means the restraints control module determined the accident conditions (crash severity, belt usage) were not appropriate to activate these safety devices.

- The design of the front airbags is to activate only in frontal and near-frontal crashes (not rollovers, side impacts or rear impacts) unless the crash causes sufficient frontal deceleration.
- The design of the seatbelt pretensioners is to activate in frontal, near-frontal and side crashes and in rollovers.
- The design of the side airbags is to inflate in certain side impact crashes. Side airbags may activate in other types of crashes if the vehicle experiences sufficient sideways motion or deformation.
- The design of the Safety Canopy is to inflate in certain side impact crashes or rollover events. The Safety Canopy may activate in other types of crashes if the vehicle experiences sufficient sideways motion or deformation, or a certain likelihood of rollover.

## AIRBAG DISPOSAL

Contact your authorized dealer as soon as possible. Airbags must be disposed of by qualified personnel.

# Keys and Remote Controls

## GENERAL INFORMATION ON RADIO FREQUENCIES

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

**Note:** *Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.*

The typical operating range for your transmitter is approximately 33 ft (10 m). Vehicles with the remote start feature will have a greater range. One of the following could cause a decrease in operating range:

- Weather conditions.
- Nearby radio towers.
- Structures around the vehicle.
- Other vehicles parked next to your vehicle.

Other short-distance radio transmitters, such as amateur radios, medical equipment, wireless headphones, remote controls and alarm systems may operate on the same frequency as your remote control. If other transmitters are operating on those frequencies, you may not be able to use your remote control. Using your remote control near some types of electronic equipment, such as USB devices, computers or cell phones can interfere with remote operation. Operating your remote control near metal or metallic-finished purses, bags or clothing can interfere with remote operation. You can lock and unlock the doors with the key.

**Note:** *Make sure to lock your vehicle before leaving it unattended.*

**Note:** *If you are in range, the remote control still operates if you press any button unintentionally.*

## Intelligent Access (If Equipped)

The system uses a radio frequency signal to communicate with your vehicle and authorize your vehicle to unlock when one of the following conditions are met:

- You touch the inside of the front exterior door handle within 3 ft (1 m) proximity of an intelligent access key.
- You press the tailgate release button.
- You press a button on the remote control.

If excessive radio frequency interference is present in the area or if the remote control battery is low, you may need to mechanically unlock your door. You can use the mechanical key blade in your intelligent access key to open the driver door in this situation. See **Remote Control** (page 47).

## REMOTE CONTROL

### Integrated Keyhead Transmitter (If Equipped)

Use the key blade to start your vehicle and unlock or lock the driver door from outside your vehicle. The integrated keyhead transmitter functions as a programmed ignition key that operates all the locks and starts your vehicle, as well as a remote control.

# Keys and Remote Controls



E277016

Press the button to release the key blade. Press and hold the button to fold the key blade back in when not in use.



E151795

**Note:** Your vehicle keys came with a security label that provides important key cut information. Keep the label in a safe place for future reference.

## Intelligent Access Key (If Equipped)

**Note:** You may not be able to shift out of park (P) unless the intelligent access key is inside your vehicle.



E279948

The remote control operates the power locks. The remote control must be in your vehicle to use the push button start.

## Removable Key Blade

The remote control also contains a removable key blade that you can use to unlock your vehicle.

# Keys and Remote Controls



E279949

Press the release button and pull the key blade out.



E151795

**Note:** Your vehicle keys came with a security label that provides important key cut information. Keep the label in a safe place for future reference.

## Replacing the Battery

**Note:** Refer to local regulations when disposing of remote control batteries.

**Note:** Do not wipe off any grease on the battery terminals or on the back surface of the circuit board.

**Note:** Replacing the battery does not erase the programmed key from your vehicle. The remote control should operate normally.

A message appears in the information display when the remote control battery is low. See **General Information** (page 87).

## Integrated Keyhead Transmitter

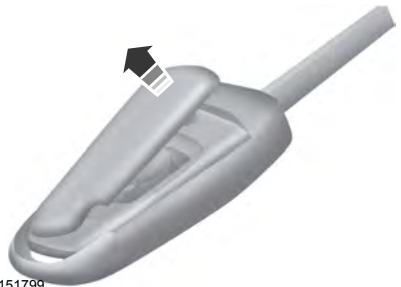
The remote control uses one coin-type three-volt lithium battery.

Press the button to release the key blade before beginning the procedure.



E277017

1. Insert a suitable tool, for example a screwdriver, in the position shown and gently push the clip.
2. Press the clip down to release the battery cover.



E151799

3. Carefully remove the cover.

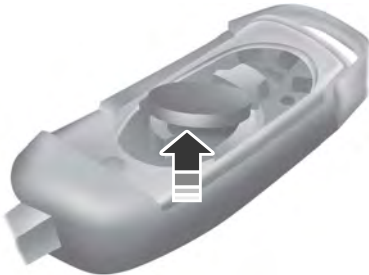
# Keys and Remote Controls



E151800

**Note:** Do not touch the battery contacts or the printed circuit board with the screwdriver.

4. Insert a screwdriver as shown to release the battery.



E151801

5. Remove the battery.
6. Install a new battery with the **+** facing up.
7. Replace the battery cover.

## Intelligent Access Key

The remote control uses one coin-type three-volt lithium battery.



E279949

1. Push the release button and pull the key blade out.

## Keys and Remote Controls



E218401

2. Twist a thin coin under the tab hidden behind the key blade head to remove the battery cover.



E218402

3. Insert a suitable tool, for example a screwdriver, in the position shown and carefully remove the battery.
4. Install a new battery with the + facing upward.
5. Reinstall the battery housing cover onto the remote control and install the key blade.

### Car Finder



Press the button twice within three seconds. The horn sounds and the direction indicators flash.

### Sounding a Panic Alarm (if Equipped)

**Note:** *The panic alarm only operates when the ignition is off.*



Press the button to activate the alarm. Press the button again or switch the ignition on to deactivate.

# Keys and Remote Controls

## Remote Start (If Equipped)



**WARNING:** To avoid exhaust fumes, do not use remote start if your vehicle is parked indoors or in areas that are not well ventilated.

**Note:** Do not use remote start if your fuel level is low.



The remote start button is on the remote control.

This feature allows you to start your vehicle from the outside. The remote control has an extended operating range.

If your vehicle has automatic climate control, you can configure it to operate when you remote start your vehicle. See **Climate Control** (page 108). A manual climate control system will run at the setting it was set to when you switched your vehicle off.

Many states and provinces have restrictions for the use of remote start. Check your local and state or provincial laws for specific requirements regarding remote start systems.

The remote start system does not work if:

- The ignition is on.
- The alarm system triggers.
- You disable the feature.
- The hood is open.
- The transmission is not in park (P).
- The vehicle battery voltage is too low.
- The service engine soon light is on.

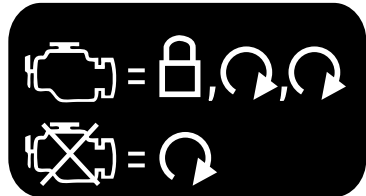
## Remote Control Feedback (If Equipped)

An LED on the remote control provides status feedback of remote start or stop commands.

LED	Status
Solid green	Remote start successful
Solid red	Remote stop successful
Blinking red	Request failed or status not received
Blinking green	Status incomplete

## Remote Starting Your Vehicle

**Note:** You must press each button within three seconds of each other. If you do not follow this sequence, your vehicle does not start remotely, the direction indicators do not flash twice and the horn does not sound.



E138626

To remote start your vehicle:

1. Press the lock button to lock all the doors.
2. Press the remote start button twice. The exterior lamps flash twice.

The horn sounds if the system fails to start.

**Note:** You must press the push button ignition switch on the instrument panel once while applying the brake pedal before driving your vehicle.

The power windows do not work during remote start and the radio does not turn on automatically.

# Keys and Remote Controls

The parking lamps remain on and your vehicle will run for 5, 10 or 15 minutes, depending on the setting.

## **Extending the Engine Running Time**

To extend the engine running time duration of your vehicle during remote start, repeat steps 1 and 2 while the engine is running. If the duration is set to 15 minutes, the duration extends by another 15 minutes. For example, if your vehicle had been running from the first remote start for 10 minutes, your vehicle continues to run now for a total of 30 minutes. You can extend the engine running time duration to a maximum of 30 minutes.

Wait at least five seconds before remote starting after the engine stops running.

## **Turning Your Vehicle Off After Remote Starting**



Press the button once. Your vehicle and the parking lamps turn off.

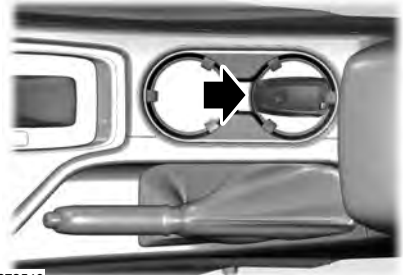
You may have to be closer to your vehicle than when starting due to ground reflection and the added noise of your running vehicle.

You can switch this feature on or off in the information display.

## **REPLACING A LOST KEY OR REMOTE CONTROL**

Replacement keys or remote controls can be purchased from an authorized dealer. Authorized dealers can program remote controls for your vehicle. See **Passive Anti-Theft System** (page 62).

## **PASSIVE KEY BACKUP POSITION**



E272540

Place the passive key in the position shown, with the buttons facing upward. Make sure that you place the key fob in the center of the cup holder.

The top or bottom end of the key must be pointing towards the front or rear of the vehicle.

With the key in this position, press the brake or clutch pedal, then press the start button to switch on your vehicle.



## PRINCIPLE OF OPERATION

MyKey allows you to program keys with restricted driving modes to promote good driving habits. You can program the restrictions to all keys except one. Any keys that you did not program are administrator keys or admin keys.

You can use admin keys to:

- Create a MyKey with certain vehicle restrictions.
- Program certain MyKey settings.
- Clear all MyKey restrictions.

After you program a MyKey, you can view the following information through the information display:

- The total number of admin keys and MyKeys for your vehicle.
- The total distance a MyKey driver traveled with your vehicle.

**Note:** Every MyKey receives the same restrictions and settings. You cannot program them individually.

**Note:** For vehicles equipped with a push-button start switch: When both a MyKey and an admin key are present when you start your vehicle, the system recognizes the admin key only.

## Standard Settings

Not every vehicle includes the features listed below. If your vehicle has this equipment, then you cannot change the following settings when using a MyKey:

- Seatbelt reminder or Belt-Minder™. MyKey mutes the audio system until drivers, and in some instances, passengers, fasten their seatbelts. **Note:** If your vehicle includes an AM/FM radio or a very basic audio system, then the radio may not mute.
- Earlier low-fuel warning. The low-fuel warning activates earlier for MyKey drivers, giving them more time to refuel.
- Certain driver alerts, stability systems or parking aids turn on automatically when you use the MyKey system. For example, Blind Spot Information System (BLIS), cross traffic alert, lane departure warning or forward collision warning. **Note:** MyKey drivers may be able to turn the lane departure warning feature off, but this feature turns back on automatically with every new key cycle.
- Restricted touchscreen operation in some markets. For example, MyKey may prevent manual navigation destination input while the vehicle is in any gear other than park (P) or when the vehicle reaches a certain rate of speed.
- Satellite radio adult content restrictions, if this feature is available in your market.

## Optional Settings

You can configure certain vehicle feature settings when you first create a MyKey. You can also change the settings afterward with an admin key.

**Note:** *Not every feature applies to every vehicle in every market. When they are available for your vehicle, then they appear in your information display, providing choices to switch them on or off, or to select a more specific setting.*

- Various vehicle speed limits so the MyKey driver cannot exceed certain speeds. The information display shows warnings followed by an audible tone when the MyKey driver reaches the set speed. You cannot override the set speed by fully depressing the accelerator pedal.



**WARNING:** Do not set MyKey maximum speed limit to a limit that will prevent the driver from maintaining a safe speed considering posted speed limits and prevailing road conditions. The driver is always responsible to drive in accordance with local laws and prevailing conditions. Failure to do so could result in accident or injury.

- Various vehicle speed reminders so MyKey drivers know when their vehicle speed approaches the limits. Warnings appear in your information display and a tone sounds when the MyKey drivers exceed the set vehicle speed.
- The audio system's maximum volume limits to 45% so MyKey drivers can concentrate on the road. A message appears in the information display when MyKey drivers attempt to exceed the limited volume. MyKey also disables the automatic volume control. **Note:** If your vehicle includes an AM/FM radio or a very basic audio system, then the radio may not limit.
- Always on setting. This setting forces certain features to remain on and active for MyKey drivers. For example, E911 or emergency assistance and the do not disturb features stay on even if a MyKey driver uses the feature's control to switch it off. When you select, you will not be able to turn off Advance Trac or traction control (if your vehicle has this feature).

## CREATING A MYKEY

Use the information display to create a MyKey:

1. Insert the key you want to program into the ignition. If your vehicle is equipped with a push-button start, place the remote control into the backup slot. See **Passive Anti-Theft System** (page 62).
2. Switch the ignition on.
3. Access the main menu in the information display and then scroll through the menus to change the settings of your MyKey. From the MyKey menu select the option Create MyKey. See **Information Displays** (page 87).

4. When prompted, hold the **OK** button until you see a message informing you to label this key as a MyKey. The programmed restrictions apply when you key off, open and close the driver door and restart your vehicle with the programmed key or transmitter.

MyKey is successfully created. Make sure you label it so you can distinguish it from the admin keys.

You can also program configurable settings for the key(s). See **Programming and Changing Configurable Settings**.

## Programming and Changing Configurable Settings

Use the information display to access your configurable MyKey settings.

1. Switch the ignition on using an admin key or transmitter you want to program.
2. Access the main menu in the information display and then scroll through the menus to change the settings of your MyKey. See **Information Displays** (page 87).
3. Follow the instructions in the display.

**Note:** *You can clear or change your MyKey settings at any time during the same key cycle as you created the MyKey. Once you have switched the vehicle off, however, you will need an admin key to change or clear your MyKey settings.*

## CLEARING ALL MYKEYS

When you clear your MyKeys, you remove all restrictions and return all MyKeys to their original admin key status at once. To clear all MyKeys of all MyKey settings, use the information display.

1. Switch the ignition on using an admin key.

2. Access the main menu in the information display and then scroll through the menus to begin clearing your MyKey programming. See **Information Displays** (page 87).
3. Follow the instructions in the display.
4. A confirmation message appears in the display after you finish clearing your MyKeys.

**Note:** *When you clear your MyKeys, you remove all restrictions and return all MyKeys to their original admin key status. You cannot remove the MyKey restrictions individually.*

## CHECKING MYKEY SYSTEM STATUS

You can find information about your programmed MyKeys by using the information display. See **Information Displays** (page 87).

## MyKey Distance

Tracks the distance when drivers use a MyKey. The only way to delete the accumulated distance is by using an admin key to clear all MyKeys. If the distance does not accumulate as expected, then the intended user is not using the MyKey, or an admin key user recently cleared and then recreated a MyKey.

## Number of MyKeys

Indicates the number of MyKeys programmed to your vehicle. Use this feature to detect how many MyKeys you have for your vehicle and determine when all MyKeys have been deleted.

## Number of Admin Keys

Indicates how many admin keys are programmed to your vehicle. Use this feature to determine how many admin keys you have for your vehicle, and detect if an additional MyKey has been programmed.

## USING MYKEY WITH REMOTE START SYSTEMS

MyKey is not compatible with non Ford-approved, aftermarket remote start systems. If you choose to install a remote start system, see an authorized dealer for a Ford-approved remote start system.

## MYKEY – TROUBLESHOOTING

Condition	Potential Causes
I cannot create a MyKey.	The key or transmitter used to start the vehicle does not have admin privileges. Vehicles with keyless start: Make sure you place the transmitter into the backup slot. See <b>Passive Anti-Theft System</b> (page 62). The key or transmitter used to start the vehicle is the only admin key. There always has to be at least one admin key. The passive anti-theft system is disabled or in unlimited mode.
I cannot program the configurable settings.	The transmitter used to start your vehicle does not have admin privileges. There are no MyKeys programmed to the vehicle. See <b>Creating a MyKey</b> (page 55).
I cannot clear the MyKeys.	The key or transmitter used to start the vehicle does not have admin privileges. No MyKeys are created. See <b>Creating a MyKey</b> (page 55).
I lost the only admin key.	Purchase a new key or transmitter from an authorized dealer.
I lost a key.	Program a spare key or transmitter. You may need to see an authorized dealer. See <b>Passive Anti-Theft System</b> (page 62).
The MyKey distance does not accumulate.	The MyKey user is not using the MyKey. An admin key holder cleared the MyKeys and created new MyKeys.

# MyKey™

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<b>Condition</b>	<b>Potential Causes</b>
	The key system has been reset.
No MyKey functions with the transmitter.	An admin transmitter is present at vehicle start. There are no MyKeys programmed to your vehicle. See <b>Creating a MyKey</b> (page 55).

# Doors and Locks

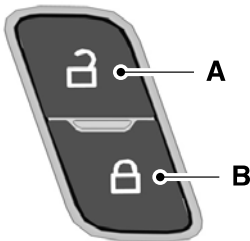
## LOCKING AND UNLOCKING

You can use the power door lock control or the remote control to lock and unlock your vehicle.

**Note:** Always take your keys and lock all doors when leaving your vehicle.

### Power Door Locks

The power door lock control is on the driver and front passenger door panels.



E196954

- A    Unlock.
- B    Lock.

### Door Lock Indicator

An LED on the power door lock control illuminates when you lock the door.

### Remote Control

#### Unlocking the Doors (Two-Stage Unlock)



Press the button to unlock the driver door.

Press the button again within three seconds to unlock all doors. The direction indicators will flash.

With the ignition off, press and hold both the lock and unlock buttons on the remote control for three seconds to change between driver door or all door unlock mode. The direction indicators will flash twice to indicate a change to the unlocking mode. Driver door mode only unlocks the driver door when you press the unlock button once. All door mode unlocks all doors when you press the unlock button once. The unlocking mode applies to the remote control, keyless entry keypad and intelligent access.

### Locking the Doors



Press the button to lock all doors. The direction indicators will flash.

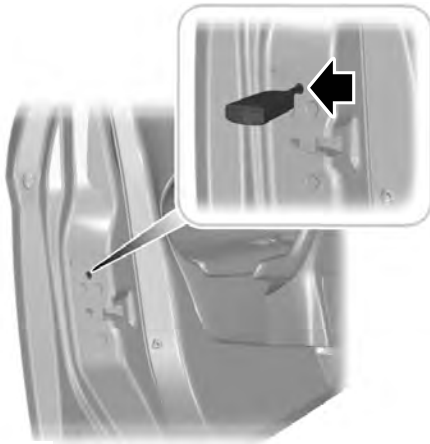
Press the button again within three seconds to confirm that all the doors are closed. The doors will lock again, the horn will sound and the direction indicators will flash if all the doors are closed.

### Locking and Unlocking the Doors with the Key Blade

Turn the top of the key toward the front of your vehicle once to lock all doors. Turn the top of the key toward the rear of your vehicle once to unlock the driver door only.

If the central locking function does not operate, lock the doors individually using the key in the position shown.

# Doors and Locks



E112203

## Left-Hand Side

Turn clockwise to lock.

## Right-Hand Side

Turn counterclockwise to lock.

## Opening a Rear Door from the Inside

Pull the interior door handle twice to unlock and open a rear door. The first pull unlocks the door and the second pull opens the door.

## Smart Unlocks for Integrated Keyhead Transmitter (If Equipped)

This helps to prevent you from locking yourself out of your vehicle if the key is still in the ignition.

When you open one of the front doors and lock your vehicle with the power door lock control, all the doors will lock then unlock and the horn will sound twice if the key is still in the ignition.

You can still lock your vehicle with the key in the ignition by either:

- Using the keyless entry keypad with the driver door closed.
- Pressing the lock button on the transmitter even if the doors are not closed.

If both front doors are closed, you can lock your vehicle by any method, regardless of whether the key is in the ignition or not.

## Autolock (If Equipped)

Autolock locks all the doors when:

- All doors are closed.
- The ignition is on.
- You shift into any gear putting your vehicle in motion.
- Your vehicle reaches a speed greater than 4 mph (7 km/h).

Autolock repeats when:

- You open then close any door while the ignition is on and your vehicle speed is 4 mph (7 km/h) or lower.
- Your vehicle reaches a speed greater than 4 mph (7 km/h).

## Autounlock

Autounlock unlocks all the doors when:

- The ignition is on, all the doors are closed, and your vehicle has been moving at a speed greater than 4 mph (7 km/h).
- Your vehicle comes to a stop and you switch the ignition off or to the accessory position.
- You open the driver door within 10 minutes of switching the ignition off or to accessory.

**Note:** *The doors do not autounlock if you electronically lock your vehicle after you switch the ignition off and before you open the driver door.*

# Doors and Locks

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## **Enabling or Disabling Autounlock**

To enable or disable autounlock, see an authorized dealer.



# Security

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## PASSIVE ANTI-THEFT SYSTEM

### Principle of Operation

The system prevents someone from starting the engine with an incorrectly coded key.

### Coded Keys

If you lose a key, you can purchase a replacement from an authorized dealer. If possible, provide them with the key number from the tag provided with the original keys. You can also obtain extra keys from an authorized dealer.

**Note:** *Have all of your remaining keys erased and recoded if you lose a key. Have replacement keys coded together with your remaining keys. See an authorized dealer for further information.*

**Note:** *Do not shield your keys with metal objects. This may prevent the receiver from recognizing a coded key.*

**Note:** *Do not leave a duplicate coded key in the vehicle. Always take your keys and lock all doors when leaving the vehicle.*

### Arming the Engine Immobilizer

When you switch the ignition off, the engine immobilizer will arm automatically after a short time.

### Disarming the Engine Immobilizer

When you switch the ignition on, the engine immobilizer will disarm automatically if you use a correctly coded key.

If you are unable to start the engine with a correctly coded key, have your vehicle checked by an authorized dealer.

## ANTI-THEFT ALARM

### Alarm System

#### Perimeter Alarm

The perimeter alarm is a deterrent against unauthorized access to your vehicle through the doors, luggage compartment and the hood.

#### Panic Alarm (If Equipped)

The alarm can be activated using the remote control.

#### Triggering the Alarm

- If someone opens a door or the hood without a valid key or remote control.
- If you switch the ignition on without a valid key.

If the alarm sounds, the alarm horn sounds for 30 seconds and the hazard warning lamps flash for five minutes.

Any further attempts to carry out one of the above will sound the alarm again.

#### Arming the Alarm

Press the lock button once to lock your vehicle and arm the alarm.

#### Disarming the Alarm

Disarm the alarm by any of the following actions:

- Unlock the doors with the key and switch the ignition on with a correctly coded key within 12 seconds.
- Unlock the doors or luggage compartment using the remote control.

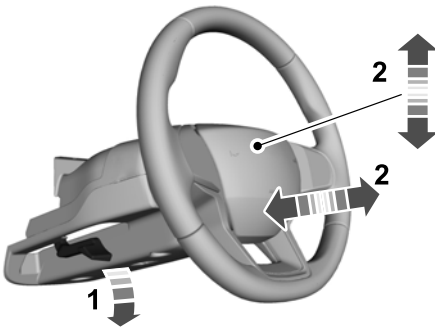
# Steering Wheel

## ADJUSTING THE STEERING WHEEL



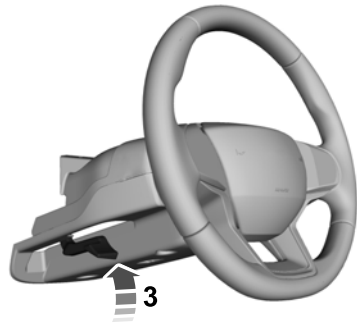
**WARNING:** Do not adjust the steering wheel when your vehicle is moving.

**Note:** Make sure that you are sitting in the correct position. See **Sitting in the Correct Position** (page 115).



E279960

1. Unlock the steering column.
2. Adjust the steering wheel to the desired position.



E279962

3. Lock the steering column.

## AUDIO CONTROL

### Type One



E279395

# Steering Wheel

## Type Two



E272251



E272252

### You can operate the following functions with the control:



Press to access phone mode or to answer a phone call.



Press to end a phone call.



Press to silence the current media



Press + or - to increase or to decrease volume levels.



Press to access the previous media selection.



Press to access the next media selection.



Press to change the media source.



Press to access the settings menu on the SYNC screen.



Press to access the home screen.

## VOICE CONTROL

The controls are on the steering wheel.



Press and release to activate voice recognition.

## CRUISE CONTROL (IF EQUIPPED)

### Type One

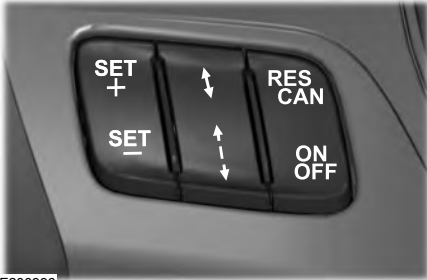


E200995

See **Using Cruise Control** (page 176).

# Steering Wheel

## Type Two



E200996

See **Using Adaptive Cruise Control** (page 177).

Use the controls to adjust the information display. Navigate through the screen and press **OK** to select. See **General Information** (page 87).

## HORN



## INFORMATION DISPLAY CONTROL



E205893



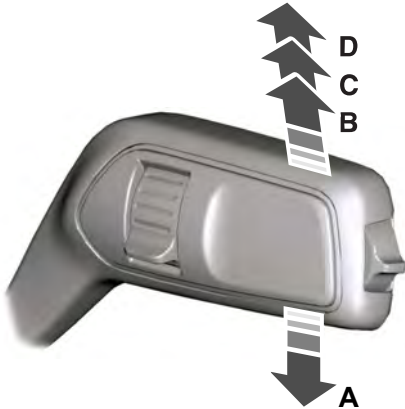
E201420

# Wipers and Washers

## WINDSHIELD WIPERS



Push the lever up or down to operate the windshield wiper.



E248785

- A Single wipe.
- B Intermittent wipe.
- C Normal wipe.
- D High-speed wipe.

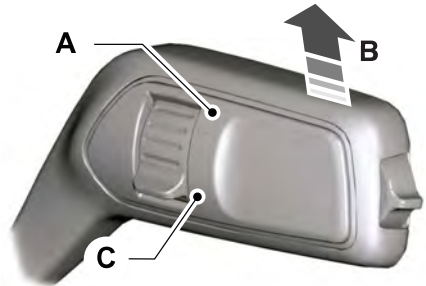
**Note:** Fully defrost the windshield before you switch the windshield wipers on.

**Note:** Make sure that you switch the windshield wipers off before entering a car wash.

**Note:** If streaks or smears appear on the windshield, clean the windshield and the wiper blades. If that does not resolve the issue, install new wiper blades.

**Note:** Do not operate the wipers on a dry windshield. This may scratch the glass, damage the wiper blades or cause the wiper motor to burn out. Always use the windshield washers before wiping a dry windshield.

## Intermittent Wipe



E242320

- A Shortest wipe interval.
- B Intermittent wipe.
- C Longest wipe interval.

Use the rotary control to adjust the intermittent wipe interval.

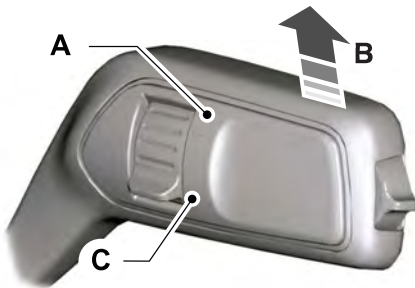
## Speed Dependent Wipers

When your vehicle speed increases, the interval between wipes decreases.

## AUTOWIPERS (IF EQUIPPED)

Wet or winter driving conditions with ice, snow or salty road mist can cause inconsistent and unexpected wiping or smearing.

# Wipers and Washers



E242320

- A High sensitivity.
- B Autowipers On.
- C Low sensitivity.

Use the rotary control to adjust the sensitivity of the autowipers. When you select low sensitivity, the wipers operate when the sensor detects a large amount of water on the windshield. When you select high sensitivity, the wipers operate when the sensor detects a small amount of water on the windshield.

Keep the outside of the windshield clean. The rain sensor is very sensitive and the wipers may operate if dirt, mist or insects hit the windshield.

In these conditions, you can do the following:

- Lower the sensitivity of the autowipers to reduce the amount of smearing on the windshield.
- Switch to normal or high-speed wipe.
- Switch autowipers off.

**Note:** Fully defrost the windshield before you switch the windshield wipers on.

**Note:** Make sure that you switch the windshield wipers off before entering a car wash.

**Note:** If streaks or smears appear on the windshield, clean the windshield and the wiper blades. If that does not resolve the issue, install new wiper blades.

**Note:** If you switch autolamps and autowipers on, the headlamps turn on when the windshield wipers continuously operate.

## Autowipers Settings

Autowipers defaults to on and remains on until you switch it off in the information display. When you switch off autowipers, the wipers operate in intermittent mode.

## WINDSHIELD WASHERS



E242323



Pull the lever toward you to operate the windshield washers.

When you release the lever, the wipers operate for a short time. When activated, a courtesy wipe occurs a short time after the wipers stop to clear any remaining washer fluid.

**Note:** You can switch courtesy wipe on or off in the information display. See **Information Displays** (page 87).

**Note:** Do not operate the washers when the washer reservoir is empty. This could cause the washer pump to overheat.

# Lighting

## GENERAL INFORMATION

### Condensation in the Exterior Front Lamps and Rear Lamps

Exterior front lamps and rear lamps have vents to accommodate normal changes in air pressure.

Condensation can be a natural by-product of this design. When moist air enters the lamp assembly through the vents, there is a possibility that condensation can occur when the temperature is cold. When normal condensation occurs, a fine mist can form on the interior of the lens. The fine mist eventually clears and exits through the vents during normal operation.

Clearing time may take as long as 48 hours under dry weather conditions.

Examples of acceptable condensation are:

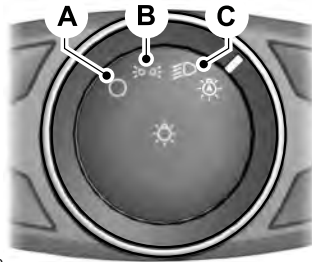
- The presence of a fine mist (no streaks, drip marks or large droplets).
- A fine mist covers less than 50% of the lens.

Examples of unacceptable condensation are:

- A water puddle inside the lamp.
- Streaks, drip marks or large droplets present on the interior of the lens.

If you see any unacceptable condensation, have your vehicle checked by an authorized dealer.

## LIGHTING CONTROL



E142449

- A Lamps off.
- B Parking lamps, instrument panel lamps, license plate lamps and tail lamps.
- C Headlamps.

### Headlamp High Beam



E242674



Push the lever away from you to switch the high beam on.

Push the lever forward again or pull the lever toward you to switch the high beams off.

# Lighting

## Flashing the Headlamp High Beam



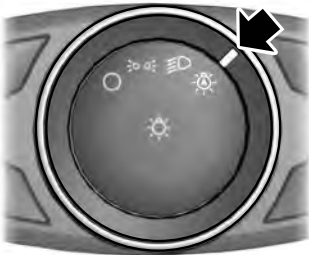
E242675

Slightly pull the lever toward you and release it to flash the headlamps.

## AUTOLAMPS (IF EQUIPPED)



**WARNING:** The system does not relieve you of your responsibility to drive with due care and attention. You may need to override the system if it does not turn the headlamps on in low visibility conditions, for example daytime fog.



E142451

When the lighting control is in the autolamps position, the headlamps turn on in low light situations, or when the wipers turn on.

The headlamps remain on for a period of time after you switch the ignition off. Use the information display controls to adjust the period of time that the headlamps remain on.

**Note:** If you switch the autolamps on, you cannot switch the high beams on until the system turns the low beams on.

## Windshield Wiper Activated Headlamps

When you switch the autolamps on, the headlamps turn on within 10 seconds of switching the wipers on. They turn off approximately 60 seconds after you switch the windshield wipers off.

The headlamps do not turn on with the wipers:

- During a single wipe.
- When using the windshield washers.
- If the wipers are in intermittent mode.

**Note:** If you switch the autolamps and the autowipers on, the headlamps turn on when the windshield wipers continuously operate.

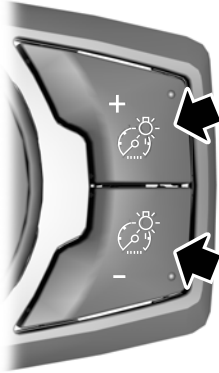
## INSTRUMENT LIGHTING DIMMER

**Note:** When disconnecting the battery or when it runs out of charge, the illuminated components turn to the maximum setting.



# Lighting

## Vehicles With Front Fog Lamps



E231828

Press repeatedly or press and hold until you reach the desired level.

## Vehicles Without Front Fog Lamps



E165366

- A Press repeatedly or press and hold to dim.
- B Press repeatedly or press and hold to brighten.

## DAYTIME RUNNING LAMPS



**WARNING:** The daytime running lamps system does not activate the rear lamps and may not provide adequate lighting during low visibility driving conditions. Make sure you switch the headlamps on, as appropriate, during all low visibility conditions. Failure to do so may result in a crash.

### Type One - Conventional (Non-Configurable)

The daytime running lamps turn on when:

1. Switching the ignition on.
2. The transmission is not in park (P) for vehicles with automatic transmissions, or releasing the parking brake for vehicles with manual transmissions.
3. The lighting control is in the off, parking lamp or autolamps positions.
4. The headlamps are off.

### Type Two - Configurable

Switch the daytime running lamps on or off using the information display. See **Information Displays** (page 87).

The daytime running lamps turn on when:

1. The lamps are on in the information display.
2. Switching the ignition on.
3. The transmission is not in park (P) for vehicles with automatic transmissions, or releasing the parking brake for vehicles with manual transmissions.
4. The lighting control is in the autolamps position.
5. The headlamps are off.

The other lighting control switch positions do not turn on the daytime running lamps.

# Lighting

If the daytime running lamps are off in the information display, the lamps stay off in all switch positions.

## AUTOMATIC HIGH BEAM CONTROL (IF EQUIPPED)



**WARNING:** The system does not relieve you of your responsibility to drive with due care and attention. You may need to override the system if it does not turn the high beams on or off.

The system turns on high beams if it is dark enough and no other traffic is present. If it detects an approaching vehicle's headlamps or tail lamps, or street lighting ahead, the system turns off high beams before they can distract other road users. Low beams remain on.

**Note:** The system may not operate properly if the sensor is blocked. Keep the windshield free from obstruction or damage.

**Note:** The system may not operate properly in cold or inclement conditions. You can switch on the high beams by overriding the system.

**Note:** If the system detects a blockage, for example bird droppings, bug splatter, snow or ice, the system goes into low beam mode until you clear the blockage. A message may appear in the information display if the camera is blocked.

**Note:** Using much larger tires or equipping vehicle accessories such as snowplows can modify your vehicle's ride height and degrade automatic high beam control performance.

A camera sensor, centrally mounted behind the windshield of your vehicle, continuously monitors conditions to turn the high beams on and off.

Once the system is active, the high beams turn on if:

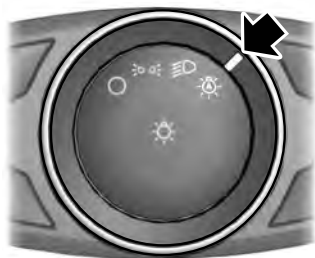
- The ambient light level is low enough.
- There is no traffic in front of your vehicle.
- The vehicle speed is greater than approximately 32 mph (51 km/h).

The system turns the high beams off if:

- The ambient light level is high enough that high beams are not required.
- The system detects an approaching vehicle's headlamps or tail lamps.
- The vehicle speed falls below approximately 27 mph (44 km/h).
- The system detects severe rain, snow or fog.
- The camera is blocked.

## Switching the System On and Off

Switch the system on using the information display. See **Information Displays** (page 87).



E142451

Switch the lighting control to the autolamps position. See **Autolamps** (page 69).

## Overriding the System

Push the lever away from you to switch between high beam and low beam.

# Lighting

## Automatic High Beam Indicator



The indicator illuminates to confirm when the system is ready to assist.

## FRONT FOG LAMPS (IF EQUIPPED)



E142453

Press the control to switch the fog lamps on or off.

You can switch the fog lamps on when the lighting control is in any position except Off and the high beams are not on.

## DIRECTION INDICATORS

### Switching the Direction Indicators On and Off



E242676

Push the lever up or down to switch the direction indicators on.

**Note:** Tap the lever up or down to make the direction indicators flash three times.

Set the lever to the middle position to switch the direction indicators off.

### Direction Indicator

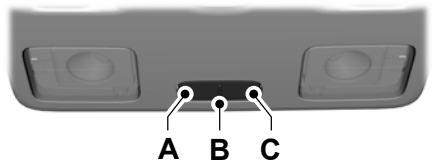


Flashes when you switch the direction indicators on.

**Note:** An increase in the rate of flashing warns of a failed indicator bulb.

## INTERIOR LAMPS

### Courtesy Lamp



E249790

- A Switch all lamps on.
- B Switch lamps on and off by door.
- C Switch all lamps off.

If you set the switch to the door position, the courtesy lamp illuminates when you unlock or open any door. If you leave a door open with the ignition switched off, the courtesy lamp goes off after some time to prevent your vehicle battery from losing charge. To switch it back on, switch the ignition on for a short time.

The courtesy lamp also illuminates when you switch the ignition off. It goes off after a short time or when you start the engine.

# Lighting

If you set the switch to the all on position with the ignition switched off, the courtesy lamp illuminates. It goes off after a short time to prevent your vehicle battery from losing charge. To switch it back on, switch the ignition on for a short time.

## Reading Lamps



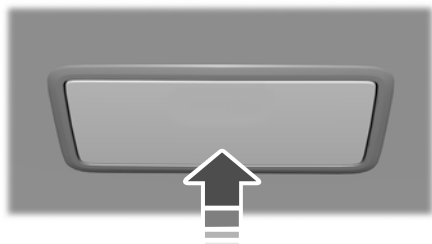
E249791

Press the edge of the lamp lens to switch on and off.

If you switch the ignition off, the reading lamps turn off after a short time.

**Note:** This is to prevent the vehicle battery from losing charge.

## Rear Courtesy Lamp



E250958

For rear lamps without a position switch, press the lamp lens to switch on and off.

## AMBIENT LIGHTING (IF EQUIPPED)

Use the touchscreen to select the following:



Select the settings option on the feature bar.



Select ambient lighting.



E27192

## Switching Ambient Lighting On

Touch a color once.

## Changing the Color

Touch any color once.

## Adjusting the Brightness

Drag the selected color up or down.

## Switching Ambient Lighting Off

Touch the selected color once or drag the selected color down to zero brightness.

## CARGO LAMPS




Press the button on the lighting control to switch on the lamps.


**Note:** The lamps turn off when you reach 3 mph (5 km/h).

**Note:** The cargo lamps gradually turn off after a period of time.

# Windows and Mirrors

## POWER WINDOWS

 **WARNING:** Do not leave children or pets unattended in your vehicle. Failure to follow this instruction could result in personal injury or death.

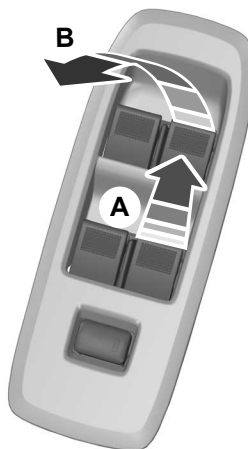
 **WARNING:** When closing the power windows, verify they are free of obstruction and make sure that children and pets are not in the proximity of the window openings.

**Note:** If you operate the switches often during a short period of time the system might become inoperable for a certain time to prevent damage due to overheating.

**Note:** If you operate both the switch on the relevant door and the switch for that window on the driver's door at the same time, the window stops moving.

**Note:** You may hear a pulsing noise when you open just one of the windows. Lower the opposite window slightly to reduce this noise.

## Driver Door Switches (Double Cab)

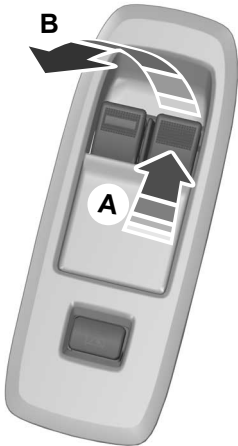


E131466

- A Press the switch to open the window.
- B Lift the switch to close the window.

# Windows and Mirrors

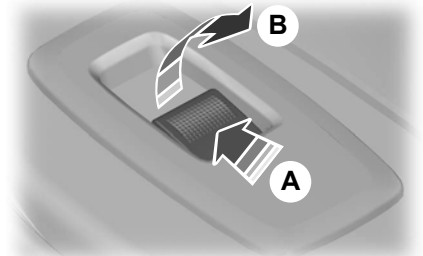
## Driver Door Switches (Single and Stretch Cab)



E131469

- A Press the switch to open the window.
- B Lift the switch to close the window.

## Front and Rear Passenger Door Switches



E131467

- A Press the switch to open the window.
- B Lift the switch to close the window.

## Opening and Closing the Driver Side Window Automatically

Press or lift the switch to the second action point and release it.

Press again or lift it to stop the window.

## Opening and Closing Other Windows Automatically (If Equipped)

Press or lift the switch to the second action point and release it.

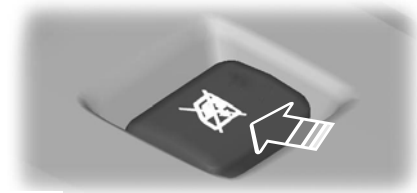
Press again or lift it to stop the window.

## Safety Switch for the Rear Windows

**Note:** Once you press the safety switch, you can still operate the rear windows and front passenger window from the driver door if you have global opening and closing.

# Windows and Mirrors

**Note:** In vehicles without global opening and closing, you cannot operate the rear windows from driver side when you press the safety switch. In certain vehicles, you cannot operate front passenger windows as well.



E131468

Press the control to lock or unlock the rear window controls.

## Resetting the Memory of the Electric Windows - Vehicle with One Touch Up/Down on Driver Side only

**Note:** The bounce back feature remains turned off until you reset the memory.

In the event of a flat battery or after the battery is disconnected from the vehicle, you must reset the memory for the driver window.

1. Open the window and then try to close it using the one-touch feature.
2. Lift and hold the switch to the second action point until you fully close the window.
3. Lift and hold the switch for more than two seconds and release.
4. Open the window using the first action point and try to close it automatically using the second action point.
5. If the window does not open or close automatically when you press the switch or lift it to the second action point, repeat the procedure.

## Safety Mode

**Note:** The anti-trap function is not active during this procedure.

If the system detects a malfunction, it enters a safety mode. The windows move a little at a time and then stop again. Close the windows by pressing the switch again when the windows stop moving.

Contact an authorized dealer.

## Bounce-Back

The window automatically stops and reverses some distance if it detects an obstacle when closing.

## Overriding the Bounce-Back Feature



**WARNING:** If you override bounce-back, the window does not reverse if it detects an obstacle. Take care when closing the windows to avoid personal injury or damage to your vehicle.

Proceed as follows to override this protection feature when there is a resistance, for example in winter:

1. Close the window twice until it reaches the point of resistance and let it reverse.
2. Close the window a third time to the point of resistance. The bounce-back feature is now disabled and you can close the window manually. The window will go past the point of resistance and you can close it fully.

See an authorized dealer as soon as possible if the window does not close after the third attempt.

## Resetting the Bounce-Back Feature

**Note:** The bounce-back feature remains turned off until you reset the memory.

# Windows and Mirrors

If you disconnect the battery, you must reset the bounce-back memory separately for each window.

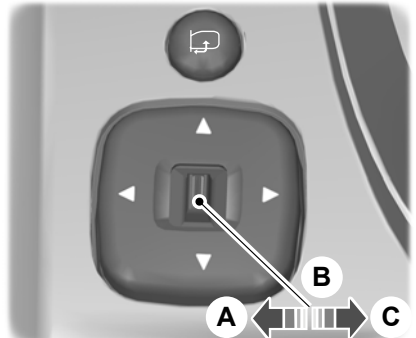
1. Lift and hold the switch until you fully close the window.
2. Release the switch.
3. Lift the switch again for one second.
4. Press and hold the switch until you fully close the window.
5. Release the switch.
6. Lift and hold the switch until you fully close the window.
7. Open the window and then try to close it automatically.
8. Reset and repeat the procedure if the window does not close automatically.

## EXTERIOR MIRRORS

### Power Exterior Mirrors

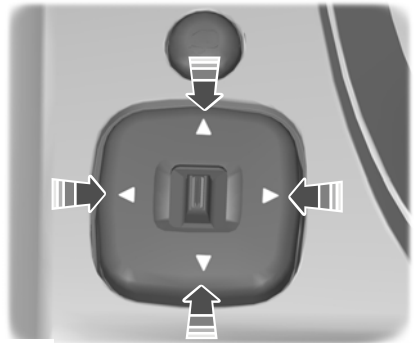


**WARNING:** Do not adjust the mirrors when your vehicle is moving. This could result in the loss of control of your vehicle, serious personal injury or death.



E131480

- A Left-hand side.
- B Off.
- C Right-hand side.



E131481

Press the arrows to adjust the mirror.

### Fold-Away Exterior Mirrors

Push the mirror toward the door window glass.

Make sure that you fully engage the mirror in its support when returning it to its original position.

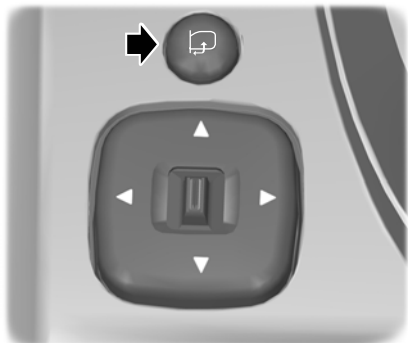


# Windows and Mirrors

## Power-Folding Mirrors

The power folding mirrors operate with the ignition on.

**Note:** *The mirrors no longer operate if you switch the ignition off.*



E131482

Press the button to fold the mirrors inward. Release the button to stop and reverse the direction of movement, or to fold the mirrors outward.

## Heated Exterior Mirrors (If Equipped)

The heated exterior mirrors will remove ice, mist and fog. See **Heated Exterior Mirrors** (page 113).

## Signal Indicator Mirrors (If Equipped)

The outer portion of the appropriate mirror housing blinks when you switch on the direction indicator.

## Puddle Lamps (If Equipped)

The lamps on the bottom part of the mirror housing light when you use your transmitter to unlock the doors or when you open a door.

## INTERIOR MIRROR

### Manual Dimming Mirror



**WARNING:** Do not adjust the mirrors when your vehicle is moving. This could result in the loss of control of your vehicle, serious personal injury or death.

Pull the tab below the mirror toward you to reduce the effect of bright light from behind.

### Automatic Dimming Mirror (If Equipped)



**WARNING:** Do not adjust the mirrors when your vehicle is moving. This could result in the loss of control of your vehicle, serious personal injury or death.

The mirror dims to reduce the effect of bright light from behind. It returns to normal when the bright light from behind is no longer present or if you shift into reverse (R).

Do not block the sensors on the front and back of the mirror.

**Note:** *A rear center passenger or raised rear center head restraint could prevent light from reaching the sensor.*

# Windows and Mirrors

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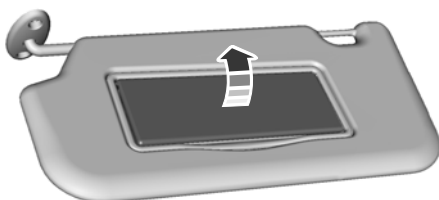
## SUN VISORS



E138666

Rotate the sun visor toward the side window and extend it rearward for extra shade.

## Illuminated Vanity Mirror (If Equipped)



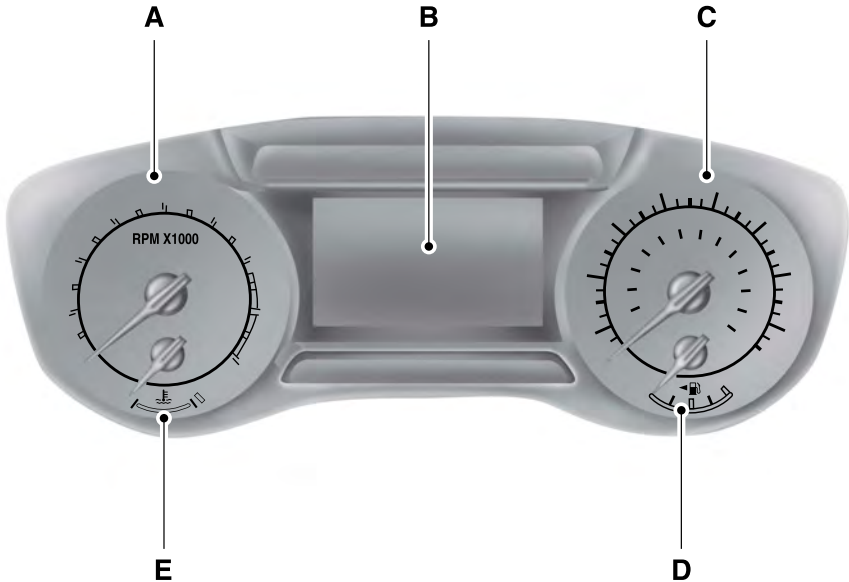
E162197

Lift the cover to switch the lamp on.

# Instrument Cluster

## GAUGES

### Type 1 and 2



E271817

- A Tachometer
- B Information Display (Type 2 shown Type 1 similar)
- C Speedometer
- D Fuel Gauge
- E Engine Coolant Temperature Gauge

### Information Display

#### Odometer

Located in the bottom of the information display. Registers the accumulated distance your vehicle has traveled.

#### Compass

Displays the vehicle's heading direction.

#### Trip Computer

See **General Information** (page 87).

# Instrument Cluster

## Vehicle Settings and Personalization

See **General Information** (page 87).

## Engine Coolant Temperature Gauge



**WARNING:** Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.

Indicates engine coolant temperature. At normal operating temperature, the level indicator will be in the normal range. If the engine coolant temperature exceeds the normal range, stop your vehicle as soon as safely possible, switch off the engine and let the engine cool.

**Note:** Do not restart the engine until the cause of overheating has been resolved.

## Fuel Gauge

The fuel gauge indicates about how much fuel is in the fuel tank.

The arrow adjacent to the fuel pump symbol indicates on which side of your vehicle the fuel filler door is located.

**Note:** The fuel gauge may vary slightly when your vehicle is moving or on a slope.

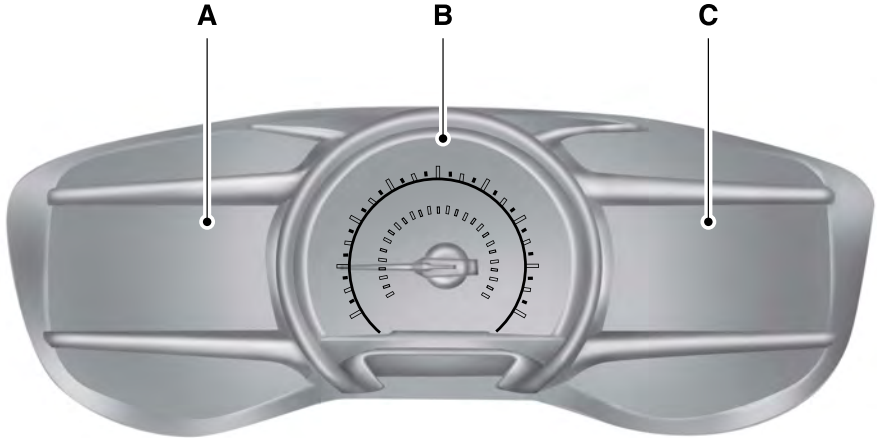
## Low Fuel Reminder

A low fuel level reminder displays and sounds when the distance to empty reaches 75 mi (120 km) to empty for MyKey, and at 50 mi (80 km), 25 mi (40 km), 10 mi (20 km) and 0 mi (0 km) for all vehicle keys.

**Note:** The low fuel reminder can appear at different fuel gauge positions depending on fuel economy conditions. This variation is normal.

# Instrument Cluster

## Type 3



E272460

- A Left Information Display
- B Speedometer
- C Right Information Display. See **General Information** (page 87).

### Left Information Display

#### Odometer

Located in the bottom of the information display. Registers the accumulated distance your vehicle has traveled.

#### Trip Computer

See **General Information** (page 87).

### Vehicle Settings and Personalization

See **General Information** (page 87).

### WARNING LAMPS AND INDICATORS

The following warning lamps and indicators alert you to a vehicle condition that may become serious. Some lamps illuminate when you start your vehicle to make sure they work. If any lamps remain on after starting your vehicle, refer to the respective system warning lamp for further information.

# Instrument Cluster

**Note:** Some warning indicators appear in the information display and operate the same as a warning lamp but do not illuminate when you start your vehicle.

## Adaptive Cruise Control Indicator (If Equipped)



It illuminates when you switch the system on.

It illuminates white when the system is in standby mode. It illuminates green when you set the adaptive cruise speed.

See **Using Adaptive Cruise Control** (page 177).

## Anti-Lock Braking System



If it illuminates when you are driving, this indicates a malfunction. Your vehicle continues to have normal braking without the anti-lock brake system function. Have your vehicle checked as soon as possible.

## Automatic Headlamp High Beam Indicator (If Equipped)



It illuminates when the system automatically turns the headlamp high beam on.

See **Automatic High Beam Control** (page 71).

## Auto-Start-Stop Indicator (If Equipped)



It illuminates when the engine has automatically stopped. It flashes to inform you when the engine needs to restart. The indicator is shown with a strikethrough if the system is not available.

See **Auto-Start-Stop** (page 134).

## Battery



It illuminates when you switch the ignition on.

If it illuminates when the engine is running this indicates a malfunction. Have your vehicle checked as soon as possible.


## Blind Spot Monitor (If Equipped)



It illuminates when you switch the system off.

See **Blind Spot Information System** (page 190).

## Brake System Warning Lamp



**WARNING:** Driving your vehicle with the warning lamp on is dangerous. A significant decrease in braking performance may occur. It may take you longer to stop your vehicle. Have your vehicle checked as soon as possible. Driving extended distances with the parking brake engaged can cause brake failure and the risk of personal injury.

**Note:** Indicators vary depending on region.

This lamp is a dual function lamp and will illuminate when:

- You apply the parking brake with the ignition on.
- Your vehicle has a brake fault or low brake fluid level, regardless of parking brake position.



If the lamp illuminates while you are moving, you may have the parking brake applied. Be sure that the parking brake is off.

Have your vehicle checked as soon as possible if the lamp continues to illuminate.

# Instrument Cluster

## Cruise Control Indicator (If Equipped)



It illuminates when you switch the system on.

See **Using Cruise Control** (page 176).

## Direction Indicator



Flashes when the left or right direction indicator or the hazard warning flasher turns on. An increase in the rate of flashing warns of a failed indicator bulb.

## Door Ajar Warning Lamp



It illuminates when you switch the ignition on and remains on if any door or the hood is open.

## Electronic Locking Differential (If Equipped)



Illuminates when using the electronic locking differential.

## Engine Coolant Temperature Warning Lamp



If it illuminates when your vehicle is moving, this indicates that the engine is overheating. Stop your vehicle as soon as it is safe to do so and switch the engine off. Have your vehicle checked as soon as possible.

See **Engine Coolant Check** (page 249).

## Fasten Seatbelt Warning Lamp



It illuminates and a chime sounds until you fasten the seatbelts.

## Four-Wheel Drive Indicators (If Equipped)



Illuminates when four-wheel drive low is engaged.



Illuminates when four-wheel drive high is engaged.

## Front Airbag



If it fails to illuminate when you start your vehicle, continues to flash or remains on, it indicates a malfunction. Have the system checked.

## Front Fog Lamp Indicator (If Equipped)



It illuminates when you switch the front fog lamps on.

## Headlamp High Beam Indicator



It illuminates when you switch the headlamp high beam on. It flashes when you use the headlamp flasher.

## Hill Descent (If Equipped)



Illuminates when hill descent is switched on.

## Low Beam Malfunction



Lights when there is a malfunction with the low beam headlamp.

## Low Fuel Level Warning Lamp



If it illuminates when you are driving, refuel as soon as possible.

# Instrument Cluster

## Low Tire Pressure Warning Lamp



It illuminates when your tire pressure is low. If the lamp remains on with the engine running or when driving, check your tire pressure as soon as possible.

It also illuminates momentarily when you switch the ignition on to confirm the lamp is functional. If it does not illuminate when you switch the ignition on, or begins to flash at any time, have the system checked by your authorized dealer.

## Low Washer Fluid Level Warning Lamp



It illuminates when the washer fluid is low.

## Oil Pressure Warning Lamp



It illuminates when you switch the ignition on.

If it illuminates when the engine is running this indicates a malfunction. Stop your vehicle as soon as it is safe to do so and switch the engine off. Check the engine oil level. If the oil level is sufficient, this indicates a system malfunction. Have your vehicle checked as soon as possible.

See **Engine Oil Check** (page 247).

## Parking Lamps



It illuminates when you switch the parking lamps on.

## Powertrain Malfunction/Reduced Power/Electronic Throttle Control



Illuminates when the system has detected a powertrain or a four-wheel drive fault. Contact an authorized dealer as soon as possible.

## Service Engine Soon



If it illuminates when the engine is running this indicates a malfunction. The On Board Diagnostics system has detected a malfunction of the vehicle emission control system.

If it flashes, engine misfire may be occurring. Increased exhaust gas temperatures could damage the catalytic converter or other vehicle components. Drive in a moderate fashion (avoid heavy acceleration and deceleration) and have your vehicle immediately serviced.

It illuminates when you switch the ignition on prior to engine start to check the bulb and to indicate whether your vehicle is ready for Inspection and Maintenance (I/M) testing.

Normally, it illuminates until the engine is cranked and automatically turns off if no malfunctions are present. However, if after 15 seconds it flashes eight times, this indicates that your vehicle is not ready for Inspection and Maintenance (I/M) testing. See **Emission Law** (page 143).

## Stability Control and Traction Control Indicator



Flashes during operation.

If it does not illuminate when you switch the ignition on, or remains on when the engine is running, this indicates a malfunction. Have your vehicle checked as soon as possible.

See **Using Stability Control** (page 164).

## Stability Control and Traction Control Off Warning Lamp



It illuminates when you switch the system off.



# Instrument Cluster

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## **Tow Haul Indicator (If Equipped)**



It illuminates when you switch the system on.

## **Trail Control (If Equipped)**



It illuminates when you switch the system on.

## **AUDIBLE WARNINGS AND INDICATORS**

**Note:** *Depending on your vehicle options and instrument cluster type, not all of the audible warnings and indicators will display or be available.*

### **Key in Ignition (If Equipped)**

Sounds when the driver's door is open and the key is in the ignition.

### **Keyless Warning Alert (If Equipped)**

The horn will sound twice when you exit your vehicle with the intelligent access key and your vehicle is in RUN, indicating your vehicle is still on.

### **Headlamps On**

Sounds when you have left the headlamps or parking lamps on and open the driver's door with the vehicle off.

### **Parking Brake On**

Sounds when the parking brake is on and your vehicle is moving. If the warning chime remains on after you have released the parking brake, have the system checked by an authorized dealer immediately.

## **Door Ajar**

Sounds when the driver's door is ajar, or when any door is ajar while the vehicle is traveling over 3 mph (5 km/h).

## **Seatbelt Reminder**

Sounds when a seatbelt is unfastened in an occupied seat and your vehicle is moving.

## **Lane Departure Warning (If Equipped)**

Activates when the system detects unintentional drifting toward the outside of the lane and alerts or aids you to stay in the lane through the steering system and instrument cluster display.

## **Front and Rear Park Aid (If Equipped)**

Sounds to alert driver of objects approaching the front and rear of the vehicle while moving forward or reversing.

# Information Displays

## GENERAL INFORMATION



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

**Note:** *Your vehicle may or may not be equipped with all the messages listed in this chapter. Your vehicle will not display messages of systems it is not equipped with.*

Various systems on your vehicle can be controlled using the information display controls on the steering wheel. Corresponding information is displayed in the information display.

## Information Display Controls (Type 1 and Type 2)



E205893

- Press the up or down arrow buttons to scroll through the list.
- Press the right arrow button to enter a sub-menu.
- Press the left arrow button to exit a menu.
- Press and hold the left arrow button at any time to return to the main menu display (escape button).
- Press the **OK** button to choose and confirm settings or messages.

### Menu

You can access the menu using the information display control.



This icon gives you the ability to switch a feature on or off. A check in the box indicates the feature is enabled, and unchecked indicates the feature is disabled.

**Note:** *Some options may appear slightly different or not at all if the items are optional.*

# Information Displays

---

<b>Trip 1 and 2</b>
Digital Speedo
Distance to E
Trip Odometer
Trip Timer
Average Fuel
Outside Temp.
All Values <sup>1</sup>

<sup>1</sup>Type 2

- Digital Speedometer - Shows the speed your vehicle is traveling.
- Distance to E - Shows the approximate distance your vehicle can travel before running out of fuel.
- Trip Odometer — Registers the distance of individual journeys.
- Trip Timer — The timer stops when you turn your vehicle off and restarts when you restart your vehicle.
- Average Fuel — Shows the average fuel economy for a given trip.
- Outside Temperature — Shows the outside air temperature.
- All Values — Shows the Distance to E, Trip Odometer, Trip Timer and Average Fuel.

**Note:** Press and hold **OK** on the current screen to reset the respective trip, distance, time and fuel information.

<b>Fuel Economy</b>
Distance to E
Inst Fuel Econ
Average Fuel
Fuel History <sup>1</sup>
Average Speed

# Information Displays

Fuel Economy
All Values <sup>1</sup>
Auto StartStop

<sup>1</sup> Type 2

- Distance to Empty - Shows the approximate distance your vehicle can travel before running out of fuel.
- Inst Fuel Economy - Shows a visual graph of your instantaneous fuel economy along with your Avg MPG since the function was last reset.
- Average Fuel — Shows the average fuel economy for a given trip.
- Fuel History - Shows a bar chart of your fuel history.
- Average Speed — Shows your average speed for a given trip.
- All Values — Shows all fuel economy values (DTE, Inst Fuel Econ, Avg Fuel).
- Auto StartStop - Available Auto Start-Stop messaging will provide details about what is happening with your system. See **Information Messages** (page 95).

**Note:** You can reset your average fuel economy by pressing and holding the **OK** button on the left hand steering wheel controls.

Driver Assist	
Traction control	
Blind Spot <sup>1</sup>	
Cross Traffic <sup>1</sup>	
Cruise Control <sup>1</sup>	Enter the submenu and select your setting
Driver Alert <sup>1</sup>	Enter the submenu and select your setting
Hill Start Assist	
Lane Keeping System <sup>1</sup>	Enter the submenu and select your setting
Pre-Collision	Enter the submenu and select your setting
Rear Park Aid	
Speed Limiter <sup>1</sup>	Enter the submenu and select your setting

# Information Displays

## Driver Assist

Tire Monitor	
Tire Pressure	
Trailer Sway	

<sup>1</sup>Type 2

## Settings

Vehicle	Auto Engine Off	
	Easy Entry/Exit	
	Lighting	Enter the submenu and select your setting
	Locks	Enter the submenu and select your setting
	Neutral Tow	Hold OK to Initialize Neutral Tow
	Oil Life Reset	oil Life XXX% - Hold <b>OK</b> to Reset
	Remote Start	Enter the submenu and select your setting
	Windows	Enter the submenu and select your setting
	Wipers	Enter the submenu and select your setting
	MyKey	Create MyKey
911 Assist		Enter the submenu and select your setting
Do Not Disturb		Enter the submenu and select your setting
Traction Control		Enter the submenu and select your setting
Max Speed		Enter the submenu and select your setting
Speed Minder		Enter the submenu and select your setting

# Information Displays

Settings		
	Volume Limiter	
	Clear MyKeys	Hold <b>OK</b> to Clear All MyKeys
Display Setup	Distance	Enter the submenu and select your setting
	Temperature	Enter the submenu and select your setting
	Tire Pressure	Enter the submenu and select your setting
	Language	Enter the submenu and select your setting

## Information Display Controls (Type 3)



E205893

- Press the up or down arrow buttons to scroll through the list.
- Press the right arrow button to enter a sub-menu.
- Press the left arrow button to exit a menu.

- Press and hold the left arrow button at any time to return to the main menu display (escape button).
- Press the **OK** button to choose and confirm settings or messages.

### Main menu

From the main menu bar on the left side of the information display, you can choose from the following categories:

- Display Mode
- Trip 1 & 2
- Fuel Economy
- Driver Assist
- Settings

Scroll up or down to highlight one of the categories, then press the right arrow key or **OK** to enter into that category. Press the left arrow key as needed to exit back to the main menu.

### Display Mode

Use the up/down arrow buttons to choose between the following display options.

# Information Displays

---

Display Mode
Distance to Empty
Tach and Gauges
Off Road
Digital Speedometer
Tire Pressure
Average Speed

## Trip 1 & 2

You can access the menu using the information display control.

**Note:** *Some options may appear slightly different or not at all if the items are optional.*

Trip 1 & 2
All Values

All Values — shows all trip values (Trip Timer, Odometer and Average Fuel).

- Trip Odometer — Shows your accumulated trip distance.
- Trip Timer— The timer stops when you turn your vehicle off and restarts when you restart your vehicle.
- Average Fuel — Shows your average fuel economy for a given trip.

**Note:** *You can reset your trip information by pressing and holding the **OK** button on the left hand steering wheel controls.*

## Fuel Economy

Use the left and right arrow buttons to choose the desired fuel economy display.

# Information Displays

Fuel Economy
Fuel Economy
Fuel History
Auto StartStop

- Fuel Economy - Shows a visual graph of your instantaneous fuel economy, average fuel economy and distance to empty.
- Fuel History - Shows a bar chart of your fuel history from the past 30 min, average fuel economy and distance to empty.
- Auto StartStop - Available Auto Start-Stop messaging will provide details about what is happening with your system. See **Information Messages** (page 95).

**Note:** You can reset your average fuel economy by pressing and holding the **OK** button on the left hand steering wheel controls.

## Driver Assist

**Note:** Some items are optional and may not appear.

In this mode, you can configure different driver setting choices.

Driver Assist		
Blind Spot	Blind spot	
	Trailer	Enter the submenu and select your setting
	Trailer Length	Enter the submenu and select your setting
Cross Traffic Alert		
Hill Start Assist		
Rear Park Aid		
Trailer Sway		
Chimes	Enter the submenu and select your setting	
Cruise Control	Enter the submenu and select your setting	
Driver Alert	Enter the submenu and select your setting	



# Information Displays

Driver Assist	
Lane Keeping Sys	Enter the submenu and select your setting
Pre-Collision	Enter the submenu and select your setting
Tire Monitor	Tire Monitor

**Note:** Some items are optional and may not appear.

## Settings

In this mode, you can configure different driver setting choices.

Settings		
Vehicle	Alarm	Enter the submenu and select your setting
	Auto Engine Off	
	Lighting	Enter the submenu and select your setting
	Locks	Enter the submenu and select your setting
	Neutral Tow	Enter the submenu and select your setting
	Oil Life Reset	XXX% - Hold <b>OK</b> to Reset
	Remote Start	Enter the submenu and select your setting
	Seatbelts	
	Windows	Enter the submenu and select your setting
	Wipers	Enter the submenu and select your setting
MyKey	Mykey Status	Mykey Status
	Create MyKey	Hold <b>OK</b> to Create MyKey
	911 Assist	Always On or User Selectable
	Do Not Disturb	Enter the submenu and select your setting
	Traction Control	Enter the submenu and select your setting
	Max Speed	Enter the submenu and select your setting
	Speed Minder	Enter the submenu and select your setting
	Volume Limiter	

# Information Displays

Settings		
	Clear MyKeys	Hold <b>OK</b> to Clear All MyKeys
Display Setup	Measurement Units	Enter the submenu and select your setting
	Temperature	Enter the submenu and select your setting
	Gauge Display	Enter the submenu and select your setting
	Tire Pressure	Enter the submenu and select your setting
	Language	Enter the submenu and select your setting

## INFORMATION MESSAGES

**Note:** Depending on your vehicle options and instrument cluster type, not all of the messages will display or be available. The information display may abbreviate or shorten certain messages.



E205893

Press the **OK** button to acknowledge and remove some messages from the information display. The information display will automatically remove other messages after a short time.

You need to confirm certain messages before you can access the menus.

## Active Park

Message	Action
Active Park Fault	The system requires service due to a malfunction. Have the system checked by an authorized dealer.

# Information Displays

## Adaptive Cruise Control

Message	Action
Adaptive Cruise Malfunction	A radar malfunction is preventing the adaptive cruise control from engaging. See <b>Using Cruise Control</b> (page 176).
Adaptive Cruise Not Available	A condition exists such that the adaptive cruise cannot function properly. See <b>Using Cruise Control</b> (page 176).
Adaptive Cruise Not Available Sensor Blocked See Manual	You have a blocked sensor due to bad weather, ice, mud or water in front of the radar sensor. You can typically clean the sensor to resolve. See <b>Using Cruise Control</b> (page 176).
Normal Cruise Active Automatic Braking Turned Off	The system has disabled the automatic braking.
Front Sensor Not Aligned	A radar malfunction is preventing the adaptive cruise control from engaging.
Adaptive Cruise - Driver Resume Control	The adaptive cruise has reinstated controls to the driver.
Adaptive Cruise Speed Too Low to Activate	Your vehicle speed is too slow to activate the adaptive cruise.
Adaptive Cruise Shift Down	The adaptive cruise is automatically adjusting the gap distance and you need to shift the transmission into a lower gear.

## Airbag

Message	Action
Occupant Sensor BLOCKED Remove Objects Near Passenger Seat	Displays when the system detects a malfunction due to a blocked sensor.

## Alarm and Security

Message	Action
Vehicle Alarm To Stop Alarm, Start Vehicle.	Alarm triggered due to unauthorized entry. See <b>Anti-Theft Alarm</b> (page 62).

# Information Displays

## Battery and Charging System

Message	Action
Check Charging System	The charging system needs servicing. If the warning stays on or continues to come on, contact an authorized dealer as soon as possible.
Low Battery Features Temporarily Turned Off	The battery management system detects an extended low-voltage condition. Your vehicle will disable various features to help preserve the battery. Turn off as many of the electrical loads as soon as possible to improve system voltage. If the system voltage has recovered, the disabled features will operate again as normal.
Turn Power Off To Save Battery	The battery management system determines that the battery is at a low state of charge. Turn your ignition off as soon as possible to protect the battery. This message will clear once you restart your vehicle and the battery state of charge has recovered. Turning off unnecessary electrical loads will allow faster battery state-of-charge recovery.
Charging System Service Soon	The charging system needs servicing. If the warning stays on or continues to come on, contact an authorized dealer as soon as possible.
Charging System Service Now	The charging system needs servicing. Contact an authorized dealer as soon as possible.
Battery State of Charge Low	The battery management system determines that the battery is at a low state of charge. Turn your ignition off as soon as possible to protect the battery. This message clears once you restart your vehicle and the battery state of charge has recovered.

## Blind Spot Information and Cross Traffic Alert System

Message	Action
Blindspot System Fault	A fault with the system has occurred. Contact an authorized dealer as soon as possible.
Blindspot Not Available Sensor Blocked See Manual	The system sensors are blocked. See <b>Blind Spot Information System</b> (page 190).
Cross Traffic Vehicle Coming From X	The system detects a vehicle.

## Information Displays

Message	Action
Cross Traffic Not Available Sensor Blocked See Manual	The blind spot information system and cross traffic alert system sensors are blocked. See <b>Blind Spot Information System</b> (page 190).
Cross Traffic System Fault	A fault with the system has occurred. Contact an authorized dealer as soon as possible.
Cross Traffic Alert Deactivated Trailer Attached	The system automatically turns off and displays this message when you connect a trailer to the vehicle that does not have a trailer blind spot system or when you switch the trailer blind spot system off through the information display. See <b>Blind Spot Information System</b> (page 190).
Blind Spot Alert Deactivated Trailer Attached	The system automatically turns off and displays this message when you connect a trailer to the vehicle that does not have a trailer blind spot system or when you switch the trailer blind spot system off through the information display. See <b>Blind Spot Information System</b> (page 190).
Trailer Blind Spot Not available Due to Invalid Trailer	Displays when the trailer connected is a fifth wheel or goose-neck, or when the trailer width is wider than 10 ft (2.7 m) or longer than 33 ft (10 m).

## Doors and Locks

Message	Action
X Door Ajar	The door(s) listed is not completely closed.
Tailgate Ajar	The tailgate is not completely closed.

## Driver Alert

Message	Action
Driver Alert Warning Rest Now	Stop and rest as soon as it is safe to do so.
Driver Alert Warning Rest Suggested	Take a rest soon.

# Information Displays

## Drivetrain

Message	Action
To Engage Locking Differential Slow to XX mph/km/h	The electronic locking differential requests a certain speed requirement to engage.
To Engage Locking Differential Release Accelerator Pedal	The electronic locking differential requests the accelerator to be released in order to engage.
Check Locking Differential	An electronic locking differential (ELD) system fault is present. Contact an authorized dealer as soon as possible.
Neutral Tow Enabled Leave Transmission in Neutral	The transfer case is in the neutral position. This message indicates that your vehicle is safe to be towed with all four wheels on the ground.
Neutral Tow Disabled	The transfer case is NOT in the neutral position. This message indicates that your vehicle is NOT safe to be towed with all four wheels on the ground.

## Engine

Message	Action
Power Reduced to Lower Engine Temp	The engine has reduced power to help reduce high engine temperature.

## Fuel

Message	Action
Fuel Level Low	An early reminder of a low fuel condition.
Check Fuel Fill Inlet	The fuel fill inlet may not be properly closed.

# Information Displays

## Keys and Intelligent Access

<b>Message</b>	<b>Action</b>
To START Press Brake	A reminder to press the brake while starting the vehicle.
No Key Detected	The system does not detect a key in your vehicle.
Restart Now or Key is Needed	You pressed the StartStop button to switch off the engine and your vehicle does not detect your intelligent access key inside your vehicle.
Run Power Active	Your vehicle is in the run ignition state.
Starting System Fault	There is a problem with your vehicle's starting system. See an authorized dealer for service.
Key Program Successful	You have successfully programmed an intelligent access key to the system.
Key Program Failure	You have failed to program an intelligent access key to the system.
Max Number of Keys Learned	You have programmed the maximum number of keys to the system.
Not Enough Keys Learned	You have not programmed enough keys to the system.
Key Battery Low Replace Soon	The key battery is low. Change the battery as soon as possible.
Engine ON	Informs you that you are exiting your vehicle and the engine is on.

# Information Displays

## Lane Keeping System

Message	Action
Lane Keeping Sys. Malfunction Service Required	The system has malfunctioned. Contact an authorized dealer as soon as possible.
Front Camera Temporarily Not Available	The system has detected a condition that has caused the system to be temporarily unavailable.
Front Camera Low Visibility Clean Screen	The system has detected a condition that requires you to clean the windshield in order for it to operate properly.
Front Camera Malfunction Service Required	The system has malfunctioned. Contact an authorized dealer as soon as possible.
Keep Hands on Steering Wheel	The system requests you to keep your hands on the steering wheel.

## Maintenance

Message	Action
Low Engine Oil Pressure	Stop your vehicle as soon as safely possible and turn off the engine. Check the oil level. If the warning stays on or continues to come on with your engine running, contact an authorized dealer as soon as possible.
Change Engine Oil Soon	The engine oil life remaining is 10% or less. See <b>Engine Oil Check</b> (page 247).
Oil Change Required	The oil life left is at 0%. See <b>Engine Oil Check</b> (page 247).
Brake Fluid Level Low	The brake fluid level is low, inspected the brake system immediately.
Check Brake System	The brake system needs servicing. Stop your vehicle in a safe place. Contact an authorized dealer.
Transport / Factory Mode Contact Dealer	Your vehicle is still in Transport or Factory mode. This may not allow some features to operate properly. See an authorized dealer.
See Manual	The powertrain needs service due to a powertrain malfunction.



# Information Displays

## MyKey

<b>Message</b>	<b>Action</b>
MyKey not Created	You cannot program a MyKey.
MyKey Active Drive Safely	MyKey is active.
Speed Limited to XX MPH/km/h	When switching on your vehicle and MyKey is in use, displays that the MyKey speed limit is on.
Near Vehicle Top Speed	MyKey is in use and the MyKey speed limit is on and the vehicle speed is approaching 81 mph (130 km/h).
Vehicle at Top Speed of MyKey Setting	You have reached the speed limit set for your MyKey.
Check Speed Drive Safely	You have an active MyKey with a programmed set speed limit.
Buckle Up to Unmute Audio	Belt-Minder turns on with a MyKey in use.
AdvanceTrac On - MyKey Setting	With a MyKey in use, AdvanceTrac turns on.
Traction Control On - MyKey Setting	With a MyKey in use, traction control turns on.
MyKey Park Aid Cannot be Deactivated	With a MyKey in use, park aid is always on.
Lane Keeping Alert On MyKey Setting	With a MyKey in use, lane keeping alert turns on.

# Information Displays

## Park Aid

Message	Action
Check Front Park Aid	The system has detected a condition that requires service. Contact an authorized dealer. See <b>Front Parking Aid</b> (page 171).
Check Rear Park Aid	The system has detected a condition that requires service. Contact an authorized dealer. See <b>Rear Parking Aid</b> (page 170).
Front Park Aid On Off	Displays the park aid status.
Rear Park Aid On Off	Displays the park aid status.

## Power Steering

Message	Action
Steering Fault Service Now	The power steering system has detected a condition that requires service. See an authorized dealer.
Steering Loss Stop Safely	The power steering system is not working. Stop your vehicle in a safe place. Contact an authorized dealer.
Steering Assist Fault Service Required	The power steering system has detected a condition within the power steering system or passive entry or passive start system requires service. Contact an authorized dealer.
Steering Lock Malfunction Service Now	The steering lock system has detected a condition that requires service. See an authorized dealer.

## Pre-Collision Assist

Message	Action
Collision Warning Malfunction	A fault with the system has occurred. Contact an authorized dealer as soon as possible.
Collision Warning Not Available Sensor Blocked See Manual	You have a blocked sensor due to bad weather, ice, mud or water in front of the radar sensor. You can typically clean the sensor to resolve. See <b>Pre-Collision Assist</b> (page 197).
Collision Warning Not Available	A fault with the system has occurred. Contact an authorized dealer as soon as possible.

# Information Displays

## Remote Start

Message	Action
To Drive: Press Start Button	A reminder to push the start button to drive your vehicle after a remote start.

## Seats

Message	Action
Memory Recall Not Permitted While Driving	A reminder that memory seats are not available while driving.
Memory {0} Saved	Shows where you have saved your memory setting.

## Starting System

Message	Action
To START Press Brake	A reminder to apply the brake when starting your vehicle .
Cranking Time Exceeded	The starter has exceeded its cranking time in attempting to start your vehicle.
Engine Start Pending Please Wait	The starter is attempting to start your vehicle.
Pending Start Cancelled	The system has cancelled the pending start.

## Tire Pressure Monitoring System

Message	Action
Tire Pressure Low	One or more tires on your vehicle has low tire pressure.
Tire Pressure Monitor Fault	The tire pressure monitoring system is malfunctioning. If the warning stays on or continues to come on, contact an authorized dealer. See <b>Tire Pressure Monitoring System</b> (page 287).
Tire Pressure Sensor Fault	A tire pressure sensor is malfunctioning or your spare tire is in use. See <b>Tire Pressure Monitoring System</b> (page 287). If the warning stays on or continues to come on, contact an authorized dealer as soon as possible.

# Information Displays

## Traction Control

Message	Action
Traction Control Off	The status of the traction control system after you switched it off.
Traction Control On	The status of the traction control system after you switched it on.

## Trail Control

Message	Action
Reduce Speed To Enter Trail Control	You must reduce your vehicle speed to use trail control.
Trail Control Not Available with Park Brake Applied	You must release the park brake to use trail control.
Trail Control Enabled Use SET Button to Set Speed	You successfully enabled trail control and must press SET to activate.
Trail Control Off Driver Resume Control	A trail control system fault has occurred, the driver must resume control.
Trail Control Off	The system has switched off.
Trail Control Fault See Manual	A system fault is present. See <b>About Trail Control</b> (page 168).
Trail Control Not Available with Cruise Control Active	You must switch the cruise control off to use trail control.
Trail Control Not Available with Driver Door Open	You must close the door to use trail control.
Descent Control Now Active Press Trail Control Switch To Exit	Descent control mode is active and you have to press the trail control switch to exit.

## Information Displays

### Trailer

Message	Action
Trailer Connected	A correct trailer connection is sensed during a given ignition cycle.
Trailer Disconnected	A trailer connection becomes disconnected, either intentionally or unintentionally, and has been sensed during a given ignition cycle.
Trailer Sway Reduce Speed	The trailer sway control has detected trailer sway.
Trailer Wiring Fault	There are certain faults in your vehicle wiring and trailer wiring/brake system. See <b>Towing a Trailer</b> (page 208).
Trailer Left Turn Lamps Fault Check Lamps	There is a fault with your trailer turn lamp. Check your lamp.
Trailer Right Turn Lamps Fault Check Lamps	There is a fault with your trailer turn lamp. Check your lamp.
Trailer Battery Not Charging See Manual	There is a fault with your trailer battery. See <b>Towing a Trailer</b> (page 208).
Trailer Lighting Module Fault See Manual	There is a fault with your vehicle trailer lighting module. See <b>Towing a Trailer</b> (page 208).

### 4WD

Message	Action
Check 4x4	A 4X4 system fault is present. Contact an authorized dealer as soon as possible.
4x4 Shift in Progress	The 4X4 system is making a shift.
For 4x4 LOW Shift to N	Displays when you attempt to switch to 4X4 LOW and you do not shift the transmission to neutral (N).
For 4x4 LOW Slow to 3 MPH	Displays when you attempt to switch to 4X4 LOW and your vehicle's speed is greater than 3 mph (5 km/h).
To Exit 4x4 LOW Shift to N	Displays when you attempt to switch from 4X4 LOW and you do not shift the transmission to neutral (N).
To Exit 4x4 LOW Slow to 3 MPH	Displays when you attempt to switch from 4X4 LOW and your vehicle's speed is greater than 3 mph (5 km/h).

## Information Displays

<b>Message</b>	<b>Action</b>
Shift Delayed Pull Forward	May display when there is a Transfer case gear tooth blockage while shifting to or from 4L or to the neutral state.
4x4 Temporarily Disabled	Displays when the system turns off the clutch due to excessive stress. The system automatically turns on the clutch after it cools.
4x4 Restored	Displays when the 4X4 system restores to the 4A setting.
4X4 Temporarily Locked	Displays when the 4X4 system temporarily turns on 4H from 4A after detecting driving conditions that require greater 4X4 performance. The system automatically returns to 4A after the system no longer detects these driving conditions.
Shift to Neutral	Displays when an additional transmission shift to Neutral is required to complete a transfer case shift.
To Engage 4x4 Slow to 3 MPH	Displays when you command a 4x4 shift during conditions which are potentially harmful to the drive-line components
To Engage 4x4 Slow to 5 km/h	
To Engage 4x4 Release Accelerator Pedal	Displays when the 4x4 system is requesting the accelerator pedal to be released to complete a 4x4 shift. See <b>Using Four-Wheel Drive</b> (page 151).

# Climate Control

## MANUAL CLIMATE CONTROL

### Directing the Airflow



Press and release the button to direct airflow to the windshield air vents and de-mister.



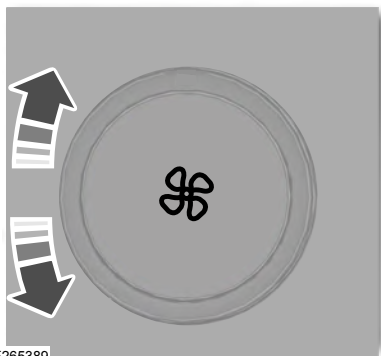
Press and release the button to direct airflow to the instrument panel air vents.



Press and release the button to direct airflow to the footwell air vents.

You can direct air through the windshield and footwell air vents or the instrument panel and footwell air vents at the same time.

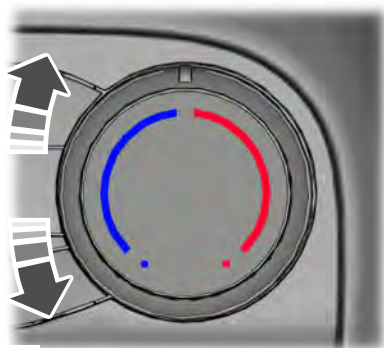
### Setting the Blower Motor Speed



E265389

Turn the control to adjust the volume of air circulated in the vehicle.

### Setting the Temperature



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Turn the control to set the temperature.

### Switching the Air Conditioning On and Off



Press and release the button.

Use air conditioning with recirculated air to improve cooling performance and efficiency.

**Note:** *In certain conditions such as maximum defrost, the air conditioning compressor may continue to operate even though you switch off the air conditioning.*

### Switching the Climate Control On and Off



Press and release the button.

### Switching Maximum Air Conditioning On and Off



Turn the temperature control counterclockwise to the lowest setting.

# Climate Control

**Note:** Recirculated air flows through the instrument panel air vents, air conditioning turns on and the blower motor adjusts to the highest speed.

## Switching Maximum Defrost On and Off



Turn the temperature control clockwise to the highest setting.

**Note:** Air flows through the windshield air vents, and the blower motor adjusts to the highest speed.

You can also use this setting to defog and clear the windshield of a thin covering of ice. The heated rear window also turns on when you select maximum defrost.

**Note:** To prevent window fogging, you cannot select recirculated air when maximum defrost is on.

## Switching Recirculated Air On and Off



Press and release the button to switch between outside air and recirculated air.

The air currently in the passenger compartment recirculates. This may reduce the time needed to cool the interior, when used with A/C, and reduce unwanted odors from entering your vehicle.

**Note:** Recirculated air may turn off, or prevent you from switching on, in all air flow modes except MAX A/C to reduce the risk of fogging. Recirculation may also turn on and off in various air distribution control combinations during hot weather to improve cooling efficiency.

## AUTOMATIC CLIMATE CONTROL

**Note:** You can switch temperature units between Fahrenheit and Celsius.

**Note:** You can control some of the climate features through the touchscreen.

## Setting the Temperature

Press and release **+** or **-** on the left-hand side of the climate control to set the left-hand temperature.

**Note:** This control also adjusts the right-hand side temperature when you switch off dual zone mode.

Press and release **+** or **-** on the right-hand side of the climate control to set the right-hand temperature.

## Setting the Blower Motor Speed



Press and release **+** or **-** to adjust the volume of air circulated in the vehicle.

## Switching Auto Mode On and Off



Press and release the button to switch on automatic operation, then set the temperature.

The system adjusts the blower motor speed, air distribution, air conditioning operation, and outside or recirculated air to reach and maintain the temperature you have set.

**Note:** You can also switch off dual zone mode by pressing and holding the button for more than two seconds.

## Switching the Air Conditioning On and Off



Press and release the button.

Use air conditioning with recirculated air to improve cooling performance and efficiency.



# Climate Control

**Note:** In certain conditions such as maximum defrost, the air conditioning compressor may continue to operate even though you switch off the air conditioning.

## Switching the Climate Control On and Off



Press and release the button.

## Switching Defrost On and Off



Press and release the button to distribute air through the windshield air vents and de-mister.

You can also use this setting to defog and clear the windshield of a thin covering of ice.

## Switching the Heated Seats On and Off



Press and release the button to cycle through the various heat settings and off.

See **Heated Seats** (page 121).

## Switching Maximum Air Conditioning On and Off



Press and release the button for maximum cooling.

The left-hand and right-hand settings set to LO, recirculated air flows through the instrument panel air vents, air conditioning turns on and the blower motor adjusts to the highest speed.

## Switching Maximum Defrost On and Off



Press and release the button for maximum defrosting.

The left-hand and right-hand settings set to HI, air flows through the windshield air vents, and the blower motor adjusts to the highest speed.

You can also use this setting to defog and clear the windshield of a thin covering of ice.

**Note:** To prevent window fogging, you cannot select recirculated air when maximum defrost is on.

**Note:** The heated rear window also turns on when you select maximum defrost.

## Switching Recirculated Air On and Off



Press and release the button to switch between outside air and recirculated air.

The air currently in the passenger compartment recirculates. This may reduce the time needed to cool the interior, when used with **A/C**, and reduce unwanted odors from entering your vehicle.

**Note:** Recirculated air may turn off, or prevent you from switching on, in all air flow modes except **MAX A/C** to reduce the risk of fogging. Recirculation may also turn on and off in various air distribution control combinations during hot weather to improve cooling efficiency.

## HINTS ON CONTROLLING THE INTERIOR CLIMATE

### General Hints

**Note:** Prolonged use of recirculated air may cause the windows to fog up.

**Note:** You may feel a small amount of air from the footwell air vents regardless of the air distribution setting.

# Climate Control

**Note:** To reduce humidity build-up inside your vehicle, do not drive with the system switched off or with recirculated air always switched on.

**Note:** Do not place objects under the front seats as this may interfere with the airflow to the rear seats.

**Note:** Remove any snow, ice or leaves from the air intake area at the base of the windshield.

**Note:** To improve the time to reach a comfortable temperature in hot weather, drive with the windows open until you feel cold air through the air vents.

## Manual Climate Control

**Note:** To reduce fogging of the windshield during humid weather, adjust the air distribution control to the windshield air vents position.

## Quickly Heating the Interior

	Manual climate control	Automatic climate control
1	Adjust the fan speed to the highest setting.	Press <b>AUTO</b> .
2	Adjust the temperature control to the full heat setting.	Adjust the temperature control to the desired setting.
3	Direct air to the footwell using the air distribution buttons.	

## Automatic Climate Control

**Note:** Adjusting the settings when your vehicle interior is extremely hot or cold is not necessary. The system automatically adjusts to heat or cool the interior to your selected temperature as quickly as possible. For the system to function efficiently, the instrument panel and side air vents should be fully open.

**Note:** If you select **AUTO** during cold temperatures, the system directs airflow to the windshield and side window vents. In addition, the fan may run at a slower speed until the engine warms up.

**Note:** If you select **AUTO** during hot temperatures and the inside of the vehicle is hot, the system automatically uses recirculated air to maximize interior cooling. Fan speed may also reduce until the air cools.

# Climate Control

## Recommended Settings for Heating

	<b>Manual climate control</b>	<b>Automatic climate control</b>
1	Adjust the fan speed to the center setting.	Press <b>AUTO</b> .
2	Adjust the temperature control to the midway point of the hot settings.	Adjust the temperature control to the desired setting. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.
3	Direct air to the footwell using the air distribution buttons.	

## Quickly Cooling the Interior

	<b>Manual climate control</b>	<b>Automatic climate control</b>
1	Select <b>MAX A/C</b> .	Select <b>MAX A/C</b> .
2	Drive with the windows open until you feel cold air through the air vents.	

## Recommended Settings for Cooling

	<b>Manual climate control</b>	<b>Automatic climate control</b>
1	Adjust the fan speed to the center setting.	Press <b>AUTO</b> .
2	Adjust the temperature control to the midway point of the cold settings.	Adjust the temperature control to the desired setting. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.
3	Direct air to the instrument panel using the air distribution buttons.	

# Climate Control

## Defogging the Side Windows in Cold Weather

	Manual climate control	Automatic climate control
1	Direct air to the windshield using the air distribution buttons.	Press the defrost button.
2	Press <b>A/C</b> .	Adjust the temperature control to the desired setting. Use 72°F (22°C) as a starting point, then adjust the setting as necessary.
3	Adjust the temperature control to the desired setting.	
4	Adjust the fan speed to the highest setting.	

### HEATED WINDSHIELD (IF EQUIPPED)

#### Windshield Wiper De-Icer



When you switch the heated rear window on, the windshield wiper de-icer turns on.

### HEATED REAR WINDOW (IF EQUIPPED)



Press the button to clear the rear window of thin ice and fog. The heated rear window turns off after a short period of time.

**Note:** Do not use harsh chemicals, razor blades or other sharp objects to clean or remove decals from the inside of the heated rear window. The vehicle warranty may not cover damage to the heated rear window grid lines.

### HEATED EXTERIOR MIRRORS (IF EQUIPPED)

When you switch the heated rear window on, the heated exterior mirrors turn on.

**Note:** Do not remove ice from the mirrors with a scraper or adjust the mirror glass when it is frozen in place.

**Note:** Do not clean the mirror housing or glass with harsh abrasives, fuel or other petroleum-based cleaning products. The vehicle warranty may not cover damage caused to the mirror housing or glass.

### CABIN AIR FILTER

Your vehicle is equipped with a cabin air filter, which gives you and your passengers the following benefits:

- It improves your driving comfort by reducing particle concentration.
- It improves the interior compartment cleanliness.
- It protects the climate control components from particle deposits.

# Climate Control

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You can locate the cabin air filter behind the glove box.

**Note:** *Make sure you have a cabin air filter installed at all times. This prevents foreign objects from entering the system. Running the system without a filter in place could result in degradation or damage to the system.*

Replace the filter at regular intervals. See **Scheduled Maintenance** (page 421).

For additional cabin air filter information, or to replace the filter, see an authorized dealer.

## REMOTE START (IF EQUIPPED)

The climate control system adjusts the interior temperature during remote start.

You can switch this feature on or off and adjust the settings using the information display controls. See **Information Displays** (page 87).

You cannot adjust the climate control setting during remote start operation. Switch the ignition on to make adjustments.

Based on your remote start settings, the following vehicle-dependent features may or may not remain on after remote starting your vehicle:

- Climate controlled seats.
- Heated steering wheel.
- Heated mirrors.
- Heated rear window.
- Windshield wiper de-icer.

**Note:** *For dual zone climate controlled seats, the passenger seat setting defaults to match the driver seat during remote start.*

## Automatic Settings

If **Auto** is on, the system sets the interior temperature to 72°F (22°C) and heats or cools the vehicle interior as required to achieve comfort.

**Note:** *In cold weather, the heated rear window and heated mirrors turn on.*

## Last Settings

If **Last Settings** is on, the system uses the settings last selected before you turned off the vehicle.

## Heated and Cooled Features

In **Auto** mode, certain heated features may switch on during cold weather, and cooled features during hot weather.

# Seats

## SITTING IN THE CORRECT POSITION



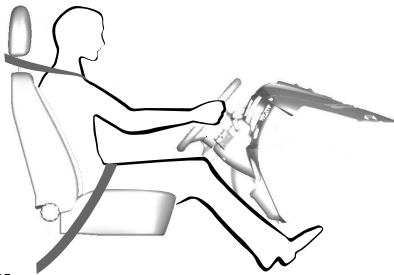
**WARNING:** Sitting improperly, out of position or with the seatback reclined too far can take weight off the seat cushion and affect the decision of the passenger sensing system, resulting in serious injury or death in the event of a crash. Always sit upright against your seat back, with your feet on the floor.



**WARNING:** Do not recline the seatback too far as this can cause the occupant to slide under the seatbelt, resulting in serious injury in the event of a collision.



**WARNING:** Do not place objects higher than the top of the seat backrest. Failure to follow this instruction could result in personal injury or death in the event of a sudden stop or crash.



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When you use them properly, the seat, head restraint, seatbelt and airbags will provide optimum protection in the event of a crash.

We recommend that you follow these guidelines:

- Sit in an upright position with the base of your spine as far back as possible.
- Do not recline the seat backrest so that your torso is more than 30° from the upright position.
- Adjust the head restraint so that the top of it is level with the top of your head and as far forward as possible. Make sure that you remain comfortable.
- Keep sufficient distance between yourself and the steering wheel. We recommend a minimum of 10 in (25 cm) between your breastbone and the airbag cover.
- Hold the steering wheel with your arms slightly bent.
- Bend your legs slightly so that you can press the pedals fully.
- Position the shoulder strap of the seatbelt over the center of your shoulder and position the lap strap tightly across your hips.

Make sure that your driving position is comfortable and that you can maintain full control of your vehicle.

## HEAD RESTRAINTS



**WARNING:** Fully adjust the head restraint before you sit in or operate your vehicle. This will help minimize the risk of neck injury in the event of a crash. Do not adjust the head restraint when your vehicle is moving.

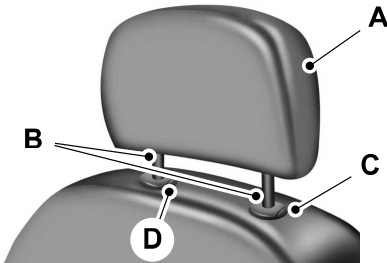
# Seats



**WARNING:** The head restraint is a safety device. Whenever possible it should be installed and properly adjusted when the seat is occupied. Failure to adjust the head restraint properly could reduce its effectiveness during certain impacts.

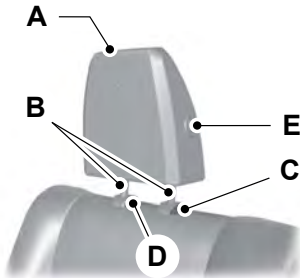
**Note:** Adjust the seat backrest to an upright driving position before adjusting the head restraint. Adjust the head restraint so that the top of it is level with the top of your head and as far forward as possible. Make sure that you remain comfortable. If you are extremely tall, adjust the head restraint to its highest position.

## Front Seat Head Restraint



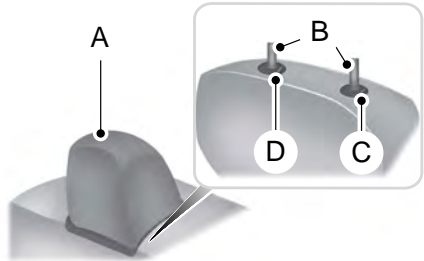
E138642

## Rear Seat Outermost Head Restraints



E166700

## Rear Seat Center Head Restraint



E166701

The head restraints consist of:

- A An energy absorbing head restraint.
- B Two steel stems.
- C Guide sleeve adjust and release button.
- D Guide sleeve unlock and remove button (if equipped).
- E Fold button (rear seat outermost only).

## Adjusting the Head Restraint

### Raising the Head Restraint

Pull the head restraint up.

### Lowering the Head Restraint

1. Press and hold button C.
2. Push the head restraint down.

### Removing the Head Restraint

1. Pull up the head restraint until it reaches the highest adjustment position.
2. Press and hold buttons C and D.
3. Pull up the head restraint.

**Note:** For rear outermost seats, fold the head restraint forward for easier removal.

# Seats

## Installing the Head Restraint

Align the steel stems into the guide sleeves and push the head restraint down until it locks.

## Folding the Head Restraint

**Note:** *The rear seat outermost head restraints may fold forward for improved visibility.*

1. Press and hold button E.
2. Pull the head restraint back up to reset.

## Tilting Head Restraints (If Equipped)

The front head restraints tilt for extra comfort.



E144727

1. Adjust the seat backrest to an upright driving or riding position.
2. Pivot the head restraint forward toward your head to the desired position.

After the head restraint reaches the forward-most tilt position, pivot it forward again to release it to the rearward, untilted position.

**Note:** *Do not attempt to force the head restraint backward after it is tilted. Instead, continue tilting it forward until the head restraint releases to the upright position.*

## MANUAL SEATS (IF EQUIPPED)



**WARNING:** Do not adjust the driver seat or seat backrest when your vehicle is moving. This may result in sudden seat movement, causing the loss of control of your vehicle.



**WARNING:** Make sure the seat fully locks into place by rocking it backward and forward.

## Moving the Seat Backward and Forward



E131590



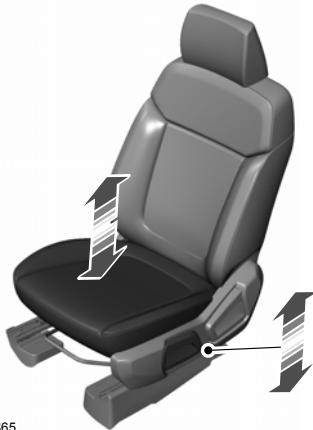
# Seats

## Adjusting the Recliner



E275748

## Adjusting the Seat Height



E273865

## POWER SEATS (IF EQUIPPED)

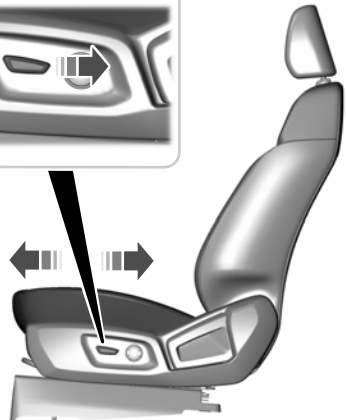
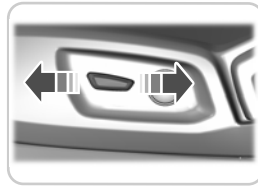


**WARNING:** Do not adjust the driver seat or seat backrest when your vehicle is moving. This may result in sudden seat movement, causing the loss of control of your vehicle.



**WARNING:** Do not place cargo or any objects behind the seatback before returning it to the original position.

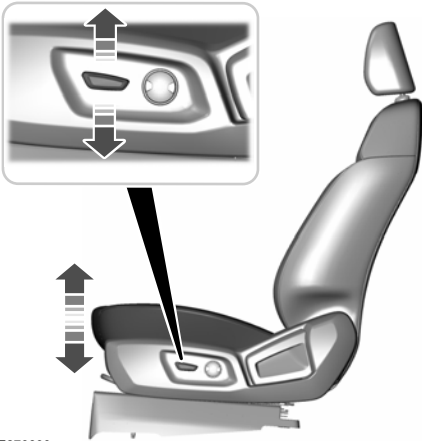
## Moving the Seat Backward and Forward



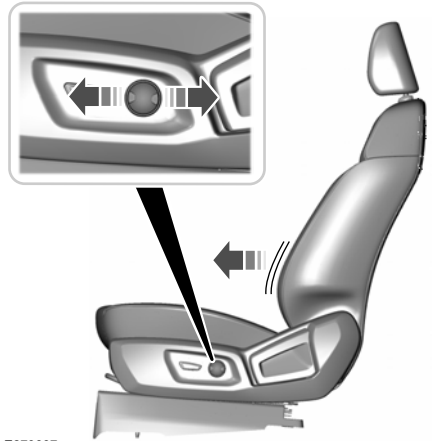
E274074

# Seats

## Adjusting the Driver Seat Height



## Adjusting the Lumbar



## Adjusting the Recliner

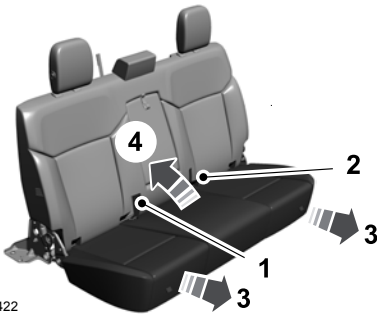


## REAR SEATS (IF EQUIPPED)

### Folding the Seat Cushion



# Seats



1. Place the passenger side seat buckles behind the elastic strap on the seat backrest.
2. Place the driver side seat buckle behind the elastic strap on the seat backrest.
3. Pull the tether straps.
4. Raise the seat cushion.

**Note:** When folding the cushion up, make sure that the seatbelt buckles are visible to an occupant and are not under the seat.

## Unfolding the Seat Cushion



**WARNING:** Make sure that cargo and other objects are not trapped under the seat cushion and that you return the seat cushion to the full-down position. Failure to do so may prevent the seat from operating properly, which could increase the risk of serious injury in a crash.



1. Push the seat cushion down.
2. Remove the seatbelt buckles from behind the elastic strap on the seat backrest.

**Note:** You must stow the cushion tether strap in the pocket provided.

## Folding the Seat Backrest



**WARNING:** When folding the seat backrest down, take care not to get your fingers caught in the mechanism.

**Note:** Do not use the rear surface of the rear seat backrest as a load floor.

**Note:** Do not unlatch and fold the seat backrest when the seat cushion is folded up.

# Seats



E275420

1. Pull the release strap up.
2. Push the seat backrest forward.

## Unfolding the Seat Backrest



**WARNING:** Make sure that the seats and the seat backrests are secure and fully locked in their catches.

**Note:** When unfolding the seat backrest, make sure that the seatbelts are visible to an occupant and not caught behind the seat.

## HEATED SEATS (IF EQUIPPED)



**WARNING:** People who are unable to feel pain to their skin because of advanced age, chronic illness, diabetes, spinal cord injury, medication, alcohol use, exhaustion or other physical conditions, must use caution when using the heated seat. The heated seat may

cause burns even at low temperatures, especially if used for long periods of time. Do not place anything on the seat that may block the heat, such as a blanket or cushion. This can cause the heated seat to overheat. Do not puncture the seat with pins, needles or other pointed objects. This damages the heating element and can cause the heated seat to overheat. An overheated seat may cause serious personal injury.

Do not do the following:

- Place heavy objects on the seat.
- Operate the heated seat if water or any other liquid spills on the seat. Allow the seat to dry thoroughly.
- Operate the heated seats unless the engine is running. Doing so could drain your vehicle battery.



E146322

Press the heated seat symbol to cycle through the various heat settings and off. More indicator lights indicate warmer settings.

The heated seats only operate when you switch the ignition on.

The maximum temperature is reached after five or six minutes. It is regulated thermostatically.

The heated seats remain on until you either switch the heated seats off or you switch the ignition off.

# Garage Door Opener

## UNIVERSAL GARAGE DOOR OPENER

### HomeLink Wireless Control System



**WARNING:** Make sure that the garage door and security device are free from obstruction when you are programming. Do not program the system with the vehicle in the garage.



**WARNING:** Do not use the system with any garage door opener that does not have the safety stop and reverse feature as required by U.S. Federal Safety Standards (this includes any garage door opener manufactured before April 1, 1982). A garage door opener which cannot detect an object, signaling the door to stop and reverse, does not meet current federal safety standards. Using a garage door opener without these features increases the risk of serious injury or death.

**Note:** Make sure you keep the original remote control transmitter for use in other vehicles as well as for future system programming.

**Note:** We recommend that upon the sale or lease termination of your vehicle, you erase the programmed function buttons for security reasons. See **Erasing the Function Button Codes** later in this section.

**Note:** You can program a maximum of three devices. To change or replace any of the three devices after it has been initially programmed, you must first erase the current settings. See **Erasing the Function Button Codes**.



E188211

The universal garage door opener replaces the common hand-held garage door opener with a three-button transmitter integrated into the driver's sun visor.

The system includes two primary features, a garage door opener and a platform for remote activation of devices within the home. You can program garage doors as well as entry gate operators, security systems, entry door locks and home or office lighting.

Additional system information can be found online at [www.homelink.com](http://www.homelink.com), [www.youtube.com/user/HomeLinkGentex](http://www.youtube.com/user/HomeLinkGentex) or by calling the toll-free help line at 1-800-355-3515.

### In-Vehicle Programming

This process is to program your in-vehicle HomeLink function button with your hand-held transmitter.

**Note:** The programming steps below assume you will be programming HomeLink that was not previously programmed. If your HomeLink was previously programmed, you may need to erase your HomeLink buttons. See **Erasing the Function Button Codes**.

**Note:** Put a new battery in the hand-held transmitter. This helps ensure quicker training and accurate transmission of the radio-frequency signal.

# Garage Door Opener



E188212

1. With your vehicle parked outside of the garage, switch your ignition to the **on** position, but do not start your vehicle.
2. Press and release the function button that you would like to program.
3. Hold your hand-held garage door transmitter 1–3 in (2–8 cm) away from the HomeLink button you want to program.
4. Press and hold the hand-held transmitter button you want to program while watching the indicator light on HomeLink. Continue to hold the hand-held button until the HomeLink indicator light flashes rapidly or is continuously on.

**Note:** *You may need to use a different method if you live in Canada or have difficulties programming your gate operator or garage door opener. See **Gate Operator / Canadian Programming.***

5. Press and hold the HomeLink button you programmed for two seconds, then release. You may need to do this twice to activate the door. If your garage door does not operate, watch the HomeLink indicator light.

**If the indicator light stays on, the programming is complete. Your device should activate when the HomeLink button is pressed and released.**

If the indicator light flashes rapidly, press and hold for two seconds and release the programmed HomeLink button. Repeat the "press/hold/release" sequence up to three times to complete the programming process. If your device still does not operate, you must program your garage door. See **Programming Your Garage Door Opener Motor.**

To program additional buttons, repeat Steps 1 – 4.

For questions or comments, please contact HomeLink at [www.homelink.com](http://www.homelink.com), [www.youtube.com/user/HomeLinkGentex](http://www.youtube.com/user/HomeLinkGentex) or by calling the toll-free help line at 1-800-355-3515.

## Programming Your Garage Door Opener Motor

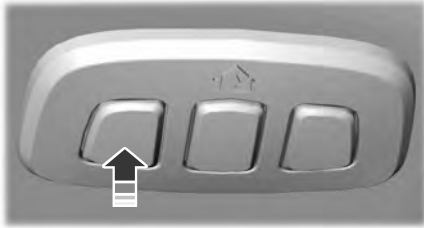
**Note:** *You may need a ladder to reach the unit and you may need to remove the cover or lamp lens on your garage door opener.*



E142659

1. Press the learn button on the garage door opener motor and then you have 30 seconds to complete the next two steps.
2. Return to your vehicle.

# Garage Door Opener



E188212

3. Press and hold the function button you want to program for 2 seconds, then release. Repeat this step. Depending on your brand of garage door opener, you may need to repeat this sequence a third time.

## Gate Operator / Canadian Programming

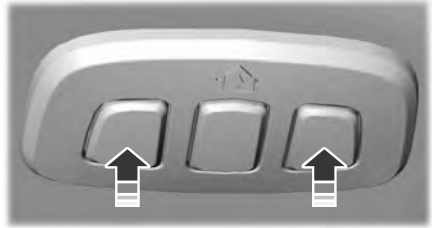
Canadian radio-frequency laws require transmitter signals to “time-out” (or quit) after several seconds of transmission – which may not be long enough for HomeLink to pick up the signal during programming. Similar to this Canadian law, some U.S. gate operators are designed to “time-out” in the same manner.

**Note:** *If programming a garage door opener or gate operator, it is advised to unplug the device during the “cycling” process to prevent possible overheating.*

1. Press and release, **every two seconds**, your hand-held transmitter until the HomeLink indicator light changes to a rapidly blinking or continuously on light.
2. Release the hand-held transmitter button.
3. Continue programming HomeLink. See **In-Vehicle Programming, Step 4.**

## Erasing the Function Button Codes

**Note:** *You cannot erase individual buttons.*



E188213

1. Press and hold the outer two function buttons simultaneously for approximately 10 seconds until the indicator light above the buttons flashes rapidly.
2. When the indicator light flashes, release the buttons. You erased the codes for all buttons.

## Reprogramming a Single Button

To program a device to a previously trained button, follow these steps:

1. Press and hold the desired button. Do NOT release the button.
2. The indicator light begins to flash after 20 seconds. Without releasing the button, follow Step 1 in the Programming section.

For questions or comments, contact HomeLink at [www.homelink.com](http://www.homelink.com), [www.youtube.com/user/HomeLinkGentex](http://www.youtube.com/user/HomeLinkGentex) or by calling the toll-free help line at 1-800-355-3515.

# Garage Door Opener

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## **FCC and RSS-210 Industry Canada Compliance**

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Note:** *Changes or modifications to your device not expressly approved by the party responsible for compliance can void the user's authority to operate the equipment.*

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End Users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must be at least 8 in (20 cm) from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.

The term "IC:" before the certification/registration number only signifies that Industry Canada technical specifications were met.



# Auxiliary Power Points

## 12 Volt DC Power Point



**WARNING:** Do not plug optional electrical accessories into the cigar lighter socket. Incorrect use of the cigar lighter can cause damage not covered by the vehicle warranty, and can result in fire or serious injury.

**Note:** When you switch the ignition on, you can use the socket to power 12 volt appliances with a maximum current rating of 15 amps.

If the power supply does not work after you switch the ignition off, switch the ignition on.

**Note:** Do not hang any accessory from the accessory plug.

**Note:** Do not use the power point over the vehicle capacity of 12 volt DC 180 watts or a fuse may blow.

**Note:** Always keep the power point caps closed when not in use.

Do not insert objects other than an accessory plug into the power point. This damages the power point and may blow the fuse.

Run the vehicle for full capacity use of the power point.

To prevent the battery from running out of charge:

- Do not use the power point longer than necessary when the engine is not running.
- Do not leave devices plugged in overnight or when you park your vehicle for extended periods.

## USB Port and Power Point Locations

USB Ports and Power Points may be in the following locations:

- On the lower instrument panel.
- Inside the center console.
- On the front of the center console.
- On the rear of the center console.
- In the cargo area.
- On the passenger side floor panel.
- 3rd row on the quarter trim panels.

**Note:** Some of the USB ports may not have data transfer capabilities.

## 110 Volt AC Power Point (If Equipped)



**WARNING:** Do not keep electrical devices plugged in the power point whenever the device is not in use. Do not use any extension cord with the 110 volt AC power point, since it will defeat the safety protection design. Doing so may cause the power point to overload due to powering multiple devices that can reach beyond the 150 watt load limit and could result in fire or serious injury.

**Note:** The power point turns off when you switch off the ignition, when the vehicle is not in accessory mode or when the battery voltage drops below 11 volts.

You can use the power point for electric devices that require up to 150 watts. It is on the rear of the center console.

# Auxiliary Power Points

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E247586

When the indicator light on the power point is:

- On: The power point is working, the ignition is ON or the vehicle is in accessory mode.
- Off: The power point is OFF, the ignition is OFF or the vehicle is not in accessory mode.
- Flashing: The power point is in fault mode.

Due to the different technologies used on its construction, some devices may exceed the capacity shown on its label when they are initially plugged-in.

The power outlet temporarily turns off power when in fault mode if the device exceeds the 150 watt limit. Unplug your device and switch the ignition off. Switch the ignition back on, but do not plug your device back in. Let the system cool off and switch the ignition off to reset the fault mode. Switch the ignition back on and make sure the indicator light remains on.

Do not use the power point for certain electric devices, including:

- Cathode-ray, tube-type televisions.
- Motor loads, such as vacuum cleaners, electric saws and other electric power tools or compressor-driven refrigerators.

- Measuring devices, which process precise data, such as medical equipment or measuring equipment.
- Other appliances requiring an extremely stable power supply such as microcomputer-controlled electric blankets or touch-sensor lamps.

# Storage Compartments

## GLOVE COMPARTMENT

The glove box is on the passenger side of the instrument panel.

Open the glove box using the latch handle.



E223956

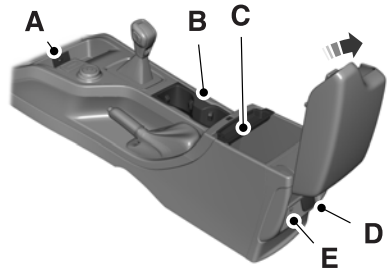
### Glove Box with Lock (If Equipped)

Lock the glove box using the ignition key. To lock, close the glove box and insert the ignition key into the glove box lock and rotate it clockwise. Remove the key.

To unlock the glove box, insert the ignition key into the glove box lock and rotate it counter clockwise.

## CENTER CONSOLE

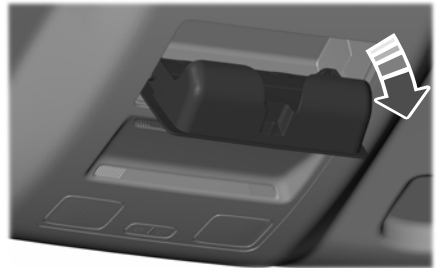
Stow items in the cup holder carefully as items may become loose during hard braking, acceleration or crashes, including hot drinks which may spill.



E277291

- A Audio input and or USB port.
- B Cup holders.
- C Coin storage.
- D Auxiliary power point (if equipped).
- E USB charger (if equipped).

## OVERHEAD CONSOLE



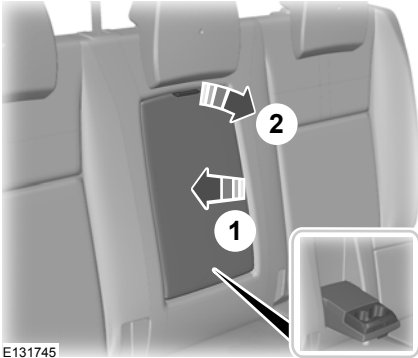
E277082

Press near the rear edge of the door to open it.

# Storage Compartments

## REAR SEAT ARMREST (IF EQUIPPED)

2. Lift the handle in the direction shown.
3. Slide it in the direction shown to remove the under seat storage cover.

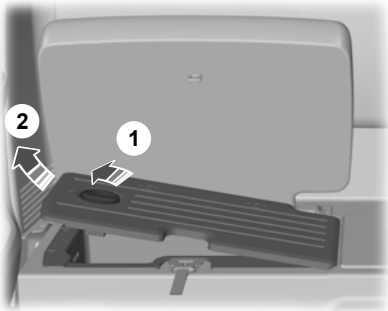


E131745

1. Push the armrest into the seatback to store it.
2. Pull the strap to open the armrest.

## UNDER SEAT STORAGE

### Super Cab



E188672

1. Lift the seat cushion. See **Rear Seats** (page 119).

# Starting and Stopping the Engine

## GENERAL INFORMATION



**WARNING:** Extended idling at high engine speeds can produce very high temperatures in the engine and exhaust system, creating the risk of fire or other damage.



**WARNING:** Do not park, idle or drive your vehicle on dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, creating the risk of fire.



**WARNING:** Do not start the engine in a closed garage or in other enclosed areas. Exhaust fumes can be toxic. Always open the garage door before you start the engine.



**WARNING:** Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. If you smell exhaust fumes inside your vehicle, have your vehicle inspected immediately. Do not drive if you smell exhaust fumes.



**WARNING:** Switching off the engine when your vehicle is still moving results in a significant decrease in braking assistance. Higher effort is required to apply the brakes and to stop your vehicle. A significant decrease in steering assistance could also occur. The steering does not lock, but higher effort could be required to steer your vehicle. When you switch the ignition off, some electrical circuits, for example airbags, also turn off. If you unintentionally switch the ignition off, shift into neutral (N) and restart the engine.

If you disconnect the battery, your vehicle may exhibit some unusual driving characteristics for approximately 5 mi (8 km) after you reconnect it. This is because the engine management system must realign itself with the engine. You can disregard any unusual driving characteristics during this period.

The powertrain control system meets all Canadian interference-causing equipment standard requirements regulating the impulse electrical field or radio noise.

When you start the engine, avoid pressing the accelerator pedal before and during operation. Only use the accelerator pedal when you have difficulty starting the engine.

## IGNITION SWITCH (IF EQUIPPED)



E247596

**Note:** Make sure the key is clean before inserting it into any lock cylinder.

**Note:** Do not leave the key in the ignition for an extended period of time when the engine is not running. This is to prevent the vehicle battery from losing charge.

# Starting and Stopping the Engine

## Switching the Ignition Off

Turn the key to position **0**.

## Switching the Ignition to Accessory Mode

Turn the key to position **I**. Electrical accessories, for example the radio, operate without the engine running.

## Switching the Ignition On

Turn the key to position **II**. All electrical circuits and accessories are operational and the warning lamps and indicators illuminate.

## Starting the Engine

Turn the key to position **III**. Release the key when the engine starts.

## PUSH BUTTON IGNITION SWITCH (IF EQUIPPED)

### Switching the Ignition On to Accessory Mode



E144447

Press the push button ignition switch once without your foot on the brake or clutch pedal. It is on the instrument panel near the steering wheel. All electrical circuits and accessories are operational and the warning lamps and indicators illuminate.

Press the push button ignition switch again without your foot on the brake or clutch pedal to switch the ignition off.

**Note:** *The system may not function if the passive key is close to metal objects or electronic devices, for example keys or a cell phone.*

**Note:** *The ignition turns off if you leave your vehicle unattended. This is to prevent the vehicle battery from losing charge.*

**Note:** *A valid passive key must be inside your vehicle to switch the ignition on and start the engine.*

## Starting The Engine - Vehicles with Manual Transmission (If Equipped)

1. Fully press the clutch pedal.
2. Press the push button ignition switch.

**Note:** *If you release the clutch pedal during engine starting, the engine stops cranking.*

## Starting The Engine - Vehicles with Automatic Transmission (If Equipped)

1. Fully press the brake pedal.
2. Shift into park (P).
3. Press the push button ignition switch.

**Note:** *If you release the brake pedal during engine starting, the engine stops cranking.*

## Vehicles with a Diesel Engine (If Equipped)

**Note:** *The engine does not crank until the glow plug indicator turns off. This may take several seconds in extremely cold conditions.*

# Starting and Stopping the Engine

## Failure to Start - Vehicles with Manual Transmission (If Equipped)

The system does not function if:

- The passive key frequencies are jammed.
- The key battery has no charge.

If you are unable to start the engine, do the following:

1. Insert the passive key into the backup position. See **Passive Key Backup Position** (page 53).
2. With the passive key in this position, you can use the push button ignition switch to switch the ignition on and start the engine.

If the engine does not crank after you fully press the clutch pedal and press the push button ignition switch, do the following:

1. Fully press the clutch pedal and the brake pedal.
2. Press the push button ignition switch.

## Stopping the Engine When Your Vehicle is Stationary - Vehicles with Manual Transmission (If Equipped)

Press the push button ignition switch.

**Note:** *The ignition, all electrical circuits and all warning lamps and indicators turn off.*

## Stopping the Engine When Your Vehicle is Stationary - Vehicles with Automatic Transmission (If Equipped)

1. Fully press the brake pedal.
2. Shift into park (P).
3. Press the push button ignition switch.

**Note:** *The ignition, all electrical circuits and all warning lamps and indicators turn off.*

## Stopping the Engine When Your Vehicle is Moving - Vehicles with Manual Transmission (If Equipped)



**WARNING:** Switching off the engine when your vehicle is still moving results in a significant decrease in braking assistance. Higher effort is required to apply the brakes and to stop your vehicle. A significant decrease in steering assistance could also occur. The steering does not lock, but higher effort could be required to steer your vehicle. When you switch the ignition off, some electrical circuits, for example airbags, also turn off. If you unintentionally switch the ignition off, shift into neutral (N) and restart the engine.

1. Press and hold the push button ignition switch until the engine stops, or press it three times within two seconds.
2. Shift into neutral and use the brakes to bring your vehicle to a safe stop.
3. Press the push button ignition switch.

## Stopping the Engine When Your Vehicle is Moving - Vehicles with Automatic Transmission (If Equipped)



**WARNING:** Switching off the engine when your vehicle is still moving results in a significant decrease in braking assistance. Higher effort is required to apply the brakes and to stop your vehicle. A significant decrease in steering assistance could also occur. The steering does not lock, but higher effort could be required to steer your vehicle. When you switch the ignition off, some electrical circuits, for example airbags, also turn off. If you unintentionally switch the ignition off, shift into neutral (N) and restart the engine.

# Starting and Stopping the Engine

1. Press and hold the push button ignition switch until the engine stops, or press it three times within two seconds.
2. Shift into neutral and use the brakes to bring your vehicle to a safe stop.
3. Shift into park (P).
4. Press the push button ignition switch.

Within 10 seconds of switching the engine off, fully press the brake or clutch pedal and press the push button ignition switch. After 10 seconds, you can no longer start the engine if the system does not detect a valid passive key.

When you start the engine, it remains running until you press the push button ignition switch, even if your vehicle does not detect a valid passive key. If you open and close a door when the engine is running, the system searches for a valid passive key.

## Fast Restart

The system allows you to start the engine within 10 seconds of switching it off, even if it does not detect a valid passive key.

## Starting System Information Messages

Message	Action
Full Accessory Power Active	Displays if you switch the ignition on and do not start the engine.
To START Press Brake	Displays when you start the engine as a reminder to fully press the brake pedal.
To START Press Clutch	Displays when you start the engine as a reminder to fully press the clutch pedal.
To START Press Brake and Clutch	Displays when you start the engine as a reminder to fully press the brake and clutch pedals.
Cranking Time Exceeded	Displays if the engine fails to start.
No Key Detected	Displays if the system does not detect a valid passive key.
Starting System Fault	Displays if you are unable to start the engine with a correctly coded key. The system has detected a fault that requires service. Have your vehicle checked as soon as possible.
Restart Now or Key is Needed	Displays for 10 seconds if you switch the engine off and the system does not detect a valid passive key. After 10 seconds, you can no longer start the engine if the system does not detect a valid passive key.

## Key Outside Vehicle Audible Warning

Sounds when you remove the passive key from your vehicle and the engine is running.



# Unique Driving Characteristics

## AUTO-START-STOP

The system helps reduce fuel consumption by automatically shutting off and restarting the engine while your vehicle is stopped. The engine will restart automatically when you release the brake pedal. In some situations, your vehicle may restart automatically, for example:

- To maintain interior comfort
- To recharge the battery

**Note:** *Power assist steering is turned off when the engine is off.*



**WARNING:** Always fully apply the parking brake. Make sure you shift into park (P) for vehicles with an automatic transmission. Switch the ignition off and remove the key whenever you leave your vehicle.



**WARNING:** Before opening the hood or performing any maintenance, fully apply the parking brake, shift into park (P) or neutral (N) and switch the ignition off.



**WARNING:** Always switch the ignition off before leaving the vehicle. If the ignition is switched on an automatic restart may occur at any time.



**WARNING:** The system may require the engine to automatically restart when the auto-start-stop indicator illuminates green or flashes amber. Failure to follow this instruction could result in personal injury.

The Auto-Start-Stop system status is available at a glance within the information display. See **Information Displays** (page 87).

## Enabling Auto-Start-Stop

The system is automatically enabled every time you start your vehicle if the following conditions are met:

- The Auto-Start-Stop button is not pressed (not illuminated).
- Your vehicle exceeds an initial speed of 3 mph (5 km/h) after you have initially started the vehicle.
- Your vehicle is stopped.
- Your foot is on the brake pedal.
- The transmission is in drive (D).
- The driver's door is closed.
- There is adequate brake vacuum.
- The interior compartment has been cooled or warmed to an acceptable level.
- The front windshield defroster is off.
- The steering wheel is not turned rapidly or is not at a sharp angle.
- The vehicle is not on a steep road grade.
- The battery is within optimal operating conditions (battery state of charge and temperature in range).
- The engine coolant is at operating temperature.
- Elevation is below approximately 10,000 ft (3,050 m).
- Ambient temperature is moderate.



The green Auto-Start-Stop indicator light on the instrument cluster will illuminate to indicate when the automatic engine stop occurs.



If the instrument cluster is equipped with a grey Auto-Start-Stop indicator light, it is illuminated when automatic engine stop is not available due to one of the above noted conditions not being met.

# Unique Driving Characteristics

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## Automatic Engine Restart

Any of the following conditions will result in an automatic restart of the engine:

- Your foot is removed from the brake pedal.
- You press the accelerator pedal.
- You press the accelerator and the brake pedal at the same time.
- The driver safety belt becomes unfastened or the driver door is ajar.
- The transmission is moved into reverse (R).
- Your vehicle is moving.
- The battery is not within optimal operating conditions.
- The maximum engine off time is exceeded.
- When you press the Auto-Start-Stop button while the engine is stopped automatically.
- The heated windshield is turned on.

Any of the following conditions may result in an automatic restart of the engine:

- The blower fan speed is increased or the climate control temperature is changed.
- An electrical accessory is turned on or plugged in.

## Disabling Auto-Start-Stop



Press the Auto-Start-Stop button located on the center console to switch the system off.

The button will illuminate. The system will only be deactivated for the current ignition cycle. Press the button again to restore Auto-Start-Stop function.

If your vehicle is in an Auto-Start-Stop state and you shift the transmission to reverse without pressing the brake, a message telling you to press the brake appears. You must press the brake pedal within 60 seconds, or you will need to shift to park and manually restart your vehicle.

**Note:** *If the Shift to P, Restart Engine message appears and the amber Auto-Start-Stop indicator light is flashing, automatic restart is not available. The vehicle must be restarted manually. See **Information Displays** (page 87).*

# Fuel and Refueling

## SAFETY PRECAUTIONS



**WARNING:** Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.



**WARNING:** The fuel system may be under pressure. If you hear a hissing sound near the fuel filler inlet, do not refuel until the sound stops. Otherwise, fuel may spray out, which could cause serious personal injury.



**WARNING:** Fuels can cause serious injury or death if misused or mishandled.



**WARNING:** Fuel may contain benzene, which is a cancer-causing agent.

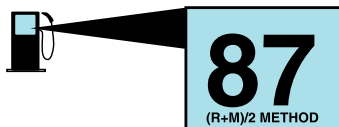


**WARNING:** When refueling always shut the engine off and never allow sparks or open flames near the fuel tank filler valve. Never smoke or use a cell phone while refueling. Fuel vapor is extremely hazardous under certain conditions. Avoid inhaling excess fumes.

- Avoid inhaling fuel vapors. Inhaling fuel vapor can lead to eye and respiratory tract irritation. In severe cases, excessive or prolonged breathing of fuel vapor can cause serious illness and permanent injury.
- Avoid getting fuel in your eyes. If you splash fuel in your eyes, immediately remove contact lenses (if worn), flush with water for 15 minutes and seek medical attention. Failure to seek proper medical attention could lead to permanent injury.
- Fuels can be harmful if absorbed through the skin. If you splash fuel on your skin, clothing or both, promptly remove contaminated clothing and thoroughly wash your skin with soap and water. Repeated or prolonged skin contact causes skin irritation.
- Be particularly careful if you are taking Antabuse or other forms of Disulfiram for the treatment of alcoholism. Breathing fuel vapors could cause an adverse reaction, serious personal injury or sickness. Immediately call a physician if you experience any adverse reactions.

## FUEL QUALITY

### Choosing the Right Fuel



E161513

Your vehicle is designed to operate on regular unleaded gasoline with a minimum pump (R+M)/2 octane rating of 87.

Follow these guidelines when refueling:

- Extinguish all smoking materials and any open flames before refueling your vehicle.
- Always switch the engine off before refueling.
- Automotive fuels can be harmful or fatal if swallowed. Fuel is highly toxic and if swallowed can cause death or permanent injury. If fuel is swallowed immediately call a physician, even if no symptoms are immediately apparent. The toxic effects of fuel may not be apparent for hours.

# Fuel and Refueling

Some fuel stations, particularly those in high altitude areas, offer fuels posted as regular unleaded gasoline with an octane rating below 87. The use of these fuels could result in engine damage that will not be covered by the vehicle warranty.

For best overall vehicle and engine performance, premium fuel with an octane rating of 91 or higher is recommended. The performance gained by using premium fuel is most noticeable in hot weather as well as other conditions, for example when towing a trailer. See **Towing** (page 208).

Do not be concerned if the engine sometimes knocks lightly. However, if the engine knocks heavily while using fuel with the recommended octane rating, contact an authorized dealer to prevent any engine damage.

We recommend Top Tier detergent gasolines, where available to help minimize engine deposits and maintain optimal vehicle and engine performance. For additional information, refer to [www.toptiergas.com](http://www.toptiergas.com).

**Note:** *Use of any fuel for which the vehicle was not designed can impair the emission control system, cause loss of vehicle performance, and cause damage to the engine which may not be covered by the vehicle Warranty.*

Do not use:

- Diesel fuel.
- Fuels containing kerosene or paraffin.
- Fuel containing more than 15% ethanol or E85 fuel.
- Fuels containing methanol.
- Fuels containing metallic-based additives, including manganese-based compounds.

- Fuels containing the octane booster additive, methylcyclopentadienyl manganese tricarbonyl (MMT).
- Leaded fuel, using leaded fuel is prohibited by law.

The use of fuels with metallic compounds such as methylcyclopentadienyl manganese tricarbonyl (commonly known as MMT), which is a manganese-based fuel additive, will impair engine performance and affect the emission control system.

## FUEL FILLER FUNNEL LOCATION

The fuel filler funnel is located under the rear bench seat or behind the rear seat.

## RUNNING OUT OF FUEL

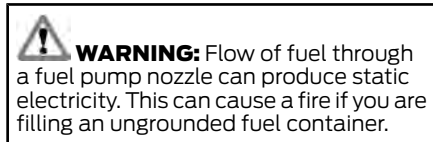
Running out of fuel can cause damage not covered by the vehicle Warranty.

If your vehicle runs out of fuel:

- Add a minimum of 1.3 gal (5 L) of fuel to restart the engine.
- You may need to switch the ignition from off to on several times after refueling to allow the fuel system to pump the fuel from the tank to the engine. When restarting, cranking time takes a few seconds longer than normal.

**Note:** *If your vehicle is on a steep slope, more fuel may be required.*

## Filling a Portable Fuel Container



# Fuel and Refueling

Use the following guidelines to avoid electrostatic charge build-up, which can produce a spark, when filling an ungrounded fuel container:

- Only use an approved fuel container to transfer fuel to your vehicle. Place the container on the ground when filling it.
- Do not fill a fuel container when it is inside your vehicle (including the cargo area).
- Keep the fuel pump nozzle in contact with the fuel container when filling it.
- Do not use a device that holds the fuel pump nozzle lever in the fill position.

## Adding Fuel From a Portable Fuel Container



**WARNING:** Do not insert the nozzle of a fuel container or an aftermarket funnel into the fuel filler neck. This may damage the fuel system filler neck or its seal and cause fuel to run onto the ground.



**WARNING:** Do not try to pry open or push open the capless fuel system with foreign objects. This could damage the fuel system and its seal and cause injury to you or others.



**WARNING:** Do not dispose of fuel in the household refuse or the public sewage system. Use an authorized waste disposal facility.

When refueling the vehicle fuel tank from a fuel container, use the fuel filler funnel included with your vehicle. See **Fuel Filler Funnel Location** (page 137).

**Note:** Do not use aftermarket funnels as they may not work with the capless fuel system and can damage it.

When refueling the vehicle fuel tank from a fuel container, do the following:

1. Fully open the fuel filler door.
2. Fully insert the fuel filler funnel into the fuel filler inlet.



E157452

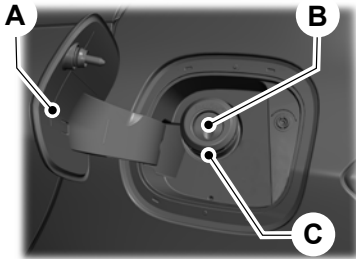
3. Add fuel to your vehicle from the fuel container.
4. Remove the fuel filler funnel.
5. Fully close the fuel filler door.
6. Clean the fuel filler funnel and place it back in your vehicle or correctly dispose of it.

**Note:** Extra funnels can be purchased from an authorized dealer if you choose to dispose of the funnel.

# Fuel and Refueling

## REFUELING

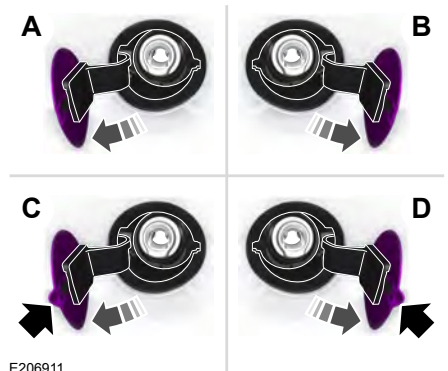
### Refueling System Overview



E267248

- A Fuel filler door.
- B Fuel tank filler valve.
- C Fuel tank filler pipe.


Your vehicle does not have a fuel tank filler cap.



E206911

- A Left-hand side. To open the fuel filler door, press the center rear edge of the fuel filler door and then release.
- B Right-hand side. To open the fuel filler door, press the center rear edge of the fuel filler door and then release.
- C Left-hand side. Pull the rear of the fuel filler door to open it.
- D Right-hand side. Pull the rear of the fuel filler door to open it.

### Refueling Your Vehicle



**WARNING:** When refueling always shut the engine off and never allow sparks or open flames near the fuel tank filler valve. Never smoke or use a cell phone while refueling. Fuel vapor is extremely hazardous under certain conditions. Avoid inhaling excess fumes.

## Fuel and Refueling

**WARNING:** The fuel system may be under pressure. If you hear a hissing sound near the fuel filler inlet, do not refuel until the sound stops. Otherwise, fuel may spray out, which could cause serious personal injury.

**WARNING:** Do not pry open the fuel tank filler valve. This could damage the fuel system. Failure to follow this instruction could result in fire, personal injury or death.

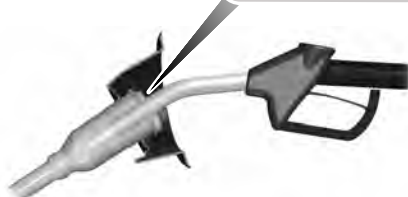
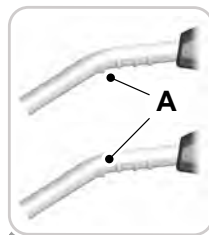
**WARNING:** Do not remove the fuel pump nozzle from its fully inserted position when refueling.

**WARNING:** Stop refueling when the fuel pump nozzle automatically shuts off for the first time. Failure to follow this will fill the expansion space in the fuel tank and could lead to fuel overflowing.

**WARNING:** Do not overfill the fuel tank. The pressure in an overfilled tank may cause leakage and lead to fuel spray and fire.

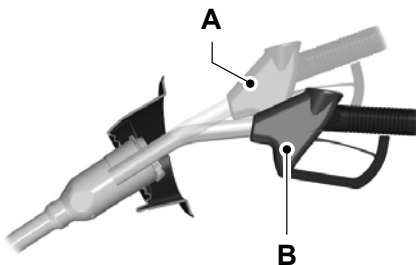
**WARNING:** Wait at least five seconds before removing the fuel pump nozzle to allow any residual fuel to drain into the fuel tank.

1. Fully open the fuel filler door.
2. Select the correct fuel pump nozzle for your vehicle.



E139202

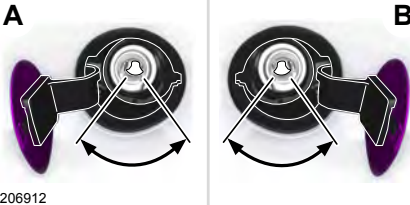
3. Insert the fuel pump nozzle up to the first notch on the nozzle A. Keep the fuel pump nozzle resting on the fuel tank filler pipe.



E139203

4. Hold the fuel pump nozzle in position B when refueling. Holding the fuel pump nozzle in position A can affect the flow of fuel and shut off the fuel pump nozzle before the fuel tank is full.

# Fuel and Refueling



E206912

5. Operate the fuel pump nozzle within the area shown.



E119081

6. When you finish refueling slightly raise the fuel pump nozzle and slowly remove it.
7. Fully close the fuel filler door.

Do not attempt to start the engine if you have filled the fuel tank with incorrect fuel. Incorrect fuel use could cause damage not covered by the vehicle Warranty. Have your vehicle immediately checked.

## Refueling System Warning (If Equipped)

If the fuel tank filler valve does not fully close, a message could appear in the information display.

Message
Check Fuel Fill Inlet

If the message appears, do the following:

1. Stop your vehicle as soon as it is safe to do so and switch the engine off.
2. Shift into park (P) or neutral (N).

3. Apply the parking brake.
4. Fully open the fuel filler door.
5. Check the fuel tank filler valve for any debris that may be restricting its movement.
6. Remove any debris from the fuel tank filler valve.
7. Fully insert a fuel pump nozzle or the fuel filler funnel provided with your vehicle into the fuel filler pipe. See **Fuel Filler Funnel Location** (page 137). This action should dislodge any debris that may be preventing the fuel tank filler valve from fully closing.
8. Remove the fuel pump nozzle or fuel filler funnel from the fuel filler pipe.
9. Fully close the fuel filler door.

**Note:** The message may not immediately reset. If the message continues to appear and a warning lamp illuminates, have your vehicle checked as soon as possible.

## FUEL CONSUMPTION

### Advertised Capacity

The advertised capacity is the maximum amount of fuel that you can add to the fuel tank when the fuel gauge indicates empty. See **Capacities and Specifications** (page 306).

In addition, the fuel tank contains an empty reserve. The empty reserve is an unspecified amount of fuel that remains in the fuel tank when the fuel gauge indicates empty.

**Note:** The amount of fuel in the empty reserve varies and should not be relied upon to increase driving range.



# Fuel and Refueling

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## Filling the Fuel Tank

For consistent results when refueling:

- Turn the ignition off before fueling; an inaccurate reading results if the engine is left running.
- Use the same fill rate (low-medium-high) each time the tank is filled.
- Allow no more than one automatic shut-off when refueling.

Results are most accurate when the filling method is consistent.

## Calculating Fuel Economy

Your vehicle calculates fuel economy figures through the trip computer average fuel function. See **Information Displays** (page 87).

The first 1,000 mi (1,500 km) of driving is the break-in period of the engine. A more accurate measurement is obtained after 2,000 mi (3,000 km).

1. Completely fill the fuel tank and record the initial odometer reading. See **Refueling** (page 139).
2. Each time you fill the fuel tank, record the amount of fuel added.
3. After at least three fill ups, fill the fuel tank and record the current odometer reading.
4. Subtract your initial odometer reading from the current odometer reading.

To calculate L/100 km (liters per 100 kilometers) fuel consumption, multiply the liters used by 100, then divide by kilometers traveled. To calculate MPG (miles per gallon) fuel consumption, divide miles traveled by gallons used.

Keep a record for at least one month and record the type of driving, for example city or highway. This provides an accurate estimate of your vehicle's fuel economy under current driving conditions. Keeping records during summer and winter shows how temperature impacts fuel economy.

## Conditions

- Heavily loading your vehicle reduces fuel economy.
- Carrying unnecessary weight in your vehicle may reduce fuel economy.
- Avoid adding accessories that increase aerodynamic drag to your vehicle such as bug deflectors, car top carriers and ski or bike racks.
- Using fuel blended with alcohol may lower fuel economy.
- Fuel economy may decrease with lower temperatures.
- Fuel economy may decrease when driving short distances.
- You will get better fuel economy when driving on flat terrain than when driving on hilly terrain.

# Engine Emission Control

## EMISSION LAW



**WARNING:** Do not remove or alter the original equipment floor covering or insulation between it and the metal floor of the vehicle. The floor covering and insulation protect occupants of the vehicle from the engine and exhaust system heat and noise. On vehicles with no original equipment floor covering insulation, do not carry passengers in a manner that permits prolonged skin contact with the metal floor. Failure to follow these instructions may result in fire or personal injury.

U.S. federal laws and certain state laws prohibit removing or rendering inoperative emission control system components. Similar federal or provincial laws may apply in Canada. We do not approve of any vehicle modification without first determining applicable laws.



Tampering with emissions control systems including related sensors or the Diesel Exhaust Fluid system can result in reduced engine power and the illumination of the service engine soon light.

## Tampering With a Noise Control System

Federal laws prohibit the following acts:

- Removal or rendering inoperative by any person other than for purposes of maintenance.
- Repair or replacement of any device or element of the design incorporated into a new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use.
- The use of the vehicle after any person removes or renders inoperative any device or element of the design.

The U.S. Environmental Protection Agency may presume to constitute tampering as follows:

- Removal of hood blanket, fender apron absorbers, fender apron barriers, underbody noise shields or acoustically absorptive material.
- Tampering or rendering inoperative the engine speed governor, to allow engine speed to exceed manufacturer specifications.

If the engine does not start, runs rough, experiences a decrease in engine performance, experiences excess fuel consumption or produces excessive exhaust smoke, check for the following:

- A plugged or disconnected air inlet system hose.
- A plugged engine air filter element.
- Water in the fuel filter and water separator.
- A clogged fuel filter.
- Contaminated fuel.
- Air in the fuel system, due to loose connections.
- An open or pinched sensor hose.
- Incorrect engine oil level.

# Engine Emission Control

- Incorrect fuel for climatic conditions.
- Incorrect engine oil viscosity for climactic conditions.

**Note:** *Some vehicles have a lifetime fuel filter that is integrated with the fuel tank. Regular maintenance or replacement is not needed.*

**Note:** *If these checks do not help you correct the concern, have your vehicle checked as soon as possible.*

## Noise Emissions Warranty, Prohibited Tampering Acts and Maintenance

On January 1, 1978, Federal regulation became effective governing the noise emission on trucks over 10,000 lb (4,536 kg) Gross Vehicle Weight Rating (GVWR). The preceding statements concerning prohibited tampering acts and maintenance, and the noise warranty found in the Warranty Guide, are applicable to complete chassis cabs over 10,000 lb (4,536 kg) GVWR.

## CATALYTIC CONVERTER



**WARNING:** Do not park, idle or drive your vehicle on dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, creating the risk of fire.



**WARNING:** The normal operating temperature of the exhaust system is very high. Never work around or attempt to repair any part of the exhaust system until it has cooled. Use special care when working around the catalytic converter. The catalytic converter heats up to a very high temperature after only a short period of engine operation and stays hot after the engine is switched off.



**WARNING:** Exhaust leaks may result in entry of harmful and potentially lethal fumes into the passenger compartment. If you smell exhaust fumes inside your vehicle, have your vehicle inspected immediately. Do not drive if you smell exhaust fumes.

Your vehicle has various emission control components and a catalytic converter that enables it to comply with applicable exhaust emission standards.

To make sure that the catalytic converter and other emission control components continue to work properly:

- Do not crank the engine for more than 10 seconds at a time.
- Do not run the engine with a spark plug lead disconnected.
- Do not push-start or tow-start your vehicle. Use booster cables. See **Jump Starting the Vehicle** (page 220).
- Use only the specified fuel listed.
- Do not switch the ignition off when your vehicle is moving.
- Avoid running out of fuel.
- Have the items listed in scheduled maintenance information performed according to the specified schedule.

**Note:** *Resulting component damage may not be covered by the vehicle Warranty.*

The scheduled maintenance items listed in scheduled maintenance information are essential to the life and performance of your vehicle and to its emissions system.

If you use anything other than Ford, Motorcraft or Ford-authorized parts for maintenance replacements or for service of components affecting emission control, such non-Ford parts should be equivalent to genuine Ford Motor Company parts in performance and durability.

# Engine Emission Control

Illumination of the service engine soon indicator, charging system warning light or the temperature warning light, fluid leaks, strange odors, smoke or loss of engine power could indicate that the emission control system is not working properly.

An improperly operating or damaged exhaust system may allow exhaust to enter the vehicle. Have a damaged or improperly operating exhaust system inspected and repaired immediately.

Do not make any unauthorized changes to your vehicle or engine. By law, vehicle owners and anyone who manufactures, repairs, services, sells, leases, trades vehicles, or supervises a fleet of vehicles are not permitted to intentionally remove an emission control device or prevent it from working. Information about your vehicle's emission system is on the Vehicle Emission Control Information Decal located on or near the engine. This decal also lists engine displacement.

Please consult your warranty information for complete details.

## On-Board Diagnostics (OBD-II)

Your vehicle has a computer known as the on-board diagnostics system (OBD-II) that monitors the engine's emission control system. The system protects the environment by making sure that your vehicle continues to meet government emission standards. The OBD-II system also assists a service technician in properly servicing your vehicle.



When the service engine soon indicator illuminates, the OBD-II system has detected a malfunction. Temporary malfunctions may cause the service engine soon indicator to illuminate. Examples are:

1. Your vehicle has run out of fuel—the engine may misfire or run poorly.
2. Poor fuel quality or water in the fuel—the engine may misfire or run poorly.
3. The fuel fill inlet may not have closed properly. See **Refueling** (page 139).
4. Driving through deep water—the electrical system may be wet.

You can correct these temporary malfunctions by filling the fuel tank with good quality fuel, properly closing the fuel fill inlet or letting the electrical system dry out. After three driving cycles without these or any other temporary malfunctions present, the service engine soon indicator should stay off the next time you start the engine. A driving cycle consists of a cold engine startup followed by mixed city and highway driving. No additional vehicle service is required.

If the service engine soon indicator remains on, have your vehicle serviced at the first available opportunity. Although some malfunctions detected by the OBD-II may not have symptoms that are apparent, continued driving with the service engine soon indicator on can result in increased emissions, lower fuel economy, reduced engine and transmission smoothness and lead to more costly repairs.

## Readiness for Inspection and Maintenance (I/M) Testing

Some state and provincial and local governments may have Inspection/Maintenance (I/M) programs to inspect the emission control equipment on your vehicle. Failure to pass this inspection could prevent you from getting a vehicle registration.



If the service engine soon indicator is on or the bulb does not work, your vehicle may need service. See On-Board Diagnostics.

# Engine Emission Control

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Your vehicle may not pass the I/M test if the service engine soon indicator is on or not working properly (bulb is burned out), or if the OBD-II system has determined that some of the emission control systems have not been properly checked. In this case, the vehicle is not ready for I/M testing.

If the vehicle's engine or transmission has just been serviced, or the battery has recently run down or been replaced, the OBD-II system may indicate that the vehicle is not ready for I/M testing. To determine if the vehicle is ready for I/M testing, turn the ignition key to the on position for 15 seconds without cranking the engine. If the service engine soon indicator blinks eight times, it means that the vehicle is not ready for I/M testing; if the service engine soon indicator stays on solid, it means that your vehicle is ready for I/M testing.

The OBD-II system checks the emission control system during normal driving. A complete check may take several days.


If the vehicle is not ready for I/M testing, you can perform the following driving cycle consisting of mixed city and highway driving:


1. 15 minutes of steady driving on an expressway or highway followed by 20 minutes of stop-and-go driving with at least four 30-second idle periods.
2. Allow your vehicle to sit for at least eight hours with the ignition off. Then, start the vehicle and complete the above driving cycle. The vehicle must warm up to its normal operating temperature. Once started, do not turn off the vehicle until the above driving cycle is complete.

If the vehicle is still not ready for I/M testing, you need to repeat the above driving cycle.

# Transmission

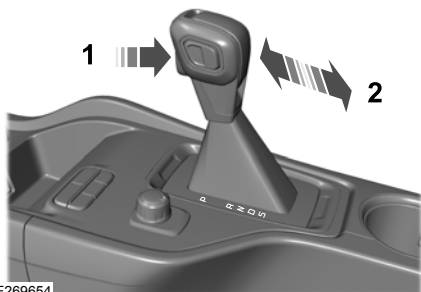
## AUTOMATIC TRANSMISSION

 **WARNING:** Always fully apply the parking brake and make sure you shift into park (P). Failure to follow this instruction could result in personal injury or death.

 **WARNING:** Do not apply the brake pedal and accelerator pedal simultaneously. Applying both pedals simultaneously for more than a few seconds will limit engine performance, which may result in difficulty maintaining speed in traffic and could lead to serious injury.

**Note:** A cold engine has a higher idle speed. This increases the tendency for your vehicle to creep when you have selected a drive gear.

## Transmission Selector Lever Positions



E269654

- P Park.
- R Reverse.
- N Neutral.
- D Drive.
- S Sport mode and manual shifting.

Press the button (1) on the transmission selector lever (2) to select reverse (R) or drive (D). After the transmission is in drive (D), you can then press the button (1) on the transmission selector lever (2) again to select sport (S). The current gear displays on the instrument panel.

### Park (P)

**Note:** To move the transmission selector lever from park (P), apply the brake with ignition key in position II.

**Note:** An audible warning sounds if you open the driver door and you have not moved the selector lever to park (P). The battery saver deactivates the audible warning after a period of time.

In this position, power is not transmitted to the driven wheels and the transmission is locked. You can start the engine with the transmission selector lever in this position.

### Reverse (R)

Shift the selector lever to reverse (R) to allow your vehicle to move backward.

### Neutral (N)

In this position, power is not transmitted to the driven wheels but the transmission is not locked. You can start the engine with the transmission selector lever in this position.

### Drive (D)

Drive (D) is the normal driving position for the best fuel economy and smoothness. Shift the transmission selector lever to drive (D) to allow your vehicle to move forward and shift automatically through the forward gears.

The transmission shifts to the appropriate gear for optimum performance based on ambient temperature, road gradient, vehicle load and your input.

# Transmission

## Sport Mode (S)

Switch on sport mode by shifting the transmission selector lever to sport (S). In sport mode the transmission selects the optimum gear for best performance. This gear selection is typically lower than that of drive (D) and the shifts are faster.

## Tow Mode



To switch on tow mode, press the button on the center console until tow mode is active. The indicator light illuminates in the instrument cluster when the system becomes active.

The tow mode feature:

- Moves upshifts to higher engine speeds to reduce the frequency of transmission shifting.
- Provides engine braking in all forward gears, which slows your vehicle and assists you in controlling your vehicle when descending a slope.
- Depending on driving conditions and load conditions, may downshift the transmission, slow your vehicle and control your vehicle speed when descending a hill, without pressing the accelerator pedal. The amount of downshift braking provided varies based upon the amount you press the brake pedal.

The tow mode feature improves transmission operation when towing a trailer or a heavy load. All transmission gear ranges are available when using tow mode.

To switch off the tow mode feature and return to normal driving mode, press the button on the center console twice. The indicator light turns off when the system turns off. Tow mode also turns off when you power down your vehicle.

## SelectShift™ Automatic Transmission

This feature gives you the ability to change gears up or down as desired.

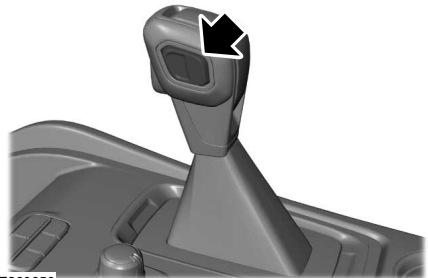
As long as the engine speed does not exceed the maximum allowable limit, downshifts are allowed. SelectShift automatically downshifts at low engine speeds in order to prevent engine stalls.

**Note:** *Engine damage may occur if you maintain excessive engine revving without shifting.*

SelectShift does not automatically upshift, even if the engine is approaching the RPM limit.

For 10 speed transmissions - with the transmission selector lever in sport (S) position:

- Press the (+) button on the transmission selector lever to upshift.
- Press the (-) button on the transmission selector lever to downshift.



E269656

To exit SelectShift mode, return the transmission selector lever to drive (D).

When your vehicle is stationary, only the 1st and 2nd gears can be selected. Manual shifting is sequential, therefore gears cannot be skipped.

# Transmission

## Progressive Range Selection

Progressive Range Selection gives you the ability to lockout gears from the automatic shifting range. This may provide you with an improved driving experience for example, in slippery conditions or when experiencing a steep slope.

With the transmission in drive (D), press the – button to active PRS. The available and selected gears appear on the instrument cluster.

All available gears display with the current gear indicated. Press the – button again to lock out gears beginning with the highest gear. For example, press the – button or twice to lock out 10th and 9th gears. Only the available gears display and the transmission shifts between the available gears. Press the + button to unlock gears to allow the transmission to shift to higher gears. The transmission shifts within the gear range you select.

## Brake-Shift Interlock



**WARNING:** When doing this procedure, you need to take the transmission out of park (P) which means your vehicle can roll freely. To avoid unwanted vehicle movement, always fully apply the parking brake prior to doing this procedure. Use wheels chocks if appropriate.



**WARNING:** If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. Have your vehicle checked as soon as possible.

**Note:** For some markets this feature is disabled.

Your vehicle has a brake-shift interlock feature that prevents moving the gearshift lever from park (P) when the ignition is on and you do not press the brake pedal.

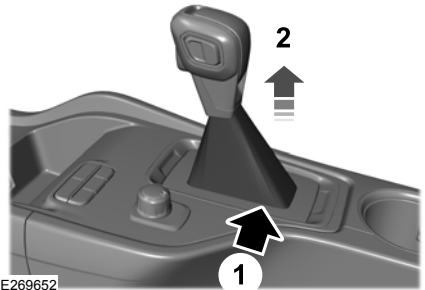
The system requires service if you cannot move the gearshift lever out of park (P) with the ignition on and the brake pedal pressed. It is possible that a fuse has blown or your vehicle's brake lamps are not operating properly. See **Fuses** (page 230).

If the fuse is not blown and the brake lamps are properly working, the following procedure allows you to move the selector lever from park (P):

**Note:** See an authorized dealer as soon as possible if this procedure is used.

## 10 Speed Transmission

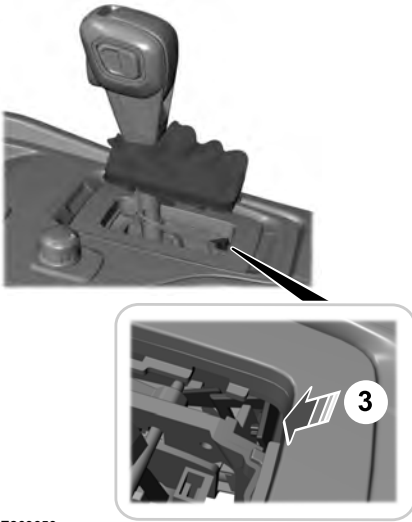
Apply the parking brake and switch the ignition off before performing this procedure.



1. Insert a screwdriver between the shifter boot material and the trim ring (1) to release the retainer tabs from the top panel trim ring.
2. Lift the shifter boot (2) upwards.



# Transmission



E269653

3. Locate the lower white lever (3) located on the side of the transmission selector lever.
4. Using the screwdriver, move the lower white lever (3) towards the front of the transmission selector lever.
5. When holding the lower white lever (3) in the forward position, move the transmission selector lever out of the park (P) position and into another gear.

## Automatic Transmission Adaptive Learning

This feature may increase durability and provide consistent shift feel over the life of your vehicle. A new vehicle or transmission may have firm shifts, soft shifts or both. This operation is considered normal and does not affect function or durability of the transmission. Over time, the adaptive learning process fully updates transmission operation.

## If Your Vehicle Gets Stuck In Mud or Snow

**Note:** Do not rock your vehicle if the engine is not at normal operating temperature or damage to the transmission may occur.

**Note:** Do not rock your vehicle for more than a minute or damage to the transmission and tires may occur, or the engine may overheat.

If your vehicle gets stuck in mud or snow, it may be rocked out by shifting between forward and reverse gears, stopping between shifts in a steady pattern. Press lightly on the accelerator in each gear.

# Four-Wheel Drive (If Equipped)

## PRINCIPLE OF OPERATION

The four-wheel drive system in your vehicle is a part-time system activated using the rotary switch mounted in the center console. In normal rear-wheel drive, the 2H drive operation system directs torque to the rear axle. Moving the switch to 4H or 4L directs drive torque to both the front and rear axles, providing four-wheel drive.

Depending on your vehicle, further four-wheel drive options may be available on the switch panel located on the center console.

## USING FOUR-WHEEL DRIVE

**Note:** For important information regarding the safe operation of this type of vehicle, see *General Information in the Wheels and Tires chapter*.

**Note:** Do not use 4H or 4L mode on dry, hard surfaced roads. Doing so can produce excessive noise, increase tire wear and may damage drive components. 4H or 4L mode is only intended for consistently slippery or loose surfaces. Use of 4L mode on these surfaces may produce some noise, such as occasional clunks, but should not damage drive components.

**Note:** Selecting 4L when your vehicle is moving, should not perform a shift until your vehicle is stationary. This is normal and should be no reason for concern. Refer to *Shifting to or from 4L (4X4 Low)* for proper operation.

**Note:** You can switch on and switch off the electronic locking differential by pressing the center of the 4WD control. See **Electronic Locking Differential** (page 158).

## 4WD Indicator Lights

**Note:** When a 4X4 system fault is present, the system can typically remain in whichever 4X4 mode was selected prior to the fault condition occurring. It should not default to 4X2 in all circumstances. When the warning displays, have your vehicle serviced by an authorized dealer.

### 4X2

**2H** Momentarily illuminates when you select 2H.


### 4X4 HIGH

**4H** Continuously illuminates when you select 4H.

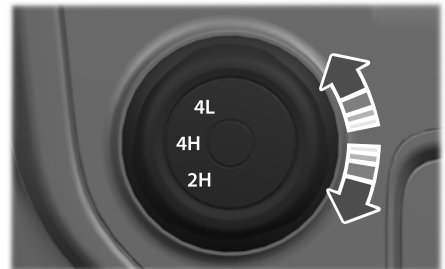
### 4X4 LOW

**4L** Continuously illuminates when you select 4L.

### CHECK 4X4

 Displays when a 4X4 fault is present.

## Using the Electronic Shift on the Fly 4WD system (If Equipped)



E277079

# Four-Wheel Drive (If Equipped)

## 2H (4X2)

For general on-road driving, this mode provides optimal smoothness and fuel economy. Sends power to the rear wheels only.

**Note:** 2H may engage or disengage based on terrain mode selection. See **Principle of Operation** (page 151).

## 4H (4X4 HIGH)

Provides mechanically locked four-wheel drive power to both the front and rear wheels for use in off-road or winter conditions such as deep snow, sand or mud. This mode is not for use on dry pavement.

**Note:** 4H may engage or disengage based on terrain mode selection. See **Principle of Operation** (page 151).

## 4L (4X4 LOW)

Provides mechanically locked four-wheel drive power to both the front and rear wheels with additional gearing for increased torque multiplication. Intended only for off-road applications such as deep sand, steep grades, or pulling heavy objects.

**Note:** 4L may engage or disengage based on terrain mode selection. See **Principle of Operation** (page 151).

## Shifting Between 4WD System Modes

**Note:** Momentarily releasing the accelerator pedal when performing a shift aids the performance of engagement or disengagement.

**Note:** Do not perform this operation if the rear wheels are slipping or when applying the accelerator pedal.

**Note:** You may hear some noise as the system shifts or engages; this is normal.

You can move the control between 2H to 4H at a stop or when driving up to 68 mph (110 km/h). The information display may display a message indicating a 4X4 shift and the LED for the selected mode flashes. Once the shift is complete, the LED light for the selected mode remains illuminated.

## Shifting To or From 4L (4X4 low)

**Note:** You may hear some noise as the system shifts or engages; this is normal.

1. Stop your vehicle when it is safe to do so.
2. Place the transmission in neutral (N).
3. Fully depress the clutch pedal for manual transmission.
4. Turn the transfer shift switch from 2H to 4L or 4L to 2H.

The information display should display a message indicating a 4X4 shift is in progress followed by the system mode selected. If any of the above shift conditions are not present, the shift should not occur and the information display shows information guiding you through the proper shifting procedures.

## How Your Vehicle Differs From Other Vehicles



**WARNING:** Vehicles with a higher center of gravity (utility and four-wheel drive vehicles) handle differently than vehicles with a lower center of gravity (passenger cars). Avoid sharp turns, excessive speed and abrupt steering in these vehicles. Failure to drive cautiously increases the risk of losing control of your vehicle, vehicle rollover, personal injury and death.

## Four-Wheel Drive (If Equipped)

---

Truck and utility vehicles can differ from some other vehicles. Your vehicle may be higher to allow it to travel over rough terrain without getting hung up or damaging underbody components.

The differences that make your vehicle so versatile also make it handle differently than an ordinary passenger car.

Maintain steering wheel control at all times, especially in rough terrain. Since sudden changes in terrain can result in abrupt steering wheel motion, make sure you grip the steering wheel from the outside. Do not grip the spokes of the steering wheel.

Drive cautiously to avoid vehicle damage from concealed objects such as rocks and stumps.

You should either know the terrain or examine maps of the area before driving. Map out your route before driving in the area. To maintain steering and braking control of your vehicle, you must have all four wheels on the ground and they must be rolling, not sliding or spinning.

### Driving Off-Road With Truck and Utility Vehicles

**Note:** *On some models, the initial shift from two-wheel drive to four-wheel drive when your vehicle is moving can cause some momentary clunk or ratchet sounds. This is the front drivetrain coming up to speed.*

**Note:** *Your vehicle may have a front air dam. Due to low ground clearance, you can damage it when taking your vehicle off-road. You can take the air dam off by removing the bolts that secure it.*

**Note:** *Momentarily releasing the accelerator pedal when a shift in progress message displays, should improve engagement or disengagement performance.*

Four-wheel drive vehicles are specially designed for driving on sand, snow, mud and rough terrain and have operating characteristics that are somewhat different from conventional vehicles, both on and off the road.

The transfer case supplies power to all four wheels. On four-wheel drive vehicles, the transfer case allows you to select different 4WD modes when necessary. You can find information on transfer case operation and shifting procedures in this chapter. You can find information on transfer case maintenance in the Maintenance chapter. You should become thoroughly familiar with this information before you operate your vehicle.

Four-wheel drive uses all four wheels to power your vehicle. This increases traction, enabling you to drive over terrain and road conditions that a conventional two-wheel drive vehicle cannot.

### Basic Operating Principles

- Drive slower in strong crosswinds which can affect the normal steering characteristics of your vehicle.
- When driving your vehicle on surfaces made slippery by loose sand, water, gravel, snow or ice proceed with care.
- Do not use 4H or 4L on dry, hard surfaced roads. Doing so can produce excessive noise, increase tire wear and may damage drive components. 4H or 4L modes are only for consistently slippery or loose surfaces.

### If Your Vehicle Leaves the Road

If your vehicle leaves the road, reduce your vehicle speed and avoid severe braking. When your vehicle speed decreases, ease your vehicle back onto the road. Do not sharply turn the steering wheel when returning your vehicle to the road.

## Four-Wheel Drive (If Equipped)

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It may be safer to stay on the shoulder of the road and gradually slow down before returning to the road. You may lose control if you do not slow down or if you too sharply or abruptly turn the steering wheel.

It may be less risky to strike small objects, such as freeway reflectors, with minor damage to your vehicle rather than attempt a sudden return to the road which could cause your vehicle to slide sideways out of control or roll over. Remember, your safety and the safety of others should be your primary concern.

### Emergency Maneuvers

In an unavoidable emergency situation where a sudden sharp turn must be made, remember to avoid over-driving your vehicle and turn the steering wheel only as rapidly and as far as required to avoid the emergency. Excessive steering can result in loss of vehicle control. Apply smooth pressure to the accelerator pedal or brake pedal when you require changes in vehicle speed. Avoid abrupt steering, acceleration and braking. This could result in an increased risk of vehicle roll over, loss of vehicle control and personal injury. Use the available road surface to bring your vehicle to a safe direction of travel.

In the event of an emergency stop, avoid skidding the tires and do not attempt any sharp steering wheel movements.

If your vehicle goes from one type of surface to another such as concrete to gravel there can be a change in the way your vehicle responds to a maneuver using steering, acceleration or braking.

### Driving in Special Conditions with Four-Wheel Drive

Four-wheel drive vehicles are suitable for driving on sand, snow, mud and rough roads and have operating characteristics that are somewhat different from conventional vehicles, both on and off the freeway.

When driving at slow speeds off road under high load conditions, use a low gear when possible. Low gear operation maximizes the engine and transmission cooling capability.

### Basic Operating Principles

When driving your vehicle on surfaces made slippery by loose sand, water, gravel, snow or ice proceed with care.

#### Sand

When driving over sand, try to keep all four wheels on the most solid area of the trail. Shift to a lower gear and drive steadily through the terrain. Apply the accelerator slowly and avoid excessive wheel slip.

Do not drive your vehicle in deep sand for an extended period of time. This can cause the system to overheat.

To resume operation, switch the ignition off and allow the system to cool down for a minimum of 15 minutes.

When driving at slow speeds in deep sand under high outside temperatures, use a low gear when possible. Low gear operation maximizes the engine and transmission cooling capability.

Avoid driving at excessive speeds, this causes vehicle momentum to work against you and your vehicle could become stuck to the point that assistance may be required from another vehicle. Remember, you may be able to back out the way you came if you proceed with caution.

# Four-Wheel Drive (If Equipped)

## Mud and Water

### Mud

Be cautious of sudden changes in vehicle speed or direction when you are driving in mud. Even four-wheel drive vehicles can lose traction in slick mud. If your vehicle does slide, steer in the direction of the slide until you regain control of your vehicle.

After driving through mud, clean off residue stuck to rotating driveshafts and tires. Excess mud stuck on tires and rotating driveshafts can cause an imbalance that could damage drive components.

### Water

If you must drive through high water, drive slowly. Traction or brake capability may be limited.

When driving through water, determine the depth and avoid water higher than the bottom of the hubs. If the ignition system gets wet, your vehicle may stall.

Once through water, try the brakes. Wet brakes do not stop your vehicle as effectively as dry brakes. Drying improves by applying light pressure to the brake pedal when slowly moving.

**Note:** *Driving through deep water may damage the transmission. If the front or rear axle is submerged in water, the axle lubricant and power transfer unit lubricant should be checked and changed if necessary.*



E143950

“Tread Lightly” is an educational program designed to increase public awareness of land-use regulations and responsibilities in our nations wilderness areas. Ford Motor Company joins the U.S. Forest Service and the Bureau of Land Management in encouraging you to help preserve our national forest and other public and private lands by “treading lightly.”

### Driving on Hilly or Sloping Terrain

Although natural obstacles may make it necessary to travel diagonally up or down a hill or steep incline, you should drive straight up or straight down.

**Note:** *Avoid turning on steep slopes or hills. A danger lies in losing traction; slipping sideways and possible vehicle roll over. Whenever driving on a hill, determine beforehand the route you intend to use. Do not drive over the crest of a hill without seeing what conditions are on the other side. Do not drive in reverse over a hill without the aid of an observer.*

When climbing a steep slope or hill, start in a lower gear rather than downshifting to a lower gear from a higher gear once the ascent has started. This reduces strain on the engine and the possibility of stalling.

If your vehicle stalls, do not try to turn around because this could cause vehicle roll over. It is better to reverse back to a safe location.

Apply just enough power to the wheels to climb the hill. Too much power could cause the tires to slip, spin or lose traction, resulting in loss of vehicle control.

## Four-Wheel Drive (If Equipped)



E143949

Descend a hill in the same gear you would use to climb up the hill to avoid excessive brake application and brake overheating. Do not descend in neutral. Disengage overdrive or move the transmission selector lever to a lower gear. When descending a steep hill, avoid sudden hard braking as you could lose control. The front wheels have to be turning in order to steer your vehicle.

If your vehicle has anti-lock brakes, steadily apply the brakes. Do not pump the brakes.

### Driving on Snow and Ice



**WARNING:** If you are driving in slippery conditions that require tire chains or cables, then it is critical that you drive cautiously. Keep speeds down, allow for longer stopping distances and avoid aggressive steering to reduce the chances of a loss of vehicle control which can lead to serious injury or death. If the rear end of your vehicle slides while cornering, steer in the direction of the slide until you regain control of your vehicle.

**Note:** Excessive tire slippage can cause transmission damage.

Four-wheel drive vehicles have advantages over two-wheel drive vehicles in snow and ice but can skid like any other vehicle. Should you start to slide when driving on snowy or icy roads, turn the steering wheel in the direction of the slide until you regain control.

Avoid sudden applications of power and quick changes of direction on snow and ice. Apply the accelerator slowly and steadily when starting from a full stop.

Avoid sudden braking. Although a four-wheel drive vehicle may accelerate better than a two-wheel drive vehicle in snow and ice, it cannot stop any faster as braking occurs at all four wheels. Do not become overconfident as to road conditions.

Make sure you allow sufficient distance between you and other vehicles for stopping. Drive slower than usual and consider using one of the lower gears. In emergency stopping situations, apply the brake steadily. Do not pump the brake pedal. See **Hints on Driving With Anti-Lock Brakes** (page 159).

### If Your Vehicle Gets Stuck In Mud or Snow



**WARNING:** Do not spin the wheels at over 34 mph (55 km/h). The tires may fail and injure a passenger or bystander.

If your vehicle gets stuck in mud or snow, you may rock it out by shifting between forward and reverse gears, stopping between shifts in a steady pattern. Press lightly on the accelerator in each gear.

**Note:** Do not rock your vehicle if the engine is not at normal operating temperature, damage to the transmission may occur.

## Four-Wheel Drive (If Equipped)

**Note:** Do not rock your vehicle for more than a minute, damage to the transmission and tires may occur or the engine may overheat.

### Parking



**WARNING:** If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. Have your vehicle checked as soon as possible.



**WARNING:** Always fully apply the parking brake. Make sure you shift into park (P) for vehicles with an automatic transmission. Switch the ignition off and remove the key whenever you leave your vehicle.

On four-wheel drive vehicles, when the transfer case is in the neutral (N) position, the engine and transmission disconnect from the rest of the driveline. Therefore, your vehicle is free to roll even if the automatic transmission is in park (P) or the manual transmission is in gear. Do not leave your vehicle unattended with the transfer case in the neutral (N) position. Fully set the parking brake and turn off the ignition when leaving your vehicle.

### Maintenance and Modifications

The suspension and steering systems on your vehicle have been designed and tested to provide predictable performance whether loaded or empty. For this reason, we strongly recommend that you do not make modifications such as adding or removing parts that include lift kits or stabilizer bars or by using replacement parts not equivalent to the original factory equipment.

We recommend that you use caution when your vehicle has either a high load or device such as ladders or luggage racks. Any modifications to your vehicle that raise the center of gravity may cause your vehicle to roll over when there is a loss of vehicle control.

Failure to maintain your vehicle correctly may void the warranty, increase your repair cost, reduce vehicle performance and operational capabilities and adversely affect you and your passenger's safety. We recommend you frequently inspect your vehicle's chassis components when your vehicle is subject to off road usage.



## Rear Axle

### ELECTRONIC LOCKING DIFFERENTIAL (IF EQUIPPED)

**Note:** Do not operate the system on sealed roads. Doing so may lead to excessive tire noise and wear. Use the system only in consistently slippery or loose surface.

The system locks the left and right portions of the rear axle together to form a solid driving axle, resulting in increased rear wheel traction in certain conditions.

Press the electronic differential lock button to activate the system.

**Note:** The lock button is on the center console.



E277073

The electronic differential lock can lock and unlock when the internal gears are aligned and no torque load is placed on the differential. To aid alignment, drive the vehicle in a straight line with the accelerator pedal released. Alternatively, drive slowly forward and backward while moving the steering wheel from side to side to allow the electronic differential lock to lock.

High vehicle speed and high accelerator pedal application inhibit the electronic locking differential system engagement. Follow the instruction on the instrument cluster for engagement and disengagement.

**Note:** You can use the system in any drive mode 2H, 4H or 4L.

**Note:** When you engage the system, the Electronic Stability Program (ESP) functions such as Stability Control, Traction Control, Hill Descent Control, Emergency stop signal, Hill Start Assist and Trailer Sway Control are deactivated, the ESP Off indicator illuminates, and the HDC on indicator turns off.

**Note:** When the anti-lock braking system is operating, the system disengages.

The electronic locking differential system can affect various terrain modes. See

**Principle of Operation** (page 166).

# Brakes

## GENERAL INFORMATION

**Note:** Occasional brake noise is normal. If a metal-to-metal, continuous grinding or continuous squeal sound is present, the brake linings may be worn-out and an authorized dealer should check them. If the vehicle has continuous vibration or shudder in the steering wheel while braking, an authorized dealer should check your vehicle.

**Note:** Brake dust may accumulate on the wheels, even under normal driving conditions. Some dust is inevitable as the brakes wear and does not contribute to brake noise. See **Cleaning the Wheels** (page 266).

Wet brakes result in reduced braking efficiency. Gently press the brake pedal a few times when driving from a car wash or standing water to dry the brakes.

### Brake Over Accelerator

In the event the accelerator pedal becomes stuck or entrapped, apply steady and firm pressure to the brake pedal to slow the vehicle and reduce engine power. If you experience this condition, apply the brakes and bring your vehicle to a safe stop. Switch the engine off, move the transmission to park (P) and apply the parking brake. Inspect the accelerator pedal and the area around it for any items or debris that may be obstructing its movement. If none are found and the condition persists, have your vehicle towed to the nearest authorized dealer.

### Emergency Brake Assist

Emergency brake assist detects when you brake heavily by measuring the rate at which you press the brake pedal. It provides maximum braking efficiency as long as you press the pedal. Emergency brake assist can reduce stopping distances in critical situations.

## Anti-lock Brake System

This system helps you maintain steering control during emergency stops by keeping the brakes from locking.



This lamp momentarily illuminates when you switch the ignition on. If the light does not illuminate during start up, remains on or flashes, the anti-lock braking system may be disabled. Have the system checked by an authorized dealer. If the anti-lock brake system is disabled, normal braking is still effective.

See **Warning Lamps and Indicators** (page 82).

**Note:** Indicators vary depending on region.



This lamp also illuminates momentarily when you switch the ignition on to confirm the lamp is functional. If it does not illuminate when you switch the ignition on, or begins to flash at any time, have the system checked by an authorized dealer. If the brake warning lamp illuminates with the parking brake released, have the system checked immediately.

## HINTS ON DRIVING WITH ANTI-LOCK BRAKES

The anti-lock braking system does not eliminate the risks when:

- You drive too closely to the vehicle in front of you.
- Your vehicle is hydroplaning.
- You take corners too fast.
- The road surface is poor.

# Brakes

**Note:** If the system activates, the brake pedal may pulse and may travel further. Maintain pressure on the brake pedal. You may also hear a noise from the system. This is normal.

## PARKING BRAKE

### Vehicles With Automatic Transmission



**WARNING:** Always set the parking brake fully and leave your vehicle with the transmission selector lever in position P.

**Note:** If you park your vehicle on a hill and facing uphill move the transmission selector lever to position P and turn the steering wheel away from the curb.

**Note:** If you park your vehicle on a hill and facing downhill move the transmission selector lever to position P and turn the steering wheel toward the curb.

### Vehicles With Manual Transmission



**WARNING:** Always set the parking brake fully.

**Note:** If you park your vehicle on a hill and facing uphill select first gear and turn the steering wheel away from the curb.

**Note:** If you park your vehicle on a hill and facing downhill select reverse gear and turn the steering wheel toward the curb.

### All Vehicles

**Note:** Do not press the release button while pulling the lever up.

To apply the parking brake:

1. Press the foot brake pedal firmly.
2. Pull the parking brake lever up to its fullest extent.

To release the parking brake:

1. Press the brake pedal firmly.
2. Pull the lever up slightly.
3. Press the release button and push the lever down.

## HILL START ASSIST



**WARNING:** The system does not replace the parking brake. When you leave your vehicle, always apply the parking brake.



**WARNING:** You must remain in your vehicle when the system turns on. At all times, you are responsible for controlling your vehicle, supervising the system and intervening, if required. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.



**WARNING:** The system will turn off if a malfunction is apparent or if you rev the engine excessively. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.

The system makes it easier to pull away when your vehicle is on a slope without the need to use the parking brake.

When the system is active, your vehicle remains stationary on the slope for two to three seconds after you release the brake pedal. This allows time to move your foot from the brake to the accelerator pedal. The system releases the brakes automatically once the engine has

# Brakes

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developed sufficient torque to prevent your vehicle from rolling down the slope. This is an advantage when pulling away on a slope, for example from a car park ramp, traffic lights or when reversing uphill into a parking space.

The system activates on any slope that causes your vehicle to roll.

**Note:** *There is no warning light to indicate the system is either on or off.*

## Using Hill Start Assist

1. Press the brake pedal to bring your vehicle to a complete standstill. Keep the brake pedal pressed and shift into first gear when facing uphill or reverse (R) when facing downhill.
2. If the sensors detect that your vehicle is on a slope, the system activates automatically.
3. When you remove your foot from the brake pedal, your vehicle remains on the slope without rolling away for about two to three seconds. This hold time automatically extends if you are in the process of driving off.
4. Drive off in the normal manner. The system releases the brakes automatically.

**Note:** *When you remove your foot from the brake pedal and press the pedal again when the system is active, you will experience significantly reduced brake pedal travel. This is normal.*

## Switching the System On and Off

### Vehicles with Manual Transmission

You can switch this feature on or off in the information display. The system remembers the last setting when you start your vehicle.

### Vehicles with Automatic Transmission

You cannot turn the system on or off. When you switch the ignition on, the system automatically turns on.

# Traction Control (If Equipped)

## PRINCIPLE OF OPERATION

The traction control system helps avoid drive wheel spin and loss of traction.

If your vehicle begins to slide, the system applies the brakes to individual wheels and, when needed, reduces engine power at the same time. If the wheels spin when accelerating on slippery or loose surfaces, the system reduces engine power in order to increase traction.

## USING TRACTION CONTROL



**WARNING:** The stability and traction control light illuminates steadily if the system detects a failure. Make sure you did not manually disable the traction control system using the switch. If the stability control and traction control light is still illuminating steadily, have the system serviced by an authorized dealer immediately. Operating your vehicle with traction control disabled could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

The system automatically turns on each time you switch the ignition on.

If your vehicle is stuck in mud or snow, switching traction control off may be beneficial as this allows the wheels to spin.

**Note:** When you switch traction control off, stability control remains fully active.

## Switching the System Off



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The switch for the stability and traction control system is on the instrument panel.

When you switch the system off, a message and an illuminated icon appear on the instrument cluster.

Use the switch again to return the traction control system to normal operation.

Your vehicle may have MyKey restrictions regarding this feature. See **Principle of Operation** (page 54).

## System Indicator Lights and Messages



The stability and traction control light temporarily illuminates on engine start-up and flashes:

- When a driving condition activates either of the systems.
- If a problem occurs in either of the systems.



The stability and traction control off light temporarily illuminates on engine start-up and stays on:

- When you switch the traction control system off.
- When you select an alternative stability control mode.

# Stability Control (If Equipped)

## PRINCIPLE OF OPERATION



**WARNING:** Vehicle modifications involving braking system, aftermarket roof racks, suspension, steering system, tire construction and wheel and tire size may change the handling characteristics of your vehicle and may adversely affect the performance of the electronic stability control system. In addition, installing any stereo loudspeakers may interfere with and adversely affect the electronic stability control system. Install any aftermarket stereo loudspeaker as far as possible from the front center console, the tunnel, and the front seats in order to minimize the risk of interfering with the electronic stability control sensors. Reducing the effectiveness of the electronic stability control system could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.



**WARNING:** Remember that even advanced technology cannot defy the laws of physics. It's always possible to lose control of a vehicle due to inappropriate driver input for the conditions. Aggressive driving on any road condition can cause you to lose control of your vehicle increasing the risk of personal injury or property damage. Activation of the electronic stability control system is an indication that at least some of the tires have exceeded their ability to grip the road; this could reduce the operator's ability to control the vehicle potentially resulting in a loss of vehicle control, vehicle rollover, personal injury and death. If your electronic stability control system activates, SLOW DOWN.

The system automatically turns on each time you switch the ignition on.

If the stability control or traction control system detects a fault, the following may occur:

- The stability and traction control light illuminates steadily.
- The stability control and traction control systems do not enhance your vehicle's ability to maintain traction of the wheels.

If the stability control or traction control system activates, the following may occur:

- The stability and traction control light flashes.
- Your vehicle slows down.
- Reduced engine power.
- A vibration in the brake pedal.
- The brake pedal is stiffer than usual.
- If the driving condition is severe and your foot is not on the brake pedal, the pedal may move as the system applies higher brake force.

The stability control system has several features built into it to help you maintain control of your vehicle.

### Electronic Stability Control

The system helps to prevent your vehicle skidding or laterally sliding by individually applying the brakes to one or more wheels and, if necessary, reducing engine power.

### Roll Stability Control

The system helps to prevent rollovers by detecting your vehicle's roll motion, and individually applying the brakes to one or more wheels.

### Traction Control

The system enhances your vehicle's ability to maintain traction of the wheels by detecting and controlling wheel spin. See **Using Traction Control** (page 162).

## Stability Control (If Equipped)

### USING STABILITY CONTROL

#### AdvanceTrac™ with Roll Stability Control™ (RSC™)

The system automatically turns on each time you switch the ignition on.

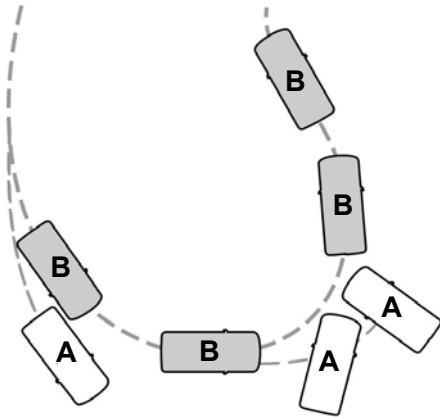


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You can switch the electronic stability control systems off.

When you shift the transmission into reverse (R), the systems are disabled.

You can switch the traction control system off or on independently. See **Using Traction Control** (page 162).



E72903

- A Vehicle without stability control skidding off its intended route.
- B Vehicle with stability control maintaining control on a slippery surface.

#### AdvanceTrac with RSC Features

Button functions	Stability control OFF light	Roll stability control	Electronic stability control	Traction control system
Default at start-up	Illuminated during bulb check	Enabled	Enabled	Enabled
Button pressed momentarily	Illuminated	Enabled	Enabled	Disabled
Button pressed and held for more than 5 seconds	Illuminated	After Enabled <sup>1</sup>	Disabled	Disabled

## Stability Control (If Equipped)

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<b>AdvanceTrac with RSC Features</b>				
Button pressed again after deactivation	Not illuminated	Enabled	Enabled	Enabled
Transfer case switched to 4WD Low	Illuminated	Enabled <sup>1</sup>	Disabled	Disabled

<sup>1</sup> Roll Stability Control is disabled in the Sand Terrain Mode.

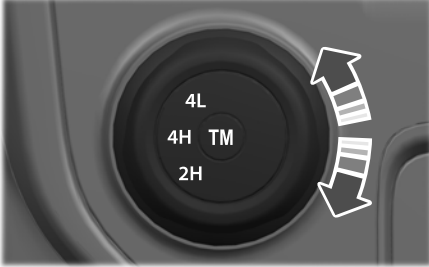


# Terrain Control (If Equipped)

## PRINCIPLE OF OPERATION

### Using the Terrain Management System

The terrain management system optimizes drivability and comfort by maximizing traction when operating on different types of terrain.



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Press the TM button on the center console to choose between the following modes:

**Note:** Make terrain mode selections by toggling through mode icons in the information display.



**Normal** - For on-road conditions. Select this mode before driving on surfaces which are similar to a hard road surface or once the need for a special mode has passed.

**Note:** This is the default when you switch on your vehicle and whenever you select 4x2 via the four-wheel drive control.



**Grass/Gravel/Snow** - For on-road conditions. Select this mode where loose or slippery material such as packed snow, ice, water, grass, or a thin layer of gravel or sand covers a firm surface. If your vehicle cannot gain traction in deep snow, switching off the traction control system may help.

**Note:** Make sure you switch traction control back on when you regain traction.



**Mud/Ruts** - For off-road conditions. Select this mode for muddy, rutted, soft or uneven terrain.



**Sand** - For off-road conditions. Select this mode in soft dry sand or deep gravel. If crossing wet sand that may be sufficiently deep enough for the wheels to sink into the surface, select Mud/Ruts mode.

**Note:** The Grass/Gravel/Snow, Sand and Mud/Ruts modes are for off-road use only.

**Note:** The curve control portion of the AdvanceTrac® system is unavailable when you select Sand or Mud/Ruts. If the system becomes inoperable, selecting some modes may not be possible and a message displays. If it becomes inoperable due to a system fault, all of the mode indicators on the control turn off and one of the following messages appears in the information display:

## TERRAIN MANAGEMENT SYSTEM FAULT

Switching the engine on and off may clear the fault. If that does not work, have the system serviced by an authorized dealer.

## MODE CHANGE NOT ACCEPTED, RETRY

This mode change cannot be made at the time of your request. Try the mode change again.

## Off-road Screen

You can continuously monitor the real-time status of your vehicle's off-road systems using the information display.

## Terrain Control (If Equipped)

---

**Note:** Operating your vehicle in any of the off-road modes does not guarantee that it cannot become stuck in sand, snow or mud or other debris. It is your responsibility to assess off-road situations and determine if the terrain is passable.

### Transfer Case Availability

Drive selection / Terrain mode	Normal <sup>1</sup>	Grass/Gravel/Snow	Mud/Ruts	Sand
4x2	Available	Not Available	Not Available	Not Available
4x4 High	Available	Available	Available	Available
4x4 Low	Available	Available	Available	Available

<sup>1</sup> Default Terrain Mode across ignition cycles.

# Trail Control

## ABOUT TRAIL CONTROL



**WARNING:** The system does not control speed in low traction conditions or extremely steep slopes. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in personal injury.



**WARNING:** The system does not replace the parking brake. When you leave your vehicle, always apply the parking brake and shift the transmission into park (P) for automatic transmission or first gear for manual transmission.

Trail control lets you focus on steering during low-speed and off-road use by controlling your vehicle's acceleration and braking.

You can use trail control under the following speeds:

- 20 mph (31 km/h) in two-wheel or four-wheel drive high range.
- 10 mph (15 km/h) in four-wheel drive low range.
- 5 mph (8 km/h) in reverse (R).

You may hear a noise from the anti-lock brake system pump motor when you use the system. This is normal.

## SWITCHING TRAIL CONTROL ON AND OFF



Press the button.

The system switches off if you press the button again or exceed 42 mph (68 km/h).

## SETTING THE TRAIL CONTROL SPEED

**Note:** *The buttons are on the steering wheel.*

Drive to your preferred speed.

**SET+**

Press button to increase the set current speed.

**SET-**

Press button to decrease the set current speed.

**Note:** *The indicator changes color.*

You can adjust the set speed in small or large increments. Press the toggle button upward or downward once to adjust the set speed in small increments. Press and hold the toggle button upward or downward to adjust the set speed in large increments.

You can also adjust the set speed by braking.

**Note:** *Pressing the brake pedal does not switch off the system.*

## CANCELLING THE SET SPEED

**CNCL**

Press the button.

## TRAIL CONTROL INDICATOR



# Trail Control

## TRAIL CONTROL – TROUBLESHOOTING

### Trail Control – Information Messages

Message	Action
Reduce Speed To Enter Trail Control	Displays when you must reduce your vehicle speed to use trail control.
Trail Control Not Available with Park Brake Applied	Displays when you must release the park brake to use trail control.
Trail Control Not Available While Pro Trailer Backup Assist™ Active	Displays when you must switch off the trailer backup assist to use trail control.
Trail Control Enabled Use SET Button to Set Speed	Displays when you successfully enabled trail control and can set a speed with the <b>SET+</b> or <b>SET-</b> control.
Trail Control Off Driver Resume Control	Displays when a system fault has occurred when trail control was active and the driver must resume control.
Trail Control Off	Displays when the system has turned off.
Trail Control Fault See Manual	Displays when a system fault is present. See the trail control section in your Owner's Manual.
Trail Control To Activate Select Gear	Displays when you must be in drive (D), neutral (N) or reverse (R) to use trail control.
Trail Control Not Available with Cruise Control Active	Displays when you must switch the cruise control off to use trail control.
Trail Control Not Available with Driver Door Open	Displays when you must close the driver door to use trail control.
Set Trail Control to 2 km/h to Aid in Getting Unstuck in Sand	Displays when the system detects you may be stuck in sand and turns trail control on to the lowest set speed.

# Parking Aids

## PRINCIPLE OF OPERATION



**WARNING:** To help avoid personal injury, always use caution when in reverse (R) and when using the sensing system.



**WARNING:** The system may not detect objects with surfaces that absorb reflection. Always drive with due care and attention. Failure to take care may result in a crash.



**WARNING:** Traffic control systems, inclement weather, air brakes, external motors and fans may affect the correct operation of the sensing system. This may cause reduced performance or false alerts.



**WARNING:** The system may not detect small or moving objects, particularly those close to the ground.

**Note:** If your vehicle is equipped with MyKey™, the sensing system cannot be turned off when a MyKey™ is present. See **Principle of Operation** (page 54).

**Note:** Keep the sensors, located on the bumper or fascia, free from snow, ice and large accumulations of dirt. If the sensors are covered, the system's accuracy can be affected. Do not clean the sensors with sharp objects.

**Note:** If your vehicle sustains damage to the bumper or fascia, leaving it misaligned or bent, the sensing zone may be altered causing inaccurate measurement of obstacles or false alerts.

**Note:** Certain add-on devices installed around the bumper or fascia may create false alerts. For example, large trailer hitches, bike or surfboard racks, license plate brackets, bumper covers or any other device that may block the normal detection zone of the system. Remove the add-on device to prevent false alerts.

**Note:** When a trailer is connected to your vehicle, the rear parking aid may detect the trailer and therefore provide an alert. Disable the rear parking aid when a trailer is connected to prevent the alert.

The sensing system warns the driver of obstacles within a certain range of your vehicle. The system turns on automatically whenever you switch the ignition on.

The system can be switched off through the information display menu or from the pop-up message that appears once you shift the transmission into reverse (R). See **General Information** (page 87).

If a fault is present in the system, a warning message appears in the information display. See **Information Messages** (page 95).

## REAR PARKING AID (IF EQUIPPED)

The rear sensors are only active when the transmission is in reverse (R). As your vehicle moves closer to the obstacle, the rate of the audible warning increases. When the obstacle is less than 12 in (30 cm) away, the warning sounds continuously. If the system detects a stationary or receding object farther than 12 in (30 cm) from the corners of the bumper, the tone sounds for only three seconds. Once the system detects an object approaching, the warning sounds again.

# Parking Aids



E130178

Coverage area of up to 6 ft (1.8 m) from the rear bumper. There may be decreased coverage area at the outer corners of the bumper.

The system detects certain objects while the transmission is in reverse (R) :

- Your vehicle is moving toward a stationary object at a speed of 3 mph (5 km/h) or less.
- Your vehicle is not moving, but a moving object is approaching the rear of your vehicle at a speed of 3 mph (5 km/h) or less.
- Your vehicle is moving at a speed of less than 3 mph (5 km/h) and a moving object is approaching the rear of your vehicle at a speed of less than 3 mph (5 km/h).

The system provides audio warnings only when your vehicle is moving or when your vehicle is stationary and the detected obstacle is less than 12 in (30 cm) away from the bumper.

## Obstacle Distance Indicator (If Equipped)

The system provides obstacle distance indication through the information display. The distance indicator displays when the transmission is in reverse (R).

The indicator displays:

- As the distance to the obstacle decreases the indicator blocks illuminate and move towards the vehicle icon.
- If there is no obstacle detected, the distance indicator blocks are grayed out.

## FRONT PARKING AID (IF EQUIPPED)

The front sensors are active when the transmission is in any position other than park (P) and your vehicle is traveling at low speed.



E187330

Coverage area of up to 28 in (70 cm) from the front bumper. The coverage area decreases at the outer corners.

When your vehicle approaches an object, a warning tone sounds. When your vehicle moves closer to an object, the warning tone repeat rate increases. The warning tone sounds continuously when an object is 12 in (30 cm) or less from the front bumper.

# Parking Aids

You can switch the system off through the information display menu or from the pop-up message that appears once you shift the transmission into reverse (R). See **General Information** (page 87). If your vehicle has a parking aid button, you can switch the system off by pressing the button.

## Obstacle Distance Indicator (if Equipped)

The system provides obstacle distance indication through the information display.

The indicator displays:

- As the distance to the obstacle decreases the indicator blocks illuminate and move towards the vehicle icon.
- If there is no obstacle detected, the distance indicator blocks are grayed out.

If the transmission is in reverse (R), the front sensing system provides audio warnings when your vehicle is moving and the detected obstacle is moving towards your vehicle. Once the vehicle is stationary, the audio warning will be stopped after 2 seconds. Visual indication is always present in reverse (R).

If the transmission is in drive (D) or any other forward gear (for example, low (L), sport (S) or any forward gear in a manual transmission), the front sensing system provides audio and visual warnings when your vehicle is moving below a speed of 5 mph (8 km/h) and an obstacle is located inside the detection area. Once the vehicle is stationary, the audio warning will be stopped after 2 seconds and the visual indication stops after 4 seconds. If the obstacles detected are within 12 in (30 cm), the visual indication remains on.

If the transmission is in neutral (N), the system provides visual indication only when your vehicle is moving at 5 mph (8 km/h) or below and an obstacle is located inside the detection area. Once your vehicle is stationary, the visual indication will stop after 4 seconds.

## REAR VIEW CAMERA



**WARNING:** The rear view camera system is a reverse aid supplement device that still requires the driver to use it in conjunction with the interior and exterior mirrors for maximum coverage.



**WARNING:** Objects that are close to either corner of the bumper or under the bumper, might not be seen on the screen due to the limited coverage of the camera system.



**WARNING:** Reverse your vehicle slowly. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** Use caution when the rear cargo door is ajar. If the rear cargo door is ajar, the camera will be out of position and the video image may be incorrect. All guidelines disappear when the rear cargo door is ajar. Failure to follow this instruction could result in personal injury.



**WARNING:** Use caution when turning camera features on or off when the transmission is not in park (P). Make sure your vehicle is not moving.

The rear view camera system provides a video image of the area behind your vehicle.

# Parking Aids

During operation, lines appear in the display which represent your vehicle's path and proximity to objects behind your vehicle.



The rear view camera is on the tailgate.

## Using the Rear View Camera System

The rear view camera system displays what is behind your vehicle when you place the transmission in reverse (R).

The system uses three types of guides to help you see what is behind your vehicle:

- Active guidelines: Show the intended path of your vehicle while reversing.
- Fixed guidelines: Show the actual path your vehicle is moving in while reversing in a straight line. This can be helpful when backing into a parking space or aligning your vehicle with another object behind you.
- Centerline: Helps align the center of your vehicle with an object (for example, a trailer).

**Note:** *If the image comes on while the transmission is not in reverse (R), have the system inspected by your authorized dealer.*

**Note:** *When towing, the camera only sees what you are towing behind your vehicle. This might not provide adequate coverage as it usually provides in normal operation and you might not see some objects. In some vehicles, the guidelines may disappear once you engage the trailer tow connector.*

The camera may not operate correctly under the following conditions:

- Nighttime or dark areas if the reverse lamps are not operating.
- Mud, water or debris obstructs the camera's view. Clean the lens with a soft, lint-free cloth and non-abrasive cleaner.
- The rear of your vehicle is hit or damaged, causing the camera to become misaligned.

## Camera System Settings

You can access the rear view camera system settings in the display screen. See **Settings** (page 389).

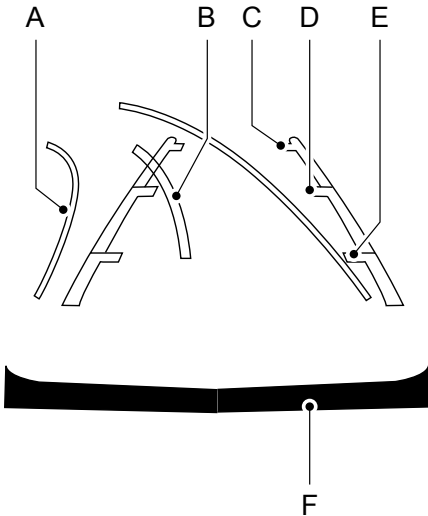
## Camera guidelines

**Note:** *Active guidelines and fixed guidelines are only available when the transmission is in reverse (R).*

**Note:** *The centerline is only available if active or fixed guidelines are on.*



# Parking Aids



E142436

- A Active guidelines
- B Centerline
- C Fixed guideline: Green zone
- D Fixed guideline: Yellow zone
- E Fixed guideline: Red zone
- F Rear bumper

Active guidelines only show with fixed guidelines. To use active guidelines, turn the steering wheel to point the guidelines toward an intended path. If the steering wheel position changes while reversing, your vehicle might deviate from the original intended path.

The fixed and active guidelines fade in and out depending on the steering wheel position. The active guidelines do not show when the steering wheel position is straight.

Always use caution while reversing. Objects in the red zone are closest to your vehicle and objects in the green zone are farther away. Objects are getting closer to your vehicle as they move from the green zone to the yellow or red zones. Use the side view mirrors and rear view mirror to get better coverage on both sides and rear of your vehicle.

## Obstacle Distance Indicator (If

Equipped)



E190459

The system provides an image of your vehicle and the sensor zones. The zones will highlight green, yellow and red when the parking aid sensors detect an object in the coverage area.

# Parking Aids

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## Manual Zoom



**WARNING:** When manual zoom is on, the full area behind your vehicle may not show. Be aware of your surroundings when using the manual zoom feature.

**Note:** *Manual zoom is only available when the transmission is in reverse (R).*

**Note:** *Only the centerline shows when you enable manual zoom.*

Selectable settings for this feature are zoom in (+) and zoom out (-). Press the symbol on the camera screen to change the view. The default setting is zoom off.

This allows you to get a closer view of an object behind your vehicle. The zoomed image keeps the bumper in the image to provide a reference. The zoom is only active while the transmission is in reverse (R).

## Rear Camera Delay

Selectable settings for this feature are on and off. The default setting for the rear camera delay is OFF.

When shifting the transmission out of reverse (R) and into any gear other than park (P), the camera image remains in the display until your vehicle speed reaches 6 mph (10 km/h). This occurs when the rear camera delay feature is on.

# Cruise Control (If Equipped)

## PRINCIPLE OF OPERATION

Cruise control lets you maintain a set speed without keeping your foot on the accelerator pedal. You can use cruise control when your vehicle speed is greater than 20 mph (30 km/h).

## USING CRUISE CONTROL



**WARNING:** Do not use cruise control on winding roads, in heavy traffic or when the road surface is slippery. This could result in loss of vehicle control, serious injury or death.



**WARNING:** When you are going downhill, your vehicle speed could increase above the set speed. The system does not apply the brakes.

**Note:** The system cancels if your vehicle speed drops below 10 mph (16 km/h) under the set speed when driving uphill.



E266656

The cruise controls are on the steering wheel. See **Cruise Control** (page 64).

## Switching Cruise Control On

Press **ON**.



The indicator appears in the information display.

## Setting the Cruise Speed

Drive to the speed you prefer.

**SET+**

Press to set the current speed.

**SET-**

Press to set the current speed.

Take your foot off the accelerator pedal.

**Note:** The indicator changes color.

## Changing the Set Speed

**SET+**

Press and release to increase the set speed in small increments.

**SET-**

Press and release to decrease the set speed in small increments.

Press and hold either button to accelerate or decelerate, respectively. Release the button when you reach the speed you prefer.

Press the accelerator or brake pedal until you reach the speed you prefer. Press either button.

**Note:** If you accelerate by pressing only the accelerator pedal, the set speed does not change. When you release the accelerator pedal, your vehicle returns to the speed that you previously set.

## Canceling the Set Speed

**CAN**

Press the button, or tap the brake pedal to cancel the set speed.

**Note:** The system remembers the set speed.

# Cruise Control (If Equipped)

## Resuming the Set Speed

**RES**

Press to resume the set speed.

## Switching Cruise Control Off

**OFF**

Press and release the button when the system is in standby mode or switch the ignition off.

**Note:** *You erase the set speed when you switch the system off.*

## USING ADAPTIVE CRUISE CONTROL



**WARNING:** Always pay close attention to changing road conditions when using adaptive cruise control. The system does not replace attentive driving. Failing to pay attention to the road may result in a crash, serious injury or death.



**WARNING:** Do not use the adaptive cruise control when entering or leaving a highway, on roads with intersections or roundabouts or non-vehicular traffic or roads that are winding, slippery, unpaved, or steep slopes.



**WARNING:** Do not use the system in poor visibility, for example fog, heavy rain, spray or snow.



**WARNING:** Do not use the system when towing a trailer that has aftermarket electronic trailer brake controls. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** Do not use tire sizes other than those recommended because this can affect the normal operation of the system. Failure to do so may result in a loss of vehicle control, which could result in serious injury.



**WARNING:** Adaptive cruise control may not detect stationary or slow moving vehicles below 6 mph (10 km/h).



**WARNING:** Adaptive cruise control does not detect pedestrians or objects in the road.



**WARNING:** Adaptive cruise control does not detect oncoming vehicles in the same lane.



**WARNING:** Adaptive cruise control is not a crash warning or avoidance system.



**WARNING:** Do not use adaptive cruise control with a snow plow blade installed.

The system adjusts your vehicle speed to maintain the set gap between you and the vehicle in front of you in the same lane. You can select four gap settings.

The system uses a radar sensor that projects a beam directly in front of your vehicle.

# Cruise Control (if Equipped)



E266656

The adaptive cruise controls are on the steering wheel.

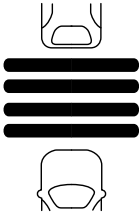
## Switching Adaptive Cruise Control On



Press and release the button.



The indicator, current gap setting and set speed appear in the information display.



E164805

## Setting the Adaptive Cruise Speed

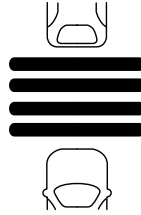
Drive to the speed you prefer.



Press and release either button.

Take your foot off the accelerator pedal.

The indicator, current gap setting and set speed appear in the information display.



E164805

A vehicle graphic illuminates if there is a vehicle detected in front of you.

**Note:** When adaptive cruise control is active, the speedometer may vary slightly from the set speed displayed in the information display.

## Following a Vehicle



**WARNING:** When following a vehicle, your vehicle does not decelerate automatically to a stop, nor does your vehicle always decelerate quickly enough to avoid a crash without driver intervention. Always apply the brakes when necessary. Failing to do so may result in a crash, serious injury or death.



**WARNING:** Adaptive cruise control only warns of vehicles detected by the radar sensor. In some cases there may be no warning or a delayed warning. You should always apply the brakes when necessary. Failure to do so may result in a crash, serious injury or death.

**Note:** When you are following a vehicle and you switch on a direction indicator, adaptive cruise control may provide a small temporary acceleration to help you pass.

**Note:** The brakes may emit noise when applied by the system.

# Cruise Control (If Equipped)

When a vehicle ahead of you enters the same lane or a slower vehicle is ahead in the same lane, the vehicle speed adjusts to maintain a preset gap distance. A vehicle graphic illuminates in the instrument cluster.

Your vehicle maintains a consistent gap from the vehicle ahead until:

- The vehicle in front of you accelerates to a speed above the set speed.
- The vehicle in front of you moves out of the lane you are in.
- Your vehicle speed falls below 12 mph (20 km/h).
- You set a new gap distance.

The system applies the brakes to slow your vehicle to maintain a safe gap distance from the vehicle in front. The system only applies limited braking. You can override the system by applying the brakes.

If the system determines that its maximum braking level is not sufficient, an audible warning sounds, a message appears in the information display and an indicator flashes when the system continues to brake. Take immediate action.

## Setting the Gap Distance

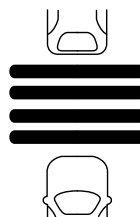
You can decrease or increase the distance between your vehicle and the vehicle in front by pressing the gap control.



Press and release to decrease the gap distance.



Press and release to increase the gap distance.



E164805

The selected gap appears in the information display as shown by the bars in the image.

**Note:** *The gap setting is time dependent and therefore the distance adjusts with your vehicle speed.*


**Note:** *It is your responsibility to select a gap appropriate to the driving conditions.*

## Adaptive Cruise Control Gap Settings

Graphic display, bars indicated between vehicles	Distance Gap	Dynamic behavior
1	Closest.	Sport.
2	Close.	Normal.
3	Medium.	Normal.
4	Far.	Comfort.

Each time you switch the system on, it selects the last chosen gap setting.

## Overriding the Set Speed



**WARNING:** If you override the system by pressing the accelerator pedal, it does not automatically apply the brakes to maintain a gap from any vehicle ahead.

# Cruise Control (If Equipped)

When you press the accelerator pedal, you override the set speed and gap distance.



Use the accelerator pedal normally to intentionally exceed the set speed limit.

When you override the system, the green indicator light illuminates and the vehicle image does not appear in the information display.

The system resumes operation when you release the accelerator pedal. The vehicle speed decreases to the set speed, or a lower speed if following a slower vehicle.

## Changing the Set Speed

**SET+**

Press and release to increase the set speed in small increments.

**SET-**

Press and release to decrease the set speed in small increments.

Press and hold either button to change the set speed in large increments. Release the button when you reach the speed you prefer.

Press the accelerator or brake pedal until you reach the speed you prefer. Press either button.

The system may apply the brakes to slow the vehicle to the new set speed. The set speed displays continuously in the information display when the system is active.

## Canceling the Set Speed

**CAN**

Press and release the button or tap the brake pedal.

The set speed does not erase.

## Resuming the Set Speed

**RES**

Press and release the button.

Your vehicle speed returns to the previously set speed and gap setting. The set speed displays continuously in the information display when the system is active.

**Note:** *Only use resume if you are aware of the set speed and intend to return to it.*

## Automatic Cancellation

The system is not functional at vehicle speeds below 12 mph (20 km/h). The information display indicates low engine speed, an audible alarm sounds and the automatic braking releases if the vehicle drops below this speed.

Automatic cancellation can also occur when:

- The tires lose traction.
- You apply the parking brake.

**Note:** *If the engine speed drops too low, an audible warning sounds and a message appears in the information display. Automatic braking releases.*

## Hilly Condition Usage

**Note:** *An audible alarm sounds and the system shuts down if it applies brakes for an extended period of time. This allows the brakes to cool. The system functions normally again when the brakes have cooled.*

Select a lower gear during prolonged downhill driving on steep slopes, such as mountainous areas, when the system is active. In such situations, the system needs additional engine braking to reduce the load on the vehicle's regular brake system to prevent the brakes from overheating.

# Cruise Control (If Equipped)

## Switching Adaptive Cruise Control Off

**OFF**

Press and release the button when the system is in standby mode, or switch the ignition off.

**Note:** You erase the set speed and gap setting when you switch the system off.

## Detection Issues



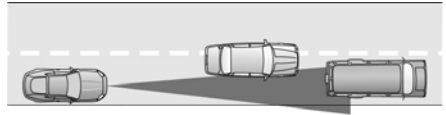
**WARNING:** On rare occasions, detection issues can occur due to the road infrastructures, for example bridges, tunnels and safety barriers. In these cases, the system may brake late or unexpectedly. At all times, you are responsible for controlling your vehicle, supervising the system and intervening, if required.



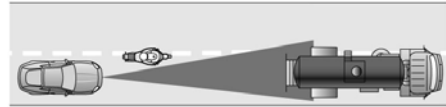
**WARNING:** If the system malfunctions, have your vehicle checked as soon as possible.

The radar sensor has a limited field of view. It may not detect vehicles at all or detect a vehicle later than expected in some situations. The lead vehicle graphic does not illuminate if the system does not detect a vehicle in front of you.

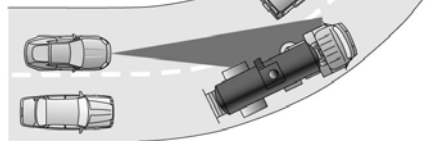
**A**



**B**



**C**



E71621

Detection issues can occur:

- A When driving on a different line than the vehicle in front.
- B With vehicles that edge into your lane. The system can only detect these vehicles once they move fully into your lane.
- C There may be issues with the detection of vehicles in front when driving into and coming out of a bend or curve in the road.

In these cases, the system may brake late or unexpectedly. You should stay alert and take action when necessary.

If something hits the front end of your vehicle or damage occurs, the radar-sensing zone may change. This could cause missed or false vehicle detection.



# Cruise Control (If Equipped)

Optimal system performance requires a clear view of the road by the windshield-mounted camera.

Optimal performance may not occur if:

- The camera is blocked.
- There is poor visibility or lighting conditions.
- There are bad weather conditions.

## System Not Available

Conditions that can cause the system to deactivate or prevent the system from activating when requested include:

- A blocked sensor.
- High brake temperature.
- A failure in the system or a related system.

## Blocked Sensor



E145632

A message displays if something obstructs the radar signals from the sensor. The sensor is in the lower grille. The system cannot detect a vehicle ahead and does not function when something blocks the sensor.

**Note:** *You cannot see the sensor. It is behind a fascia panel.*

Keep the front of your vehicle free of dirt, metal badges or objects. Vehicle front protectors and aftermarket lights may also block the sensor.

## Possible Causes and Actions for This Message Displaying:

Cause	Action
The surface of the radar is dirty or obstructed.	Clean the grille surface in front of the radar or remove the object causing the obstruction.
The surface of the radar is clean but the message remains in the display.	Wait a short time. It may take several minutes for the radar to detect that it is free from obstruction.
Heavy rain or snow is interfering with the radar signals.	Do not use the system in these conditions because it may not detect any vehicles ahead.

## Cruise Control (If Equipped)

Cause	Action
Water, snow or ice on the surface of the road may interfere with the radar signals.	Do not use the system in these conditions because it may not detect any vehicles ahead.
You are in a desert or remote area with no other vehicles and no roadside objects.	Wait a short time or switch to normal cruise control.

Due to the nature of radar technology, it is possible to get a blockage warning with no actual block. A false blocked condition either self clears, or clears after you restart your vehicle.

### Switching to Normal Cruise Control



**WARNING:** Normal cruise control will not brake when your vehicle is approaching slower vehicles. Always be aware of which mode you have selected and apply the brakes when necessary.



The cruise control indicator light replaces the adaptive cruise control indicator light if you select normal cruise control. The gap setting does not display, and the system does not respond to lead vehicles. Automatic braking remains active to maintain set speed.

You can change from adaptive cruise control to normal cruise control through the information display.

# Driving Aids

## DRIVER ALERT (IF EQUIPPED)

### PRINCIPLE OF OPERATION



**WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** The system may not function if the sensor is blocked.



**WARNING:** Take regular rest breaks if you feel tired. Do not wait for the system to warn you.



**WARNING:** Certain driving styles may result in the system warning you even if you are not feeling tired.



**WARNING:** In cold and severe weather conditions the system may not function. Rain, snow and spray can all limit sensor performance.



**WARNING:** The system will not operate if the sensor cannot track the road lane markings.



**WARNING:** If damage occurs in the immediate area surrounding the sensor, have your vehicle checked as soon as possible.



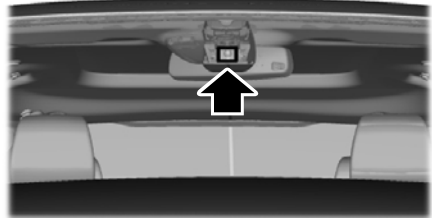
**WARNING:** The system may not correctly operate if your vehicle is fitted with a suspension kit not approved by us.

**Note:** The system may not operate correctly if you modify the ride height.

**Note:** Keep the windshield free from obstructions. For example, bird droppings, insects, snow or ice.

**Note:** If the camera is blocked or if the windshield is damaged, the system may not function.

**Note:** If enabled in the menu, the system activates at speeds above 40 mph (64 km/h). When below the activation speed, the information display informs the driver that the system is unavailable.



E249505

The system automatically monitors your driving behavior using various inputs including the front camera sensor.

If the system detects that your driving alertness is reduced below a certain threshold, the system alerts you using a chime and a message in the information display.

## USING DRIVER ALERT

### Switching the System On and Off

Switch the system on or off using the information display. See **General Information** (page 87).

When active, the system monitors your alertness level based upon your driving behavior in relation to the lane markings and other factors.

# Driving Aids

## System Warnings

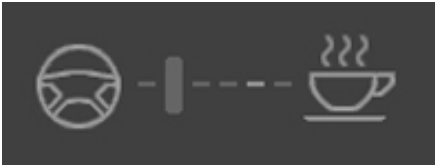
**Note:** *The system does not issue warnings below approximately 40 mph (64 km/h).*

The warning system has two stages. First, the system issues a temporary warning that you need to take a rest. This message only appears for a short time. If the system detects further reduction in driving alertness, it may issue another warning that remains in the information display for a longer time. You can press OK on the steering wheel control to clear the warning.

## System Display

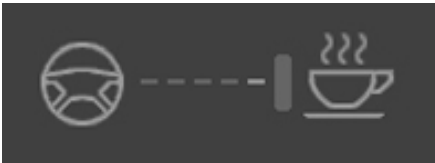
When active, the system runs automatically in the background and only issues a warning if required. You can view the status at any time using the information display. See **General Information** (page 87).

The alertness level is shown by six steps in a colored bar.



E131358

The current assessment of your alertness is within a typical range.



E131359

The current assessment of your alertness indicates that you should rest as soon as safely possible.

The status bar travels from left to right as the calculated alertness level decreases. As the meter approaches the rest icon, the color turns from green to yellow to red.

The yellow position indicates the first warning is active and the red position indicates the second warning is active.

**Note:** *If you have recently received a warning, you should consider resting, even if the current assessment is within the typical range.*

**Note:** *If the camera sensor cannot track the road lane markings, or if your vehicle speed drops below approximately 40 mph (64 km/h), the alertness level changes to grey for a short time and the information display informs you that the system is unavailable.*

## Resetting the System

You can reset the system by either:

- Switching the ignition off and on.
- Stopping the vehicle and then opening and closing the driver's door.

## LANE KEEPING SYSTEM (IF

EQUIPPED)





**WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.





**WARNING:** Always drive with due care and attention when using and operating the controls and features on your vehicle.


# Driving Aids


 **WARNING:** In cold and severe weather conditions the system may not function. Rain, snow and spray can all limit sensor performance.

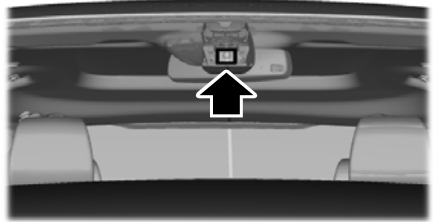
 **WARNING:** The system will not operate if the sensor cannot track the road lane markings.

 **WARNING:** The sensor may incorrectly track lane markings as other structures or objects. This can result in a false or missed warning.

 **WARNING:** The system may not operate properly if the sensor is blocked. Keep the windshield free from obstruction.

 **WARNING:** If damage occurs in the immediate area surrounding the sensor, have your vehicle checked as soon as possible.

 **WARNING:** The system may not correctly operate if your vehicle is fitted with a suspension kit not approved by us.



E249505

When you switch the system on and it detects an unintentional drift out of your lane is likely to occur, the system notifies or assists you to stay in your lane through the steering system and information display. In Alert mode, the system provides a warning by vibrating the steering wheel. In Aid mode, the system provides steering assistance by gently counter steering your vehicle back into the lane.

When the system is functioning in the combined Alert and Aid mode, the system first provides steering assistance by gently counter steering your vehicle back into the lane, followed by a warning that vibrates the steering wheel if the vehicle is still out of the lane markings.

## Switching the System On and Off

**Note:** The system on or off setting is stored until it is manually changed, unless a MyKey is detected. If the system detects a MyKey, it defaults to on and the mode sets to alert.

**Note:** The system works above 40 mph (64 km/h).

**Note:** The system works as long as the camera can detect one lane marking.

**Note:** When you select aid or alert and aid mode and the system detects no steering activity for a short period, the system alerts you to put your hands on the steering wheel. **The system may detect a light grip or touch on the steering wheel as hands off driving.**

**Note:** The system may not function with a blocked camera, or if the windshield is damaged or dirty.



E132099

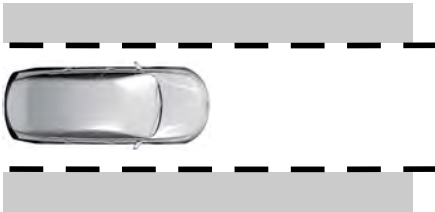
# Driving Aids

Press the button on the direction indicator stalk to switch the system on or off.

## System Settings

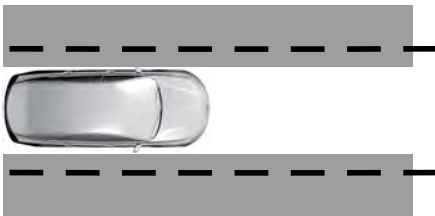
The system has optional setting menus available. The system stores the last known selection for each of these settings. You do not need to readjust your settings each time you switch the system on.

**Mode:** This setting allows you to select which of the system features you can enable.



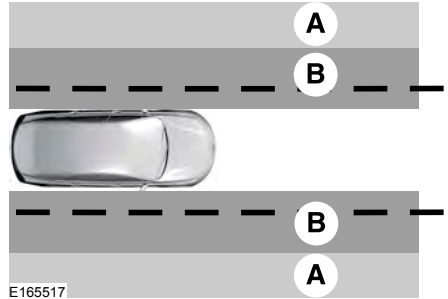
E165515

**Alert only** – Provides a steering wheel vibration when the system detects an unintended lane departure.



E165516

**Aid only** – Provides steering assistance toward the lane center when the system detects an unintended lane departure.



E165517

A Alert

B Aid

**Alert + Aid** – Provides steering assistance toward the lane center.

If your vehicle continues drifting out of the lane after the lane keeping aid corrects the vehicle, the system provides a steering wheel vibration.

**Note:** *The alert and aid diagrams illustrate general zone coverage. They do not provide exact zone parameters.*

**Intensity:** This setting affects the intensity of the steering wheel vibration used for the alert and alert + aid modes. **This setting does not affect the aid mode.**

- Low.
- Normal.
- High.

# Driving Aids

## System Display



E151660

If you switch the system on in alert mode, an overhead graphic of a vehicle with lane markings appears in the information display.

If you switch the system on in aid or alert and aid mode, a separate white icon also appears, or in some vehicles arrows display with the lane markings.

When you switch off the system, the lane marking graphics do not display.

While the system is on, the color of the lane markings change to indicate the system status.

Grey: Indicates that the system is temporarily unable to provide a warning or intervention on the indicated side. This may be because:

- Your vehicle is under the activation speed.
- Your vehicle is in a dynamic maneuver.
- The road has no or poor lane markings in the camera field-of-view.
- The camera is obscured or unable to detect the lane markings due to environmental, traffic or vehicle conditions. For example, significant sun angles, shadows, snow, heavy rain or fog, following a large vehicle that is blocking or shadowing the lane or poor headlamp illumination.

See **Troubleshooting** for additional information.

Green: Indicates that the system is available or ready to provide a warning or intervention on the indicated side.

Yellow: Indicates that the system is providing or has just provided a lane keeping aid intervention.

Red: Indicates that the system is providing or has just provided a lane keeping alert warning.

The system can be temporarily suppressed at any time by the following:

- Quick braking.
- Fast acceleration.
- Using the direction indicator.
- Evasive steering maneuver.
- Driving too close to the lane markings.

## Troubleshooting

<b>Why is the feature not available when I can see the lane markings on the road?</b>
Your vehicle speed is outside the operational range of the feature.
The sun is shining directly into the camera lens.
A quick intentional lane change has occurred.
Your vehicle stays too close to the lane markings.

# Driving Aids

## **Why is the feature not available when I can see the lane markings on the road?**

Driving at high speeds in curves.
The last alert warning or aid intervention occurred a short time ago.
Ambiguous lane markings, for example in construction zones.
Rapid transition from light to dark, or from dark to light.
Sudden offset in lane markings.
ABS or AdvanceTrac™ is active.
There is a camera blockage due to dirt, grime, fog, frost or water on the windshield.
You are driving too close to the vehicle in front of you.
Transitioning between no lane markings to lane markings or vice versa.
There is standing water on the road.
Faint lane markings, for example partial yellow lane markings on concrete roads.
Lane width is too narrow or too wide.
The camera has not been calibrated after a windshield replacement.
Driving on tight roads or on uneven roads.

## **Why does the vehicle not come back toward the middle of the lane, as expected, in the Aid or Alert and Aid mode?**

High cross winds are present.
There is a large road crown.
Rough roads, grooves or shoulder drop-offs.
Heavy uneven loading of the vehicle or improper tire inflation pressure.
The tires have been changed, or the suspension has been modified.



# Driving Aids

## BLIND SPOT INFORMATION SYSTEM (IF EQUIPPED)



**WARNING:** Do not use the blind spot information system as a replacement for using the interior and exterior mirrors or looking over your shoulder before changing lanes. The blind spot information system is not a replacement for careful driving.



**WARNING:** The system may not operate properly during severe weather conditions, for example snow, ice, heavy rain and spray. Always drive with due care and attention. Failure to take care may result in a crash.



E255695

The system is designed to detect vehicles that may have entered the blind spot zone. The detection area is on both sides of your vehicle, extending rearward from the exterior mirrors to approximately 13 ft (4 m) beyond the rear bumper. The detection area extends to approximately 59 ft (18 m) beyond the rear bumper when the vehicle speed is greater than 30 mph (48 km/h) to alert you of faster approaching vehicles.

**Note:** The system does not prevent contact with other vehicles. It is not designed to detect parked vehicles, pedestrians, animals or other infrastructures.

### Using the Blind Spot Information System

#### Vehicles with Automatic Transmission

The system turns on when all of the following occur:

- You start your vehicle.
- You shift into drive (D).
- The vehicle speed is greater than 6 mph (10 km/h).

**Note:** The system does not operate in park (P) or reverse (R).

#### Vehicles with Manual Transmission

The system turns on when all of the following occur:

- You start your vehicle.
- The vehicle speed is greater than 6 mph (10 km/h).

**Note:** The system does not operate in reverse (R).

### System Lights and Messages



E142442

# Driving Aids

When the system detects a vehicle, an alert indicator illuminates in the exterior mirror on the side the approaching vehicle is coming from. If you turn the direction indicator on for that side of your vehicle, the alert indicator flashes.

**Note:** *The system may not alert you if a vehicle quickly passes through the detection zone.*

## Blocked Sensors



E280125

The sensors are inside the tail lamp on both sides of your vehicle.

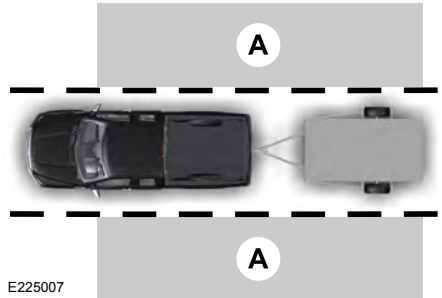
**Note:** *Keep the sensors free from snow, ice and large accumulations of dirt.*

**Note:** *Do not cover the sensors with bumper stickers, repair compound or other objects.*

**Note:** *Blocked sensors could affect system performance.*

If the sensors become blocked, a message may appear in the information display. See **Information Messages** (page 95). The alert indicators remain illuminated but the system does not alert you.

## Blind Spot Information System with Trailer Tow (If Equipped)



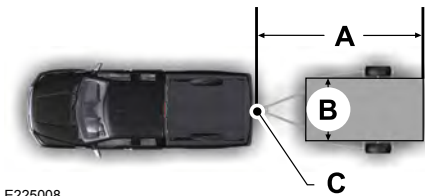
E225007

The blind spot information system with trailer tow is designed to aid you in detecting vehicles that may have entered the detection area zone (A). The detection area is on both sides of your vehicle and trailer, extending rearward from the exterior mirrors to the end of your trailer. When you attach a trailer and have set up a blind spot trailer, the blind spot information system with trailer tow becomes active when driving forward above 6 mph (10 km/h).

You can switch the system off in the information display. See **General Information** (page 87). If you switch the blind spot information system off, blind spot information system with trailer tow automatically turns off.

# Driving Aids

## Setting up a Blind Spot Trailer



E225008

- A Trailer length
- B Trailer width
- C Trailer hitch ball

You can set-up a trailer to work with the system through the information display. See **General Information** (page 87). When setting up a trailer, a sequence of screens appear asking for trailer information.

- Select Trailer Screen: Trailer A, Trailer B or Trailer C.

Select one of the trailers and press OK.

The menu goes to the next screen.

- Is the width less than 8.2 ft (2.5 m) and length less than 33 ft (10 m)?

If no, the system turns off.

If yes, the menu goes to the next screen.

- Trailer width measurement:

The width of the trailer is measured at the front of the trailer. It is not measured at the widest point of the trailer. The maximum width at the front of the trailer that the system can support is 8.2 ft (2.5 m).

**Note:** You do not need to enter an exact trailer width measurement. You only need to confirm that the width of the trailer is 8.2 ft (2.5 m) or less.

- Trailer length measurement:

The trailer length is the distance between the trailer hitch ball and the rear of the trailer. The maximum length that the system can support is 33 ft (10 m).

- Enter length of trailer:

Toggle up or down using the menu buttons increases or decreases the measurement by 3 ft (1 m). Select a length that is equal to or within 3 ft (1 m) of the actual measured length. For example, if the actual measured length is 25 ft (7.6 m), toggle the length in the menu to 27 ft (8.2 m). When you enter the length of the trailer, the system setup is saved.

**Note:** When you connect a trailer and do not set up a Blind Spot Trailer, the system turns off and a warning appears in the instrument display.

**Note:** If the trailer is actually a bike rack or cargo rack with electrical lighting, enter a length of 3 ft (1 m). Cross Traffic Alert remains on for trailers with a length of 3 ft (1 m) or less.

**Note:** Proper measurement and measurement entry is required for the system to function as designed.

## System Operation

If you select a trailer in the information display prior to connecting a trailer, the system loads that configuration and the information display shows a message when you connect the trailer. A second message appears stating cross traffic alert is off. The blind spot information system with trailer tow still functions normally when driving forward.

If you connect a trailer prior to selecting a trailer in the information display, a message appears asking you to select a trailer from the list of trailers or to add a trailer. In order for the blind spot information system with trailer tow to function, you must select an existing trailer

# Driving Aids

or add a new trailer. If you ignore the request or if you exit the screen, a message appears stating the system has turned off due to a trailer connect. This message may not appear until your vehicle speed reaches 22 mph (35 km/h).

The blind spot information system with trailer tow activates when driving forward for that particular trailer set up. If you cycle the ignition, the blind spot information system with trailer tow continues to function using the last trailer you select.

## Trailer Considerations

The system is designed to work with a trailer with a front width of 8.2 ft (2.5 m) or less, and a total length from the trailer hitch ball to the rear of the trailer of 33 ft (10 m) or less.

Some trailers may cause a slight change in system performance:

- Large box trailers may cause false alerts to occur when driving next to infrastructures or near parked cars. A false alert may also occur while making a 90-degree turn.
- Trailers that have a width greater than 8.2 ft (2.5 m) at the front and have a total length greater than 20 ft (6 m) may cause delayed alerts when a vehicle is passing at high speed.
- Box trailers that have a width greater than 8.2 ft (2.5 m) at the front may cause early alerts when you pass a vehicle.
- Clam shell or V-Nose box trailers with a width greater than 8.2 ft (2.5 m) at the front may cause delayed alerts when a vehicle traveling the same speed as your vehicle merges lanes.

## System Errors

If the system detects a fault, a warning lamp illuminates and a message displays. See **Information Messages** (page 95).


## Switching the System On and Off


You can switch the system off using the information display. See **General Information** (page 87). When you switch the system off, you do not receive alerts and the information display shows a system off message. The warning indicator in the cluster also illuminates. When you switch the system on or off, the alert indicators flash twice.

**Note:** *The system remembers the last setting when you start your vehicle.*

To permanently switch the system off, contact an authorized dealer.

## CROSS TRAFFIC ALERT (IF EQUIPPED)

 **WARNING:** Do not use the cross traffic alert system as a replacement for using the interior and exterior mirrors or looking over your shoulder before reversing out of a parking space. The cross traffic alert system is not a replacement for careful driving.

 **WARNING:** The system may not operate properly during severe weather conditions, for example snow, ice, heavy rain and spray. Always drive with due care and attention. Failure to take care may result in a crash.

The system is designed to alert you of vehicles approaching from the sides when you shift into reverse (R).

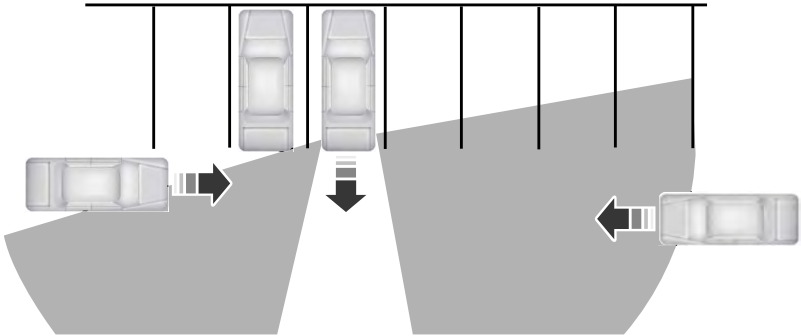
# Driving Aids

## Using the Cross Traffic Alert System

The system is designed to detect vehicles that approach with a speed up to 37 mph (60 km/h). Coverage decreases when the sensors are partially, mostly or fully

obstructed. Slowly reversing helps increase the coverage area and effectiveness.

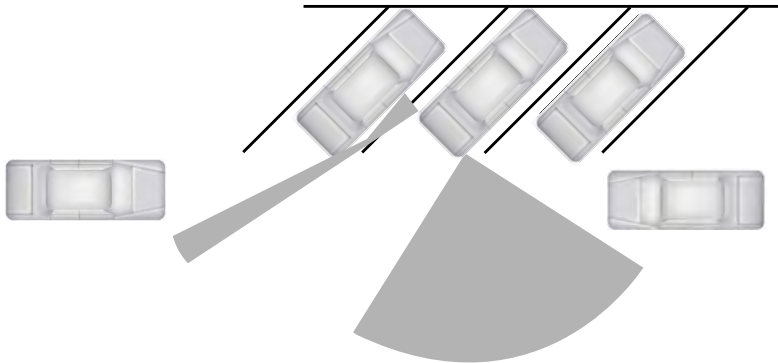
The system turns on when you start the engine and you shift into reverse (R). The system turns off when you shift out of reverse (R).



E142440

The sensor on the left-hand side is only partially obstructed and zone coverage on the right-hand side is maximized.

# Driving Aids



E142441

Zone coverage also decreases when parking at narrow angles. The sensor on the left-hand side is mostly obstructed and zone coverage on that side is severely reduced.

## System Lights, Messages and Audible Alerts



E142442

When the system detects a vehicle, an indicator illuminates in the exterior mirror on the side the approaching vehicle is coming from. A tone sounds and a message appears in the information display.

## Blocked Sensors



E280125

The system uses radar sensors that are in the tail lamp on each side of your vehicle.

**Note:** Keep the sensors free from snow, ice and large accumulations of dirt.

**Note:** Do not cover the sensors with bumper stickers, repair compound or other objects.

**Note:** Blocked sensors could affect system performance.

# Driving Aids

If the sensors are blocked, a message may appear in the information display when you shift into reverse (R). See **Information Messages** (page 95).

## System Limitations

The system may not correctly operate when any of the following occur:

- The sensors are blocked.
- Adjacently parked vehicles or objects are obstructing the sensors.
- Vehicles approach at speeds greater than 37 mph (60 km/h).
- The vehicle speed is greater than 7 mph (12 km/h).
- You reverse out of an angled parking space.

## False Alerts

**Note:** *If your vehicle has a tow bar with a factory equipped trailer tow module and it is towing a trailer, the system turns off. If your vehicle has a tow bar but no factory equipped trailer tow module, we recommend that you switch the system off manually. Operating the system with a trailer attached causes poor performance.*

In certain instances, false alerts may illuminate the alert indicator even though there is no vehicle in the coverage zone. Some amount of false alerts are normal, they are temporary and self-correct.

## System Errors

If the system detects a fault a message displays. See **Information Messages** (page 95).

## Switching the System Off and On

You can temporarily switch the system off using the information display. See **General Information** (page 87). When you switch system off, a message displays. See **Information Messages** (page 95).

**Note:** *The system turns on each time you switch the ignition on and you shift into reverse (R). If you temporarily switch the system off, it turns on the next time you switch the ignition on.*

To permanently switch the system off, contact an authorized dealer.

## STEERING

### Electric Power Steering



**WARNING:** The electric power steering system has diagnostic checks that continuously monitor the system. If a fault is detected, a message displays in the information display. Stop your vehicle as soon as it is safe to do so. Switch the ignition off. After at least 10 seconds, switch the ignition on and watch the information display for a steering system warning message. If a steering system warning message returns, have the system checked as soon as possible.



**WARNING:** If the system detects an error, you may not feel a difference in the steering, however a serious condition may exist. Have your vehicle checked as soon as possible, failure to do so may result in loss of steering control.

Your vehicle is equipped with an electric power-assisted steering system. There is no fluid reservoir to check or fill.

If your vehicle loses electrical power while you are driving (or if the ignition is turned off), you can steer the vehicle manually, but it takes more effort. Extreme continuous steering may increase the effort it takes for you to steer. This occurs to prevent internal overheating and permanent damage to your steering

# Driving Aids

system. If this should occur, you will neither lose the ability to steer the vehicle manually nor will it cause permanent damage. Typical steering and driving maneuvers will allow the system to cool and steering assist will return to normal.

## Steering Tips

If the steering wanders or pulls, check for:

- An improperly inflated tire.
- Uneven tire wear.
- Loose or worn suspension components.
- Loose or worn steering components.
- Improper vehicle alignment.

A high crown in the road or high crosswinds may also make the steering seem to wander or pull.

## PRE-COLLISION ASSIST (IF EQUIPPED)



**WARNING:** You are responsible for controlling your vehicle at all times. The system is designed to be an aid and does not relieve you of your responsibility to drive with due care and attention. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** The system does not detect vehicles that are driving in a different direction, cyclists or animals. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.



**WARNING:** The system does not operate during hard acceleration or steering. Failure to take care may lead to a crash or personal injury.



**WARNING:** The system may fail or operate with reduced function during cold and severe weather conditions. Snow, ice, rain, spray and fog can adversely affect the system. Keep the front camera and radar free of snow and ice. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.



**WARNING:** In situations where the vehicle camera has limited detection capability, this may reduce system performance. These situations include but are not limited to direct or low sunlight, vehicles at night without tail lights, unconventional vehicle types, pedestrians with complex backgrounds, running pedestrians, partly obscured pedestrians, or pedestrians that the system cannot distinguish from a group. Failure to take care may result in the loss of control of your vehicle, serious personal injury or death.



**WARNING:** The system cannot help prevent all crashes. Do not rely on this system to replace driver judgment and the need to maintain a safe distance and speed.

**Note:** To achieve full system performance, you must break in the braking system. See **General Information** (page 159).

**Note:** The warning indicator may flash for a short period of time when you start your vehicle.

## Using the Pre-Collision Assist System

The Pre-Collision Assist system is active at speeds above approximately 3 mph (5 km/h) and pedestrian detection is active at speeds up to 50 mph (80 km/h).

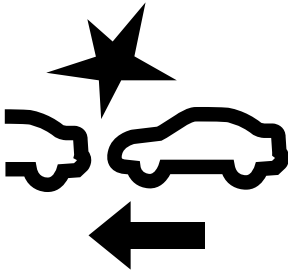


# Driving Aids



E156130

If your vehicle is rapidly approaching another stationary vehicle, a vehicle traveling in the same direction as yours, or a pedestrian within your driving path, the system provides three levels of functionality:



E255268

1. Alert
2. Brake Support
3. Active Braking

**Alert:** When active, the system provides a flashing visual warning and an audible warning sound.

**Brake Support:** Assists the driver in reducing collision speed by preparing the brake system for rapid braking. Brake support does not automatically activate the brakes, but if the driver presses the brake pedal even lightly, brake support could add additional braking up to full force.

**Active Braking:** Active braking may activate if the system determines that a collision is imminent. The system may help the driver reduce impact damage or avoid the crash completely.

**Note:** *If you perceive Pre-Collision Assist alerts as being too frequent or disturbing, then you can reduce the alert sensitivity, though the manufacturer recommends using the highest sensitivity setting where possible. Setting lower sensitivity would lead to fewer and later system warnings.*

## Distance Indication and Alert

This function provides a graphical indication of the time gap to other preceding vehicles traveling in the same direction. The distance indication and alert screen in the information display shows a graphic similar to the one that follows.



E190004

If the time gap to a preceding vehicle is small, a red visual indication displays to the driver.

**Note:** *Distance indication and alert deactivates and the graphics do not display when adaptive cruise control is active.*

# Driving Aids

Speed	Sensitivity	Graphics	Distance Gap	Time Gap
62 mph (100 km/h)	Normal	Grey	>82 ft (25 m)	>0.9sec
62 mph (100 km/h)	Normal	Yellow	56–82 ft (17–25 m)	0.6sec - 0.9sec
62 mph (100 km/h)	Normal	Red	<56 ft (17 m)	<0.6sec

## Adjusting Pre-Collision Assist Settings

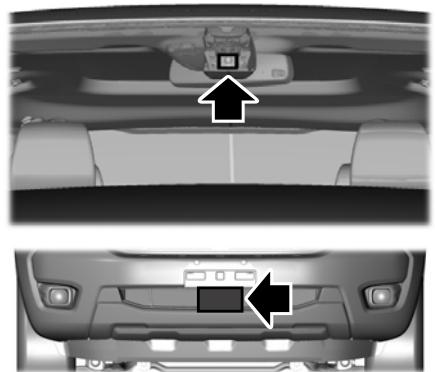
You can adjust alert and distance alert sensitivity to one of three possible settings by using the information display control. See **General Information** (page 87).

You can switch the distance alert and indication function off using the information display controls. See **General Information** (page 87).

If required, you can switch active braking off using the information display controls. See **General Information** (page 87).

**Note:** *Active braking automatically turns on every time you switch the ignition on.*

## Blocked Sensors



E271779

If a message regarding a blocked sensor or camera appears in the information display, the radar signals or camera images are obstructed. The radar sensor is located behind a fascia cover near the driver side of the lower grille. With an obstructed radar, the Pre-Collision Assist system does not function and cannot detect a vehicle ahead. With the front camera obstructed,

## Driving Aids

the Pre-Collision Assist system does not respond to pedestrians or stationary vehicles and the system performance on

moving vehicles reduces. The following table lists possible causes and actions for when this message displays.

Cause	Action
The surface of the radar in the grille is dirty or obstructed in some way.	Clean the grille surface in front of the radar or remove the object causing the obstruction.
The surface of the radar in the grille is clean but the message remains in the display.	Wait a short time. It may take several minutes for the radar to detect that there is no obstruction.
Heavy rain, spray, snow, or fog is interfering with the radar signals.	The Pre-Collision Assist system is temporarily disabled. Pre-Collision Assist should automatically reactivate a short time after the weather conditions improve.
Swirling water, or snow or ice on the surface of the road may interfere with the radar signals.	The Pre-Collision Assist system is temporarily disabled. Pre-Collision Assist should automatically reactivate a short time after the weather conditions improve.
Radar is out of alignment due to a front end impact.	Contact an authorized dealer to have the radar checked for proper coverage and operation.
The windshield in front of the camera is dirty or obstructed in some way.	Clean the outside of the windshield in front of the camera.
The windshield in front of the camera is clean but the message remains in the display.	Wait a short time. It may take several minutes for the camera to detect that there is no obstruction.

**Note:** Proper system operation requires a clear view of the road by the camera. Have any windshield damage in the area of the camera's field of view repaired.

**Note:** If something hits the front end of your vehicle or damage occurs, the radar sensing zone may change. This could cause missed or false vehicle detections. Contact an authorized dealer to have the radar checked for proper coverage and operation.

**Note:** If your vehicle detects excessive heat at the camera or a potential misalignment condition, a message may display in the information display indicating temporary sensor unavailability. When operational conditions are correct, the message deactivates. For example, when the ambient temperature around the sensor decreases or the sensor automatically recalibrates successfully.

# Load Carrying

## LOAD LIMIT

### Vehicle Loading - with and without a Trailer

This section guides you in the proper loading of your vehicle, trailer, or both. Keep your loaded vehicle weight within its design rating capability, with or without a trailer. Properly loading your vehicle provides maximum return of vehicle design performance. Before you load your vehicle, become familiar with the following terms for determining your vehicle's weight rating, with or without a trailer, from the vehicle's Tire and Loading Information label or Safety Compliance Certification label.

### Tire and Loading Label Information Example:



#### TIRE AND LOADING INFORMATION

SEATING CAPACITY TOTAL: 5 FRONT: 2 REAR: 3

The combined weight of occupants and cargo should never exceed: **385 kg or 850 lbs.**

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION
FRONT	235/45R18 94V	235 KPA, 34 PSI	
REAR	235/45R18 94V	235 KPA, 34 PSI	
SPARE	NONE	NONE	



#### TIRE AND LOADING INFORMATION RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY / NOMBRE DE PLACES TOTAL 5 FRONT AVANT 2 REAR ARRIERE 3

The combined weight of occupants and cargo should never exceed 396 kg or 875 lbs. / Le poids total des occupants et du chargement ne doit jamais dépasser 396 kg ou 875 lbs.

TIRE / PNEU	SIZE / DIMENSIONS	COLD TIRE PRESSURE / PRESSION DES PNEUS A FROID	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION VOIR LE MANUEL DE L'USAGER POUR PLUS DE RENSEIGNEMENTS
FRONT AVANT	235/40R19 96V	255 KPA, 37 PSI	
REAR ARRIERE	235/40R19 96V	255 KPA, 37 PSI	
SPARE DE SECOURS	T125/80R16 97M	415 KPA, 60 PSI	

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## Payload

Payload is the combined weight of cargo and passengers that your vehicle is carrying. The maximum payload for your vehicle appears on the Tire and Loading label. The label is either on the B-pillar or the edge of the driver door. Vehicles exported outside the US and Canada may not have a tire and loading label. Look for "The combined weight of occupants and cargo should never exceed XXX kg OR XXX lb" for maximum payload. The payload listed on the Tire and Loading Information label



# Load Carrying



**WARNING:** Exceeding the Safety Compliance Certification label vehicle weight limits can adversely affect the performance and handling of your vehicle, cause vehicle damage and can result in the loss of control of your vehicle, serious personal injury or death.

## Maximum Loaded Trailer Weight

Maximum loaded trailer weight is the highest possible weight of a fully loaded trailer the vehicle can tow. Consult an authorized dealer (or the RV and Trailer Towing Guide available at an authorized dealer) for more detailed information.

## GCWR (Gross Combined Weight Rating)

GCWR is the maximum allowable weight of the vehicle and the loaded trailer, including all cargo and passengers, that the vehicle can handle without risking damage. (Important: The towing vehicle's braking system is rated for operation at Gross Vehicle Weight Rating, not at Gross Combined Weight Rating.) Separate functional brakes should

be used for safe control of towed vehicles and for trailers where the Gross Combined Weight of the towing vehicle plus the trailer exceed the Gross Vehicle Weight Rating of the towing vehicle.

The gross combined weight must never exceed the Gross Combined Weight Rating.

**Note:** For trailer towing information refer to the *RV and Trailer Towing Guide* available at an authorized dealer.



**WARNING:** Do not exceed the GVWR or the GAWR specified on the certification label.



**WARNING:** Do not use replacement tires with lower load carrying capacities than the original tires because they may lower your vehicle's GVWR and GAWR limitations. Replacement tires with a higher limit than the original tires do not increase the GVWR and GAWR limitations.



**WARNING:** Exceeding any vehicle weight rating can adversely affect the performance and handling of your vehicle, cause vehicle damage and can result in the loss of control of your vehicle, serious personal injury or death.

# Load Carrying

## Steps for determining the correct load limit:

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lb." on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lb.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1,400 lb. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lb.  $(1400 - 750 (5 \times 150) = 650 \text{ lb.})$
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

## Helpful examples for calculating the available amount of cargo and luggage load capacity

Suppose your vehicle has a 1400-pound (635-kilogram) cargo and luggage capacity. You decide to go golfing. Is there enough load capacity to carry you, four of your friends and all the golf bags? You and four friends average 220 pounds (99 kilograms) each and the golf bags weigh approximately 30 pounds (13.5 kilograms) each. The calculation would be:  $1400 - (5 \times 220) - (5 \times 30) = 1400 - 1100 - 150 = 150$  pounds. Yes, you have enough load capacity in your vehicle to transport four friends and your golf bags. In metric units, the calculation would be:  $635 \text{ kilograms} - (5 \times 99 \text{ kilograms}) - (5 \times 13.5 \text{ kilograms}) = 635 - 495 - 67.5 = 72.5$  kilograms.

Suppose your vehicle has a 1400-pound (635-kilogram) cargo and luggage capacity. You and one of your friends decide to pick up cement from the local home improvement store to finish that patio you have been planning for the past two years. Measuring the inside of the vehicle with the rear seat folded down, you have room for twelve 100-pound (45-kilogram) bags of cement. Do you have enough load capacity to transport the cement to your home? If you and your friend each weigh 220 pounds (99 kilograms), the calculation would be:  $1400 - (2 \times 220) - (12 \times 100) = 1400 - 440$

# Load Carrying

- 1200 = - 240 pounds. No, you do not have enough cargo capacity to carry that much weight. In metric units, the calculation would be: 635 kilograms - (2 x 99 kilograms) - (12 x 45 kilograms) = 635 - 198 - 540 = -103 kilograms. You will need to reduce the load weight by at least 240 pounds (104 kilograms). If you remove three 100-pound (45-kilogram) cement bags, then the load calculation would be: 1400 - (2 x 220) - (9 x 100) = 1400 - 440 - 900 = 60 pounds. Now you have the load capacity to transport the cement and your friend home. In metric units, the calculation would be: 635 kilograms - (2 x 99 kilograms) - (9 x 45 kilograms) = 635 - 198 - 405 = 32 kilograms.

The above calculations also assume that the loads are positioned in your vehicle in a manner that does not overload the front or the rear gross axle weight rating specified for your vehicle on the Safety Compliance Certification label.

## Special Loading Instructions for Owners of Pick-up Trucks and Utility-type Vehicles



**WARNING:** When loading the roof racks, we recommend you evenly distribute the load, as well as maintain a low center of gravity. Loaded vehicles, with higher centers of gravity, may

handle differently than unloaded vehicles. Take extra precautions, such as slower speeds and increased stopping distance, when driving a heavily loaded vehicle.

## ROOF RACKS AND LOAD CARRIERS

**Note:** If you use a roof rack, the fuel consumption of your vehicle is higher and you may experience different driving characteristics.

**Note:** Read and follow the manufacturer's instructions when you are fitting a roof rack.

## LOAD RETAINING FIXTURES

### Tie Down Points



**WARNING:** Do not use the load retaining fixtures for towing. Failure to follow this instruction could result in personal injury.



**WARNING:** Do not exceed the maximum load rating of the load retaining fixtures. Failure to follow this instruction could result in personal injury.



**WARNING:** Check the load retaining fixtures for damage before using them. Failure to follow this instruction could result in personal injury.

**Note:** Use the load retaining fixtures to retain the loads within the loadspace. Using the load retaining fixtures for any other purpose may lead to vehicle damage.

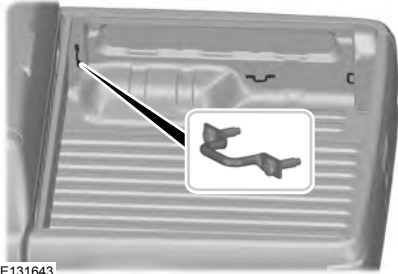


# Load Carrying

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**Note:** Exceeding the maximum load rating of the load retaining fixtures may lead to vehicle damage.

**Note:** The number of tie down points may vary depending on your vehicle model.



Load Rating of the Tie Down Points: 661 lb  
(300 kg).

# Tailgate

## MANUAL TAILGATE

**Note:** Do not exceed the maximum permissible tailgate load of 485 lb (220 kg).

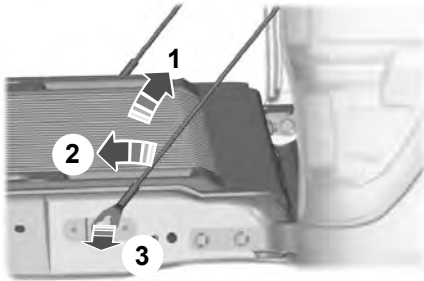
**Note:** Vehicles with a tow bar or rear bumper should not have the tailgate lowered without the support cables in place.

**Note:** Make sure that you keep a firm grip on the tailgate to prevent it from dropping down.

### Lowering the Tailgate

**Note:** Do not lower the tailgate if a load bed extension is fitted.

**Note:** Maximum permissible load for a tailgate with a load bed extension is 110 lb (50 kg).



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1. Raise the tailgate slightly.
2. Pull the support cable rearward.
3. Release the support cable from the tailgate.
4. Repeat steps 1 through 3 to pull out the support cable on the other side.

**Note:** Lower the tailgate for better ingress or egress of the loads.

# Towing

## TOWING A TRAILER



**WARNING:** Do not exceed the GVWR or the GAWR specified on the certification label.



**WARNING:** Towing trailers beyond the maximum recommended gross trailer weight exceeds the limit of your vehicle and could result in engine damage, transmission damage, structural damage, loss of vehicle control, vehicle rollover and personal injury.



**WARNING:** Do not exceed the lowest rating capacity for your vehicle or trailer hitch. Overloading your vehicle or trailer hitch can impair your vehicle stability and handling. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** Do not cut, drill, weld or modify the trailer hitch. Modifying the trailer hitch could reduce the hitch rating.



**WARNING:** Do not exceed the maximum vertical load on the tow ball. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

**Note:** *Your vehicle includes trailer stability control if it has an electronic stability program (ESP).*

When towing a trailer:

- Obey country specific regulations for towing a trailer.
- Do not exceed 62 mph (100 km/h) even if a country allows higher speeds under certain conditions.
- Place loads as low as possible and central to the axle of your trailer. For best stability of the trailer in an unladen vehicle, place the load in the trailer towards the nose within the maximum nose load as this gives the best stability. See **Recommended Towing Weights** (page 209).
- Reduce the stipulated maximum permitted gross combination mass by 10% for every additional 1,000 ft (300 m) in high altitude regions above 1,000 ft (300 m).
- Use a low gear when descending a steep downhill slope.

The stability of your vehicle to trailer combination is dependent on the quality of the trailer.

# Towing

## TRAILER SWAY CONTROL (IF EQUIPPED)



**WARNING:** Turning off trailer sway control increases the risk of loss of vehicle control, serious injury or death. Ford does not recommend disabling this feature except in situations where speed reduction may be detrimental (such as hill climbing), the driver has significant trailer towing experience, and can control trailer sway and maintain safe operation.

**Note:** *This feature does not prevent trailer sway, but reduces it once it begins.*

**Note:** *This feature cannot stop all trailers from swaying.*

**Note:** *In some cases, if vehicle speed is too high, the system may activate multiple times, gradually reducing vehicle speed.*

This feature applies your vehicle brakes at individual wheels and, if necessary, reduces engine power. If the trailer begins to sway, the stability control light flashes and the message **TRAILER SWAY REDUCE SPEED** appears in the information display. The first thing to do is slow your vehicle down, then pull safely to the side of the road and check for proper tongue load and trailer load distribution. See **Load Carrying** (page 201).

## RECOMMENDED TOWING WEIGHTS



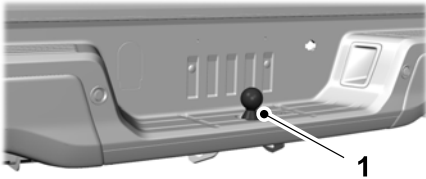
**WARNING:** Towing trailers beyond the maximum recommended gross trailer weight exceeds the limit of your vehicle and could result in engine damage, transmission damage, structural damage, loss of vehicle control, vehicle rollover and personal injury.

**Note:** *Certain states require electric trailer brakes for trailers over a specified weight. Be sure to check state regulations for this specified weight. The maximum trailer weights listed may be limited to this specified weight, as your vehicle's electrical system may not include the wiring connector needed to use electric trailer brakes.*

### Trailer Hitch Identification

Using the illustration that follows, identify the type of trailer hitch on your vehicle. This helps to determine the correct towing capacity.

# Towing

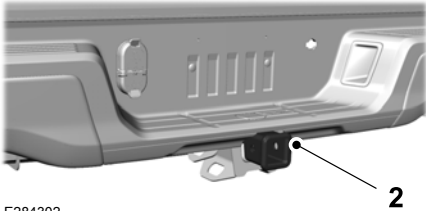


- 1 Light Duty Trailer Hitch.
- 2 Heavy Duty Trailer Hitch.

## Towing Capacities

If your vehicle has a light duty trailer hitch, the maximum towing capacity is 3,500 lb (1,588 kg).

If your vehicle has a heavy duty trailer hitch, use the chart that follows to find your towing capacity.



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Body Style	Drive	FDR	Gross Combination Mass	Max Tow Without Trailer Brake	Max Tow With Trailer Brake
Super Cab Chassis	2WD	3.73	12,500 lb (5,670 kg)	1,650 lb (750 kg)	7,500 lb (3,400 kg)
Super Cab	2WD	3.73	12,150 lb (5,510 kg)	1,650 lb (750 kg)	7,500 lb (3,400 kg)
	4WD	3.73	12,400 lb (5,620 kg)	1,650 lb (750 kg)	7,500 lb (3,400 kg)
SuperCrew Cab	2WD	3.73	12,250 lb (5,555 kg)	1,650 lb (750 kg)	7,500 lb (3,400 kg)
	4WD	3.73	12,500 lb (5,670 kg)	1,650 lb (750 kg)	7,500 lb (3,400 kg)

# Towing

## Trailer Nose Weight

Variant	Minimum Nose Weight	Maximum Nose Weight
Light Duty Trailer Hitch	10% of the towed weight	350 lb (159 kg)
Heavy Duty Trailer Hitch	10% of the towed weight	750 lb (340 kg)

## TOWING THE VEHICLE ON FOUR WHEELS



### Emergency Towing

If your vehicle becomes inoperable without access to wheel dollies, a car-hauling trailer or a flatbed transport vehicle, you can flat-tow with all wheels on the ground, regardless of the powertrain and transmission configuration, under the following conditions:

- Your vehicle is facing forward for towing in a forward direction.
- Place the transmission in neutral (N). If you cannot move the transmission into neutral (N), you may need to override the gear shifter. See **Automatic Transmission** (page 147).
- Maximum speed is 35 mph (56 km/h).
- Maximum distance is 50 mi (80 km).

### Recreational Towing

**Note:** Put your climate control system in recirculated air mode to prevent exhaust fumes from entering your vehicle. See **Climate Control** (page 108).

Follow these guidelines if you have a need for recreational towing, such as towing your vehicle behind a motorhome. These guidelines are designed to prevent damage to your transmission.

You can put your vehicle in neutral tow for recreational towing by placing the transfer case in its neutral position and engaging the four-wheel-down towing feature. Perform the steps in the following section after positioning your vehicle behind the tow vehicle and properly securing them together.

**Note:** Make sure you properly secure your vehicle to the tow vehicle.

1. Put the ignition in the on position, but do not start the engine. If your vehicle has an ignition key, turn the key to the on position. If your vehicle has intelligent access, press the engine **START/STOP** button once without pressing the brake pedal.
2. Press and hold the brake pedal.
3. Rotate the four-wheel drive switch to **2H**.
4. Shift the transmission to neutral (N).

# Towing

5. Enable **Neutral Tow** by selecting **Settings** in the information display menu.
6. Then select **Vehicle**.
7. Then select **Neutral Tow** and follow the instructions on screen.

**Note:** If successfully completed, the information display shows **NEUTRAL TOW LEAVE IN N** or **Neutral Tow Enabled Leave Transmission in Neutral**. This indicates that your vehicle is safe to tow with all wheels on the ground.

**Note:** If you do not see the message in the display, you must switch the ignition off and perform the procedure again from the beginning.

**Note:** You may hear an audible noise as the transfer case shifts into its neutral position. This is normal.

8. Leave the transmission in neutral (N) and turn the ignition key as far as it can go towards the off position. It does not turn fully off when the transmission is in neutral (N). If your vehicle has an ignition key, you must leave the key in the ignition when towing. To lock and unlock your vehicle, use the keyless entry keypad or an extra set of keys. If your vehicle has intelligent access, press the engine **START/STOP** button once without pressing the brake pedal. You do not need to leave your keys in the vehicle. You can lock and unlock your vehicle as you normally do.
9. Release the brake pedal.



**WARNING:** Do not disconnect the battery during recreational towing. It prevents the transfer case from shifting properly and may cause the vehicle to roll, even if the transmission is in park (P).



**WARNING:** Shifting the transfer case to its neutral position for recreational towing may cause the vehicle to roll, even if the transmission is in park (P). It may injure the driver and others. Make sure you press the foot brake and the vehicle is in a secure, safe position when you shift to neutral (N).

**Note:** Failing to put the transfer case in its neutral position may damage vehicle components.

**Note:** You can check the four-wheel-down towing status at any time by opening the driver door or by switching the ignition to the accessory or on position and verifying the confirmation message appears in the cluster.

To exit four-wheel-down towing and return the transfer case to the **2H** position:

1. With your vehicle still properly secured to the tow vehicle, switch the ignition to the on position but do not start the engine. If your vehicle has an ignition key, turn the key to the on position. If your vehicle has intelligent access, press the engine **START/STOP** button once without pressing the brake pedal.
2. Press and hold the brake pedal.
3. Shift the transmission out of neutral (N) and into any other gear.
4. Observe the messages on the information display screen.

**Note:** If completed successfully, the instrument cluster displays **4X2**, and **Neutral Tow Disabled**.

**Note:** If the indicator light and message do not display, you must perform the procedure again from the beginning.

**Note:** You may hear an audible noise as the transfer case shifts out of its neutral position. This is normal.

# Driving Hints

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## BREAKING-IN

### Tires

New tires need to be run-in for approximately 300 mi (500 km). During this time, you may experience different driving characteristics.

### Brakes and Clutch

Avoid heavy use of the brakes and clutch if possible for the first 100 mi (150 km) in town and for the first 1,000 mi (1,500 km) on freeways.

### Engine

Avoid driving too fast during the first 1,000 mi (1,500 km). Vary your speed frequently and change up through the gears early. Do not labor the engine.

### Vehicles With a Diesel Engine

During the first 2,000 mi (3,000 km), you may notice a ticking sound when your vehicle slows down. This is due to adjustments of your new diesel engine and is normal.

## ECONOMICAL DRIVING

Your fuel economy is affected by several things, such as how you drive, the conditions you drive under, and how you maintain your vehicle.

You may improve your fuel economy by keeping these things in mind:

- Accelerate and slow down in a smooth, moderate fashion.
- Drive at steady speeds without stopping.
- Anticipate stops; slowing down may eliminate the need to stop.
- Combine errands and minimize stop-and-go driving.
- Close the windows for high-speed driving.
- Drive at reasonable speeds (traveling at 55 mph [88 km/h] uses 15% less fuel than traveling at 65 mph [105 km/h]).
- Keep the tires properly inflated and use only the recommended size.
- Use the recommended engine oil.
- Perform all regularly scheduled maintenance.

Avoid these actions; they reduce your fuel economy:

- Sudden accelerations or hard accelerations.
- Revving the engine before turning it off.
- Idle for periods longer than one minute.
- Warm up your vehicle on cold mornings.
- Use the air conditioner or front defroster.
- Use the speed control in hilly terrain.
- Rest your foot on the brake pedal while driving.
- Drive a heavily loaded vehicle or tow a trailer.
- Carry unnecessary weight (approximately 1 mpg [0.4 km/L] is lost for every 400 lb [180 kilogram] of weight carried).
- Driving with the wheels out of alignment.

Conditions

- Heavily loading a vehicle or towing a trailer may reduce fuel economy at any speed.
- Adding certain accessories to your vehicle (for example bug deflectors, rollbars, light bars, running boards, ski racks or luggage racks) may reduce fuel economy.



# Driving Hints

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- To maximize the fuel economy, drive with the tonneau cover installed (if equipped).
- Using fuel blended with alcohol may lower fuel economy.
- Fuel economy may decrease with lower temperatures during the first 5–10 mi (12–16 km) of driving.
- Driving on flat terrain offers improved fuel economy as compared to driving on hilly terrain.
- Transmissions give their best fuel economy when operated in the top cruise gear and with steady pressure on the gas pedal.
- Four-wheel-drive operation (if equipped) is less fuel efficient than two-wheel-drive operation.
- Close the windows for high-speed driving.

## COLD WEATHER PRECAUTIONS

The functional operation of some components and systems can be affected at temperatures below -13°F (-25°C).

## OFF-ROAD DRIVING

In addition to providing an excellent on-road driving experience, your vehicle excels at all types of off-road driving. Your vehicle is designed and equipped to allow you to explore those places where the road doesn't take you, whether it's a forest trail or the open desert. Before going off-roading, consult with your local governmental agencies to determine designated off-road trails and recreation areas. Also, be sure to understand any off-road vehicle registration requirements for the area in which you plan on driving.

Before taking your vehicle off-roading, a basic vehicle inspection should be done to make sure that the vehicle is in top working condition.

It is always recommended that at least two vehicles are used while off-roading. The buddy system helps make sure that help is close at hand should a vehicle become stuck or damaged. It is also wise to take supplies such as a first aid kit, supply of water, tow strap, cell or satellite phone with you any time an off-road excursion is planned.

## Basic Off-road Driving Techniques

- Grip the steering wheel with thumbs on the outside of the rim. This reduces the risk of injury due to abrupt steering wheel motions that occur when negotiating rough terrain. Do not grip the steering wheel with thumbs inside the rim.
- Throttle, brake and steering inputs should be made in a smooth and controlled manner. Sudden inputs to the controls can cause loss of traction or upset the vehicle, especially when on sloped terrain or while crossing obstacles such as rocks or logs.
- Look ahead on your route noting upcoming obstacles, surface texture or color changes or any other factors which may indicate a change in available traction, and adjust the vehicle speed and route accordingly. During pre-run, mark obstacles with GPS markers to make sure appropriate speeds are used to avoid potential vehicle damage.
- When driving off-road, if the front or rear suspension is bottoming-out and or excessive contact with the skid-plates is encountered, reduce vehicle speed to avoid potential damage to the vehicle.

# Driving Hints

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- When running with other vehicles, we recommend that you use communication and the lead vehicle notify other vehicles of obstacles that could cause potential vehicle damage.
- Always keep available ground clearance in mind and pick a route that minimizes the risk of catching the underside of the vehicle on an obstacle.
- When negotiating low speed obstacles, applying light brake pressure in conjunction with the throttle helps prevent the vehicle from jerking and allows you to negotiate the obstacle in a more controlled manner. Using 4L also helps with this.
- Use and equip supplemental safety equipment as discussed later in this chapter.
- Please consult your local off-road group for other helpful tips.
- Off-roading requires a high degree of concentration. Even if your local law does not prohibit alcohol use while driving off-road, Ford strongly recommends against drinking if you plan to off-road.
- If a large obstacle such as a rock cannot be avoided, choose a path that places the rock directly under the tire rather than the undercarriage of the vehicle. This helps prevent damage to your vehicle.
- Ditches and washouts should be crossed at a 45 degree angle, allowing each wheel to independently cross the obstacle.

## Hill Climbing



**WARNING:** Extreme care should be used when steering the vehicle in reverse down a slope so as not to cause the vehicle to swerve out of control.

- Always attempt to climb a steep hill along the fall line of the slope and not diagonally.
- If the vehicle is unable to make it up the hill, DO NOT attempt to turn back down the slope. Place the vehicle in low range and slowly back down in reverse.
- When descending a steep slope, select low gear and activate hill descent control. Use the throttle and brake pedals to control your descent speed as described earlier in this section using hill descent control. Hill descent control is functional in reverse (R) and should be used in this situation.

## Crossing Obstacles

- Review the path ahead before attempting to cross any obstacle. It is best if the obstacle is reviewed from outside the vehicle so that there is a good understanding of terrain condition both in front of and behind the obstacle.
- Approach obstacles slowly and slowly inch the vehicle over.

## Water Wading

See **Driving Through Water** (page 216).

# Driving Hints

## After Off-Road Driving

It is important to complete a full vehicle inspection after off-road driving. Some items to check include:

- Make sure that you inflate the tires to the proper tire pressure as indicated on the tire placard.
- Check the wheels and undercarriage for a buildup of mud or debris, which can cause vehicle vibration.
- Make sure that the grille and radiator are clear of any obstructions that may affect cooling.
- Make sure that the brakes are in proper working order and free of any mud, stones and debris, which can become trapped around the brake rotor, backing plate and caliper.
- Check that the air filter is clean and dry.
- Inspect for torn or punctured boots on ball joints, half shafts, steering gears.
- Inspect exhaust system for damage or looseness.
- Inspect undercarriage fasteners. If any are loose or damaged, tighten or replace and make sure that you use the proper torque specification.
- Inspect the tires for any cuts in the tread or sidewall area. Also inspect the sidewall for any bulge, indicating damage to the tire.
- Inspect the wheels for dents, cracks, or other damage.
- Clear any debris from the exhaust components. For example, grass or hay.

## DRIVING THROUGH WATER

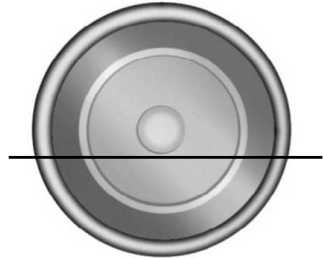


**WARNING:** Do not drive through flowing or deep water as you may lose control of your vehicle.

**Note:** Driving through standing water can cause vehicle damage.

**Note:** Engine damage can occur if water enters the air filter.

Before driving through standing water, check the depth. Never drive through water that is higher than the bottom of the wheel hubs.



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When driving through standing water, drive very slowly and do not stop your vehicle. Your brake performance and traction may be limited. After driving through water and as soon as it is safe to do so:

- Lightly press the brake pedal to dry the brakes and to check that they work.
- Check that the horn works.
- Check that the exterior lights work.
- Turn the steering wheel to check that the steering power assist works.

## FLOOR MATS



**WARNING:** Use a floor mat designed to fit the footwell of your vehicle that does not obstruct the pedal area. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.

# Driving Hints



**WARNING:** Pedals that cannot move freely can cause loss of vehicle control and increase the risk of serious personal injury.



**WARNING:** Secure the floor mat to both retention devices so that it cannot slip out of position and interfere with the pedals. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** Do not place additional floor mats or any other covering on top of the original floor mats. This could result in the floor mat interfering with the operation of the pedals. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** Always make sure that objects cannot fall into the driver foot well while your vehicle is moving. Objects that are loose can become trapped under the pedals causing a loss of vehicle control.

To remove the floor mat, reverse the installation procedure.

**Note:** *Regularly check the floor mats to make sure they are secure.*



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To install the floor mats, position the floor mat eyelet over the retention post and press down to lock in position.

# Roadside Emergencies

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## ROADSIDE ASSISTANCE

### Vehicles Sold in the United States: Getting Roadside Assistance

To fully assist you should you have a vehicle concern, Ford Motor Company offers a complimentary roadside assistance program. This program is separate from the New Vehicle Limited Warranty.

The service is available:

- 24 hours a day, seven days a week.
- For the coverage period listed on the Roadside Assistance Card included in your Owner's Manual portfolio.

Roadside Assistance covers:

- A flat tire change with a good spare (except vehicles supplied with a tire inflation kit).
- Battery jump start.
- Lock-out assistance (key replacement cost is the customer's responsibility).
- Fuel delivery — independent service contractors, if not prohibited by state, local or municipal law, shall deliver up to 2 gal (8 L) of gasoline or 5 gal (20 L) of diesel fuel to a disabled vehicle. Roadside Assistance limits fuel delivery service to two no-charge occurrences within a 12-month period.
- Winch out — available within 100 ft (30 m) of a paved or county maintained road, no recoveries.

- Towing — independent service contractors, if not prohibited by state, local or municipal law, shall tow Ford eligible vehicles to an authorized dealer within 35 mi (56 km) of the disablement location or to the nearest authorized dealer. If a member requests a tow to an authorized dealer that is more than 35 mi (56 km) from the disablement location, the member shall be responsible for any mileage costs in excess of 35 mi (56 km).
- Roadside Assistance includes up to \$200 for a towed trailer if the disabled eligible vehicle requires service at the nearest authorized dealer. If the towing vehicle is operational but the trailer is not, then the trailer does not qualify for any roadside services.

### Vehicles Sold in the United States: Using Roadside Assistance

Complete the roadside assistance identification card and place it in your wallet for quick reference. This card is in the owner's information portfolio in the glove compartment.

United States vehicle customers who require Roadside Assistance, call 1-800-241-3673.

If you need to arrange roadside assistance for yourself, Ford Motor Company reimburses a reasonable amount for towing to the nearest dealership within 35 mi (56 km). To obtain reimbursement information, United States vehicle customers call 1-800-241-3673. Customers need to submit their original receipts.

# Roadside Emergencies

## Vehicles Sold in Canada: Getting Roadside Assistance

To fully assist you should you have a vehicle concern, Ford Motor Company of Canada, Limited offers a complimentary roadside assistance program. This program is eligible within Canada or the continental United States.

The service is available 24 hours a day, seven days a week.

This program is separate from the New Vehicle Limited Warranty, but the coverage is concurrent with the powertrain coverage period of your vehicle. Canadian roadside coverage and benefits may differ from the U.S. coverage.

If you require more information, please call us in Canada at 1-800-665-2006, or visit our website at [www.ford.ca](http://www.ford.ca).

## HAZARD FLASHERS

**Note:** *The hazard flashers operate when the ignition is in any position, or if the key is not in the ignition. If used when the vehicle is not running, the battery loses charge. As a result, there may be insufficient power to restart your vehicle.*



The flasher control is on the instrument panel. Use your hazard flashers when your vehicle is creating a safety hazard for other motorists.

- Press the flasher control and all front and rear direction indicators flash.
- Press the button again to switch them off.

## FUEL SHUTOFF



**WARNING:** If your vehicle has been involved in a crash, have the fuel system checked. Failure to follow this instruction could result in fire, personal injury or death.

**Note:** *When you try to restart your vehicle after a fuel shutoff, the vehicle makes sure that various systems are safe to restart. Once the vehicle determines the systems are safe, then the vehicle allows you to restart.*

**Note:** *In the event that your vehicle does not restart after your third attempt, contact a qualified technician.*

The fuel pump shutoff stops the flow of fuel to the engine in the event of a moderate to severe crash. Not every impact causes a shutoff.

Should your vehicle shut off after a crash, you may restart your vehicle.

If your vehicle has a key system:

1. Switch off the ignition.
2. Switch to start position.
3. Switch off the ignition.
4. Switch on the ignition to re-enable the fuel pump.
5. If the vehicle does not start, repeat steps 1 through 4.

If your vehicle has a push button start system:

1. Press **START/STOP** to switch off your vehicle.
2. Press the brake pedal and **START/STOP** to switch on your vehicle.
3. Remove your foot from the brake pedal and press **START/STOP** to switch off your vehicle.

# Roadside Emergencies

4. You can attempt to start the vehicle by pressing the brake pedal and **START/STOP**, or press **START/STOP** without pressing the brake pedal.
5. If the vehicle does not start, repeat steps 1 through 4.

## JUMP STARTING THE VEHICLE



**WARNING:** The gases around the battery can explode if exposed to flames, sparks, or lit cigarettes. An explosion could result in personal injury or vehicle damage.



**WARNING:** Batteries contain sulfuric acid which can burn skin, eyes and clothing, if contacted.



**WARNING:** Use only an adequate-sized cable with insulated clamps.

## Preparing Your Vehicle

**Note:** Do not attempt to push-start your automatic transmission vehicle. Automatic transmissions do not have push-start capability. Attempting to push-start a vehicle with an automatic transmission may cause transmission damage.

**Note:** Use only a 12-volt supply to start your vehicle.

**Note:** Do not disconnect the battery of the disabled vehicle as this could damage the vehicle's electrical system.

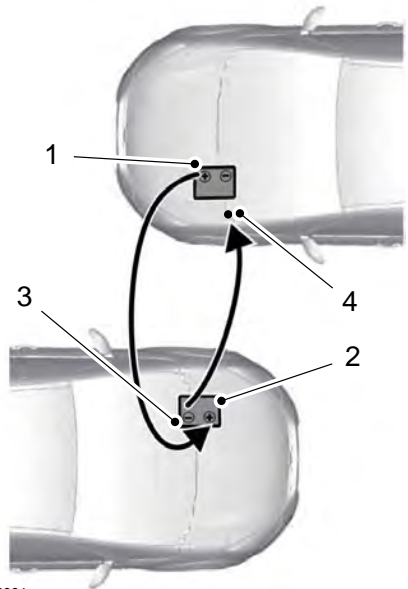
Park the booster vehicle close to the hood of the disabled vehicle, making sure the two vehicles do not touch. Turn all accessories off.

## Connecting the Jumper Cables



**WARNING:** Do not attach the cables to fuel lines, engine rocker covers, the intake manifold or electrical components as grounding points. Stay clear of moving parts. To avoid reverse polarity connections, make sure that you correctly identify the positive (+) and negative (-) terminals on both the disabled and booster vehicles before connecting the cables. Battery positions may vary.

**Note:** In the illustration, the bottom vehicle represents the booster vehicle.

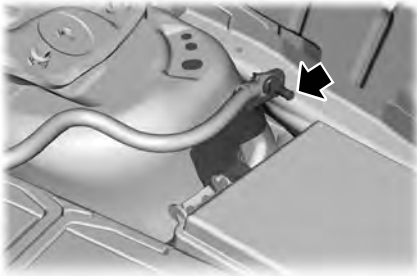


E142664

1. Connect the positive (+) jumper cable to the positive (+) terminal of the discharged battery.

# Roadside Emergencies

2. Connect the other end of the positive (+) cable to the positive (+) terminal of the assisting battery.
3. Connect the negative (-) cable to the negative (-) terminal of the assisting battery.



E152134

4. Make the final connection of the negative (-) cable to an exposed metal part of the stalled vehicle's engine, or connect the negative (-) cable to the ground connection point, if available.



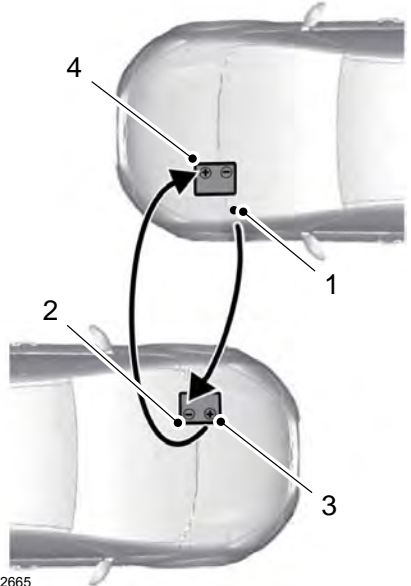
**WARNING:** Do not connect the end of the second cable to the negative (-) terminal of the battery to be jumped. A spark may cause an explosion of the gases that surround the battery.

## Jump Starting

1. Start the engine of the booster vehicle and rev the engine moderately, or press the accelerator gently to keep your engine speed between 2000 and 3000 rpms, as shown in your tachometer.
2. Start the engine of the disabled vehicle.
3. After starting the disabled vehicle, run both vehicle engines for an additional three minutes before disconnecting the jumper cables.

## Removing the Jumper Cables

Remove the jumper cables in the reverse order that they were connected.



E142665

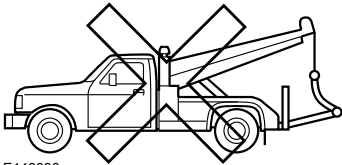
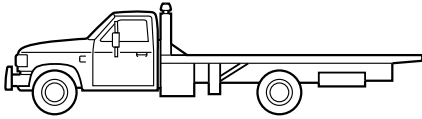
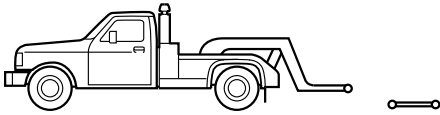
1. Remove the jumper cable from the ground metal surface or connecting point, if available.
2. Remove the jumper cable on the negative (-) terminal of the booster vehicle's battery.
3. Remove the jumper cable from the positive (+) terminal of the booster vehicle's battery.
4. Remove the jumper cable from the positive (+) terminal of the disabled vehicle's battery.

After starting your disabled vehicle and removing the jumper cables, allow your vehicle to idle for several minutes so the battery can recharge.



# Roadside Emergencies

## TRANSPORTING THE VEHICLE



E143886

If you need to tow your vehicle, contact a professional towing service or, if you are a member of a roadside assistance program, your roadside assistance service provider.

We recommend the use of a wheel lift and dollies or flatbed equipment to tow your vehicle. Do not tow with a slingbelt. We do not approve a slingbelt towing procedure. If you tow your vehicle incorrectly, or by any other means, vehicle damage may occur.

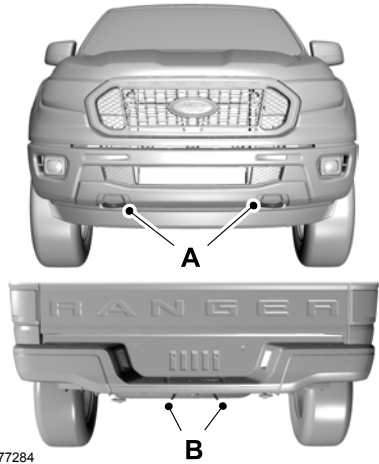
We produce a towing manual for all authorized tow truck operators. Have your tow truck operator refer to this manual for proper hook-up and towing procedures for your vehicle.

Towing an all-wheel or four-wheel drive vehicle requires that all wheels be off the ground, such as using a wheel lift and dollies or flatbed equipment. This prevents damage to the transmission, all-wheel or four-wheel drive system and vehicle.

If your vehicle becomes inoperable without access to wheel dollies, a car-hauling trailer or a flatbed transport vehicle, you can flat-tow with all wheels on the ground under limited conditions. See **Towing the Vehicle on Four Wheels** (page 211).

## TOWING POINTS

**Note:** Some towing points may not be on your vehicle.



E277284

- A Front towing eye.
- B Rear safety chain loop.

# Customer Assistance

## GETTING THE SERVICES YOU NEED

Warranty repairs to your vehicle must be performed by an authorized dealer. While any authorized dealer handling your vehicle line will provide warranty service, we recommend you return to your selling authorized dealer who wants to ensure your continued satisfaction.

Please note that certain warranty repairs require special training and equipment, so not all authorized dealers are authorized to perform all warranty repairs. This means that, depending on the warranty repair needed, you may have to take your vehicle to another authorized dealer.

A reasonable time must be allowed to perform a repair after taking your vehicle to the authorized dealer. Repairs will be made using Ford or Motorcraft® parts, or remanufactured or other parts that are authorized by Ford.

### Away From Home

If you are away from home when your vehicle needs service, contact the Ford Customer Relationship Center or use the online resources listed below to find the nearest authorized dealer.

In the United States:

#### Mailing address

Ford Motor Company  
Customer Relationship Center  
P.O. Box 6248  
Dearborn, MI 48126

#### Telephone

1-800-392-3673 (FORD)  
(TDD for the hearing impaired:  
1-800-232-5952)

Additional information and resources are available online:

Website
<a href="http://www.owner.ford.com">www.owner.ford.com</a>

These are some of the items that can be found online:

- U.S. dealer locator by Dealer Name, City/State or Zip Code.
- Owner Manuals.
- Maintenance Schedules.
- Recalls.
- Ford Extended Service Plans.
- Ford Genuine Accessories.
- Service specials and promotions.

In Canada:

#### Mailing address

Customer Relationship Centre  
Ford Motor Company of Canada, Limited  
P.O. Box 2000  
Oakville, Ontario L6K 0C8

#### Telephone

1-800-565-3673 (FORD)

Website
<a href="http://www.ford.ca">www.ford.ca</a>

#### Twitter

@FordServiceCA (English Canada)  
@FordServiceQC (Quebec)

#### Additional Assistance

If you have questions or concerns, or are unsatisfied with the service you are receiving, follow these steps:

1. Contact your Sales Representative or Service Advisor at your selling or servicing authorized dealer.

# Customer Assistance

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2. If your inquiry or concern remains unresolved, contact the Sales Manager, Service Manager or Customer Relations Manager.
3. If you require assistance or clarification on Ford Motor Company policies, please contact the Ford Customer Relationship Center.

In order to help us serve you better, please have the following information available when contacting a Customer Relationship Center:

- Vehicle Identification Number.
- Your telephone number (home and business).
- The name of the authorized dealer and city where located.
- The vehicle's current odometer reading.

In some states within the United States, you must directly notify Ford in writing before pursuing remedies under your state's warranty laws, and Ford is also allowed a final repair attempt.

Additionally, in some states within the United States, a consumer has the option of submitting a warranty dispute to the BBB Auto Line before taking action under the Magnuson-Moss Warranty Act, or to the extent allowed by state law, before pursuing replacement or repurchase remedies provided by certain state laws. This dispute handling procedure is not required prior to enforcing state created rights or other rights which are independent of the Magnuson-Moss Warranty Act or state replacement or repurchase laws.

## IN CALIFORNIA (U.S. ONLY)

California Civil Code Section 1793.2(d) requires that, if a manufacturer or its representative is unable to repair a motor vehicle to conform to the vehicle's applicable express warranty after a reasonable number of attempts, the manufacturer shall be required to either replace the vehicle with one substantially identical or repurchase the vehicle and reimburse the buyer in an amount equal to the actual price paid or payable by the consumer (less a reasonable allowance for consumer use). The consumer has the right to choose whether to receive a refund or replacement vehicle.

California Civil Code Section 1793.22(b) presumes that the manufacturer has had a reasonable number of attempts to conform the vehicle to its applicable express warranties if, within the first 18 months of ownership of a new vehicle or the first 18,000 mi (29,000 km), whichever occurs first:

1. Two or more repair attempts are made on the same non-conformity likely to cause death or serious bodily injury OR
2. Four or more repair attempts are made on the same nonconformity (a defect or condition that substantially impairs the use, value or safety of the vehicle) OR
3. The vehicle is out of service for repair of nonconformities for a total of more than 30 calendar days (not necessarily all at one time).

In the case of 1 or 2 above, the consumer must also notify the manufacturer of the need for the repair of the nonconformity at the following address:

Ford Motor Company  
16800 Executive Plaza Drive  
Mail Drop 3NE-B  
Dearborn, MI 48126

# Customer Assistance

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You are required to submit your warranty dispute to BBB AUTO LINE before asserting in court any rights or remedies conferred by California Civil Code Section 1793.22(b). You are also required to use BBB AUTO LINE before exercising rights or seeking remedies created by the Federal Magnuson-Moss Warranty Act, 15 U.S.C. sec. 2301 et seq. If you choose to seek redress by pursuing rights and remedies not created by California Civil Code Section 1793.22(b) or the Magnuson-Moss Warranty Act, resort to BBB AUTO LINE is not required by those statutes.

## **THE BETTER BUSINESS BUREAU (BBB) AUTO LINE PROGRAM (U.S. ONLY)**

Your satisfaction is important to Ford Motor Company and to your dealer. If a warranty concern has not been resolved using the three-step procedure outlined earlier in this chapter in the Getting the Services you need section, you may be eligible to participate in the BBB AUTO LINE program.

The BBB AUTO LINE program consists of two parts – mediation and arbitration. During mediation, a representative of the BBB will contact both you and Ford Motor Company to explore options for settlement of the claim. If an agreement is not reached during mediation or you do not want to participate in mediation, and if your claim is eligible, you may participate in the arbitration process. An arbitration hearing will be scheduled so that you can present your case in an informal setting before an impartial person. The arbitrator will consider the testimony provided and make a decision after the hearing.

Disputes submitted to the BBB AUTO LINE program are usually decided within forty days after you file your claim with the BBB. You are not bound by the decision, and may reject the decision and proceed to court where all findings of the BBB Auto Line dispute, and decision, are admissible in the court action. Should you choose to accept the BBB AUTO LINE decision, Ford is then bound by the decision, and must comply with the decision within 30 days of receipt of your acceptance letter.

**BBB AUTO LINE Application:** Using the information provided below, please call or write to request a program application. You will be asked for your name and address, general information about your new vehicle, information about your warranty concerns, and any steps you have already taken to try to resolve them. A Customer Claim Form will be mailed that will need to be completed, signed and returned to the BBB along with proof of ownership. Upon receipt, the BBB will review the claim for eligibility under the Program Summary Guidelines.

**You can get more information by calling BBB AUTO LINE at 1-800-955-5100, or writing to:**

**BBB AUTO LINE  
3033 Wilson Boulevard, Suite 600  
Arlington, Virginia 22201**

BBB AUTO LINE applications can also be requested by calling the Ford Motor Company Customer Relationship Center at 1-800-392-3673.

**Note:** *Ford Motor Company reserves the right to change eligibility limitations, modify procedures, or to discontinue this process at any time without notice and without obligation.*

# Customer Assistance

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## UTILIZING THE MEDIATION/ARBITRATION PROGRAM (CANADA ONLY)

For vehicles delivered to authorized Canadian dealers. In those cases where you continue to feel that the efforts by Ford of Canada and the authorized dealer to resolve a factory-related vehicle service concern have been unsatisfactory, Ford of Canada participates in an impartial third party mediation/arbitration program administered by the Canadian Motor Vehicle Arbitration Plan (CAMVAP).

The CAMVAP program is a straight forward and relatively speedy alternative to resolve a disagreement when all other efforts to produce a settlement have failed. This procedure is without cost to you and is designed to eliminate the need for lengthy and expensive legal proceedings.

In the CAMVAP program, impartial third-party arbitrators conduct hearings at mutually convenient times and places in an informal environment. These impartial arbitrators review the positions of the parties, make decisions and, when appropriate, render awards to resolve disputes. CAMVAP decisions are fast, fair, and final as the arbitrator's award is binding on both you and Ford of Canada.

CAMVAP services are available in all Canadian territories and provinces. For more information, without charge or obligation, call your CAMVAP Provincial Administrator directly at 1-800-207-0685 or visit [www.camvap.ca](http://www.camvap.ca).

## GETTING ASSISTANCE OUTSIDE THE U.S. AND CANADA

Before exporting your vehicle to a foreign country, contact the appropriate foreign embassy or consulate. These officials can inform you of local vehicle registration regulations and where to find unleaded fuel or petrol/gas engines or the proper sulfur fuel for diesel engines.

If you cannot find the proper fuel recommended for your vehicle, contact our Customer Relationship Center.

The use of improper fuels in your vehicle without proper conversion may damage the effectiveness of your emission control system and may cause engine knocking or serious engine damage. Ford Motor Company or Ford of Canada is not responsible for any damage caused by use of improper fuel. Using improper fuels may also result in difficulty importing your vehicle back into the United States.

If your vehicle must be serviced while you are traveling or living in Asia-Pacific Region, Sub-Saharan Africa, U.S. Virgin Islands and/or Puerto Rico, Central America, the Caribbean, and Israel and the Middle East, contact the nearest authorized dealer. If the authorized dealer cannot help you, contact the corresponding Ford Customer Assistance Center:

**FORD MOTOR COMPANY**  
**Customer Relationship Centers in:**

## Customer Assistance

Customer Relationship Center	Phone	Fax	E-mail
Asia Pacific	N/A	N/A	apemcrc@ford.com
Caribbean and Central America	+1 313 594 4857	-	expcac@ford.com
Middle East	Ford 80004443673	971 4 3327 266	menacac@ford.com
	Lincoln 80004441067		
	UAE 80004441066		
	Saudi Arabia 8008443673		
	Mobily and Zain cell phone users in Saudi 800850078		
Kuwait 22280384			
North Africa	N/A	N/A	nafcrc@ford.com
Puerto Rico and U.S. Virgin Islands	+1-800-841-3673	N/A	prcac@ford.com
Sub-Saharan Africa	N/A	N/A	ssacrc@ford.com
South Korea	+82-02-1600-6003	N/A	infokr1@ford.com or infokr@lincoln.com

If you buy your vehicle in North America and then relocate to any of the above locations, register your vehicle identification number (VIN) and new address with Ford Global Trade Services by emailing, [expcso@ford.com](mailto:expcso@ford.com).

If you are in another foreign country, contact the nearest authorized dealer. In the event your inquiry is unresolved, communicate your concern with the dealership's Sales Manager, Service Manager or Customer Relations Manager. If you require additional assistance or clarification, please contact the respective Customer Relationship Center as previously listed.

**Customers in the U.S. should call 1-800-392-3673.**

## Customer Assistance

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### **ORDERING ADDITIONAL OWNER'S LITERATURE**

To order the publications in this portfolio, contact Helm, Incorporated at:

HELM, INCORPORATED  
47911 Halyard Drive  
Plymouth, Michigan 48170  
Attention: Customer Service

Or to order a free publication catalog, call toll free: 1-800-782-4356

Monday-Friday 8:00 a.m. - 6:00 p.m. EST

Helm, Incorporated can also be reached by their website:

[www.helminc.com](http://www.helminc.com)

(Items in this catalog may be purchased by credit card, check or money order.)

### **Obtaining a French Owner's Manual**

French Owner's Manual can be obtained from your authorized dealer or by contacting Helm, Incorporated using the contact information listed previously in this section.

### **REPORTING SAFETY DEFECTS (U.S. ONLY)**



E142557

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Ford Motor Company.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Ford Motor Company.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or write to:

Administrator

1200 New Jersey Avenue,  
Southeast

Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from

<http://www.safercar.gov>.

# Customer Assistance

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## REPORTING SAFETY DEFECTS (CANADA ONLY)

which could cause a crash or could cause injury or death, you should immediately inform Transport Canada and Ford of Canada.

If you believe that your vehicle has a defect

<b>Transport Canada Contact Information</b>	
Website	<a href="http://www.tc.gc.ca/eng/motorvehiclesafety/reporting-defects-motor-vehicles.html">http://www.tc.gc.ca/eng/motorvehiclesafety/reporting-defects-motor-vehicles.html</a> (English)
Website	<a href="http://www.tc.gc.ca/fra/securiteautomobile/signaler-defauts-vehicules-automobiles.html">http://www.tc.gc.ca/fra/securiteautomobile/signaler-defauts-vehicules-automobiles.html</a> (French)
Phone	1-800-333-0510

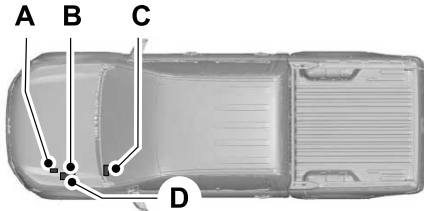
<b>Ford of Canada Contact Information</b>	
Website	<a href="http://www.ford.ca">www.ford.ca</a>
Phone	1-800-565-3673



# Fuses

## FUSE BOX LOCATIONS

### Left-Hand Drive

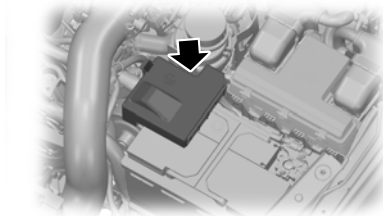


E264973

- A Pre-fuse box.
- B Engine compartment fuse box.
- C Passenger compartment fuse box.
- D High current fuse box.

**Note:** *The passenger compartment fuse box is on the right-hand side for right-hand drive vehicles.*

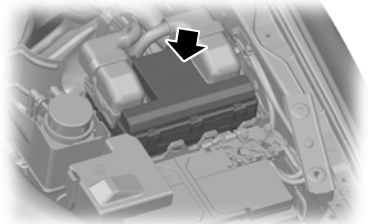
### Pre-fuse Box (If Equipped)



E206156

Your vehicle has a pre-fuse box in the engine compartment attached to the positive battery post. This box contains several high current fuses. If replacement of these high current fuses is required, see an authorized dealer.

## Engine Compartment Fuse Box



E206157



**WARNING:** Always disconnect the battery before servicing high current fuses.



**WARNING:** To reduce risk of electrical shock, always replace the cover to the power distribution box before reconnecting the battery or refilling fluid reservoirs.

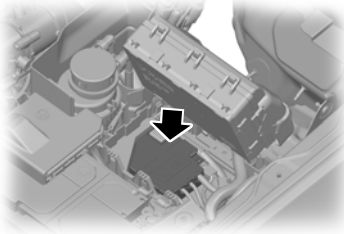
The engine compartment fuse box has high-current fuses that protect your vehicle's main electrical systems from overloads.

When you disconnect and reconnect the battery, you need to reset some features. See **Changing the 12V Battery** (page 252).

Lift the release lever at the rear of the cover to remove it.

# Fuses

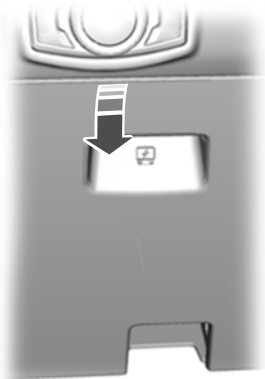
## High Current Fuse Box (If Equipped)



E206158

Your vehicle has a pre-fuse box in the engine compartment below the engine compartment fuse box. This box contains several high current fuses. If replacement of these high current fuses is required, see an authorized dealer.

## Passenger Compartment Fuse Box




E206167

The fuse box is behind the access cover on the outermost side of the steering column.

## FUSE SPECIFICATION CHART

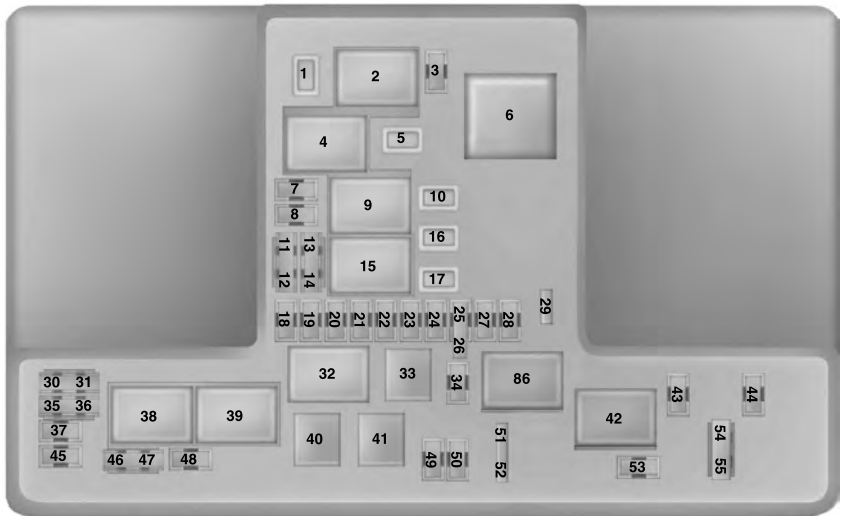
### Engine Compartment Fuse Box

 **WARNING:** Always disconnect the battery before servicing high current fuses.

 **WARNING:** To reduce risk of electrical shock, always replace the cover to the power distribution box before reconnecting the battery or refilling fluid reservoirs.

The engine compartment fuse box has high-current fuses that protect your vehicle's main electrical systems from overloads. When you disconnect and reconnect the battery, you need to reset some features. See **Changing the 12V Battery** (page 252). Lift the release levers at the rear of the cover to remove it.

# Fuses



E190797

Fuse or Relay Number	Fuse Rating	Protected Component
1	15A <sup>1</sup>	Not used.
2	-	Starter motor solenoid relay.
3	5A <sup>2</sup>	Rain sensor.
4	-	Blower motor relay.
5	20A <sup>1</sup>	Auxiliary power point 3 - console rear.
6	-	Trailer park lamp relay.
7	20A <sup>2</sup>	Powertrain control module.
8	20A <sup>2</sup>	Cannister vent solenoid. Fuel vapor shutoff valve. Canister purge valve.

## Fuses

Fuse or Relay Number	Fuse Rating	Protected Component
		Variable cam timing valve 1 and 2. Heated oxygen sensors.
9	-	Powertrain control module relay.
10	20A <sup>1</sup>	Auxiliary power point 1 - instrument panel.
11	15A <sup>3</sup>	Ignition coils.
12	15A <sup>3</sup>	A/C control drive. Transaxle warmer. Auxiliary water pump. Aspirator valve control. Fan clutch. Oil pump. Turbo bypass.
13	15A <sup>3</sup>	Not used (spare).
14	15A <sup>3</sup>	Not used (spare).
15	-	Run/start relay.
16	20A <sup>1</sup>	Auxiliary power point 2 - instrument panel.
17	20A <sup>1</sup>	Auxiliary power point - rear cargo area.
18	10A <sup>2</sup>	Not used (spare).
19	10A <sup>2</sup>	Electric power assist steering.
20	10A <sup>2</sup>	Lighting control switch.
21	5A <sup>2</sup>	Transmission Run/Start relay.
22	10A <sup>2</sup>	Air conditioning compressor.
23	7.5A <sup>2</sup>	Voltage quality module.
24	10A <sup>2</sup>	Not used (spare).
25	10A <sup>3</sup>	Anti-lock brake system.

## Fuses

Fuse or Relay Number	Fuse Rating	Protected Component
26	10A <sup>3</sup>	Not used (spare).
27	-	Not used.
28	10A <sup>2</sup>	Powertrain control module.
29	7.5A <sup>2</sup>	USB charge port.
30	-	Not used.
31	-	Not used.
32	-	Fuel pump relay.
33	-	A/C clutch relay.
34	10A <sup>2</sup>	Trailer reverse lamp.
35	15A <sup>2</sup>	Not used (spare).
36	-	Not used.
37	10A <sup>2</sup>	Heated exterior mirror.
38	-	Trailer right turn and stop lamp relay.
39	-	Trailer left turn and stop lamp relay.
40	-	Trailer reverse lamp relay.
41	-	Horn relay.
42	-	4WD (four-wheel drive) motor no. 2 relay.
43	-	Not used.
44	-	Not used.
45	5A <sup>2</sup>	Not used (spare).
46	10A <sup>3</sup>	Not used (spare).
47	10A <sup>3</sup>	Brake pedal switch.
48	20A <sup>2</sup>	Horn.

# Fuses

Fuse or Relay Number	Fuse Rating	Protected Component
49	15A <sup>2</sup>	Transmission control module. Oil pump.
50	10A <sup>2</sup>	Wiper park heater.
51	-	Not used.
52	-	Not used.
53	15A <sup>2</sup>	Rear differential lock.
54	-	Not used.
55	-	Not used.
86	-	4WD motor no. 1 relay.

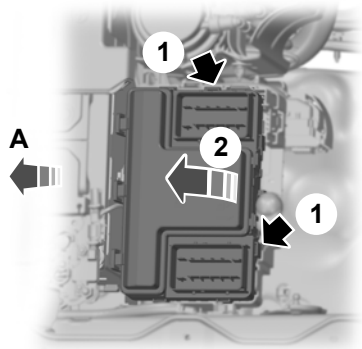
<sup>1</sup>M-type fuse.

<sup>2</sup>Micro 2 fuse.

<sup>3</sup>Micro 3 fuse.

## Power Distribution Box - Bottom

There are fuses on the bottom of the fuse box. To access the bottom of the fuse box:



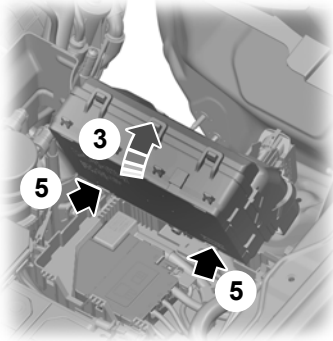
E206171

A Towards the front side of the vehicle.

1. Release the two latches on both sides of the fuse box.

## Fuses

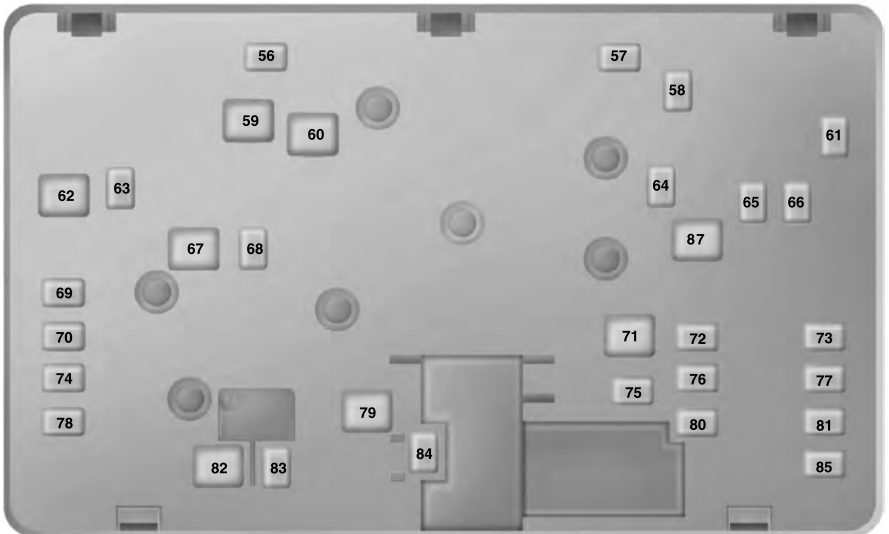
2. Raise the rear side of the fuse box from the cradle.



3. Move the fuse box toward the rear side of the engine compartment and rotate as shown.
4. Pivot the rear side of the fuse box to access the bottom side.
5. Release the two latches to open the fuse cover.

E206174

# Fuses



E190798

Fuse or Relay Number	Fuse Rating	Protected Component
56	15A <sup>1</sup>	Trailer left turn and stop.
57	-	Not used.
58	-	Not used.
59	-	Not used.
60	30A <sup>2</sup>	Fuel pump control module.
61	-	Not used.
62	50A <sup>2</sup>	Body control module 1 - lighting.
63	15A <sup>1</sup>	Trailer right turn and stop.
64	30A <sup>1</sup>	Trailer brakes.



# Fuses

Fuse or Relay Number	Fuse Rating	Protected Component
65	20A <sup>1</sup>	Heated driver seat.
66	25A <sup>1</sup>	Four wheel drive.
67	50A <sup>2</sup>	Body control module 2 - lighting.
68	30A <sup>1</sup>	Rear window defroster.
69	30A <sup>1</sup>	Anti-lock brake system valves.
70	30A <sup>1</sup>	Passenger power seat.
71	30A <sup>2</sup>	Trailer park lamps.
72	-	Not used.
73	30A <sup>1</sup>	Trailer module.
74	30A <sup>1</sup>	Driver power seat.
75	-	Not used.
76	-	Not used.
77	-	Not used.
78	-	Not used.
79	40A <sup>2</sup>	Blower motor.
80	20A <sup>1</sup>	Heated passenger seat.
81	40A <sup>1</sup>	Inverter.
82	60A <sup>2</sup>	Anti-lock brake system pump.
83	30A <sup>1</sup>	Windshield wiper motor.
84	30A <sup>1</sup>	Starter motor solenoid.

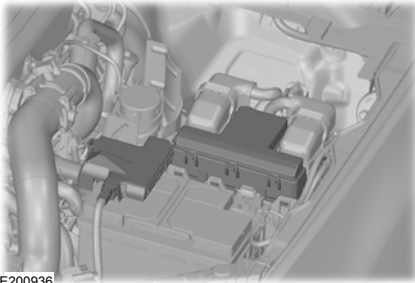
# Fuses

Fuse or Relay Number	Fuse Rating	Protected Component
85	-	Not used.
87	40A <sup>2</sup>	Trailer module.

<sup>1</sup>M-type fuse.

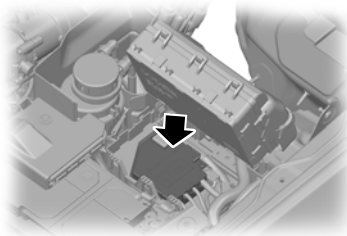
<sup>2</sup>LPJ-type fuse.

## Battery Mounted Fuse Link



Fuse Number	Fuse Rating	Protected Component
1	225A	Alternator.
2	125A	Electronic power assist steering.

## High Current Fuse Box



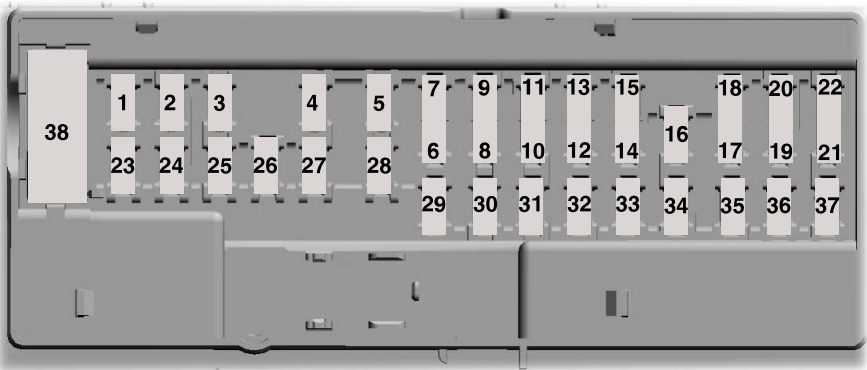
E206158

# Fuses

Fuse Number	Fuse Rating	Protected Component
1	-	Not used.
2	125A	Body control module.
3	50A	Voltage quality module (supplies rear lamp blind spot, rear view camera, head up display, 4x4 switch, image processing module and adaptive cruise control radar).
4	-	Busbar through to power distribution box.

## Passenger Compartment Fuse Box

The fuse box is below and outboard of the steering column behind the access cover.



E145984

Fuse or Relay Number	Fuse Rating	Protected Component
1	-	Not used.
2	7.5A <sup>1</sup>	Not used (spare).
3	20A <sup>1</sup>	Driver door lock.

## Fuses

Fuse or Relay Number	Fuse Rating	Protected Component
4	5A <sup>1</sup>	Not used (spare).
5	20A <sup>1</sup>	Branded audio amplifier.
6	10A <sup>2</sup>	Not used (spare).
7	10A <sup>2</sup>	Not used (spare).
8	10A <sup>2</sup>	Security horn
9	10A <sup>2</sup>	Telematics.
10	5A <sup>2</sup>	Not used (spare).
11	5A <sup>2</sup>	Not used (spare).
12	7.5A <sup>2</sup>	Electronic control panel. Climate control.
13	7.5A <sup>2</sup>	Instrument cluster. Steering column control module. Data link connector.
14	10A <sup>2</sup>	Extended power module (for Restraints module and Occupant module).
15	10A <sup>2</sup>	Gateway module. Data link connector.
16	15A <sup>1</sup>	Rear doors double lock.
17	5A <sup>2</sup>	Not used (spare).
18	5A <sup>2</sup>	Ignition switch. Lock solenoid. Push button start.
19	7.5A <sup>2</sup>	Extended power module (for Restraints module and Occupant module).
20	7.5A <sup>2</sup>	Not used (spare).
21	5A <sup>2</sup>	Humidity and in-car temperature sensor.

## Fuses

Fuse or Relay Number	Fuse Rating	Protected Component
22	5A <sup>2</sup>	Not used (spare).
23	10A <sup>1</sup>	Inverter. Door lock switch.
24	20A <sup>1</sup>	Central locking system.
25	30A <sup>1</sup>	Driver door power window.
26	30A <sup>1</sup>	Not used (spare).
27	30A <sup>1</sup>	Not used (spare).
28	20A <sup>1</sup>	Branded audio amplifier.
29	30A <sup>1</sup>	Not used (spare).
30	30A <sup>1</sup>	Not used (spare).
31	15A <sup>1</sup>	Not used (spare).
32	10A <sup>1</sup>	Radio transceiver module. Door entry remote. SYNC.
33	20A <sup>1</sup>	Audio unit.
34	30A <sup>1</sup>	Run/start relay.
35	5A <sup>1</sup>	Not used (spare).
36	15A <sup>1</sup>	Auto-dimming interior mirror. Mirror adjustment control.
37	20A <sup>1</sup>	Not used (spare).
38	30A <sup>3</sup>	Power windows.

<sup>1</sup>Micro 2 fuse.

<sup>2</sup>Micro 3 fuse.

<sup>3</sup>PTC fuse.

# Fuses

## CHANGING A FUSE

### Fuses



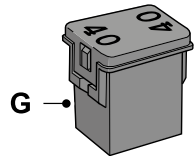
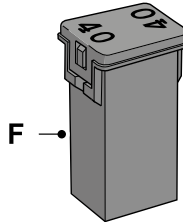
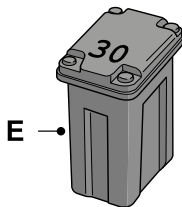
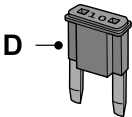
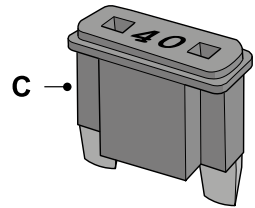
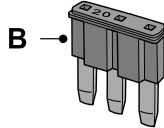
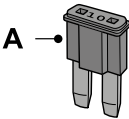
**WARNING:** Always replace a fuse with one that has the specified amperage rating. Using a fuse with a higher amperage rating can cause severe wire damage and could start a fire.



E217331

If electrical components in the vehicle are not working, a fuse may have blown. Blown fuses are identified by a broken wire within the fuse. Check the appropriate fuses before replacing any electrical components.

### Fuse Types



E207206

Callout	Fuse Type
A	Micro 2
B	Micro 3
C	Maxi
D	Mini

# Fuses

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<b>Callout</b>	<b>Fuse Type</b>
E	M Case
F	J Case
G	J Case Low Profile

# Maintenance

## GENERAL INFORMATION



**WARNING:** Switch the ignition off and apply the parking brake.



**WARNING:** Do not touch the electronic ignition system parts after you have switched the ignition on or when the engine is running. The system operates at high voltage. Failure to adhere to this warning could result in serious personal injury or death.



**WARNING:** Keep your hands and clothing clear of the engine cooling fan.

Make sure that you fit filler caps securely after carrying out maintenance checks.

Have your vehicle serviced regularly to help maintain its roadworthiness and resale value. Authorized repairers are best qualified to service your vehicle properly and expertly, with a wide range of highly specialized tools.

In addition to regular servicing, we recommend that you carry out the following checks.

### Check Daily

- Exterior lamps.
- Interior lamps.
- Warning lamps and indicators.

### Check When Refueling

- Brake fluid level. See **Brake Fluid Check** (page 250).
- Washer fluid level. See **Washer Fluid Check** (page 251).
- Tire pressures. See **Technical Specifications** (page 300).
- Tire condition. See **Wheels and Tires** (page 269).

## Check Monthly

- Engine oil level. See **Engine Oil Check** (page 247).
- Engine coolant level. See **Engine Coolant Check** (page 249).
- Pipes, hoses and reservoirs for leaks.
- Air conditioning operation.
- Parking brake operation.
- Horn operation.
- Tightness of lug nuts.

## OPENING AND CLOSING THE HOOD

### Opening the Hood

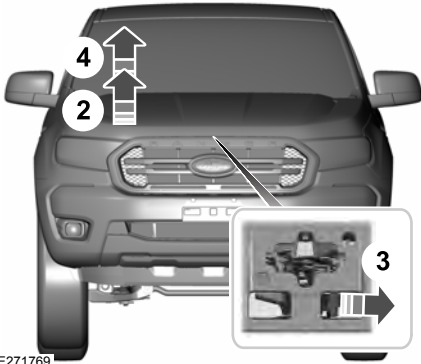


E206129

1. Pull the hood release lever. See **Instrument Panel Overview** (page 16).



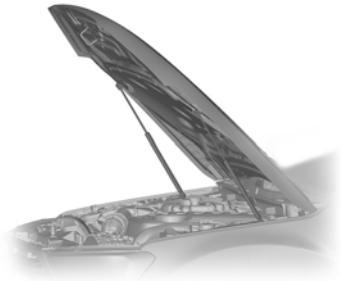
# Maintenance



E271769

2. Slightly lift the hood.
3. Move the catch to the left for vehicles with left hand drive. Move the catch to the right for vehicle with right hand drive.
4. Open the hood.

## UNDER HOOD OVERVIEW



E201861

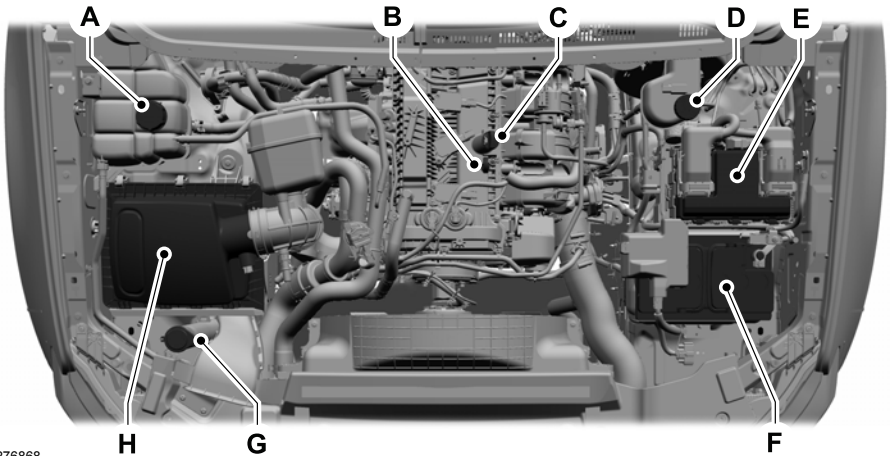
5. The hood strut automatically supports the hood.

## Closing the Hood

1. Lower the hood and allow it to drop under its own weight.
2. If necessary, apply a downward force on the leading edge of the hood prior to engage with the latch, to latch the hood fully.

**Note:** *Make sure that the hood is correctly closed.*

# Maintenance



E276868

- A Engine coolant reservoir. See **Engine Coolant Check** (page 249).
- B Engine oil dipstick. See **Engine Oil Dipstick** (page 247).
- C Engine oil filler cap. See **Engine Oil Check** (page 247).
- D Brake fluid reservoir. See **Brake Fluid Check** (page 250).
- E Engine compartment fuse box. See **Changing a Fuse** (page 243).
- F Battery. See **Changing the 12V Battery** (page 252).
- G Windshield washer fluid reservoir. See **Washer Fluid Check** (page 251).
- H Air filter assembly. See **Changing the Engine Air Filter** (page 260).

## ENGINE OIL DIPSTICK



E161560

- A Minimum.
- B Maximum.

## ENGINE OIL CHECK

1. Make sure that your vehicle is on level ground.

# Maintenance

2. Switch off the engine and wait 10 minutes for the oil to drain into the oil pan.
3. Remove the dipstick and wipe it with a clean, lint free cloth. Replace the dipstick and remove it again to check the oil level.

If the oil level is at the minimum mark, add oil immediately. See **Capacities and Specifications** (page 306).

**Note:** Check the oil level before starting the engine.

**Note:** Make sure that the oil level is between the minimum and the maximum marks.

**Note:** Do not use oil additives or other engine treatments. Under certain conditions, they may damage the engine.

**Note:** The oil consumption of new engines reaches its normal level after approximately 3,107 mi (5,000 km).

## Adding Oil



**WARNING:** Only add oil when the engine is cold. If the engine is hot, wait 10 minutes for the engine to cool down. Failure to take care may result in personal injury.



**WARNING:** Do not remove the filler cap when the engine is running. Failure to take care may result in personal injury.

1. Remove the filler cap.
2. Add oil that meets Ford specifications. See **Capacities and Specifications** (page 306).
3. Replace the filler cap. Turn it until you feel a strong resistance.

**Note:** Do not add oil further than the maximum mark. Oil levels above the maximum mark may cause engine damage.

**Note:** Soak up any spillage with an absorbent cloth immediately.

## OIL CHANGE INDICATOR RESET

Use the information display controls on the steering wheel to reset the oil change indicator.

### From the main menu scroll to:

Message	Action and description
Settings	Press the right arrow button, then from this menu scroll to the following message.
Vehicle	Press the right arrow button, then from this menu scroll to the following message.
Oil Life	Press the right arrow button, then from this menu scroll to the following message.
Hold OK to Reset	Press and hold the <b>OK</b> button until the instrument cluster displays the following message.  Reset Successful
	When the oil change indicator resets the instrument cluster displays 100%.  Remaining Life {00}%

# Maintenance

Message	Action and description
	If the instrument cluster displays one of the following messages, repeat the process.
	Not Reset
	Reset Cancelled

## ENGINE COOLANT CHECK



**WARNING:** Do not dispose of coolant in the household refuse or the public sewage system. Use an authorized waste disposal facility.



**WARNING:** Do not put coolant in the windshield washer reservoir. If sprayed on the windshield, coolant could make it difficult to see through the windshield.



E170684

Make sure that the coolant level is between the **MIN** and **MAX** marks on the coolant reservoir at ambient temperature. If the coolant level is at or below the minimum mark, immediately add coolant.

The coolant concentration should be maintained within 48% to 50%, which equates to a freeze point between  $-29^{\circ}\text{F}$  ( $-34^{\circ}\text{C}$ ) and  $-35^{\circ}\text{F}$  ( $-37^{\circ}\text{C}$ ).

**Note:** *Coolant expands when it is hot. The level may extend beyond the **MAX** mark.*

**Note:** *Do not use stop leak pellets, cooling system sealants, or non-specified additives as they can cause damage to the engine cooling or heating systems.*

## Adding Coolant



**WARNING:** Do not remove the coolant reservoir cap when the engine is on or the cooling system is hot. Wait 10 minutes for the cooling system to cool down. Cover the coolant reservoir cap with a thick cloth to prevent the possibility of scalding and slowly remove the cap. Failure to follow this instruction could result in personal injury.



**WARNING:** Do not allow the fluid to touch your skin or eyes. If this happens, rinse the affected areas immediately with plenty of water and contact your physician.



**WARNING:** Undiluted coolant is flammable and may ignite if spilled on a hot exhaust.

We do not recommend the use of recycled engine coolant since a Ford-approved recycling process is not yet available.

Do not mix different colors or types of coolant in your vehicle.

# Maintenance

**Note:** Add a 50/50 mixture of antifreeze and water or prediluted engine coolant that meets the correct specification.

**Note:** Use fluids which meet the specifications or requirements defined. Use of other fluids may lead to damage which is not covered by the vehicle Warranty. See **Capacities and Specifications** (page 302).

To top up the coolant level do the following:

1. Remove the coolant reservoir cap.
2. Add coolant to the **MAX** mark, do not overfill.
3. Replace the coolant reservoir cap. Turn it clockwise until you feel a strong resistance.

In case of emergency, you can add water without engine coolant in order to reach a vehicle service location.

**Note:** Prolonged use of an incorrect dilution of coolant can cause damage, for example corrosion, overheating or freezing.

## AUTOMATIC TRANSMISSION FLUID CHECK

**Note:** Transmission fluid should be checked by an authorized dealer. If required, fluid should be added by an authorized dealer.

Have an authorized dealer check and change the transmission fluid at the correct service interval. See **Maintenance** (page 245). Your transmission does not consume fluid. However, the fluid level should be checked if the transmission is not working properly, (i.e., if the transmission slips or shifts slowly) or if you notice some sign of fluid leakage.

Do not use supplemental transmission fluid additives, treatments or cleaning agents. The use of these materials may affect transmission operation and result in damage to internal transmission components.

## BRAKE FLUID CHECK



**WARNING:** Do not use any fluid other than the recommended brake fluid as this will reduce brake efficiency. Use of incorrect fluid could result in the loss of vehicle control, serious personal injury or death.



**WARNING:** Only use brake fluid from a sealed container. Contamination with dirt, water, petroleum products or other materials may result in brake system damage or failure. Failure to adhere to this warning could result in the loss of vehicle control, serious personal injury or death.



**WARNING:** Do not allow the fluid to touch your skin or eyes. If this happens, rinse the affected areas immediately with plenty of water and contact your physician.



**WARNING:** A fluid level between the **MAX** and **MIN** lines is within the normal operating range and there is no need to add fluid. A fluid level not in the normal operating range could compromise the performance of the system. Have your vehicle checked immediately.

# Maintenance



E170684

To avoid fluid contamination, the reservoir cap must remain in place and fully tight, unless you are adding fluid.

Only use fluid that meets Ford specifications. See **Capacities and Specifications** (page 302).

## POWER STEERING FLUID CHECK

Your vehicle is equipped with an electric power steering (EPS) system. There is no fluid reservoir to check or fill.

## WASHER FLUID CHECK

Top up the washer fluid reservoir when the washer fluid level indicator is on. See **Warning Lamps and Indicators** (page 82).

We recommend using only high quality anti-freeze washer fluid. For information on fluid dilution, refer to the product instructions to help prevent freezing in cold weather and improve the cleaning capability.

**Note:** Do not add washer fluid when the engine is hot to prevent fire risk.

## CHARGING THE 12V BATTERY

### Battery Management System (if Equipped)

The battery management system monitors battery conditions and takes actions to extend battery life. If excessive battery drain is detected, the system may temporarily disable certain electrical features to protect the battery. Those electrical accessories affected include the rear defrost, heated/cooled seats, climate control fan, heated steering wheel, audio and navigation system. A message may be shown in the information displays to alert the driver that battery protection actions are active. These messages are only for notification that an action is taking place, and not intended to indicate an electrical problem or that the battery requires replacement.

### Electrical accessory installation

**Note:** Charging and replacing the battery requires the driver power window to be re-initialized. See **Windows and Mirrors** (page 74).

To ensure proper operation of the Battery Management System, any electrical devices that are added to your vehicle should not have their ground connection made directly at the negative battery post.

# Maintenance

A connection at the negative battery terminal can cause inaccurate measurements of the battery condition and potential incorrect system operation.

When a battery replacement is required, you must use a recommended replacement battery that matches the electrical requirements of the vehicle.

After battery replacement, or in some cases after charging the battery with the external charger, the Battery Management System requires eight hours of vehicle sleep time (key off with doors closed) to relearn the new battery state of charge. Prior to relearning the state of charge, the Battery Management System may disable electrical features (to protect the battery) earlier than normal.

## CHANGING THE 12V BATTERY



**WARNING:** Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lighted substances to come near the battery. When working near the battery, always shield your face and protect your eyes. Always provide correct ventilation.



**WARNING:** When lifting a plastic-cased battery, excessive pressure on the end walls could cause acid to flow through the vent caps, resulting in personal injury and damage to the vehicle or battery. Lift the battery with a battery carrier or with your hands on opposite corners.



**WARNING:** Keep batteries out of reach of children. Batteries contain sulfuric acid. Avoid contact with skin, eyes or clothing. Shield your eyes when working near the battery to protect against possible splashing of acid solution. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes and get prompt medical attention. If acid is swallowed, call a physician immediately.



**WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.



**WARNING:** This vehicle may have more than one battery. Removing the battery cables from only one battery does not disconnect your vehicle electrical system. Make sure you disconnect the battery cables from all batteries when disconnecting power. Failure to do so may cause serious personal injury or property damage.



**WARNING:** For vehicles with Auto-Start-Stop the battery requirement is different. You must replace the battery with one of exactly the same specification.

The battery is located in the engine compartment. See **Under Hood Overview** (page 246).

Your vehicle has a maintenance-free battery. It does not require additional water during service.

If your vehicle battery has a cover, make sure you correctly install it after cleaning or replacing the battery.

# Maintenance

For longer, trouble-free operation, keep the top of the battery clean and dry and the battery cables tightly fastened to the battery terminals. If any corrosion is present on the battery or terminals, remove the cables from the terminals and clean with a wire brush. You can neutralize the acid with a solution of baking soda and water.

We recommend that you disconnect the negative battery cable terminal from the battery if you plan to store your vehicle for an extended period.

To maintain correct operation of the battery management system, if you add any electrical devices to your vehicle, do not connect the ground connection directly to the negative battery terminal. A connection at the negative battery terminal can cause inaccurate measurements of the battery condition and potential incorrect system operation.

**Note:** *Electrical accessories or components added to your vehicle by you or an authorized dealer, may adversely affect battery performance, durability and the performance of other electrical systems on your vehicle.*

If a replacement battery is required, we recommend you use a Ford replacement battery that matches the electrical requirements of your vehicle.

If you disconnect or replace the battery and your vehicle has an automatic transmission, transmission must relearn its adaptive strategy. Because of this, the transmission may shift firmly when first driven. This is normal operation while the transmission fully updates its operation to optimum shift feel.

## Remove and Reinstall the Battery

To disconnect or remove the battery, do the following:

1. Apply the parking brake and switch the ignition off.
2. Switch all electrical equipment off, for example lights and radio.
3. Wait a minimum of two minutes before disconnecting the battery.

**Note:** *The engine management system has a power hold function and remains powered for a period after you switch the ignition off. This is to allow diagnostic and adaptive tables to be stored. Disconnecting the battery without waiting can cause damage not covered by the vehicle Warranty.*

4. Disconnect the negative (-) battery cable terminal first.
5. Disconnect the positive (+) battery cable terminal last.
6. Remove the battery securing clamp.
7. Remove the battery.
8. Install in the reverse order.

**Note:** *Before reconnecting the battery, make sure the ignition remains switched off.*

**Note:** *If you only disconnect the negative battery cable terminal, make sure it is isolated or placed away from the battery terminal to avoid un-intended connection or arcing.*

**Note:** *Make sure the battery cable terminals are fully tightened.*

**Note:** *If you disconnect or replace the battery, you must reset the clock and the pre-set radio stations once the battery is reconnected.*

## Battery Disposal



Make sure that you dispose of old batteries in an environmentally friendly way. Seek advice from your local authority about recycling old batteries.



# Maintenance

## CHECKING THE WIPER BLADES



E222238

Run the tip of your fingers over the edge of the blade to check for roughness.

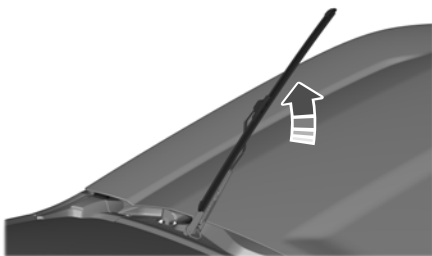
Clean the wiper blades with isopropyl alcohol or windshield washer concentrate.

## CHANGING THE WIPER BLADES

### Changing the Windshield Wiper Blades

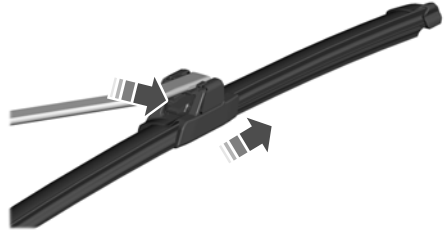
**Note:** The windshield wiper blades are different in length.

**Note:** If you install wiper blades of the wrong length, the wiper blades can clash damaging the wiper system.



E279824

1. Pull the wiper blade and arm away from the glass.



E279825

2. Squeeze the blade's lock pin and tab on the bottom of the arm to release the wiper blade.
3. Slide the blade out to remove it from the arm hook.
4. Install in the reverse order.

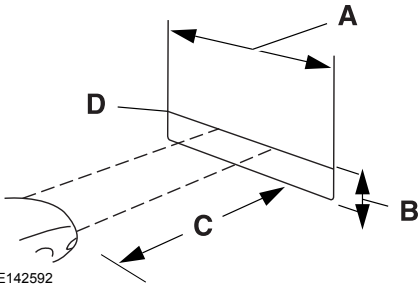
**Note:** Make sure that the wiper blade locks into place.

## ADJUSTING THE HEADLAMPS

### Vertical Aim Adjustment

If your vehicle has been involved in a crash, have the aim of the headlamp beam checked by an authorized dealer.

# Maintenance



E142592

- A 8 ft (2.4 m)
- B Ground to the center of the headlamp high beam bulb
- C 25 ft (7.6 m)
- D Horizontal reference line

## Vertical Aim Adjustment Procedure

1. Park your vehicle on level ground approximately 25 ft (7.6 m) from a wall or screen.
2. Measure the distance from the ground to the center of the headlamp high beam bulb and mark an 8 ft (2.4 m) long horizontal reference line on the wall or screen at this height.

**Note:** There may be an identifying mark on the lens to help you locate the center line of the headlamp high beam bulb. Refer to the graphic below step 4.

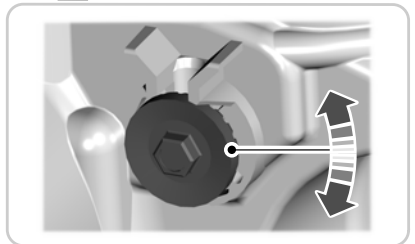
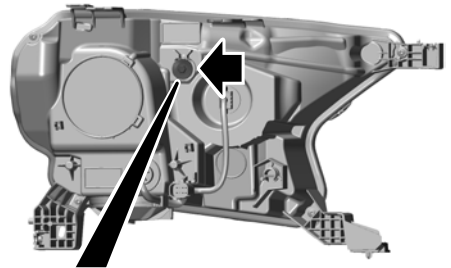
**Note:** To see a clearer light pattern for adjusting, you may want to block the light from one headlamp while adjusting the other.

3. Switch on the low beam headlamps and open the hood.



E142465

4. On the wall or screen you will observe a flat zone of high intensity light located at the top of the beam pattern. If the top edge of the flat zone of high intensity light is not on the horizontal reference line, adjust the aim of the headlamp beam.



E284602

# Maintenance

5. Use a suitable tool, for example a screwdriver or socket wrench, to turn the adjuster clockwise or counterclockwise to adjust the vertical aim of the headlamp. The horizontal edge of the brighter light should touch the horizontal reference line.
6. Close the hood and switch off the lamps.

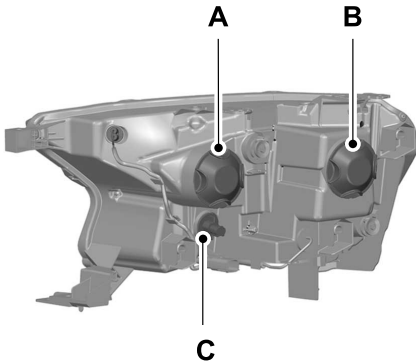
## REMOVING A HEADLAMP

Contact an authorized dealer.

## CHANGING A BULB

### Replacing the Headlamp Bulbs (If Equipped)

**Note:** Do not touch the bulb glass.

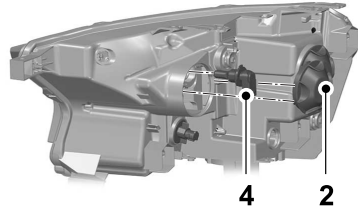


E284568

Headlamp assembly:

- A. High beam bulb.
- B. Low beam bulb.
- C. Front park and direction indicator bulb.

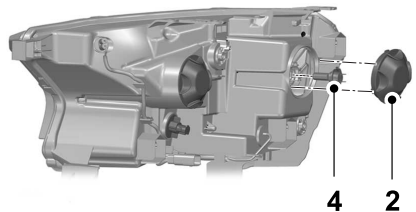
### Replacing the High Beam Headlamp Bulb



E284569

1. Make sure the lamps are off.
2. With the hood open, locate and carefully remove the cover.
3. Disconnect the electrical connector.
4. Turn the bulb counterclockwise and remove it.
5. Install the new bulb in reverse order.

### Replacing the Low Beam Headlamp Bulb



E284581

1. Make sure the lamps are off.
2. With the hood open, locate and carefully remove the cover.
3. Disconnect the electrical connector.
4. Turn the bulb counterclockwise and remove it.

# Maintenance

5. Install the new bulb in reverse order.

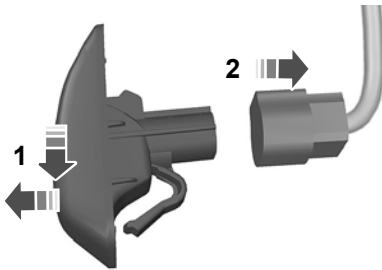
## Replacing the Front Park and Direction Indicator Bulb

1. Make sure the lamps are off.
2. Turn the bulb holder counterclockwise and remove it.
3. Remove the bulb by pulling it straight out.
4. Install the new bulb in reverse order.

## Replacing LED Headlamp Bulbs

All bulbs in this assembly except for the direction indicator bulb are LED. If an LED fails have your vehicle checked as soon as possible. Contact an authorized dealer.

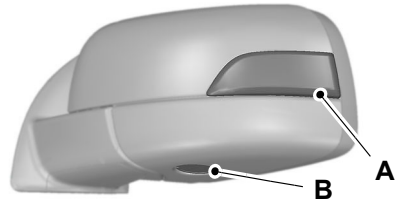
## Front Side Marker Bulb



E133682

1. Make sure the lamps are off.
2. Remove the lamp from the wheel lip molding by releasing the clip.
3. Turn the bulb holder counterclockwise and remove it.
4. Remove the bulb by pulling it straight out.
5. Install the new bulb in reverse order.

## Approach Lamp and Side Direction Indicator (If Equipped)

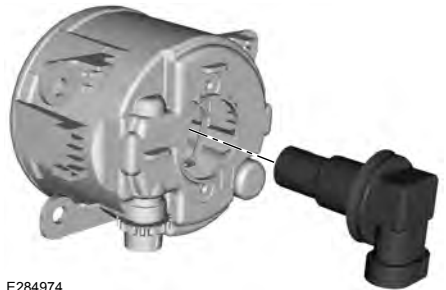


E133683

- A Side direction indicator.  
B Approach lamp.

If an LED fails have your vehicle checked as soon as possible. Contact an authorized dealer.

## Front Fog Lamps



E284974

1. Make sure the lamps are off.
2. To access the bulb, reach behind the bumper.
3. Disconnect the electrical connector.
4. Turn the bulb counterclockwise and remove it.
5. Install the new bulb in reverse order.

**Note:** You cannot separate the bulb from the bulb holder.

# Maintenance

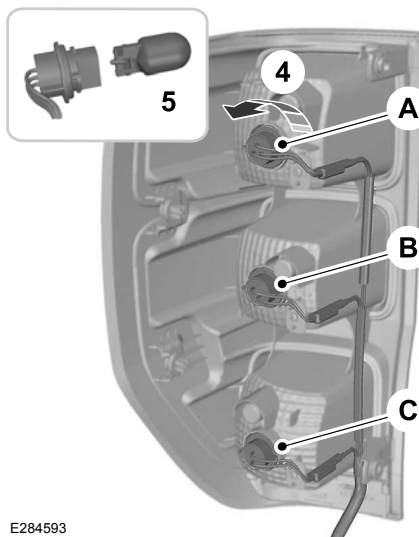
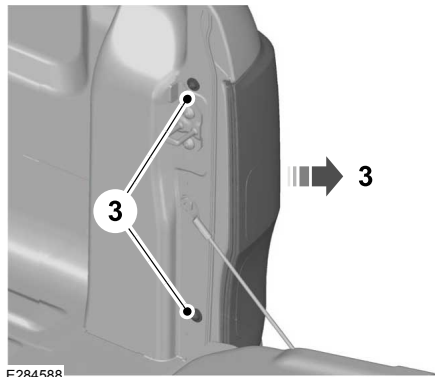
## Replacing LED Fog Lamp Bulbs (If Equipped)

If an LED fails have your vehicle checked as soon as possible. Contact an authorized dealer.

## Rear Lamps (If Equipped)

### Type 1

### Tail, Brake, Reversing, and Direction Indicator



- A Brake and rear park bulb.
- B Rear direction indicator bulb.
- C Reverse lamp bulb.

1. Make sure the lamps are off.
2. Open the tailgate to access the rear lamp assemblies.
3. Remove the two bolts from the tail lamp assembly. Then, carefully pull the lamp assembly from the tailgate pillar by releasing the two retaining tabs.
4. Turn the bulb holder counterclockwise and remove it.
5. Remove the bulb by pulling it straight out.
6. Install the new bulb in reverse order.

# Maintenance

## Replacing LED Brake, Rear, Direction Indicator and Reverse Lamp Bulbs

If an LED fails have your vehicle checked as soon as possible. Contact an authorized dealer.

### Type 2

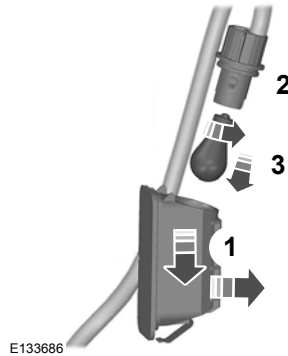
#### Tail, Brake, Reversing Lamp and Direction Indicator



E284955

1. Make sure the lamps are off.
2. Undo the screws to remove the outer lens and access the bulbs.
3. Remove the bulb by pulling it straight out.
4. Install the new bulb in reverse order.

## License Plate Lamp



1. Make sure the lamps are off.
2. Use a screwdriver to carefully remove the lamp from the rear bumper.
3. Turn the bulb holder counterclockwise and remove it.
4. Remove the bulb by pulling it straight out.
5. Install the new bulb in reverse order.

## Central High Mounted Brake Lamp (If Equipped)



E187290

1. Make sure the lamps are off.

# Maintenance

2. Remove the four screws and move the lamp assembly away from the vehicle to expose the bulb sockets.
3. Remove the bulb socket by rotating it counterclockwise and pulling it out of the lamp assembly.
4. Pull the bulb straight out of the socket.
5. Install the new bulb in reverse order.

## Replacing LED Cargo Lamp and High-mount Brake Lamp Bulbs

If an LED fails have your vehicle checked as soon as possible. Contact an authorized dealer.

## CHANGING THE ENGINE AIR FILTER



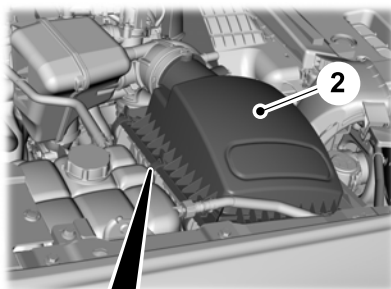
**WARNING:** To reduce the risk of vehicle damage and personal burn injuries, do not start your engine with the air cleaner removed and do not remove it while the engine is running.

When changing the engine air filter, do not allow debris or foreign material to enter the air induction system. Engine components are susceptible to damage not covered by the vehicle Warranty.

Change the air filter element at the correct interval. See **Scheduled Maintenance** (page 421).

Incorrect component use can cause damage not covered by the vehicle Warranty. See **Motorcraft Parts** (page 302).

To replace the air filter element do the following:



E276908

1. Remove the clips that secure the air filter housing cover.
2. Carefully lift the air filter housing cover.
3. Remove the air filter element from the air filter housing.
4. Wipe any dirt or debris from the air filter housing and cover to make sure no dirt gets in the engine and that you have a good seal.
5. Install a new air filter element. Be careful not to crimp the filter element edges between the air filter housing and cover. This could cause filter damage and allow unfiltered air to enter the engine if it is not properly seated.
6. Install the air filter housing cover.
7. Engage the clips to secure the air filter housing cover to the air filter housing.

# Vehicle Care

## GENERAL INFORMATION

Your dealer has many quality products available to clean your vehicle and protect its finishes.

## CLEANING PRODUCTS

### Materials

For best results, use the following products or products of equivalent quality:

Name	Specification
Motorcraft® Bug and Tar Remover, ZC-42 (U.S. & Canada)	
Motorcraft® Custom Bright Metal Cleaner, ZC-15 (U.S. & Canada)	ESR-M5B194-B
Motorcraft® Detail Wash, ZC-3-A (U.S. & Canada)	ESR-M14P4-A
Motorcraft® Engine Shampoo and Degreaser, ZC-20 (U.S.)	ESR-M14P3-A
Motorcraft® Engine Shampoo, CXC-66-A (Canada)	
Motorcraft® Premium Leather and Vinyl Cleaner, ZC-56 (U.S. & Canada)	
Motorcraft® Multi-Purpose Cleaner, CXC-101 (Canada)	
Motorcraft® Premium Windshield Wash Concentrate with Bitterant, ZC-32-B2 (U.S.)	WSS-M14P19-A
Motorcraft® Premium Quality Windshield Washer Fluid, CXC-37-A/B/D/F (Canada)	WSS-M14P19-A
Motorcraft® Professional Strength Carpet & Upholstery Cleaner, ZC-54 (U.S. & Canada)	
Motorcraft® Premium Glass Cleaner, CXC-100 (Canada)	ESR-M14P5-A
Motorcraft® Spot and Stain Remover, ZC-14 (U.S.)	
Motorcraft® Ultra-Clear Spray Glass Cleaner, ZC-23 (U.S.)	ESR-M14P5-A
Motorcraft® Wheel and Tire Cleaner, ZC-37-A (U.S. & Canada)	

## CLEANING THE EXTERIOR

Wash your vehicle regularly with cool or lukewarm water and a neutral pH shampoo, we recommend Motorcraft Detail Wash.

- Never use strong household detergents or soap, for example dish washing or laundry liquid. These products can discolor and spot painted surfaces.
- Never wash your vehicle when it is hot to the touch, or during strong or direct sunlight.



# Vehicle Care

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- Dry your vehicle with a chamois or soft terry cloth towel to eliminate water spotting.
- Immediately remove fuel spillages, bird droppings, insect deposits and road tar. These may cause damage to your vehicle's paintwork or trim over time. We recommend Motorcraft Bug and Tar Remover.
- Remove any exterior accessories, for example antennas, before entering a car wash.
- When filling with AdBlue®, remove any residue on painted surfaces immediately.

**Note:** *Suntan lotions and insect repellents can damage painted surfaces. If these substances come in contact with your vehicle, wash the affected area as soon as possible.*

## Cleaning the Headlamps

**Note:** *Do not scrape the headlamp lenses or use abrasives, alcoholic solvents or chemical solvents to clean them.*

**Note:** *Do not wipe the headlamps when they are dry.*

## Exterior Chrome Parts

- Apply a high quality-cleaning product to bumpers and other chrome parts. Follow the manufacturer's instructions. We recommend Motorcraft Custom Bright Metal Cleaner.
- Do not apply the cleaning product to hot surfaces. Do not leave the cleaning product on chrome surfaces longer than the time recommended.
- Using non-recommended cleaners can result in severe and permanent cosmetic damage.

**Note:** *Never use abrasive materials, for example steel wool or plastic pads as they can scratch the chrome surface.*

**Note:** *Do not use chrome cleaner, metal cleaner or polish on wheels or wheel covers.*

## Exterior Plastic Parts

For routine cleaning we recommend Motorcraft Detail Wash. If tar or grease spots are present, we recommend Motorcraft Bug and Tar Remover.

## Stripes or Graphics (If Equipped)

Hand washing your vehicle is preferred however, pressure washing may be used under the following conditions:

- Do not use water pressure higher than 2,000 psi (14,000 kPa).
- Do not use water hotter than 179°F (82°C).
- Use a spray with a 40° wide spray angle pattern.
- Keep the nozzle at a 12 in (305 mm) distance and 90° angle to your vehicle's surface.

**Note:** *Holding the pressure washer nozzle at an angle to the vehicle's surface may damage graphics and cause the edges to peel away from the vehicle's surface.*

## Underbody

Regularly clean the underside of your vehicle using water. Keep body and door drain holes free of debris or foreign material.

## Under Hood

For removing black rubber marks from under the hood we recommend Motorcraft Wheel and Tire Cleaner or Motorcraft Bug and Tar Remover.

# Vehicle Care

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## WAXING

Regular waxing is necessary to protect your car's paint from the elements. We recommend that you wash and wax the painted surface once or twice a year.

When washing and waxing, park your vehicle in a shaded area out of direct sunlight. Always wash your vehicle before applying wax.

- Use a quality wax that does not contain abrasives.
- Follow the manufacturer's instructions to apply and remove the wax.
- Apply a small amount of wax in a back-and-forth motion, not in circles.
- Do not allow wax to come in contact with any non-body (low-gloss black) colored trim. The wax will discolor or stain the parts over time.
  - Roof racks.
  - Bumpers.
  - Grained door handles.
  - Side moldings.
  - Mirror housings.
  - Windshield cowl area.
- Do not apply wax to glass areas.
- After waxing, your car's paint should feel smooth, and be free of streaks and smudges.

## CLEANING THE ENGINE

Engines are more efficient when they are clean because grease and dirt buildup keep the engine warmer than normal.

When washing:

- Take care when using a power washer to clean the engine. The high-pressure fluid could penetrate the sealed parts and cause damage.
- Do not spray a hot engine with cold water to avoid cracking the engine block or other engine components.
- Spray Motorcraft Engine Shampoo and Degreaser on all parts that require cleaning and pressure rinse clean. In Canada, use Motorcraft Engine Shampoo.
- Never wash or rinse the engine while it is hot or running; water in the running engine may cause internal damage.
- Never wash or rinse any ignition coil, spark plug wire or spark plug well, or the area in and around these locations.
- Cover the battery, power distribution box, and air filter assembly to prevent water damage when cleaning the engine.

## CLEANING THE WINDOWS AND WIPER BLADES

Car wash chemicals and environmental fallout can result in windshield and wiper blade contamination. Dirty windshield and wipers will result in poor windshield wiper operation. Keep the windshield and wiper blades clean to maintain windshield wiper performance.

# Vehicle Care

To clean the windshield and wiper blades:

- Clean the windshield with a non-abrasive glass cleaner. When cleaning the interior of the windshield, avoid getting any glass cleaner on the instrument panel or door panels. Wipe any glass cleaner off these surfaces immediately.
- For windshields contaminated with tree sap, chemicals, wax or bugs, clean the entire windshield using steel wool (no greater than 0000 grade) in a circular motion and rinse with water.
- Clean the wiper blades with isopropyl rubbing alcohol or windshield washer concentrate.

**Note:** Do not use razor blades or other sharp objects to clean or remove decals from the inside of the heated rear window. The vehicle warranty does not cover damage caused to the heated rear window grid lines.

## CLEANING THE INTERIOR



**WARNING:** Do not use cleaning solvents, bleach or dye on the vehicle's seatbelts, as these actions may weaken the belt webbing.



**WARNING:** On vehicles equipped with seat-mounted airbags, do not use chemical solvents or strong detergents. Such products could contaminate the side airbag system and affect performance of the side airbag in a crash.

For fabric, carpets, cloth seats and seats equipped with side airbags:

- Remove dust and loose dirt with a vacuum cleaner.
- Remove light stains and soil with Motorcraft Professional Strength Carpet & Upholstery Cleaner.
- If grease or tar is present on the material, spot-clean the area first with Motorcraft Spot and Stain Remover. In Canada, use Motorcraft Multi-Purpose Cleaner.
- If a ring forms on the fabric after spot cleaning, clean the entire area immediately (but do not oversaturate) or the ring will set.
- Do not use household cleaning products or glass cleaners, which can stain and discolor the fabric and affect the flame retardant abilities of the seat materials.

## Mirrors

Do not clean the housing or glass of any mirror with harsh abrasives, fuel or other petroleum or ammonia-based cleaning products.

## CLEANING THE INSTRUMENT PANEL AND INSTRUMENT CLUSTER LENS



**WARNING:** Do not use chemical solvents or strong detergents when cleaning the steering wheel or instrument panel to avoid contamination of the airbag system.

**Note:** Follow the same procedure as cleaning leather seats for cleaning leather instrument panels and leather interior trim surfaces. See **Cleaning Leather Seats** (page 265).

# Vehicle Care

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Clean the instrument panel and cluster lens with a clean, damp and soft cloth, then use a clean, dry and soft cloth to dry these areas.

- Avoid cleaners or polishes that increase the gloss of the upper portion of the instrument panel. The dull finish in this area helps protect you from undesirable windshield reflection.
- Do not use any household cleaning products or glass cleaners as these may damage the finish of the instrument panel, interior trim and cluster lens.
- Wash or wipe your hands clean if you have been in contact with certain products such as insect repellent and suntan lotion to avoid possible damage to the interior painted surfaces.
- Do not allow air fresheners and hand sanitizers to spill onto interior surfaces. If a spill occurs, wipe off immediately. Your warranty may not cover these damages.

If a staining liquid like coffee or juice has been spilled on the instrument panel or on interior trim surfaces:

1. Wipe up spilled liquid using a clean, soft cloth as quickly as possible.
2. Use Motorcraft Premium Leather and Vinyl Cleaner or a commercially available leather cleaning product for automotive interiors. Test any cleaner or stain remover on an inconspicuous area.
3. Alternatively, wipe the surface with a clean, soft cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.
4. If necessary, apply more soap and water solution or cleaning product to a clean, soft cloth and press it onto the soiled area. Allow this to set at room temperature for 30 minutes.

5. Remove the soaked cloth, then with a clean, damp cloth, use a rubbing motion for 60 seconds on the soiled area.
6. Dry the area with a clean, soft cloth.

## CLEANING LEATHER SEATS

**Note:** *Follow the same procedure as cleaning leather seats for cleaning leather instrument panels and leather interior trim surfaces.*

For routine cleaning, wipe the surface with a soft, damp cloth and a mild soap and water solution. Dry the area with a clean, soft cloth.

For cleaning and removing stains such as dye transfer, use Motorcraft Premium Leather and Vinyl Cleaner or a commercially available leather cleaning product for automotive interiors.

**Note:** *Test any cleaner or stain remover on an inconspicuous area.*

You should:

- Remove dust and loose dirt with a vacuum cleaner.
- Clean and treat spills and stains as soon as possible.

Do not use the following products as these may damage the leather:

- Oil and petroleum or silicone-based leather conditioners.
- Household cleaners.
- Alcohol solutions.
- Solvents or cleaners intended specifically for rubber, vinyl and plastics.

# Vehicle Care

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## REPAIRING MINOR PAINT DAMAGE

Authorized dealers have touch-up paint to match your vehicle's color. Your vehicle color code is printed on a sticker on the front, left-hand side door jamb. Take your color code to your authorized dealer to make sure you get the correct color.

Before repairing minor paint damage, use a cleaner such as Motorcraft Bug and Tar Remover to remove particles such as bird droppings, tree sap, insect deposits, tar spots, road salt and industrial fallout.

Always read the instructions before using cleaning products.

## CLEANING THE WHEELS

1. Regularly clean them with a wheel cleaner. We recommend that you use Ford approved wheel cleaner if available.
2. Remove dirt and brake dust with a sponge.
3. Remove tar and grease with a bug and tar remover. We recommend that you use Ford approved bug and tar remover if available.
4. Thoroughly rinse the wheels with water after cleaning.

If you intend on parking your vehicle for an extended period after cleaning the wheels with a wheel cleaner, drive your vehicle for a few minutes before doing so. This reduces the risk of corrosion of the brake discs, brake pads and linings.

Do not clean the wheels when they are hot.

**Note:** *Some car washes could damage wheel rims and covers.*

**Note:** *Using non-recommended cleaners, harsh cleaning products, chrome wheel cleaners or abrasive materials could damage wheel rims and covers.*

## VEHICLE STORAGE

If you plan on storing your vehicle for 30 days or more, read the following maintenance recommendations to make sure your vehicle stays in good operating condition.

We engineer and test all motor vehicles and their components for reliable, regular driving. Under various conditions, long-term storage may lead to degraded engine performance or failure unless you use specific precautions to preserve engine components.

### General

- Store all vehicles in a dry, ventilated place.
- Protect from sunlight, if possible.
- If vehicles are stored outside, they require regular maintenance to protect against rust and damage.

### Body

- Wash your vehicle thoroughly to remove dirt, grease, oil, tar or mud from exterior surfaces, rear-wheel housing and the underside of front fenders.
- Periodically wash your vehicle if it is stored in exposed locations.
- Touch-up exposed or primed metal to prevent rust.
- Cover chrome and stainless steel parts with a thick coat of auto wax to prevent discoloration. Re-wax as necessary when you wash your vehicle.
- Lubricate all hood, door and luggage compartment hinges and latches with a light grade oil.

# Vehicle Care

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- Cover interior trim to prevent fading.
- Keep all rubber parts free from oil and solvents.

## Engine

- Change the engine oil and filter prior to storage because used engine oil contains contaminants which may cause engine damage.
- Start the engine every 15 days for a minimum of 15 minutes. Run at fast idle with the climate controls set to defrost until the engine reaches normal operating temperature.
- With your foot on the brake, shift through all the gears while the engine is running.
- We recommend that you change the engine oil before you use your vehicle again.

## Fuel system

- Fill the fuel tank with high-quality fuel until the first automatic shutoff of the fuel pump nozzle.

## Cooling system

- Protect against freezing temperatures.
- When removing your vehicle from storage, check coolant fluid level. Confirm that there are no cooling system leaks and that fluid is at the recommended level.

## Battery

- Check and recharge as necessary. Keep connections clean.
- If storing your vehicle for more than 30 days without recharging the battery, we recommend that you disconnect the battery cables to maintain battery charge for quick starting.

**Note:** *It is necessary to reset memory features if battery cables are disconnected.*

## Brakes

- Make sure the brakes and parking brake release fully.

## Tires

- Maintain recommended air pressure.

## Miscellaneous

- Make sure all linkages, cables, levers and pins under your vehicle are covered with grease to prevent rust.
- Move vehicles at least 25 ft (7.5 m) every 15 days to lubricate working parts and prevent corrosion.

## Removing Vehicle From Storage

When your vehicle is ready to come out of storage, do the following:

- Wash your vehicle to remove any dirt or grease film build-up on window surfaces.
- Check windshield wipers for any deterioration.
- Check under the hood for any foreign material that may have collected during storage such as mice or squirrel nests.
- Check the exhaust for any foreign material that may have collected during storage.
- Check tire pressures and set tire inflation per the Tire Label.
- Check brake pedal operation. Drive your vehicle 15 ft (4.5 m) back and forth to remove rust build-up.

## Vehicle Care

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- Check fluid levels (including coolant, oil and gas) to make sure there are no leaks, and fluids are at recommended levels.
- If you remove the battery, clean the battery cable ends and check for damage.

Contact an authorized dealer if you have any concerns or issues.

### **BODY STYLING KITS**

The distance between the underside of your vehicle and the ground is less than that of other models. Drive with extreme care to avoid damage to your vehicle.

# Wheels and Tires

## GENERAL INFORMATION

### Notice to utility vehicle and truck owners



**WARNING:** Utility vehicles have a significantly higher rollover rate than other types of vehicles.



**WARNING:** Vehicles with a higher center of gravity (utility and four-wheel drive vehicles) handle differently than vehicles with a lower center of gravity (passenger cars). Avoid sharp turns, excessive speed and abrupt steering in these vehicles. Failure to drive cautiously increases the risk of losing control of your vehicle, vehicle rollover, personal injury and death.



**WARNING:** In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seatbelt.

**Note:** Do not become overconfident in the ability of four-wheel drive vehicles. Although a four-wheel drive vehicle may accelerate better than a two-wheel drive vehicle in low traction situations, it won't stop any faster than two-wheel drive vehicles. Always drive at a safe speed.



E145298

Utility vehicles and trucks handle differently than passenger cars in the various driving conditions that are encountered on streets, highways and off-road. Utility vehicles and trucks are not designed for cornering at speeds as high as passenger cars any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions.

Study your owner's manual and any supplements for specific information about equipment features, instructions for safe driving and additional precautions to reduce the risk of an accident or serious injury.

### Four-wheel drive system (if equipped)

A vehicle equipped with four-wheel drive (when selected) has the ability to use all four wheels to power itself. This increases traction which may enable you to safely drive over terrain and road conditions that a conventional two-wheel drive vehicle cannot.

On some four-wheel drive models, the initial shift from two-wheel drive to four-wheel drive while the vehicle is moving can cause a momentary clunk and ratcheting sound. These sounds are normal as the front drivetrain comes up to speed and are not cause for concern.

**Note:** In four-wheel drive vehicles, the size of the spare tire relative to the remaining tires can have an effect on the 4x4 system. If there is a significant difference between the size of a spare and the remaining tires, four-wheel drive functionality may be limited. See **Using Four-Wheel Drive** (page 151).

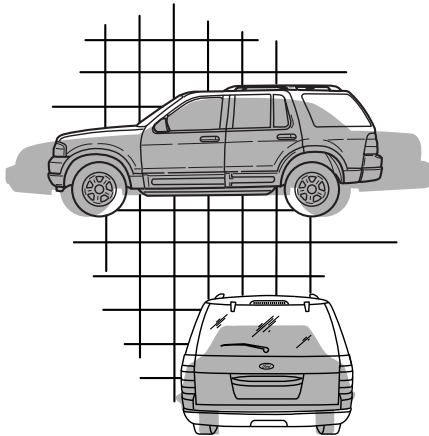


# Wheels and Tires

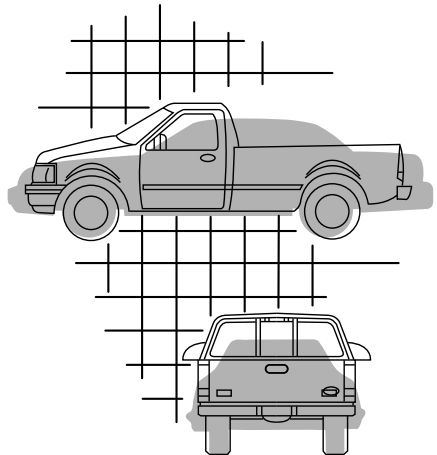
## How your vehicle differs from other vehicles

Sport utility vehicles and trucks can differ from some other vehicles in a few noticeable ways. Your vehicle may be:

- Higher - to allow higher load carrying capacity and to allow it to travel over rough terrain without getting hung up or damaging underbody components.
- Shorter - to give it the capability to approach inclines and drive over the crest of a hill without getting hung up or damaging underbody components. All other things held equal, a shorter wheelbase may make your vehicle quicker to respond to steering inputs than a vehicle with a longer wheelbase.
- Narrower - to provide greater maneuverability in tight spaces, particularly in off-road use.



E145299



E168583

# Wheels and Tires

As a result of the above dimensional differences, Sport utility vehicles and trucks often will have a higher center of gravity and a greater difference in center of gravity between the loaded and unloaded condition. These differences that make your vehicle so versatile also make it handle differently than an ordinary passenger car.

## TIRE CARE

### Information About Uniform Tire Quality Grading



E142542

Tire Quality Grades apply to new pneumatic passenger car tires. The Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example: **Treadwear 200 Traction AA Temperature A.**

These Tire Quality Grades are determined by standards that the United States Department of Transportation has set.

Tire Quality Grades apply to new pneumatic passenger car tires. They do not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, light truck or LT type tires, tires with nominal rim diameters of 10 to 12 inches or limited production tires as defined in Title 49 Code of Federal Regulations Part 575.104 (c)(2).

### U.S. Department of Transportation Tire quality grades:

The U.S. Department of Transportation requires us to give you the following information about tire grades exactly as the government has written it.

### Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half ( $1\frac{1}{2}$ ) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices, and differences in road characteristics and climate.

# Wheels and Tires

## Traction AA A B C



**WARNING:** The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning or peak traction characteristics.

The traction grades, from highest to lowest are AA, A, B, and C. The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

## Temperature A B C



**WARNING:** The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

The temperature grades are A (the highest), B and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory

test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 139. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

## Glossary of Tire Terminology

\***Tire label:** A label showing the original equipment tire sizes, recommended inflation pressure and the maximum weight the vehicle can carry.

\***Tire Identification Number (TIN):** A number on the sidewall of each tire providing information about the tire brand and manufacturing plant, tire size and date of manufacture. Also referred to as DOT code.

\***Inflation pressure:** A measure of the amount of air in a tire.

# Wheels and Tires

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\***Standard load:** A class of P-metric or Metric tires designed to carry a maximum load at set pressure. For example: For P-Metric tires 35 psi (2.4 bar) and for Metric 36 psi (2.5 bar). Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.

\***Extra load:** A class of P-metric or Metric tires designed to carry a heavier maximum load at 42 psi (2.9 bar). Increasing the inflation pressure beyond this pressure will not increase the tire's load carrying capability.

\***kPa:** Kilopascal, a metric unit of air pressure.

\***PSI:** Pounds per square inch, a standard unit of air pressure.

\***Cold tire pressure:** The tire pressure when the vehicle has been stationary and out of direct sunlight for an hour or more and prior to the vehicle being driven for 1 mile (1.6 kilometers).

\***Recommended inflation pressure:** The cold inflation pressure found on the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire Label located on the B-pillar or the edge of the driver's door.

\***B-pillar:** The structural member at the side of the vehicle behind the front door.

\***Bead area of the tire:** Area of the tire next to the rim.

\***Sidewall of the tire:** Area between the bead area and the tread.

\***Tread area of the tire:** Area of the perimeter of the tire that contacts the road when mounted on the vehicle.

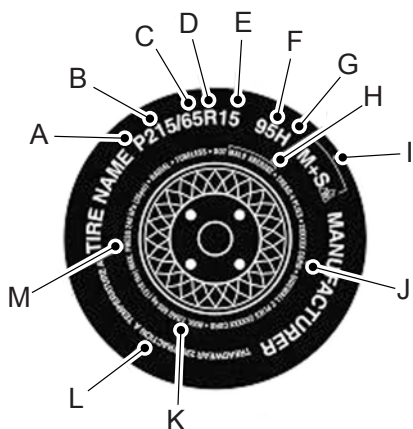
\***Rim:** The metal support (wheel) for a tire or a tire and tube assembly upon which the tire beads are seated.

## Information Contained on the Tire Sidewall

Both United States and Canada Federal regulations require tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a U.S. DOT Tire Identification Number for safety standard certification and in case of a recall.

# Wheels and Tires

## Information on P Type Tires



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P215/65R15 95H is an example of a tire size, load index and speed rating. The definitions of these items are listed below. (Note that the tire size, load index and speed rating for your vehicle may be different from this example.)

A. **P:** Indicates a tire, designated by the Tire and Rim Association, that may be used for service on cars, sport utility vehicles, minivans and light trucks. **Note:** If your tire size does not begin with a letter this may mean it is designated by either the European Tire and Rim Technical Organization or the Japan Tire Manufacturing Association.

B. **215:** Indicates the nominal width of the tire in millimeters from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

C. **65:** Indicates the aspect ratio which gives the tire's ratio of height to width.

D. **R:** Indicates a radial type tire.

E. **15:** Indicates the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

F. **95:** Indicates the tire's load index. It is an index that relates to how much weight a tire can carry. You may find this information in your owner's manual. If not, contact a local tire dealer.

**Note:** You may not find this information on all tires because it is not required by federal law.

G. **H:** Indicates the tire's speed rating. The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time under a standard condition of load and inflation pressure. The tires on your vehicle may operate at different conditions for load and inflation pressure. These speed ratings may need to be adjusted for the difference in conditions. The ratings range from 81 mph (130 km/h) to 186 mph (299 km/h). These ratings are listed in the following chart.

# Wheels and Tires

**Note:** You may not find this information on all tires because it is not required by federal law.

Letter rating	mph ( km/h)
M	81 (130)
N	87 (140)
Q	99 (159)
R	106 (171)
S	112 (180)
T	118 (190)
U	124 (200)
H	130 (210)
V	149 (240)
W	168 (270)
Y	186 (299)

**Note:** For tires with a maximum speed capability over 149 mph (240 km/h), tire manufacturers sometimes use the letters ZR. For those with a maximum speed capability over 186 mph (299 km/h), tire manufacturers always use the letters ZR.

**H. U.S. DOT Tire Identification Number:** This begins with the letters DOT and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code designating where it was manufactured, the next two are the tire size code and

the last four numbers represent the week and year the tire was built. For example, the numbers 317 mean the 31st week of 1997. After 2000 the numbers go to four digits. For example, 2501 means the 25th week of 2001. The numbers in between are identification codes used for traceability. This information is used to contact customers if a tire defect requires a recall.

**I. M+S or M/S:** Mud and Snow, or

**AT:** All Terrain, or

**AS:** All Season.

## J. Tire Ply Composition and

**Material Used:** Indicates the number of plies or the number of layers of rubber-coated fabric in the tire tread and sidewall. Tire manufacturers also must indicate the ply materials in the tire and the sidewall, which include steel, nylon, polyester, and others.

**K. Maximum Load:** Indicates the maximum load in kilograms and pounds that can be carried by the tire (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire Label located on the B-pillar or the edge of the driver's door.

**L. Treadwear, Traction and Temperature Grades:**

# Wheels and Tires

**\*Treadwear:** The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear 1½ times as well on the government course as a tire graded 100.

**\*Traction:** The traction grades, from highest to lowest are AA, A, B, and C. The grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

**\*Temperature:** The temperature grades are A (the highest), B and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

## M. Maximum Inflation

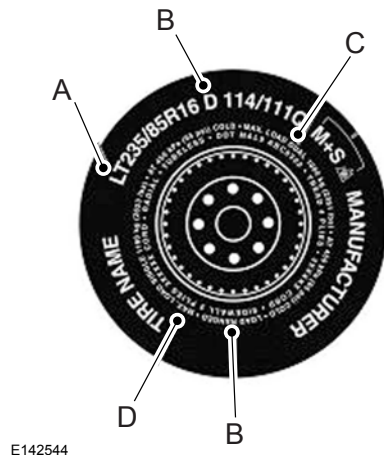
**Pressure:** Indicates the tire manufacturers' maximum permissible pressure or the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than the vehicle manufacturer's recommended cold inflation pressure which can be found on the Safety Compliance Certification Label (affixed to either the door hinge pillar,

door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire Label located on the B-pillar or the edge of the driver's door. The cold inflation pressure should never be set lower than the recommended pressure on the vehicle label.

The tire suppliers may have additional markings, notes or warnings such as standard load or radial tubeless.

## Additional Information Contained on the Tire Sidewall for LT Type Tires

**Note:** *Tire Quality Grades do not apply to this type of tire.*



## Wheels and Tires

LT type tires have some additional information beyond those of P type tires. These differences are described below.

A. **LT:** Indicates a tire, designated by the Tire and Rim Association, that is intended for service on light trucks.

B. **Load Range and Load Inflation Limits:** Indicates the tire's load-carrying capabilities and its inflation limits.

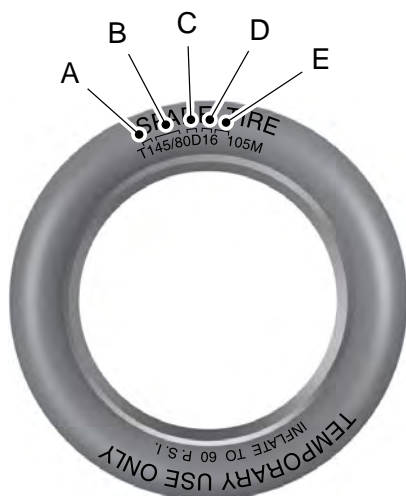
C. **Maximum Load Dual lb (kg) at psi (kPa) cold:** Indicates the maximum load and tire pressure when the tire is used as a dual; defined as four tires on the rear axle (a total of six or more tires on the vehicle).

D. **Maximum Load Single lb (kg) at psi (kPa) cold:** Indicates the maximum load and tire pressure when the tire is used as a single; defined as two tires (total) on the rear axle.

### Information on T Type Tires

T145/80D16 is an example of a tire size.

**Note:** *The temporary tire size for your vehicle may be different from this example. Tire Quality Grades do not apply to this type of tire.*



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T type tires have some additional information beyond those of P type tires. These differences are described below:

A. **T:** Indicates a type of tire, designated by the Tire and Rim Association, that is intended for temporary service on cars, sport utility vehicles, minivans and light trucks.

B. **145:** Indicates the nominal width of the tire in millimeters from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.



# Wheels and Tires

C. **80:** Indicates the aspect ratio which gives the tire's ratio of height to width. Numbers of 70 or lower indicate a short sidewall.

D. **D:** Indicates a diagonal type tire.

**R:** Indicates a radial type tire.

E. **16:** Indicates the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

## Location of the Tire Label

You will find a Tire Label containing tire inflation pressure by tire size and other important information located on the B-Pillar or the edge of the driver's door. See **Load Carrying** (page 201).

## Inflating Your Tires

Safe operation of your vehicle requires that your tires are properly inflated. Remember that a tire can lose up to half of its air pressure without appearing flat.

Every day before you drive, check your tires. If one looks lower than the others, use a tire gauge to check pressure of all tires and adjust if required.

At least once a month and before long trips, inspect each tire and check the tire pressure with a tire gauge (including spare, if equipped). Inflate all tires to the inflation pressure recommended by us.

You are strongly urged to buy a reliable tire pressure gauge, as automatic service station gauges may be inaccurate. We recommend the use of a digital or dial-type tire pressure gauge rather than a stick-type tire pressure gauge.

Use the recommended cold inflation pressure for optimum tire performance and wear. Under-inflation or over-inflation may cause uneven treadwear patterns.



**WARNING:** Under-inflation is the most common cause of tire failures and may result in severe tire cracking, tread separation or blowout, with unexpected loss of vehicle control and increased risk of injury. Under-inflation increases sidewall flexing and rolling resistance, resulting in heat buildup and internal damage to the tire. It also may result in unnecessary tire stress, irregular wear, loss of vehicle control and accidents. A tire can lose up to half of its air pressure and not appear to be flat!

Always inflate your tires to the our recommended inflation pressure even if it is less than the maximum inflation pressure information found on the tire. Our recommended tire inflation pressure is found on the Safety Compliance Certification Label or

## Wheels and Tires

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Tire Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire Label located on the B-pillar or the edge of the driver's door. Failure to follow the tire pressure recommendations can cause uneven treadwear patterns and adversely affect the way your vehicle handles.

**Note:** *Do not reduce tire pressure to change the ride characteristics of the vehicle. If you do not maintain the inflation pressure at the levels specified by us, your vehicle may experience a condition known as shimmy. Shimmy is a severe vibration and oscillation in the steering wheel after the vehicle travels over a bump or dip in the road that does not dampen out by itself. Shimmy may result from significant under-inflation of the tires, improper tires (load range, size, or type), or vehicle modifications such as lift-kits. In the event that your vehicle experiences shimmy, you should slowly reduce speed by either lifting off the accelerator pedal or lightly applying the brakes. The shimmy will cease as the vehicle speed decreases.*

**Maximum Inflation Pressure** is the tire manufacturer's maximum permissible pressure and the pressure at which the maximum load can be carried by the tire. This pressure is normally higher than

the manufacturer's recommended cold inflation pressure which can be found on the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or Tire Label located on the B-pillar or the edge of the driver's door. The cold inflation pressure should never be set lower than the recommended pressure on the Safety Compliance Certification Label or Tire Label.

When weather temperature changes occur, tire inflation pressures also change. A 10°F (6°C) temperature drop can cause a corresponding drop of 1 psi (7 kPa) in inflation pressure. Check your tire pressures frequently and adjust them to the proper pressure which can be found on the Safety Compliance Certification Label or Tire Label.

To check the pressure in your tire(s):

1. Make sure the tires are cool, meaning they are not hot from driving even a mile.

# Wheels and Tires

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**Note:** *If you are checking tire pressure when the tire is hot, (for example, driven more than 1 mile [1.6 kilometers]), never bleed or reduce air pressure. The tires are hot from driving and it is normal for pressures to increase above recommended cold pressures. A hot tire at or below recommended cold inflation pressure could be significantly under-inflated.*

**Note:** *If you have to drive a distance to get air for your tire(s), check and record the tire pressure first and add the appropriate air pressure when you get to the pump. It is normal for tires to heat up and the air pressure inside to go up as you drive.*

2. Remove the cap from the valve on one tire, then firmly press the tire gauge onto the valve and measure the pressure.

3. Add enough air to reach the recommended air pressure.

**Note:** *If you overfill the tire, release air by pressing on the metal stem in the center of the valve. Then recheck the pressure with your tire gauge.*

4. Replace the valve cap.

5. Repeat this procedure for each tire, including the spare.

**Note:** *Some spare tires operate at a higher inflation pressure than the other tires. For T type mini-spare tires, see the Dissimilar spare wheel and tire assembly information for a description. Store and maintain at 60 psi (4.15 bar). For full-size and dissimilar spare tires, see the Dissimilar spare wheel and tire assembly information for a description. Store and maintain at the higher of the front and rear inflation pressure as shown on the Safety Compliance Certification Label or Tire Label.*

6. Visually inspect the tires to make sure there are no nails or other objects embedded that could poke a hole in the tire and cause an air leak.

7. Check the sidewalls to make sure there are no gouges, cuts or bulges.

## Inspecting Your Tires and Wheel Valve Stems

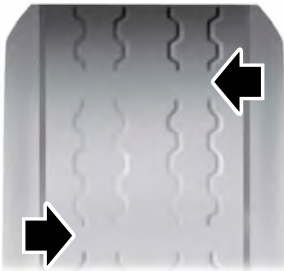
Periodically inspect the tire treads for uneven or excessive wear and remove objects such as stones, nails or glass that may be wedged in the tread grooves. Check the tire and valve stems for holes, cracks, or cuts that may permit air leakage and repair or replace the tire and replace the valve stem. Inspect the tire sidewalls for cracking, cuts, bruises and other signs of damage or excessive wear. If internal damage to the tire is suspected, have the tire demounted and inspected in case

# Wheels and Tires

it needs to be repaired or replaced. For your safety, tires that are damaged or show signs of excessive wear should not be used because they are more likely to blow out or fail.

Improper or inadequate vehicle maintenance can cause tires to wear abnormally. Inspect all your tires, including the spare, frequently, and replace them if one or more of the following conditions exist:

## Tire Wear



E142546


When the tread is worn down to one sixteenth of an inch (2 millimeters), tires must be replaced to help prevent your vehicle from skidding and hydroplaning. Built-in treadwear indicators, or wear bars, which look like narrow strips of smooth rubber across the tread will appear on the tire when the tread is worn down to one sixteenth of an inch (2 millimeters).


When the tire tread wears down to the same height as these wear bars, the tire is worn out and must be replaced.

## Damage

Periodically inspect the tire treads and sidewalls for damage (such as bulges in the tread or sidewalls, cracks in the tread groove and separation in the tread or sidewall). If damage is observed or suspected have the tire inspected by a tire professional. Tires can be damaged during off-road use, so inspection after off-road use is also recommended.

## Age

 **WARNING:** Tires degrade over time depending on many factors such as weather, storage conditions, and conditions of use (load, speed, inflation pressure) the tires experience throughout their lives.

 **WARNING:** In general, tires should be replaced after six years regardless of tread wear. However, heat caused by hot climates or frequent high loading conditions can accelerate the aging process and may require tires to be replaced more frequently.

# Wheels and Tires



**WARNING:** You should replace your spare tire when you replace the road tires or after six years due to aging even if it has not been used.

## U.S. DOT Tire Identification Number

Both United States and Canada Federal regulations require tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a U.S. DOT Tire Identification Number for safety standard certification and in case of a recall.

This begins with the letters DOT and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code designating where it was manufactured, the next two are the tire size code and the last four numbers represent the week and year the tire was built. For example, the numbers 317 mean the 31st week of 1997. After 2000 the numbers go to four digits. For example, 2501 means the 25th week of 2001. The numbers in between are identification codes used for traceability. This information is used to contact customers if a tire defect requires a recall.

## Tire Replacement Requirements

Your vehicle is equipped with tires designed to provide a safe ride and handling capability.



**WARNING:** Only use replacement tires and wheels that are the same size, load index, speed rating and type (such as P-metric versus LT-metric or all-season versus all-terrain) as those originally provided by Ford. The recommended tire and wheel size may be found on either the Safety Compliance Certification Label (affixed to either the door hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position), or the Tire Label which is located on the B-Pillar or edge of the driver's door. If this information is not found on these labels, then you should contact your authorized dealer as soon as possible. Use of any tire or wheel not recommended by Ford can affect the safety and performance of your vehicle, which could result in an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

# Wheels and Tires



**WARNING:** To reduce the risk of serious injury, when mounting replacement tires and wheels, you should not exceed the maximum pressure indicated on the sidewall of the tire to set the beads without additional precautions listed below. If the beads do not seat at the maximum pressure indicated, re-lubricate and try again.



**WARNING:** When inflating the tire for mounting pressures up to 20 psi (1.38 bar) greater than the maximum pressure on the tire sidewall, the following precautions must be taken to protect the person mounting the tire:

- Make sure that you have the correct tire and wheel size.
- Lubricate the tire bead and wheel bead seat area again.
- Stand at a minimum of 12 ft (3.66 m) away from the wheel and tire assembly.
- Use both eye and ear protection.



**WARNING:** For a mounting pressure more than 20 psi (1.38 bar) greater than the maximum pressure, a Ford dealer or other tire service professional should do the mounting.



**WARNING:** Always inflate steel carcass tires with a remote air fill with the person inflating standing at a minimum of 12 ft (3.66 m) away from the wheel and tire assembly.

**Important:** Remember to replace the wheel valve stems when the road tires are replaced on your vehicle.

The two front tires or two rear tires should generally be replaced as a pair, except if the vehicle is equipped with four wheel drive. Vehicles equipped with four wheel drive should have all four tires replaced simultaneously. Unevenly worn tires, mismatched makes, models or brands can be different in size, resulting in potential damage to the four wheel drive system.

The tire pressure sensors mounted in the wheels are not designed to be used in aftermarket wheels.

The use of wheels or tires not recommended by us may affect the operation of your tire pressure monitoring system.

If the tire pressure monitoring system indicator is flashing, the system is malfunctioning. Your replacement tire might be incompatible with your tire pressure monitoring system, or some component of the system may be damaged.

# Wheels and Tires

## Safety Practices



**WARNING:** If your vehicle is stuck in snow, mud or sand, do not rapidly spin the tires; spinning the tires can tear the tire and cause an explosion. A tire can explode in as little as three to five seconds.



**WARNING:** Do not spin the wheels at over 34 mph (55 km/h). The tires may fail and injure a passenger or bystander.

## Driving habits have a great deal to do with your tire mileage and safety.

- \*Observe posted speed limits
- \*Avoid fast starts, stops and turns
- \*Avoid potholes and objects on the road
- \*Do not run over curbs or hit the tire against a curb when parking

## Highway Hazards

No matter how carefully you drive there's always the possibility that you may eventually have a flat tire on the highway. Drive slowly to the closest safe area out of traffic. This may further damage the flat tire, but your safety is more important.

If you feel a sudden vibration or ride disturbance while driving, or you suspect your tire or vehicle has been damaged, immediately reduce your speed. Drive with caution until you can safely pull off the road. Stop and inspect the tires for damage. If a tire is under-inflated or damaged, deflate it, remove wheel and replace it with your spare tire and wheel. If you cannot detect a cause, have the vehicle towed to the nearest repair facility or tire dealer to have the vehicle inspected.

## Tire and Wheel Alignment

A bad jolt from hitting a curb or pothole can cause the front end of your vehicle to become misaligned or cause damage to your tires. If your vehicle seems to pull to one side when you're driving, the wheels may be out of alignment. Have an authorized dealer check the wheel alignment periodically.

Wheel misalignment in the front or the rear can cause uneven and rapid treadwear of your tires and should be corrected by an authorized dealer. Front-wheel drive vehicles and those with an independent rear suspension may require alignment of all four wheels.

The tires should also be balanced periodically. An unbalanced tire and wheel assembly may result in irregular tire wear.

# Wheels and Tires

## Tire Rotation



**WARNING:** If the tire label shows different tire pressures for the front and rear tires and the vehicle has a tire pressure monitoring system, then you need to update the settings for the system sensors. Always perform the system reset procedure after tire rotation. If you do not reset the system, it may not provide a low tire pressure warning when necessary.

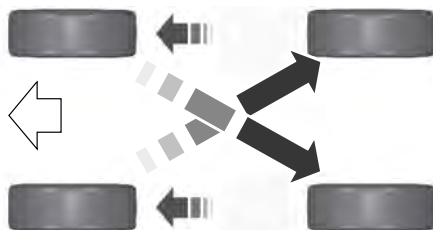
**Note:** If your tires show uneven wear ask an authorized dealer to check for and correct any wheel misalignment, tire imbalance or mechanical problem involved before tire rotation.

**Note:** Your vehicle may be equipped with a dissimilar spare wheel and tire assembly. A dissimilar spare wheel and tire assembly is defined as a spare wheel and tire assembly that is different in brand, size or appearance from the road tires and wheels. If you have a dissimilar spare wheel and tire assembly it is intended for temporary use only and should not be used in a tire rotation.

**Note:** After having your tires rotated, inflation pressure must be checked and adjusted to the vehicle requirements.

Rotating your tires at the recommended interval (as indicated in the Scheduled Maintenance chapter) will help your tires wear more evenly, providing better tire performance and longer tire life.

Rear-wheel drive vehicles and four-wheel drive vehicles (front tires at left of diagram)



E142548

Sometimes irregular tire wear can be corrected by rotating the tires.

## USING SNOW CHAINS



**WARNING:** Do not exceed 30 mph (50 km/h). Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death.



**WARNING:** Do not use snow chains on snow-free roads.



**WARNING:** Only fit snow chains to specified tires.



# Wheels and Tires



**WARNING:** If your vehicle is fitted with wheel trims, remove them before fitting snow chains.



**WARNING:** Snow tires must be the same size, load index and speed rating as those originally provided by Ford. Use of any tire or wheel not recommended by Ford can affect the safety and performance of your vehicle, which could result in an increased risk of loss of control, vehicle rollover, personal injury and death. Additionally, the use of non-recommended tires and wheels can cause steering, suspension, axle, transfer case or power transfer unit failure. Follow the Ford recommended tire inflation pressure found on the Safety Compliance Certification Label (on the door hinge pillar, door latch post or the door edge that meets the door latch post, next to the driver seat), or Tire Label on the B-Pillar or the edge of the driver door. Failure to follow the tire pressure recommendations can cause uneven treadwear patterns and adversely affect the way your vehicle handles.

**Note:** *The suspension insulation and bumpers help prevent vehicle damage. Do not remove these components from your vehicle when using snow tires and chains.*

The tires on your vehicle have all-weather treads to provide traction in rain and snow. However, in some climates, you may need to use snow tires and cables. If you need to use cables, we recommend you use steel wheels of the same size and specifications, as cables may chip aluminum wheels.

**Note:** *Only use snow chains on applicable tire sizes.*

Only fit snow chains to the following specified tires:

- 255/70 R16 111T.
- 255/65 R17 110T.
- 265/65 R17 112T.
- 265/60 R18 110T.
- LT265/65 R17 109T.

Only use S-Class snow chains, 0.6 in (15 mm) chain links.

Only use manual tensioning chains. Do not use self-tensioning chains.

Only use snow chains in pairs on the rear axle.

**Note:** *The anti-lock brake system continues to operate normally.*

Follow these guidelines when using snow tires and chains:

- If possible, avoid fully loading your vehicle.
- Install chains securely, verifying that the chains do not touch any wiring, brake lines, or fuel lines.
- Drive cautiously. If you hear the chains rub or bang against your vehicle, stop and retighten the chains. If this does not work, remove the chains to prevent damage to your vehicle.
- Remove the tire chains when you no longer need them. Do not use tire chains on dry roads.

If you have any questions regarding snow chains or cables, please contact your authorized dealer.

## Vehicles with Stability Control

When stability control is on, your vehicle may exhibit some unusual driving characteristics. To reduce this, switch traction control off. See **Using Traction Control** (page 162).

# Wheels and Tires

## TIRE PRESSURE MONITORING SYSTEM



**WARNING:** The tire pressure monitoring system is not a substitute for manually checking tire pressures. You should periodically check tire pressures using a pressure gauge. Failure to correctly maintain tire pressures could increase the risk of tire failure, loss of control, vehicle rollover and personal injury.

**Note:** *You should only use tire sealants in roadside emergencies as they may cause damage to the tire pressure monitoring system sensor.*

**Note:** *If the tire pressure monitoring system sensor becomes damaged, it may not function.*



Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires).

As an added safety feature, your vehicle has been equipped with a Tire Pressure Monitoring System (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate

them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists.

When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

This device complies with Part 15 of the FCC Rules and with License exempt RSS Standards of Industry Canada. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

# Wheels and Tires

- This device must accept any interference received, including interference that may cause undesired operation.

**Note:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

## Changing Tires With a Tire Pressure Monitoring System



E142549

**Note:** Each road tire is equipped with a tire pressure sensor located inside the wheel and tire assembly cavity. The pressure sensor is attached to the valve stem. The pressure sensor is covered by the tire and is not visible unless the tire is removed. Take care when changing the tire to avoid damaging the sensor.

You should always have your tires serviced by an authorized dealer.

Check the tire pressure periodically (at least monthly) using an accurate tire gauge. See **When Inflating Your Tires** in this chapter.

## Understanding Your Tire Pressure Monitoring System



The tire pressure monitoring system measures pressure in your road tires and sends the tire pressure readings to your vehicle. You can view the tire pressure readings through the information display. See **General Information** (page 87). The low tire pressure warning light will turn on if the tire pressure is significantly low. Once the light is illuminated, your tires are under-inflated and need to be inflated to the manufacturer's recommended tire pressure. Even if the light turns on and a short time later turns off, your tire pressure still needs to be checked.

## When Your Temporary Spare Tire is Installed

When one of your road tires needs to be replaced with the temporary spare, the system will continue to identify an issue to remind you that the damaged road wheel and tire assembly needs to be repaired and put back on your vehicle.

To restore the full function of the tire pressure monitoring system, have the damaged road wheel and tire assembly repaired and remounted on your vehicle.

# Wheels and Tires

## When You Believe Your System is Not Operating Properly

The main function of the tire pressure monitoring system is to warn you when

your tires need air. It can also warn you in the event the system is no longer capable of functioning as intended. See the following chart for information concerning your tire pressure monitoring system:

Low tire pressure warning light	Possible cause	Customer action required
Solid warning light	Tire(s) under-inflated	Make sure tires are at the proper pressure. See <b>Inflating your tires</b> in this chapter. After inflating your tires to the manufacturer's recommended pressure as shown on the Tire Label (located on the edge of driver's door or the B-Pillar), the vehicle must be driven for at least two minutes over 20 mph (32 km/h) before the light turns off.
	Spare tire in use	Repair the damaged road wheel and tire assembly and reinstall it on the vehicle to restore system function. For a description on how the system functions, see <b>When Your Temporary Spare Tire is Installed</b> in this section.
	TPMS malfunction	If the tires are properly inflated and the spare tire is not in use but the light remains on, contact your authorized dealer as soon as possible.
Flashing warning light	Spare tire in use	Repair the damaged road wheel and tire assembly and reinstall it on the vehicle to restore system function. For a description on how the system functions, see <b>When Your Temporary Spare Tire is Installed</b> in this section.
	TPMS malfunction	If the tires are properly inflated and the spare tire is not in use but the light remains on, contact your authorized dealer as soon as possible.

# Wheels and Tires

## When Inflating Your Tires



**WARNING:** Do not use the tire pressure displayed in the information display as a tire pressure gauge. Failure to follow this instruction could result in personal injury or death.

When putting air into your tires (such as at a gas station or in your garage), the tire pressure monitoring system may not respond immediately to the air added to your tires.

It may take up to two minutes of driving over 20 mph (32 km/h) for the light to turn off after you have filled your tires to the recommended inflation pressure.

## How Temperature Affects Your Tire Pressure

The tire pressure monitoring system monitors tire pressure in each pneumatic tire. While driving in a normal manner, a typical passenger tire inflation pressure may increase about 2–4 psi (14–28 kPa) from a cold start situation. If the vehicle is stationary overnight with the outside temperature significantly lower than the daytime temperature, the tire pressure may decrease about 3 psi (21 kPa) for a drop of 30°F (17°C) in ambient temperature. This lower pressure value may be detected by the tire pressure monitoring system as being significantly lower than the recommended inflation pressure and activate the system warning light for low tire pressure. If the low tire pressure warning light is on, visually check each tire to verify that no tire is flat. If one or more tires are flat, repair as necessary. Check the air pressure in the road tires. If any tire is under-inflated, carefully drive the vehicle to the nearest location where air can be added to the tires. Inflate all the tires to the recommended inflation pressure.

## CHANGING A ROAD WHEEL



**WARNING:** If the tire pressure monitor sensor becomes damaged it may not function.

**Note:** *The use of tire sealant may damage your tire pressure monitoring system and should only be used in roadside emergencies.*

**Note:** *The tire pressure monitoring system indicator light illuminates when the spare tire is in use. To restore the full function of the monitoring system, all road wheels equipped with tire pressure monitoring sensors must be mounted on this vehicle.*

If you get a flat tire when driving, do not heavily apply the brake. Instead, gradually decrease your speed. Firmly hold the steering wheel and slowly move to a safe place on the side of the road.

Have a flat serviced by an authorized dealer in order to prevent damage to the system sensors. See **Tire Pressure Monitoring System** (page 287). Replace the spare tire with a road tire as soon as possible. During repairing or replacing of the flat tire, have the authorized dealer inspect the system sensor for damage.

## Dissimilar Spare Wheel and Tire Assembly Information



**WARNING:** Failure to follow these guidelines could result in an increased risk of loss of vehicle control, injury or death.

# Wheels and Tires

If you have a dissimilar spare wheel and tire, then it is intended for temporary use only. This means that if you need to use it, you should replace it as soon as possible with a road wheel and tire assembly that is the same size and type as the road tires and wheels that were originally provided by Ford.

A dissimilar spare wheel and tire assembly is defined as a spare wheel and tire assembly that is different in brand, size or appearance from the road tires and wheels.

## Full-size dissimilar spare

When driving with the full-size dissimilar spare wheel and tire assembly, do not:

- Exceed 70 mph (113 km/h).
- Use more than one dissimilar spare wheel and tire assembly at a time.
- Use snow chains on the end of the vehicle with the dissimilar spare wheel and tire assembly.

When driving with the full-size dissimilar spare wheel and tire assembly, 4WD functionality may be limited, especially when driving in a mechanically locked 4WD mode. You may experience the following:

- Additional noise from the transfer case or other drive components.
- Difficulty shifting out of a mechanically locked 4WD mode.

When driving with the full-size dissimilar spare wheel and tire assembly, it is recommended that you do not:

- Exceed 50 mph (80 km/h) in 4WD.
- Engage 4WD unless the vehicle is stationary.
- Use 4WD on dry pavement.

The usage of a full-size dissimilar spare wheel and tire assembly can lead to impairment of the following:

- Handling, stability and braking performance.
- Comfort and noise.
- Ground clearance and parking at curbs.
- Winter weather driving capability.
- Wet weather driving capability.
- Four-wheel drive capability.

When driving with the full-size dissimilar spare wheel and tire assembly additional caution should be given to:

- Towing a trailer.
- Driving vehicles equipped with a camper body.
- Driving vehicles with a load on the cargo rack.

Drive cautiously when using a full-size dissimilar spare wheel and tire assembly and seek service as soon as possible.

## Tire Change Procedure





**WARNING:** When one of the front wheels is off the ground, the transmission alone will not prevent the vehicle from moving or slipping off the jack, even if the transmission is in park (P).





**WARNING:** To help prevent your vehicle from moving when changing a wheel, shift the transmission into park (P), set the parking brake and use an appropriate block or wheel chock to secure the wheel diagonally opposite to the wheel being changed. For example, when changing the front left wheel, place an appropriate block or wheel chock on the right rear wheel.


# Wheels and Tires


 **WARNING:** Do not work on your vehicle when the jack is the only support. If the vehicle slips off the jack, you or someone else could be seriously injured.

 **WARNING:** Do not attempt to change a tire on the side of the vehicle close to moving traffic. Pull far enough off the road to avoid the danger of being hit when operating the jack or changing the wheel.

 **WARNING:** Always use the jack provided as original equipment with your vehicle. If using a jack other than the one provided, make sure the jack capacity is adequate for the vehicle weight, including any vehicle cargo or modifications. If you are unsure if the jack capacity is adequate, contact the authorized dealer.

 **WARNING:** No person should place any portion of their body under a vehicle that is supported by a jack.


 **WARNING:** The jack supplied with this vehicle is only intended for changing wheels. Do not use the vehicle jack other than when you are changing a wheel in an emergency.

 **WARNING:** The jack should be used on level firm ground wherever possible.

 **WARNING:** Check that the vehicle jack is not damaged or deformed and the thread is lubricated and clean.

 **WARNING:** Never place anything between the vehicle jack and the ground.

 **WARNING:** Never place anything between the vehicle jack and your vehicle.

 **WARNING:** It is recommended that the wheels of the vehicle be chocked, and that no person should remain in a vehicle that is being jacked.

**Note:** *Only use the spare tire carrier to stow the tire and wheel combination provided with your vehicle. Other tire and wheel combinations can cause the tire carrier to fail.*

**Note:** *Do not use impact tools or power tools operating at over 200 RPM on the spare tire carrier, this may cause a winch malfunction and prevent a secure fit. Override the winch at least three times, there's an audible click each time, to make sure the wheel and tire are securely tightened.*

**Note:** *When jacking the vehicle passengers should not be in the vehicle.*

Park on a level surface, activate the hazard flashers and set the parking brake. Then, place the transmission in park (P) and turn the engine off.

## Vehicle Jack

 **WARNING:** Ensure screwthread is adequately lubricated before use.

 **WARNING:** The jack should be used on level firm ground wherever possible.

 **WARNING:** Switch the ignition off and apply the park brake fully before lifting vehicle.

# Wheels and Tires



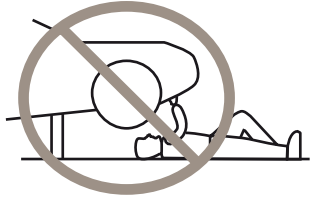
**WARNING:** It is recommended that the wheels of the vehicle be chocked, and that no person should remain in a vehicle that is being jacked.



**WARNING:** No person should place any portion of their body under a vehicle that is supported by a jack.



**WARNING:** Do not get under a vehicle that is only supported by a vehicle jack.

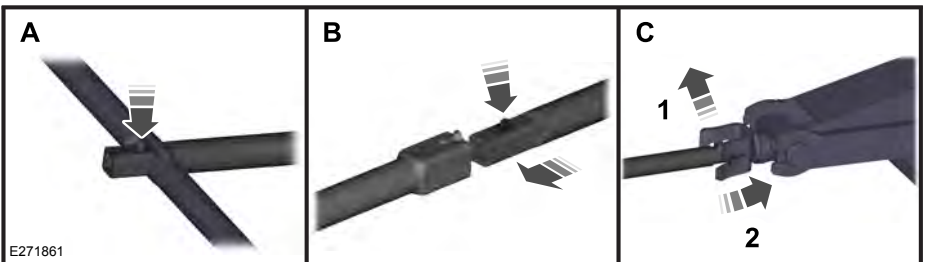
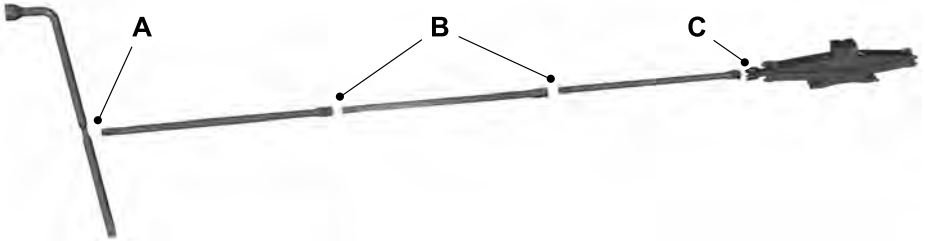


E166722



**WARNING:** The jack supplied with this vehicle is only intended for changing wheels. Do not use the vehicle jack other than when you are changing a wheel in an emergency.

## Vehicle Jack Assembly



E271861

- A Wheel brace.
- B Jack handle and extensions.
- C Vehicle jack.

The jack, wheel brace, extensions and jack handle are in the cab.

Your jack does not require maintenance or additional lubrication over the service life of your vehicle.

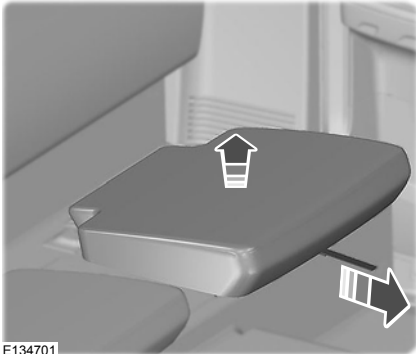


# Wheels and Tires

Do not use the jack if it is visibly damaged or does not operate freely. Replace the damaged jack with a jack specified for use on your vehicle if you detect these conditions.

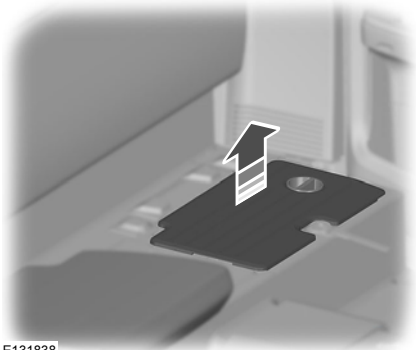
## SuperCab

**Note:** Pay close attention to the orientation of the jack and tool kit bag, because it needs to be reinstalled after changing the tire.



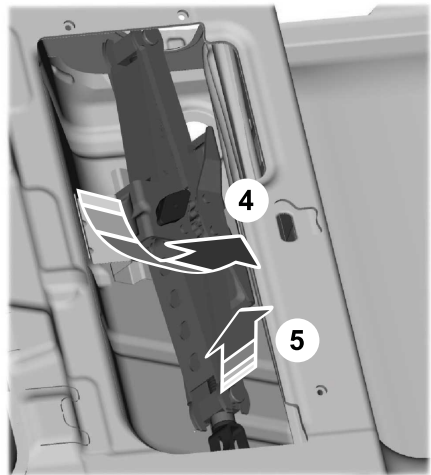
E134701

1. Pull the release strap on the left-hand side rear seat.
2. Remove the rear seat.



E131838

3. Remove the cover.



E283904

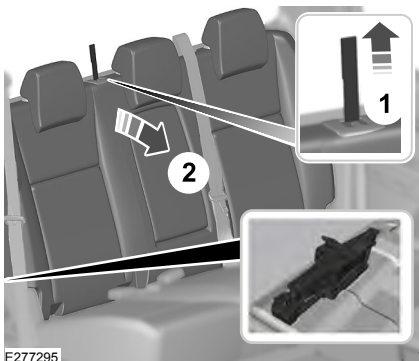
4. Remove the bolt.
5. Lift the jack from the foam block and remove the jack from your vehicle.
6. Remove the tools.

## SuperCrew

**Note:** The jack and tools are stored separately.

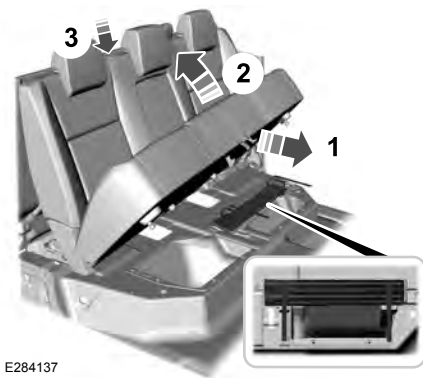
**Note:** Pay close attention to the orientation of the jack and tool kit bag, because it needs to be reinstalled after changing the tire.

# Wheels and Tires



1. Lift the release strap.
2. Lower the seat back.
3. Remove the bolt.
4. Lift the jack from the foam block and remove the jack from your vehicle.

## SuperCrew



1. Pull the release strap out.
2. Fully lift the seat cushion up into the locked position.
3. Loosen the D-ring straps to form a loop.

4. Remove the tools.

## Spare Wheel

**Note:** If the spare wheel is not the same type and size as your vehicle road wheel, drive the shortest distance possible.

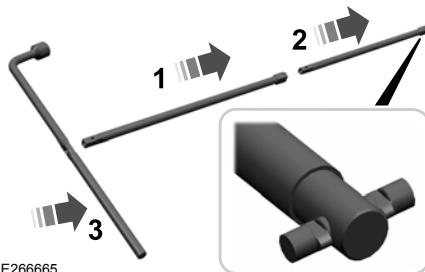
**Note:** Do not fit more than one spare wheel on your vehicle at any one time.

**Note:** The spare wheel has a label showing the maximum driving speed. Drive with caution and at no more than the permitted maximum speed.

**Note:** The usage of a dissimilar spare wheel or tire at any one wheel location can lead to impairment of the handling, stability and braking performance, comfort and noise.

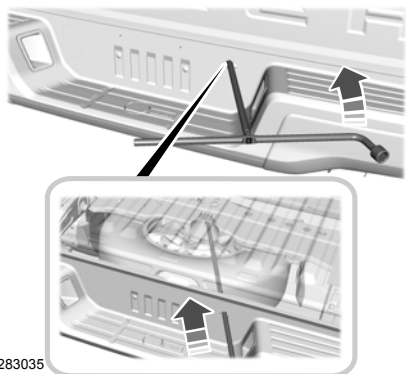
**Note:** The spare wheel is underneath the rear of the vehicle.

**Note:** Only two extensions are used to lower the rear wheel.

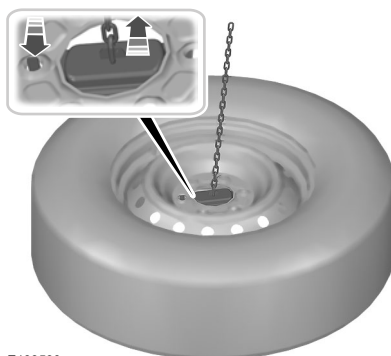


1. Assemble the handle.

## Wheels and Tires



2. Insert the jack handle into the guide hole. Turn counterclockwise until the wheel rests on the ground, and there is slack in the cable.



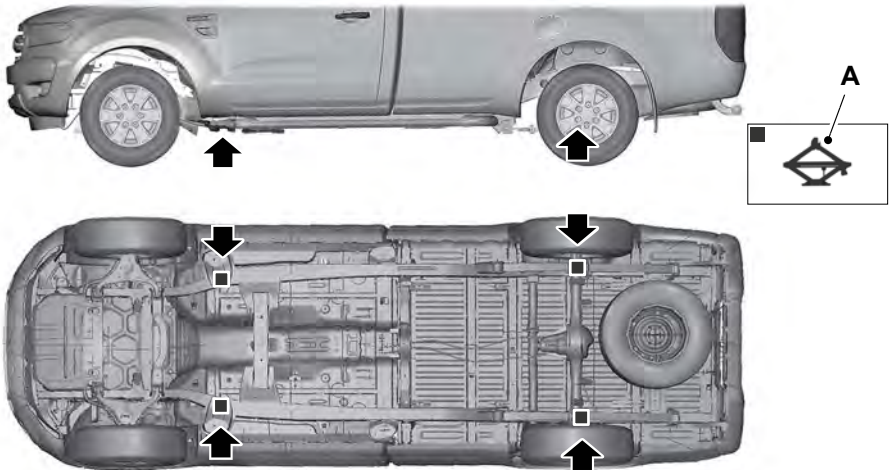
3. Pass the bracket and cable through the wheel opening.

### Jacking and Lifting Points



**WARNING:** Use only the specified jacking points. If you use other positions, you may damage the body, steering, suspension, engine, braking system or the fuel lines.





# Wheels and Tires





E271586

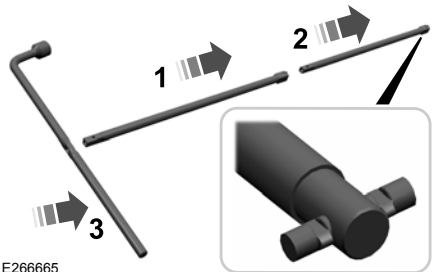
A. Emergency use only.

## Removing a Road Wheel

-  **WARNING:** Park your vehicle in such a position that neither the traffic nor you are hindered or endangered.
-  **WARNING:** Make sure that the wheels are pointing straight ahead.
-  **WARNING:** If your vehicle has a manual transmission, shift into first or reverse gear. If your vehicle has an automatic transmission, shift into park (P).
-  **WARNING:** Secure the diagonally opposite wheel with an appropriate block or wheel chock.

-  **WARNING:** Make sure that the vehicle jack is vertical to the jacking point and the base is flat on the ground.
-  **WARNING:** Never place anything between the vehicle jack and your vehicle.

**Note:** Do not lay alloy road wheels face down on the ground.



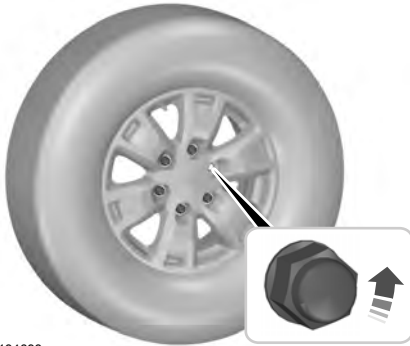
E266665

# Wheels and Tires

1. Assemble the jack handle.

**Note:** Assemble the three handles to jack the rear of the vehicle.

2. Ensure screwthread on the jack is adequately lubricated before use.
3. Loosen the wheel nuts.
4. Raise your vehicle until the tire is clear of the ground.



E134693

5. Remove the wheel nuts and the road wheel.

## Installing a Road Wheel

**WARNING:** Use only approved wheel and tire sizes. Using other sizes could damage your vehicle.

**WARNING:** Do not fit run flat tires on vehicles that were not originally fitted with them. See an authorized dealer for more details about compatibility.

**WARNING:** Make sure there is no grease or oil on the threads or the surface between the wheel lugs and nuts. This can cause the lug nuts to loosen while driving.

**WARNING:** Have the lug nuts checked for tightness and the tire pressure checked as soon as possible.

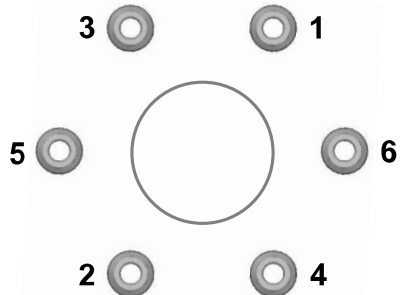
**WARNING:** Do not install alloy wheels using lug nuts designed for use with steel wheels.

**Note:** The wheel nuts of alloy wheels and spoked steel wheels can also be used for the steel spare wheel for a maximum of two weeks.

**Note:** Make sure the wheel and hub contact surfaces are free from foreign matter.

**Note:** Make sure that the cones on the wheel nuts are against the wheel.

1. Install the wheel.
2. Install the wheel nuts finger tight.
3. Install the locking wheel nut key.



E79156

4. Partially tighten the wheel nuts in the sequence shown.
5. Lower the vehicle and remove the jack.
6. Fully tighten the wheel nuts in the sequence shown. See **Technical Specifications** (page 300).
7. Make sure that the projection of the cap is positioned on the same position as the projection of the hub.

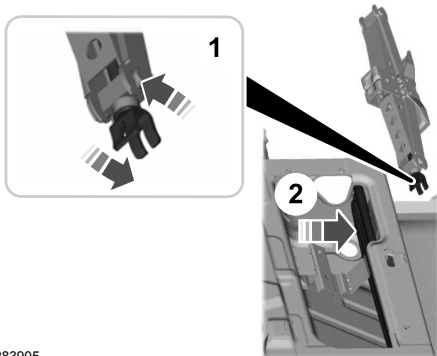
# Wheels and Tires

**Note:** If the spare wheel is different in size or construction to the road wheels, replace it as soon as possible.

## Stowing the Flat Tire

**Note:** Do not use power tools on the spare wheel winch input drive.

1. Place the wheel flat on the ground, with the outer face of the wheel facing up.
2. Tilt the bracket, and pass it through the center of the wheel.



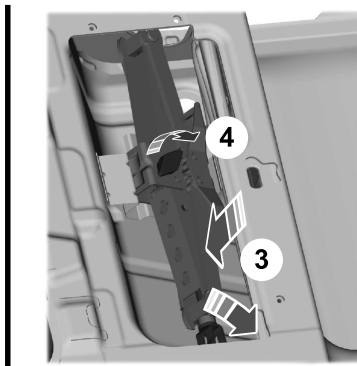
E283905

3. Place the jack on the foam block and pull the top of the jack up, to align the jack load rest hole with the hole of the floor bracket.
4. Insert the wing bolt and tighten the wing bolt by hand.
5. Install the cover.

3. Fully insert the jack handle into the guide hole and turn the jack handle clockwise until the tire raises to its stowed position underneath your vehicle and securely seated.
4. Stow the wheel brace, jack, and jack handle away.

## Stowing the Vehicle Jack and Tool Kit - SuperCab

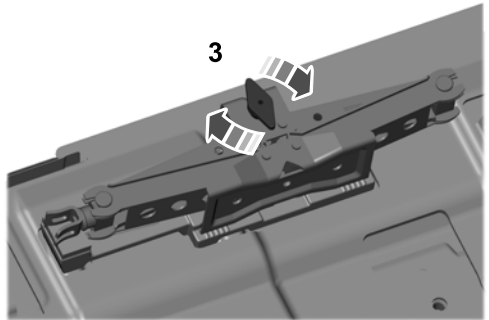
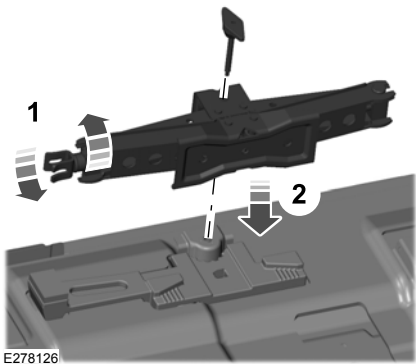
1. Before bringing the jack back into the vehicle, rotate the lead screw of the jack counterclockwise to collapse the jack height. Do not fully tighten.
2. Install the tool kit in the bin.



## Stowing the Vehicle Jack - SuperCrew

1. Before bringing the jack back into the vehicle, rotate the lead screw of the jack counterclockwise to collapse the jack height. Ensure that jack is not fully closed.

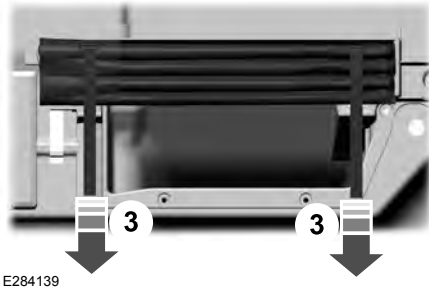
# Wheels and Tires



2. Place the jack on the foam block and pull the top of the jack up, to align the jack load rest hole with the hole of the floor bracket.
3. Insert the wing bolt and tighten the wing bolt by hand.

1. Place the tools inside the tool bag.
2. Install the tool bag on the plastic bin by passing them through the D-ring straps and placing them as shown in the image.
3. Pull the straps forward to tighten.

## Stowing the Tool Kit - SuperCrew



## TECHNICAL SPECIFICATIONS

# Wheels and Tires

## Wheel Lug Nut Torque Specifications



**WARNING:** When you install a wheel, always remove any corrosion, dirt or foreign materials present on the mounting surfaces of the wheel or the surface of the wheel hub, brake drum or brake disc that contacts the wheel. Make sure to secure any fasteners that attach the rotor to the hub so they do not interfere with the mounting surfaces of the wheel. Installing wheels without correct metal-to-metal contact at the wheel mounting surfaces can cause the wheel nuts to loosen and the wheel to come off while your vehicle is in motion, resulting in loss of vehicle control, personal injury or death.

Bolt Size	lb.ft (Nm) <sup>1</sup>
M12 x 1.5	100 lb.ft (135 Nm)

<sup>1</sup> Torque specifications are for nut and bolt threads free of dirt and rust. Use only our recommended replacement fasteners.

Retighten the lug nuts to the specified torque within 100 miles (160 kilometers) after any wheel disturbance, such as tire rotation, changing a flat tire or wheel removal.



E145950

A Wheel pilot bore.

Inspect the wheel pilot hole and mounting surface prior to installation. Remove any visible corrosion or loose particles.



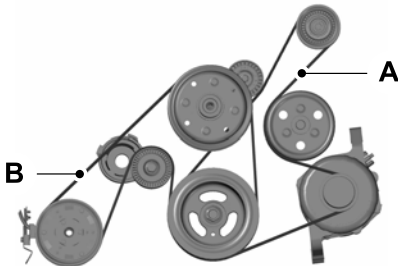
# Capacities and Specifications

## ENGINE SPECIFICATIONS

Engine	2.3L EcoBoost
Cubic inches.	138
Required fuel.	Minimum 87 octane
Firing order.	1-3-4-2
Ignition system.	Coil on plug
Spark plug gap.	0.027 - 0.031 in (0.70 - 0.80 mm)
Compression ratio.	10:1

## Drivebelt Routing

### 2.3L EcoBoost Engine



E276823

- A. Short, narrow width drivebelt is on first pulley groove closest to engine.
- B. Long, wide width drivebelt is on second pulley groove farthest from engine.

## MOTORCRAFT PARTS

## Capacities and Specifications

---

Component	Part Number
Air filter element.	FA-1943
Oil filter.	FL-910-S
Battery.	BAGM-48H6-610 BAGM-94RH7-800
Spark plugs.	SP-550
Cabin air filter.	FP-88
Windshield wiper blade.	WW-2615 (driver side) WW-1615 (passenger side)

We recommend Motorcraft replacement parts available at your authorized dealer or at [fordparts.com](http://fordparts.com) for scheduled maintenance. We engineer the parts for your vehicle to meet or exceed our specifications. Use of other parts may impact vehicle performance, emissions and durability. Your warranty may be void for any damage related to use of other parts.

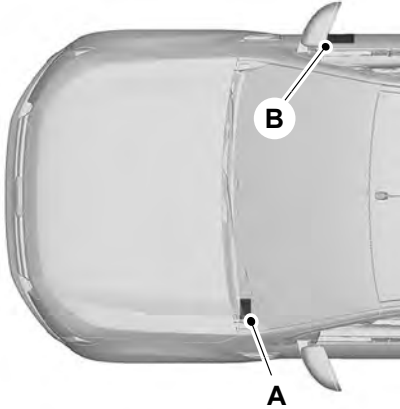
If a Motorcraft oil filter is not available, use an oil filter that meets industry performance specification SAE/USCAR-36.

For spark plug replacement, contact an authorized dealer. Replace the spark plugs at the appropriate intervals.

See **Scheduled Maintenance** (page 421).

# Capacities and Specifications

## VEHICLE IDENTIFICATION NUMBER



E133363

- A The vehicle identification number is on the left-hand side of the instrument panel.
- B The vehicle identification number is also stamped beneath the front door on the chassis, on the right-hand side.

## VEHICLE CERTIFICATION LABEL

MFD. BY FORD MOTOR CO.			
DATE: XX/XX	GVWR: XXXX KG (XXXX LB)		
FRONT GAWR: XXXX KG (XXXX LB)	REAR GAWR: XXXX KG (XXXX LB)		WITH TIRES RIMS
XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXX
XXXXXXXX	RIMS XXXXXX		RIMS XXXXXX
AT XXXX kPa/ XXX PSICOLD	AT XXXX kPa/ XXX PSICOLD		AT XXXX kPa/ XXX PSICOLD
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.			
VIN: XXXXXXXXXXXXXXXXXXXX			XXXXX
TYPE: XXXX			XXXXX
EXT PNT: XX	XXXXXX	RC: XX	DSC: XXXX
WB	INTR	TP/PS	R AXLE
TR	SPR	XXXX	XXXX
XXX	XX	XXX	X XX X XXXX XXXX
XXXXXXXXXXXXXXXXXX		XXX	XXXX-XXXXXXXX-XX

E167469

The National Highway Traffic Safety Administration Regulations require that a Safety Compliance Certification Label be affixed to a vehicle and prescribe where the Safety Compliance Certification Label may be located. The Safety Compliance Certification Label shall be affixed to either the door hinge pillar, the door latch post, or the edge of the door near the door latch, next to the driver's seating position.

# Capacities and Specifications

## TRANSMISSION CODE DESIGNATION


The transmission code is on the Safety Compliance Certification Label. The following table shows the transmission code along with the transmission description.

MFD. BY FORD MOTOR CO.


DATE: XX/XX GVWR: XXXX KG (XXXX LB)  
 FRONT GAWR: REAR GAWR:  
 XXXX KG (XXXX LB) WITH XXXX KG (XXXX LB) WITH  
 XXXXXXXXXXXXXXXXXXXX TIRES XXXXXXXXXXXXXXXXXXXX TIRES  
 XXXXXXXX RIMS XXXXXXXX RIMS  
 AT XXXX kPa/ XXX PSI COLD AT XXXX kPa/ XXX PSI COLD

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: XXXXXXXXXXXXXXXXXXXX XXXXX  
 TYPE: XXXX XXXXX



EXT PNT: XX XXXXXX RC: XY DSO: XXXX  
 WB INT TR TP/PS R AXLE TR SPR XXXX  
 XXX XX XXX X XX X XXXX XXXX  
 XXXXXXXXXXXXXXXX XX =XXXX-XXXXXX-XX



E167814

Description	Code
Ten-speed automatic transmission 10R80	U

# Capacities and Specifications

## CAPACITIES AND SPECIFICATIONS

### Capacities



**WARNING:** The air conditioning refrigerant system contains refrigerant under high pressure. Only qualified personnel should service the air conditioning refrigerant system. Opening the air conditioning refrigerant system can cause personal injury.

Item	Capacity
Engine oil (with oil filter).	5.7 qt (5.4 L)
Engine coolant.	11.6 qt (11 L)
Brake fluid.	Between MIN/MAX on brake fluid reservoir
Front axle fluid.	2.11 pt (1.0 L)
Rear axle fluid (standard axle).	3.70 pt (1.75 L)
Rear axle fluid (locking axle).	3.04 pt (1.44 L)
Automatic transmission fluid.	12.8 qt (12.1 L) <sup>1</sup>
Power Transfer Unit (PTU) fluid (four-wheel drive).	23.7 fl oz (700 ml)
Windshield washer fluid.	Fill as required
Fuel tank.	18.8 gal (71.2 L)
A/C refrigerant.	1.49 lb (0.675 kg)
A/C refrigerant compressor oil.	2.7 fl oz (80 ml)

<sup>1</sup> Approximate dry fill capacity. Actual amount may vary during fluid changes.

# Capacities and Specifications

## Specifications

### Materials

Name	Specification
Motor oil (U.S.): Motorcraft® SAE 5W-30 Premium Synthetic Blend Motor Oil XO-5W30-Q1SP	WSS-M2C946-B1
Motor oil (Canada): Motorcraft® SAE 5W-30 Super Premium Motor Oil CXO-5W30-LSP12	WSS-M2C946-B1
Engine coolant (U.S.): Motorcraft® Orange Prediluted Antifreeze/Coolant VC-3DIL-B	WSS-M97B44-D2
Engine coolant (Canada): Motorcraft® Orange Prediluted Antifreeze/Coolant CVC-3DIL-B	WSS-M97B44-D2
Brake fluid: Motorcraft® DOT 4 Low Viscosity (LV) High Performance Motor Vehicle Brake Fluid PM-20	WSS-M6C65-A2
Rear axle fluid (U.S.) Motorcraft® SAE 80W-90 Premium Rear Axle Lubricant XY-80W90-QL	WSP-M2C197-A
Rear axle fluid (Canada) Motorcraft® SAE 80W-90 Premium Rear Axle Lubricant CXY-80W90-1L	WSP-M2C197-A
Automatic transmission fluid (U.S.): Motorcraft® MERCON® ULV Automatic Transmission Fluid XT-12-QULV	WSS-M2C949-A MERCON® ULV
Automatic transmission fluid (Canada): Motorcraft® MERCON® ULV Automatic Transmission Fluid XT-12-QULVC	WSS-M2C949-A MERCON® ULV
Transfer Case fluid (U.S.) Motorcraft® MERCON® LV Automatic Transmission Fluid XT-10-QLVC	WSS-M2C938-A MERCON® LV
Transfer Case fluid (Canada)	WSS-M2C938-A

## Capacities and Specifications

Name	Specification
Motorcraft® MERCON® LV Automatic Transmission Fluid CXT-10-LV12	MERCON® LV
Windshield washer fluid (U.S.): Motorcraft® Premium Windshield Wash Concentrate with Bitterant ZC-32-B2	WSS-M14P19-A
Windshield washer fluid (Canada): Motorcraft® Premium Quality Windshield Washer Fluid CXC-37-(A, B, D, F)	WSS-M14P19-A
A/C refrigerant (U.S.): R-1234yf Refrigerant YN-33-A	WSS-M17B21-A
A/C refrigerant (Canada): R-1234yf Refrigerant HS7Z-19B519-BA	WSS-M17B21-A
A/C refrigerant compressor oil: Motorcraft® R-1234yf Refrigerant PAG Oil YN-35	WSS-M2C300-A2
Transmission, parking brake linkage and pivots and brake pedal shift grease: Premium Long-Life Grease XG-1-E1	ESA-MIC75-B
Multi-purpose grease: Motorcraft® Multi-Purpose Grease Spray XL-5-A	ESB-MIC93-B
Lock cylinders (U.S.): Penetrating and Lock Lubricant XL-1	-
Lock cylinders (Canada): Penetrating Fluid CXC-51-A	-

If you use oil and fluids that do not meet the defined specification and viscosity grade, this may lead to:

- Component damage that your vehicle warranty does not cover.
- Longer engine cranking periods.
- Increased emission levels.
- Reduced engine performance.
- Reduced fuel economy.
- Reduced brake performance.

# Capacities and Specifications

We recommend Motorcraft® motor oil for your vehicle. If Motorcraft® oil is not available, use motor oils of the recommended viscosity grade that meet API SN PLUS requirements and display the API Certification Mark for gasoline engines.

Do not use oil labeled with API SN PLUS service category unless the label also displays the API certification mark



E142732



E276075

An oil that displays this symbol conforms to current engine, emission system and fuel economy performance standards of ILSAC.

Do not use supplemental engine oil additives because they are unnecessary and could lead to engine damage that your vehicle warranty does not cover.

**Note:** We recommend using DOT 4 Low Viscosity (LV) High Performance Brake Fluid or equivalent meeting WSS-M6C65-A2. Use of any fluid other than the recommended fluid may cause reduced brake performance and not meet our performance standards. Keep brake fluid clean and dry. Contamination with dirt, water, petroleum products or other materials may result in brake system damage and possible failure.

**Note:** Automatic transmissions that require MERCON® ULV transmission fluid should only use MERCON® ULV transmission fluid. The use of any other fluid may cause transmission damage.

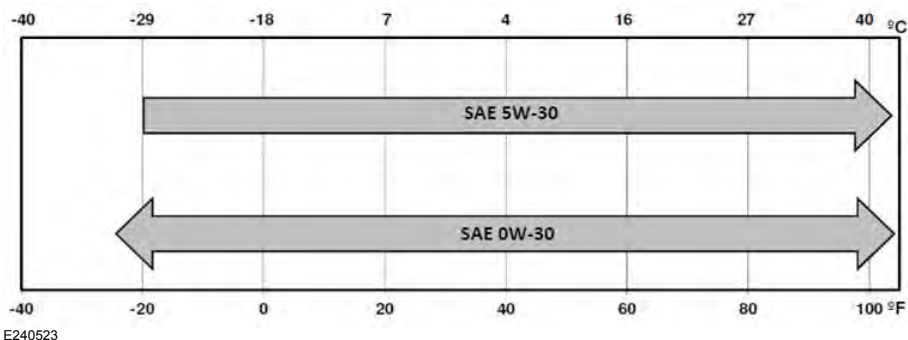
## Alternative Engine Oil for Extremely Cold Climates

To improve engine cold start performance, we recommend that you use the following alternative engine oil in extremely cold climates, where the ambient temperature reaches -22.0°F (-30°C) or below.

Name	Specification
Engine oil - SAE 0W-30	WSS-M2C953-B1



# Capacities and Specifications



## BULB SPECIFICATION CHART

Bulb	Specification	Power (Watts)
Headlamp low beam.	H11LL	55
Headlamp high beam.	HB3LL	60
Headlamps. <sup>1</sup>	LED	LED
Front park/direction indicator bulb (Clear).	W21/5W	21/5
Front park/direction indicator bulb (Amber).	7444NA	28/8
Front side marker bulb.	W5W	5
Front fog lamp bulb.	H11	55
Front fog lamps. <sup>1</sup>	LED	LED
Rear brake/park bulb.	W21/5W	21/5
Rear direction indicator bulb.	WY21W	21
Rear direction/park/stop lamp. <sup>1</sup>	LED	LED
Reverse lamp. <sup>1</sup>	LED	LED

## Capacities and Specifications

Bulb	Specification	Power (Watts)
Reverse lamp bulb - type 1.	W21W	21
Rear direction/park/stop lamp bulb.	3157K	26.9
Reverse lamp bulb - type 2.	3157K	26.9
License plate lamp.	W5W	5
Center high mounted brake lamp.	912	12.8
Center high mounted brake lamp. <sup>1</sup>	LED	LED
Cargo lamp bulb.	912	12.8
Cargo lamp. <sup>1</sup>	LED	LED

<sup>1</sup>Optional LED lamps.

**Note:** LED lamps are not serviceable. See an authorized dealer if they fail.

# Audio System

## GENERAL INFORMATION

### Radio Frequencies and Reception Factors

AM and FM frequencies are established by the Federal Communications Commission (FCC) and the Canadian Radio and Telecommunications Commission (CRTC). Those frequencies are:

- AM: 530-1710 kHz
- FM: 87.9-107.9 MHz

**Note:** *Listening to loud audio for long periods of time could damage your hearing.*

Radio Reception Factors	
<b>Distance and strength</b>	The further you travel from an AM or FM station, the weaker the signal and the weaker the reception.
<b>Terrain</b>	Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with the reception.
<b>Station overload</b>	When you pass a ground-based broadcast repeating tower, a stronger signal may overtake a weaker one and result in the audio system muting.

## AUDIO UNIT - VEHICLES WITHOUT: SYNC



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

### Accessing the Clock Settings



Press and release the button to access the clock setting.

Use the center arrow controls to change the hours and minutes.

### Accessing the Media Source Menu



Press and release the button to open the media source menu.

You can press this multiple times to change to a media device or scroll through the media sources using the arrow buttons. Press **OK** to select a source.

### Accessing the Menu



Press and release the button to access different audio system features.

# Audio System

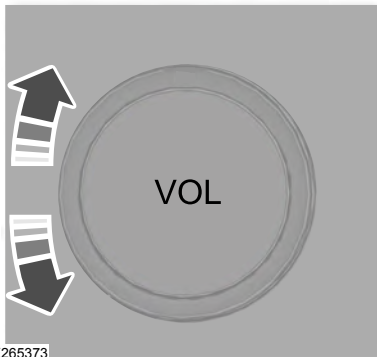
## Accessing the Phone Features

**PHONE** Press and release the button to access the phone features of the system.

## Accessing the Sound Settings

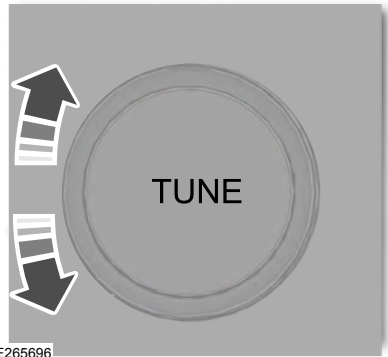
**SOUND** Press and release the button to access settings for Treble, Midrange, Bass, Fade and Balance.

## Adjusting the Volume



Turn to adjust the volume.

## Changing Radio Stations



In radio mode, turn to search through the radio frequency band.


## Listening to the Radio

**RADIO** Press and release the button to listen to the radio or change the radio frequency band.

## Muting the Audio

**MUTE** Press and release the button to mute the playing audio.

## Switching the Audio Unit On and Off

 Press and release the button.

## Using the Display Control

Use the up and down arrow buttons to select the various settings. When you make your selection, press the left and right arrow buttons to change the settings.

**OK** Press and release to confirm a selection.

# Audio System

Press and release the function buttons below the display to select different functions of the audio system depending on which mode you are in.

## Using the Number Block

In radio mode, store and recall your favorite radio stations. To store a favorite station, press and hold until the sound returns. In phone mode, enter a phone number.

## Using Seek, Fast Forward and Reverse



In radio mode, select a frequency band and press and release either button. The system stops at the first station it finds in that direction.

## AUDIO UNIT - VEHICLES WITH: SYNC



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

## Accessing the Apps Menu



Press and release the button to access the apps menu. Follow the on-screen prompts to make your selection.

## Accessing the Clock Settings



Press and release the button to access the clock setting. Use the center arrow controls to change the hours and minutes.

## Accessing the Media Source Menu



Press and release the button to open the media source menu.

You can press this multiple times to change to a SYNC-Media device or scroll through the media sources using the arrow buttons. Press **OK** to select a source.

## Accessing the Information Menu



Press and release the button to access the information menu. Follow the on-screen prompts to make your selection.

## Accessing the Phone Features



Press and release the button to access the phone features of the SYNC system.

## Accessing the Settings Menu



Press and release the button to access the settings menu. Follow the on-screen prompts to make your selection.

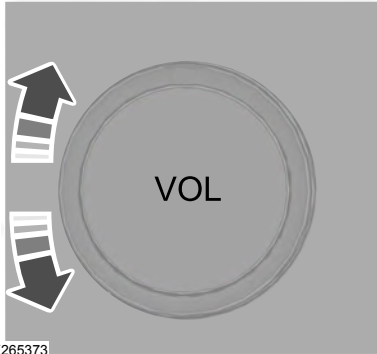
# Audio System

## Accessing the Sound Settings



Press and release the button to access settings for Treble, Midrange, Bass, Fade and Balance.

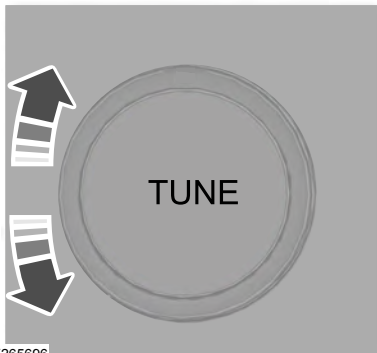
## Adjusting the Volume



E265373

Turn to adjust the volume.

## Changing Radio Stations



E265696

In radio mode, turn to search through the radio frequency band.

## Listening to the Radio



Press and release the button to listen to the radio or change the radio frequency band.

## Playing or Pausing Media



Press and release the button to either play or pause the audio.

## Switching the Audio Unit On and Off



Press and release the button.

## Switching the Display On and Off



Press and release the button.

## Switching Repeat Mode On and Off



Press and release the button to repeat the current media source.

## Switching Shuffle Mode On and Off



Press and release the button to shuffle the current media source.

## Using a Cell Phone



Press and release to either answer an incoming phone call or to make a phone call.



Press and hold to end a phone call.

# Audio System

## Using the Display Control

Use the up and down arrow buttons to select the various settings. When you make your selection, press the left and right arrow buttons to change the settings.

**OK**

Press and release to confirm a selection.

## Using the Number Block

In radio mode, store and recall your favorite radio stations. To store a favorite station press and hold until the sound returns.

In phone mode, enter a phone number.

## Using Seek, Fast Forward and Reverse



In radio mode, select a frequency band and press and release either button. The system stops at the first station it finds in that direction.

## AUDIO UNIT - VEHICLES WITH: SYNC 3



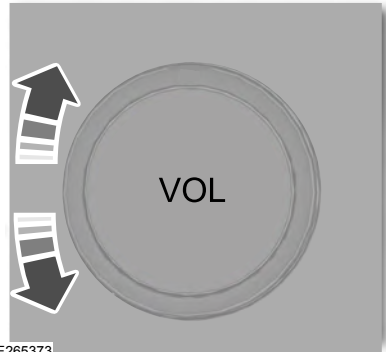
**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any

hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

**Note:** *The touchscreen system controls most of the audio features.*

**Note:** *Some features, such as satellite radio, may not be available in your location. Check with an authorized dealer.*

## Adjusting the Volume

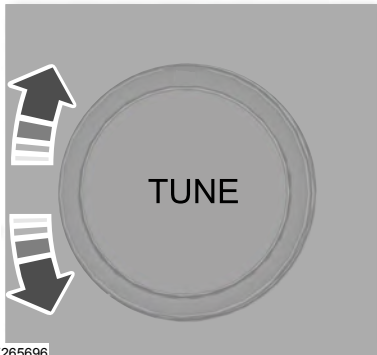


E265373

Turn to adjust the volume.

# Audio System

## Changing Radio Stations



In radio mode, turn to search through the radio frequency band.

In satellite radio mode, turn to find the previous or next available satellite radio station.

## Playing or Pausing Media



Press and release the button to either play or pause the audio.

## Switching the Audio Unit On and Off



Press and release the button.

## Using Seek, Fast Forward and Reverse



In radio mode, select a frequency band and press and release either button. The system stops at the first station it finds in that direction.

In satellite radio mode, press and release to select the next or previous satellite radio station. If you select a specific category such as jazz, rock or news, press to find the next or previous station in that category.

## CONNECTING A BLUETOOTH DEVICE - VEHICLES WITHOUT SYNC

### Pairing a Device



Press the button.

Select **BT Devices** and follow the instructions on the screen.

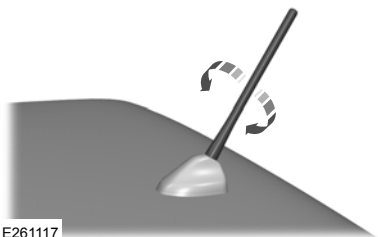
**Note:** When pairing a new device, you can choose to download contacts and set this as the primary device.



# Audio System

## RADIO

### Antenna



You can temporarily remove the mast by unscrewing it from the base.

**Note:** Remove the antenna mast before entering a car wash. Make sure you firmly screw in the mast when reattaching it to maintain optimum radio reception.

### SATELLITE RADIO (IF EQUIPPED)

SiriusXM® Satellite Radio broadcasts a variety of music, news, sports, weather, traffic and entertainment satellite radio channels. For more information and a complete list of SiriusXM satellite radio channels, visit [www.siriusxm.com](http://www.siriusxm.com) in the United States, [www.siriusxm.ca](http://www.siriusxm.ca) in Canada, or call SiriusXM at 1-888-539-7474.

**Note:** This receiver includes the eCos real-time operating system. eCos is published under the eCos License.

### Satellite Radio Reception Factors

Potential satellite radio reception issues	
Antenna obstructions	For optimal reception performance, keep the antenna clear of snow and ice build-up and keep luggage and other material as far away from the antenna as possible.
Terrain	Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with your reception.
Station overload	When you pass a ground-based broadcast-repeating tower, a stronger signal may overtake a weaker one and the audio system may mute.
Satellite radio signal interference	Your display may show ACQUIRING . . . to indicate the interference and the audio system may mute.

# Audio System

## SiriusXM Satellite Radio Service

**Note:** *SiriusXM reserves the unrestricted right to change, rearrange, add or delete programming including canceling, moving or adding particular channels, and its prices, at any time, with or without notice to you. Ford Motor Company shall not be responsible for any such programming changes.*



E208625

SiriusXM satellite radio is a subscription-based satellite radio service that broadcasts a variety of music, sports, news, weather, traffic and entertainment programming. Your factory-installed SiriusXM satellite radio system includes hardware and a limited subscription term, which begins on the date of sale or lease of your vehicle. See an authorized dealer for availability.

For more information on extended subscription terms (a service fee is required), the online media player and a complete list of SiriusXM satellite radio channels, and other features, please visit [www.siriusxm.com](http://www.siriusxm.com) in the United States, [www.siriusxm.ca](http://www.siriusxm.ca) in Canada, or call SiriusXM at 1-888-539-7474.

## Satellite Radio Electronic Serial Number (ESN)

You need your ESN to activate, modify or track your satellite radio account. When in satellite radio mode, tune to channel 0.

## Troubleshooting

Message	Condition	Action
Acquiring...	Radio requires more than two seconds to produce audio for the selected channel.	No action required. This message should disappear shortly.
Satellite antenna fault SIRIUS system failure	There is an internal module or system failure present.	If this message does not clear shortly, or with an ignition key cycle, your receiver may have a fault. See an authorized dealer for service.
Invalid Channel	The channel is no longer available.	Tune to another channel or choose another preset.
Unsubscribed Channel	Your subscription does not include this channel.	Contact SiriusXM at 1-888-539-7474 to subscribe to the channel, or tune to another channel.

# Audio System

Message	Condition	Action
No Signal	The signal is lost from the SiriusXM satellite or SiriusXM tower to your vehicle antenna.	The signal is blocked. When you move into an open area, the signal should return.
Updating...	Update of channel programming in progress.	No action required. The process may take up to three minutes.
Questions? Call 1-888-539-7474	Your satellite service is no longer available.	Contact SiriusXM at 1-888-539-7474 to resolve subscription issues.
None found Check Channel Guide	All the channels in the selected category are either skipped or locked.	Use the channel guide to turn off the Lock or Skip function on that station.
Subscription Updated	SiriusXM has updated the channels available for your vehicle.	No action required.

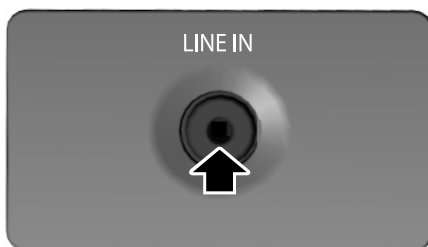
## AUDIO INPUT JACK (IF EQUIPPED)



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.



**WARNING:** Always place your device in a secure location in your vehicle so it does not become a projectile in a sudden stop or crash. Failure to follow this instruction could result in personal injury.



E191758

# Audio System

The auxiliary input jack allows you to connect and play music from your portable music player through your vehicle speakers. You can use any portable music player designed for use with headphones. Your audio extension cable must have male connectors at each end.

1. Make sure your vehicle is stationary with the audio unit and the portable music player switched off.
2. Plug the extension cable from the device into the audio input jack.
3. Switch on the radio and select either a tuned FM station or a CD.
4. Adjust the volume as desired.
5. Switch on your device and adjust the volume to half the maximum level.
6. Press **AUX** until **LINE** or **LINE IN** appears in the display. You should hear music from your device even if it is low.
7. Adjust the volume on your device until it reaches the volume level of the FM station or CD. Do this by switching back and forth between the **AUX** and FM or CD controls.


Use the vehicle audio unit buttons to restore playback from the vehicle audio unit, while your device remains connected.

**Note:** *The audio extension cable must be long enough for you to safely store the device when your vehicle is moving.*

**Note:** *For optimum performance when using any auxiliary device set the volume on the device high. This reduces audio interference when charging the device using the vehicle power supply.*

**Note:** *For safety reasons, do not connect or adjust the settings on your device while your vehicle is moving.*

## USB PORT (IF EQUIPPED)



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.



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The USB port allows you to plug in media playing devices, memory sticks and charge devices, if supported.

## USING VOICE RECOGNITION - VEHICLES WITHOUT: SYNC

### Voice Pass Through

This system allows you to use the voice recognition features of your phone.



Press the voice control button on the steering wheel.

# Audio System

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**Note:** This only works when connected via Bluetooth. See **Connecting a Bluetooth Device** (page 317).

**Note:** When using voice pass through use the language set on the device.

## **MEDIA HUB (IF EQUIPPED)**



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

The media hub may be on the instrument panel or center console.

The media hub may contain one or more of the following inputs:

See **USB Port** (page 321).

See **Audio Input Jack** (page 320).

## GENERAL INFORMATION

SYNC is an in-vehicle communications system that works with your Bluetooth-enabled cellular phone and portable media player. This allows you to:

- Make and receive calls.
- Access and play music from your portable music player.
- Use 911 Assist or Emergency Assistance and applications via SYNC AppLink.\*
- Access phonebook contacts and music using voice commands.
- Stream music from your connected phone.
- Text message.
- Use the advanced voice recognition system.
- Charge your USB device (if your device supports this).

\*These features are not available in all markets and may require activation. Available AppLink enabled apps vary by market.

Make sure that you review your device's manual before using it with SYNC.

## Support

SYNC support is available at your regional Ford website. See **SYNC™ Troubleshooting** (page 332).

## SYNC Owner Account

Why do I need a SYNC owner account?

- Essential for keeping up with the latest software downloads available for SYNC.
- Access to customer support for any questions you may have.

## Driving Restrictions

For your safety, certain features are speed-dependent and restricted when your vehicle is traveling over 3 mi (5 km).

## Safety Information



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

When using SYNC:

- Do not operate playing devices if the power cords or cables are broken, split or damaged. Place cords and cables out of the way, so they do not interfere with the operation of pedals, seats, compartments or safe driving abilities.
- Do not leave playing devices in your vehicle during extreme conditions as it could cause them damage. See your device's manual for further information.
- Do not attempt to service or repair the system. See an authorized dealer.

## Privacy Information

When a cellular phone is connected to SYNC, the system creates a profile within your vehicle that is linked to that cellular phone. This profile is created in order to offer you more cellular features and to operate more efficiently. Among other

things, this profile may contain data about your cellular phone book, text messages (read and unread), and call history, including history of calls when your cellular phone was not connected to the system. In addition, if you connect a media device, the system creates and retains an index of supported media content. The system also records a short development log of approximately 10 minutes of all recent system activity. The log profile and other system data may be used to improve the system and help diagnose any problems that may occur.

The cellular profile, media device index, and development log will remain in the vehicle unless you delete them and are generally accessible only in the vehicle when the cellular phone or media player is connected. If you no longer plan to use the system or the vehicle, we recommend you perform a Master Reset to erase all stored information.

System data cannot be accessed without special equipment and access to the vehicle's SYNC module. Ford Motor Company and Ford of Canada will not access the system data for any purpose other than as described absent consent, a

court order, or where required by law enforcement, other government authorities, or other third parties acting with lawful authority. Other parties may seek to access the information independently of Ford Motor Company and Ford of Canada. For further privacy information, see the section on 911 Assist. See **SYNC™ Applications and Services** (page 327).

## USING VOICE RECOGNITION

This system helps you control many features using voice commands. This allows you to keep your hands on the wheel and focus on what is around you.

### Initiating a Voice Session



Press the voice button. A list of available voice commands appears in the display.

### Global Voice Commands

These voice commands are always available. You can say them at any time.

Global voice commands	
Help	Gives you available commands you can use on the current screen.
List of Commands	Gives you a list of possible voice commands.
Cancel	This command ends the voice session. You can also cancel a session by pressing seek up, seek down, or holding the voice button for two or more seconds.

## Helpful Hints

- Make sure the interior of your vehicle is as quiet as possible. Wind noise from open windows and road vibrations may prevent the system from correctly recognizing spoken commands.
- Before giving a voice command, wait for the system announcement to finish, followed by a single tone. Any command spoken before this does not register with the system.
- Speak naturally, without long pauses between words.
- You can interrupt the system at any time while it is speaking by pressing the voice button. You can cancel a voice session by pressing and holding the voice button.

## System Interaction and Feedback

The system provides feedback through audible tones, prompts, questions and spoken confirmations depending on the situation and the chosen level of interaction. You can customize the voice recognition system to provide more or less instruction and feedback.

The default setting is to a higher level of interaction in order to help you learn to use the system. You can change these settings at any time.

### Adjusting the Interaction Level



Press the voice button. When prompted, say:

Voice Command	Action and Description
Voice Settings	
<b>Then either of the following:</b>	
Interaction Mode Standard	Provides more detailed interaction and guidance. (Recommended for first time users.)
Interaction Mode Advanced	Provides less audible interaction and guidance.

## Phone Confirmation

Using phone confirmations the system asks you to verify before placing any calls.



## SYNC™ (If Equipped)

To adjust this setting press the voice button, when prompted say:

Voice Command	Action and Description
Voice Settings	
<b>Then any of the following:</b>	
Phone Confirmation Off	When enabled, this feature will prompt you to confirm any voice initiated call command prior to the call being placed.
Phone Confirmation On	The system will make a best guess; you may still occasionally be asked to confirm settings.

### USING SYNC™ WITH YOUR PHONE

Hands-free calling is one of the main features of SYNC. While the system supports a variety of features, many are dependent on your cellular phone's functionality. At a minimum, most cellular phones with Bluetooth wireless technology support the following functions:

- Answering an incoming call.
- Ending a call.
- Dialing a number.
- Redialing.
- Call waiting notification.
- Caller ID.

Other features, such as text messaging using Bluetooth and automatic phonebook download, are phone-dependent features.

#### Pairing a Phone

Wirelessly pairing your phone with SYNC allows you to make and receive hands-free calls.

**Note:** Make sure to switch on the ignition and the radio. Shift the transmission into park (P) for automatic transmission or first gear for manual transmission.

#### Using the Audio System

**Note:** To scroll through the menus, press the up and down arrows on your audio system.

1. Make sure to switch on your phone's Bluetooth feature before starting the search. See your device's manual if necessary.
2. Press the **Settings** button.
3. Select Bluetooth from the menu.
4. Press the **OK** button.
5. Select the option to add. This starts the pairing process.
6. When a message to begin pairing appears in the audio display, search for SYNC on your device.

7. When prompted on your cell phone's display, confirm that the PIN provided by SYNC matches the PIN displayed on your cell phone. Your phone is now paired and the display indicates that the pairing was successful. If you are prompted to enter a PIN on your device, enter the PIN displayed on the screen. The display indicates when the pairing is successful.

Depending on your phone's capability and your market, the system may prompt you with questions, such as setting the current phone as the primary phone and downloading your phonebook.

## Using Voice Commands



Make sure to switch on your phone's Bluetooth feature before starting the search. See your device's manual if necessary.

### Press the voice button and when prompted say:

Voice Command	Action and Description
Pair Phone	Follow the instructions on the audio display.

## Phone Voice Commands



Press the voice button. You can do things like place a phone call and access text messages. When prompted, say a command. See the following table for example commands.

Voice Command
___ List of Commands
Help
Call ___
Dial ___
Text Messages

\_\_\_ is a dynamic listing, meaning that it could be the name of anything, such as a contact or phone number.

## Phone Controls

Use the phone buttons on your steering wheel to answer, reject, or hang up a call.

## Accessing Features through the Phone Menu

You can access your call history, phonebook, sent text messages, as well as access phone and system settings.

1. Press the **PHONE** button to enter the phone menu.
2. Scroll through the menu to view contacts, text messages, and the phone dialer.

## SYNC™ APPLICATIONS AND SERVICES

- 911 Assist: Can alert 911 in the event of an emergency.
- SYNC AppLink: Allows you to connect to and use certain applications (if your phone is compatible).

These features may require activation. Available AppLink enabled apps vary by market.

## 911 Assist



**WARNING:** Unless the 911 Assist setting is set on before a crash, the system will not dial for help which could delay response time, potentially increasing the risk of serious injury or death after a crash.



**WARNING:** Do not wait for 911 Assist to make an emergency call if you can do it yourself. Dial emergency services immediately to avoid delayed response time which could increase the risk of serious injury or death after a crash. If you do not hear 911 Assist within five seconds of the crash, the system or phone may be damaged or non-functional.



**WARNING:** Always place your phone in a secure location in your vehicle so it does not become a projectile or get damaged in a crash. Failure to do so may cause serious injury to someone or damage the phone which could prevent 911 Assist from working properly.

**Note:** The SYNC 911 Assist feature must be set on before the incident.

**Note:** The SYNC 911 Assist feature only operates in the U.S., Canada or in a territory in which 911 is the emergency number.

**Note:** Before setting this feature on, make sure that you read the 911 Assist Privacy Notice later in this section for important information.

**Note:** If any user switches 911 Assist to on or off, that setting applies for all paired phones. If 911 Assist is switched off, either a voice message plays or a display message or an icon comes on when your vehicle is started and after a previously paired phone connects.

**Note:** Every phone operates differently. While SYNC 911 Assist works with most cellular phones, some may have trouble using this feature.

If a crash deploys an airbag (excluding knee airbags and rear inflatable safety belts [if equipped]) or activates the fuel pump shut-off, your SYNC-equipped vehicle may be able to contact emergency services by dialing 911 through a paired and connected Bluetooth-enabled phone.

See **Supplementary Restraints System** (page 39). Important information about airbag deployment is in this chapter.

See **Roadside Emergencies** (page 218). Important information about the fuel pump shut-off is in this chapter.

### Setting 911 Assist On or Off

**Press the Settings button then select:**

Menu Item	Action and Description
911 Assist	Select the desired option, on or off.

To make sure that 911 Assist works properly:

- SYNC must be powered and working properly at the time of the incident and throughout feature activation and use.
- The 911 Assist feature must be set on before the incident.
- You must pair and connect a Bluetooth enabled and compatible cell phone to SYNC.
- A connected Bluetooth enabled phone must have the ability to make and maintain an outgoing call at the time of the incident.

- A connected Bluetooth enabled phone must have adequate network coverage, battery power and signal strength.
- The vehicle must have battery power and be located in the U.S., Canada or in a territory in which 911 is the emergency number.

### In the Event of a Crash

Not all crashes deploy an airbag or activate the fuel pump shut-off (the triggers for 911 Assist). If a connected cell phone sustains damage or loses its connection to SYNC during a crash, SYNC searches for and tries to connect to a previously paired cell phone; SYNC then attempts to call the emergency services.

Before making the call:

- SYNC provides a short window of time (about 10 seconds) to cancel the call. If you fail to cancel the call, SYNC attempts to dial 911.
- SYNC says the following, or a similar message: "SYNC will attempt to call 911, to cancel the call, press Cancel on your screen or press and hold the phone button on your steering wheel".

If you do not cancel the call, and SYNC makes a successful call, a pre-recorded message plays for the 911 operator, and then the occupant(s) in your vehicle are able to talk with the operator. Be prepared to provide your name, phone number and location immediately, because not all 911 systems are capable of receiving this information electronically.

### 911 Assist May Not Work If

- Your cellular phone or 911 Assist hardware sustains damage in a crash.
- The vehicle's battery or the SYNC system has no power.
- The phone(s) thrown from your vehicle are the ones paired and connected to the system.

### 911 Assist Privacy Notice

When you switch on 911 Assist, it may disclose to emergency services that your vehicle has been in a crash involving the deployment of an airbag or activation of the fuel pump shut-off. Certain versions or updates to 911 Assist may also be capable of electronically or verbally disclosing to 911 operators your vehicle location or other details about your vehicle or crash to assist 911 operators to provide the most appropriate emergency services. If you do not want to disclose this information, do not switch the feature on.

### SYNC Mobile Apps

The system enables voice and steering wheel control of SYNC AppLink enabled smartphone apps. When an app is running through AppLink, you can control main features of the app through voice commands and steering wheel controls.

**Note:** *You must pair and connect your smartphone to SYNC to access AppLink.*

**Note:** *iPhone users need to connect the phone to the USB port.*

**Note:** *Android users need to connect the phone to SYNC using Bluetooth.*

**Note:** *For information on available apps, supported smartphone devices and troubleshooting tips please visit the Ford website*

**Note:** *Availability of SYNC AppLink enabled Apps will vary by region.*

**Note:** *Make sure you have an active account for the app that you have downloaded. Some apps work automatically with no setup. Other apps want you to configure your personal settings and personalize your experience by creating stations or favorites. We recommend you do this at home or outside of your vehicle.*

# SYNC™ (If Equipped)

## To Access Using the SYNC Menu

Press the **Mobile Apps** button to access the menu on-screen. Then select:

Menu Item	Action and Description
Find	Scroll through the list of

Menu Item	Action and Description
Mobile Apps	available applications and select a particular app.

**Note:** *If you cannot find a compatible SYNC AppLink app, make sure the required app is running on the mobile device.*

## To Access Using Voice Commands

Press the voice button, then when prompted say:

Voice Command	Action and Description
Mobile Applications	Say the name of the application after the tone. The app should start. When an app is running through SYNC, you can press the voice button and speak commands specific to the app, for example "Play Playlist Road Trip".
List Applications	SYNC lists all of the currently available mobile apps.
Find Applications	Searches your connected mobile device for SYNC-compatible mobile apps.
Help	Use this command to discover the available voice commands.

## App Permissions

App permissions are organized by groups. You can grant these group permissions individually. You can change a permission group status any time when not driving, by using the settings menu.

When you launch an app using SYNC, the system may ask you to grant certain permissions, for example:

- To allow your vehicle to provide vehicle information to the app such as, but not limited to: Fuel level, fuel economy, fuel consumption, engine speed, rain sensor, odometer, VIN, external temperature, gear position, tire pressure, and head lamp status.
- To allow your vehicle to provide driving characteristic information such as, but not limited to: MyKey, seat belt status, engine revolutions per minute, gear position, braking events, steering wheel angle, and accelerator pedal position.

- To allow your vehicle to provide location information, including: GPS and speed.
- To allow the app to send push notifications using the vehicle display and voice capabilities while running in a background state. Push notifications may be particularly useful for news or location based apps.

**Note:** *You only need to grant permissions the first time you use an app with SYNC.*

**Note:** *Ford is not responsible or liable for any damages or loss of privacy relating to usage of an app, or dissemination of any vehicle data that you approve Ford to provide to an app.*

## Enabling SYNC Mobile Apps

In order to enable mobile apps, SYNC requires user consent to send and receive app authorization information and updates using the data plan associated with the connected device.

Data is sent to Ford in the United States through the connected device. The information is encrypted and includes your VIN, SYNC module number, anonymous usage statistics and debugging information. Updates may take place.

**Note:** *You must enable mobile apps for each connected device the first time you select a mobile app using the system.*

**Note:** *Standard data rates apply. Ford is not responsible for any additional charges you may receive from your service provider, when your vehicle sends or receives data through the connected device. This includes any additional charges incurred due to driving in areas when roaming out of a home network.*

## USING SYNC™ WITH YOUR MEDIA PLAYER

SYNC supports digital media sources including: iPod, Bluetooth devices, and most USB drives. SYNC also supports audio formats, such as MP3, WMA, WAV and ACC.

### Media Sources

The **AUX** or **MEDIA** button allows you to view and select available media sources.

Press the **AUX** or **MEDIA** button to view your sources. Use the directional arrows and OK button to select your source. You can also use the steering wheel audio controls.

### Audio Voice Commands



Press the voice button. You can do things like play a specific song or album, skip to the next song, or tune to a radio station. When prompted, say a command. See the following table for example commands. Not all commands may be available on your vehicle.

Command
___ List of Commands
Help
Pause
Play
Next Track
Previous Track
AM ___
FM ___
CD Player

## SYNC™ (If Equipped)

Command
Sirius Channel ___
USB
Bluetooth Audio

Use your regional Ford website at any time to check your phone's compatibility, register your account and set preferences as well as access a customer representative via an online chat (during certain hours).

\_\_\_ is a dynamic listing, meaning that it could be the name of anything, such as an artist, station, or media source.

Market	Website(s)
North America	www.SYNCMyRide.com www.SYNCMyRide.ca www.sync-maroute.ca

### SYNC™ TROUBLESHOOTING

Your SYNC system is easy to use. However, should questions arise, see the tables below.

Phone issues		
Issue	Possible cause(s)	Possible solution(s)
There is excessive background noise during a phone call.	The audio control settings on your phone may be affecting SYNC performance.	Review your phone's manual about audio adjustments.
During a call, I can hear the other person but they cannot hear me.	This may be a possible phone malfunction.	Try turning off the device, resetting the device, removing the device's battery, then trying again.
SYNC is not able to download my phonebook.	This is a phone-dependent feature.  This may be a possible phone malfunction.	Go to the website to review your phone's compatibility.  Try turning off the device, resetting the device or removing the device's battery, then trying again.  Try pushing your phonebook contacts to SYNC by using the Add Contacts feature.  Use the SYNCmyphone feature available on the website.

## SYNC™ (If Equipped)

<b>Phone issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
<p>The system says Phonebook Downloaded but the phonebook in SYNC is empty or missing contacts.</p>	<p>This may be a limitation on your phone's capability.</p>	<p>Try pushing your phonebook contacts to SYNC by using the Add Contacts feature.</p> <p>If the missing contacts are stored on your SIM card, try moving them to the device memory.</p> <p>Remove any pictures or special ring tones associated with the missing contact.</p> <p>Depending upon your phone, you may have to grant SYNC permission to access your phonebook contacts. Make sure to confirm when prompted by your phone during the phonebook download.</p>
<p>I am having trouble connecting my phone to SYNC.</p>	<p>This is a phone-dependent feature.</p> <p>This may be a possible phone malfunction.</p>	<p>Go to the website to review your phone's compatibility.</p> <p>Try turning off the device, resetting the device or removing the device's battery, then trying again.</p> <p>Try deleting your device from SYNC, deleting SYNC from your device and trying again.</p> <p>Check the security and auto accept and prompt always settings relative to the SYNC Bluetooth connection on your phone.</p> <p>Update your device's firmware.</p> <p>Turn off the Auto phonebook download setting.</p>



## SYNC™ (If Equipped)

<b>Phone issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
Text messaging is not working on SYNC.	<p>This is a phone-dependent feature.</p> <p>This may be a possible phone malfunction.</p>	<p>Go to the website to review your phone's compatibility.</p> <p>Try turning off the device, resetting the device or removing the device's battery, then trying again.</p>
I cannot return to the Phone menu when selecting a contact.	You are on the Select a Character screen.	Press the Phone button to return to the Phone menu.

<b>USB and media issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
I am having trouble connecting my device.	This may be a possible device malfunction.	<p>Try turning off the device, resetting the device, removing the device's battery, then trying again.</p> <p>Make sure you are using the manufacturer's cable.</p> <p>Make sure you insert the USB cable correctly into the device and the USB port.</p> <p>Make sure that the device does not have an auto-install program or active security settings.</p>
SYNC does not recognize my device when I turn on the car.	This is a device limitation.	Make sure you are not leaving the device in your vehicle during very hot or cold temperatures.
Bluetooth audio does not stream.	This is a phone-dependent feature.	Review the device compatibility chart on the SYNC website to confirm your phone supports the Bluetooth audio streaming function.

## SYNC™ (If Equipped)

<b>USB and media issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
	The device is not connected.	Make sure you correctly connect the device to SYNC, and that you have pressed play on your device.
SYNC does not recognize music that is on my device.	Your music files may not contain the correct artist, song title, album or genre information. The file may be corrupted. The song may have copy-right protection, which does not allow it to play.	Make sure that all song details are populated.  Some devices require you to change the USB settings from mass storage to MTP class.
I cannot change the Sirius station.	Sirius Replay is active.	Switch radio bands and return to Sirius or switch the feature off. You can then change the Sirius station using the directional buttons.

<b>Voice command issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
SYNC does not understand what I am saying.	You may be using the wrong voice commands.  You may be speaking too soon or at the wrong time.	Review the phone voice commands and the media voice commands at the beginning of their respective sections.  After pressing the voice icon, wait until after the tone sounds and Listening appears before saying a command. Any command spoken before this does not register with the system.
SYNC does not understand the name of a song or artist.	You may be using the wrong voice commands.	Review the media voice commands at the beginning of the media section.

## SYNC™ (If Equipped)

<b>Voice command issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
	<p>You may be saying the name differently than the way you saved it.</p> <p>The system may not be reading the name the same way you are saying it.</p>	<p>Say the song or artist exactly as listed. If you say "Play Artist Prince", the system does not play music by Prince and the Revolution or Prince and the New Power Generation.</p> <p>Make sure you are saying the complete title, such as "California remix featuring Jennifer Nettles".</p> <p>If the song titles are in all CAPS, you have to spell them. LOLA requires you to say "L-O-L-A".</p> <p>Do not use special characters in the title. The system does not recognize them.</p>
<p>SYNC does not understand or is calling the wrong contact when I want to make a call.</p>	<p>You may be using the wrong voice commands.</p> <p>You may be saying the name differently than the way you saved it.</p>	<p>Review the Phone voice commands at the beginning of the phone section.</p> <p>Make sure you are saying the contacts exactly as they are listed. For example, if you save a contact as Joe Wilson, say "Call Joe Wilson".</p> <p>Using the SYNC phone menu, open the phonebook and scroll to the name SYNC is having trouble understanding. SYNC will read the name to you, giving you some idea of the pronunciation SYNC is expecting.</p>

## SYNC™ (If Equipped)

<b>Voice command issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
	<p>The system may not be reading the name the same way you are saying it.</p> <p>Contacts in your phonebook may be very short and similar, or they may contain special characters.</p> <p>Your phonebook contacts may be in CAPS.</p>	<p>The system works better if you list full names, such as "Joe Wilson" rather than "Joe".</p> <p>Do not use special characters, such as 123 or ICE, as the system does not recognize them.</p> <p>If a contact is in CAPS, you have to spell it. JAKE requires you to say "Call J-A-K-E".</p>

<b>AppLink issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
<p>AppLink Mobile Applications: When I select "Find New Apps," SYNC does not find any applications.</p>	<p>An AppLink capable phone is not connected to SYNC.</p>	<p>Ensure you have a compatible smartphone; an Android with OS 2.3 or higher or an iPhone 3GS or newer with iOS 5.0 or higher. Additionally, ensure your phone is paired and connected to SYNC in order to find AppLink-capable apps on your device. iPhone users must also connect to SYNC's USB port with an Apple USB cable.</p>
<p>My phone is connected, but I still cannot find any apps.</p>	<p>AppLink-enabled apps are not installed and running on your mobile device.</p>	<p>Ensure you have downloaded and installed the latest version of the app from your phone's app store. Ensure the app is running on your phone. Some apps require you to register or</p>

## SYNC™ (If Equipped)

<b>AppLink issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
		login on the app on the phone before using them with AppLink. Also, some may have a "Ford SYNC" setting, so check the app's settings menu on the phone.
My phone is connected, my app(s) are running, but I still cannot find any apps.	Sometime apps do not properly close and re-open their connection to SYNC, over ignition cycles, for example.	<p>Closing and restarting apps may help SYNC find the application if you cannot discover it inside the vehicle.</p> <p>On an Android device, if apps have an "Exit" or 'Quit' option, select that then restart the app. If the app does not have that option, you can also manually "Force Close" the app by going to the phone's settings menu, selecting 'Apps.' then finding the particular app and choosing 'Force stop.' Don't forget to restart the app afterwards, then select "Find New Apps" on SYNC.</p> <p>On an iPhone with iOS7+, to force close an app, double tap the home button then swipe up on the app to close it. Tab the home button again, then select the app again to restart it. After a few seconds, the app should then appear in SYNC's Mobile App's Menu.</p>
My Android phone is connected, my app(s) are running, I restarted them, but I still cannot find any apps.	There is a Bluetooth bug on some older versions of the Android operating system that may cause apps that were found on your previous vehicle drive to not be found again if you have not turned off Bluetooth.	Reset the Bluetooth on your phone by turning it off and then turning Bluetooth back on. If you are in your vehicle, SYNC should be able to automatically re-connect to your phone if you press the "Phone" button.

## SYNC™ (If Equipped)

<b>AppLink issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
My iPhone phone is connected, my app is running, I restarted the app but I still cannot find it on SYNC.	The USB connection to SYNC may need to be reset.	Unplug the USB cable from the phone, wait a moment, and plug the USB cable back in to the phone. After a few seconds, the app should appear in SYNC's Mobile Apps Menu. If not, "Force Close" the application and restart it.
I have an Android phone. I found and started my media app on SYNC, but there is no sound or the sound is very low.	The bluetooth volume on the phone may be low.	Try increasing the Bluetooth volume of the device by using the device's volume control buttons which are most often found on the side of the device.
I can only see some of the AppLink apps running on my phone listed in SYNC's Mobile Apps Menu.	Some Android devices have a limited number of bluetooth ports apps can use to connect. If you have more AppLink apps on your phone than the number of available Bluetooth ports, you will not see all of your apps listed in SYNC's mobile apps menu.	Force close or uninstall the apps you do not want SYNC to find. If the app has a "Ford SYNC" setting, disable that setting in the app's settings menu on the phone.

<b>SYNC System Reset</b>
The SYNC system in your vehicle has System Reset feature that can be performed if the function of a SYNC feature is lost. This reset is intended to restore functionality and will not erase any information previously stored in the system (Such as paired devices, phonebook, call history, text messages, or user settings). To perform a System Reset, press and hold the Seek Up (>>) button while pressing and holding the Radio Power button. Release both buttons after 2-3 seconds. Please allow a few minutes for the reset to complete. After a few minutes has passed you can resume using the SYNC system.

## GENERAL INFORMATION



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

## Getting to Know Your System

The SYNC 3 system allows you to interact with a variety of features using the touchscreen and voice commands. By integrating with your Bluetooth enabled phone, the touchscreen provides easy interaction with audio, multimedia, climate control, navigation, and your phone's SYNC 3 compatible apps.

### Using the Touchscreen

To operate the touchscreen, you can simply touch the item or option that you want to select. The button changes color when you select it.

The SYNC 3 layout allows you to quickly select the feature you wish to use.



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## SYNCTM 3 (If Equipped)

Item	Menu Item	Action and Description
A	Status Bar	This bar displays icons and messages pertaining to current system activities including climate settings, voice commands and phone functions such as text messages.
B	Home	This button is available on the main screens. Pressing it takes you to the home screen view.
C	Clock	This shows the current time. You can set the clock manually or have it controlled by the vehicle's GPS location. See <b>Settings</b> (page 389).
D	Outside Temperature	This displays the current outside temperature.
E	Feature Bar	You can touch any of the buttons on this bar to select a feature.

The touchscreen allows you quick access to all of your comfort, navigation, communication and entertainment options. Using the status and feature bar you can quickly select the feature you want to use.

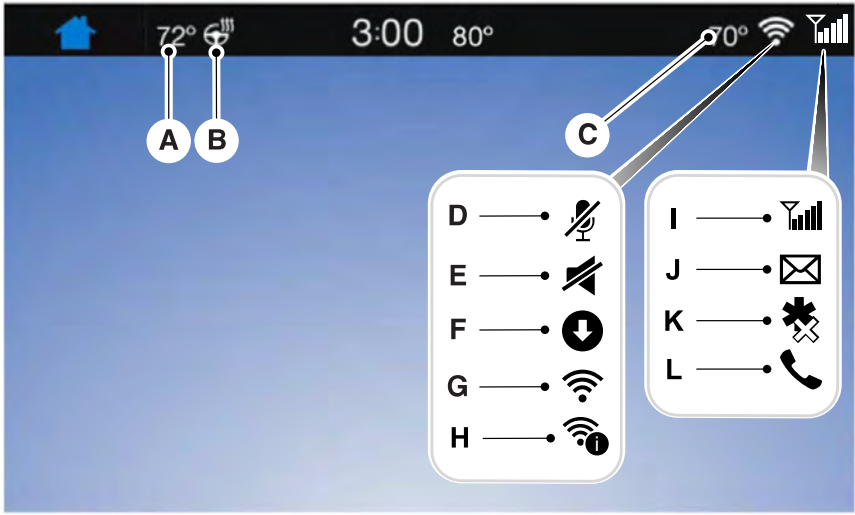
**Note:** *Your system is equipped with a feature that allows you to access and control audio features for 10 minutes after you switch the ignition off (and no doors open).*

### The Status Bar

Additional icons also display in the status bar depending on market, vehicle options and current operation. If a feature is not active, the icon does not display. Certain icons may move to the left or right depending on what options are active.



## SYNC™ 3 (If Equipped)



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Callout	Item	Description
A	Driver Temperature	This shows the temperature the driver selects through the climate control system.
B	Heated steering wheel (If equipped)	When you activate the heated steering wheel option on the touch screen, this icon displays. It only displays when there is not a physical button for the heated steering wheel.
C	Passenger Temperature	When the passenger's temperature has been adjusted and is no longer linked to the driver's temperature, it displays here. If Dual is turned off and the temperatures are linked, the passenger's temperature does not display.
D	Microphone Mute	This icon displays when your phone's microphone is muted. A caller cannot hear you.
E	Mute	This icon displays when the audio system is muted.

## SYNC™ 3 (If Equipped)

Callout	Item	Description
F	Download	This icon appears when SYNC 3 receives a software update. Pressing the icon shows more details about the new software.
G	Wi-Fi	This icon appears if a Wi-Fi network is connected.
H	Wi-Fi in Range	An available Wi-Fi network is within range.
I	Signal Strength	This icon displays the phone signal strength and the roaming signal strength.
J	Text Message	This icon displays when you receive a text message on your phone.
K	911 Assist Off	This icon displays when 911 Assist is set to off and your phone is connected to SYNC.
L	In-Call	This icon displays when a phone call is active.

Messages may also appear in the status bar to provide you with notifications. You can select the message to view the associated feature.

### Feature Bar

Feature Bar Item	Functions
Audio	Allows you to control the media playing in your vehicle. You can control all audio features including AM, FM and satellite radio, CDs, and media streaming over a Bluetooth device or through a USB connection.
Climate	Allows you to adjust the temperature, fan speed and airflow within the vehicle.
Phone	Allows you to make calls, receive calls, and access the phonebook of your connected device.
Navigation (If equipped)	Allows you to see your vehicle's location on a virtual road map, get driving directions to your destination and find points of interest along your route.

## SYNC™ 3 (If Equipped)

Feature Bar Item	Functions
Apps	Connect and control SYNC 3 compatible apps running on your iPhone or Android device. Also, access built-in additional features such as SiriusXM Traffic and Travel Link (if equipped).
	If your vehicle is a hybrid, plug-in hybrid, or electric this is also where your settings and power information is located.
Settings	You can customize your system with various settings for the touchscreen display, feature preferences, and how you want to interact with your vehicle.

### Cleaning the Touchscreen

You can remove fingerprints with a dry, clean, soft cloth.

If dirt or fingerprints are still on the screen, apply a small amount of alcohol to the cloth and try to clean it again.

**Note:** Do not use detergent or any type of solvent to clean the touchscreen.

**Note:** Do not pour or spray alcohol onto the touchscreen.

### Using Voice Recognition

Using voice commands allows you to keep your hands on the wheel and focus on what is in front of you. The system provides feedback through audible tones, prompts, questions and spoken confirmations depending on the situation and the chosen level of interaction (voice settings).

The system also asks short questions (confirmation prompts) when it is not sure of your request or when there are multiple possible responses to your request.

When using voice commands, words and icons may appear in the status bar indicating the status of the voice command session. See **Using Voice Recognition** (page 353).

### Accessing and Adjusting Modes Through Your Vehicle Information Display (If Equipped)

Depending on your vehicle and selected options you may be able to control some of the SYNC 3 features on your information display.

You can make the following adjustments using the information display SYNC 3 screen:

Option	Information
Entertainment	Information for current audio playing.
	Select source.
Navigation	View current road and speed limit (if information is available).

## SYNCTM 3 (If Equipped)

Option	Information			
	View current route, next turn, time to your destination (depending on cluster level), distance to destination (depending on cluster level), and ability to cancel route.			
	If you do not have an active navigation route programmed, the compass is shown.			
Phone	If you are not on a call, a call can be made by selecting: <sup>1</sup>			
	All calls	Incoming calls	Outgoing calls	Missed calls
	If you are on a call, the call information is displayed on the information display.			
	If you are receiving a call, you can accept it by selecting OK on the right-hand steering wheel controls.			

<sup>1</sup> Depending on your vehicle options, all of these choices may not display.

Use the **OK** and arrow buttons on the right side of your steering wheel to scroll through the available modes.

The selection menu expands and different options appear.

- Press the up and down arrows to scroll through the modes.
- Press the right arrow to enter the mode, use the left arrow to exit the mode.
- Press the up and down arrows to make adjustments within the chosen mode.
- Press **OK** to confirm your selection.

**Note:** *If your vehicle is not equipped with navigation, compass appears in the display instead of navigation. If you press the right arrow to go into the compass menu, you can see the compass graphic. The compass displays the direction in which the vehicle is traveling, not true direction (for example, if the vehicle is traveling west, the middle of the compass graphic displays west; north displays to the left of west though its true direction is to the right of west).*

### Using the Controls on the Steering Wheel

Depending on your vehicle and option package, you can use different controls on your steering wheel to interact with the touchscreen system in different ways.

**VOL:** Control the volume of audio output.

**Mute:** Mute the audio output.

**Voice:** Press to start a voice session. Press again to stop the voice prompt and immediately begin speaking. Press and hold to end a voice session.

#### SEEK NEXT:

- While in radio mode, press to seek between memory presets.
- While in USB, Bluetooth Audio or CD mode, press to seek between songs or press and hold to fast seek.

#### SEEK PREVIOUS:

- While in radio mode, press to seek between memory presets.
- While in USB, Bluetooth Audio or CD mode, press to seek between songs or press and hold to fast seek.

# SYNC™ 3 (If Equipped)

**PHONE ACCEPT:** Press to answer a call or switch between calls.

**PHONE REJECT:** Press to end a call or reject an incoming call.

**Note:** On some models, **SEEK NEXT** may be combined with **PHONE REJECT** and **SEEK PREVIOUS** may be combined with **PHONE ACCEPT**.

**M:** Touch the control repeatedly to switch between media sources (modes).

See **Steering Wheel** (page 63).

## Using the Controls on the Bezel

Depending on your vehicle and option package, you may also have these controls on your instrument panel:

- **Power:** Switch the audio system on and off.
- **VOL:** Control the volume of playing audio.
- **Seek** and **Tune:** Use as you normally would in audio modes.
- **Eject:** Eject a CD from the audio system.
- **SOURCE** or **MEDIA:** Press repeatedly to advance through available media modes.
- **SOUND:** Press to access the Sound menu where you can adjust sound and other audio settings.
- **1-6:** Press and hold to store or press to select an AM, FM or SIRIUS memory preset. See **Audio System** (page 312).
- **DISP:** Switch the display on or off. You can also touch the screen to switch the display back on.
- **Temperature, fan and climate control buttons:** Control the temperature, fan speed or settings of the climate control system. See **Climate Control** (page 108).

## 911 Assist (If Equipped)



**WARNING:** Unless the 911 Assist setting is set on before a crash, the system will not dial for help which could delay response time, potentially increasing the risk of serious injury or death after a crash.



**WARNING:** Do not wait for 911 Assist to make an emergency call if you can do it yourself. Dial emergency services immediately to avoid delayed response time which could increase the risk of serious injury or death after a crash. If you do not hear 911 Assist within five seconds of the crash, the system or phone may be damaged or non-functional.



**WARNING:** Always place your phone in a secure location in your vehicle so it does not become a projectile or get damaged in a crash. Failure to do so may cause serious injury to someone or damage the phone which could prevent 911 Assist from working properly.

**Note:** The SYNC 911 Assist feature must be set on before the incident.

**Note:** The SYNC 911 Assist feature only operates in the U.S., Canada or in a territory in which 911 is the emergency number.

**Note:** Before setting this feature on, make sure that you read the 911 Assist Privacy Notice later in this section for important information.

**Note:** If any user sets 911 Assist to on or off, that setting applies for all paired phones. If 911 Assist is switched off and the phone is connected to SYNC, an icon displays on the status bar.

## SYNC™ 3 (If Equipped)

**Note:** Every phone operates differently. While SYNC 911 Assist works with most cellular phones, some may have trouble using this feature.

If a crash deploys an airbag (excluding knee airbags and rear inflatable safety belts [if equipped]) or activates the fuel pump shut-off, your SYNC-equipped vehicle may be able to contact emergency services by dialing 911 through a paired and connected Bluetooth enabled phone. You can learn more about the 911 Assist feature, by visiting:

Website
<a href="http://www.owner.ford.com">www.owner.ford.com</a> <a href="http://www.syncmyride.ca">www.syncmyride.ca</a> <a href="http://www.syncmaroute.ca">www.syncmaroute.ca</a>

For important information about airbag deployment and the fuel pump shut-off please see the Supplementary Restraints and Roadside Emergencies sections of your owner manual.

To switch 911 Assist on and off please view the settings information. See **Settings** (page 389).

To make sure that 911 Assist works correctly:

- SYNC must be powered and working properly at the time of the incident and throughout feature activation and use.
- The 911 Assist feature must be set on before the incident.
- You must pair and connect a Bluetooth enabled and compatible cell phone to SYNC.
- A connected Bluetooth enabled phone must have the ability to make and maintain an outgoing call at the time of the incident.

- A connected Bluetooth enabled phone must have adequate network coverage, battery power and signal strength.
- The vehicle must have battery power and be located in the U.S., Canada or in a territory in which 911 is the emergency number.

### In the Event of a Crash

Not all crashes will deploy an airbag or activate the fuel pump shut-off (the triggers for 911 Assist). If a connected cell phone sustains damage or loses its connection to SYNC during a crash, SYNC will search for and try to connect to a previously paired cell phone; SYNC will then attempt to call the emergency services.

Before making the call:

- SYNC provides a short window of time (about 10 seconds) to cancel the call. If you fail to cancel the call, SYNC attempts to dial 911.
- SYNC says the following, or a similar message: "SYNC will attempt to call 911, to cancel the call, press Cancel on your screen or press and hold the phone button on your steering wheel."

If you do not cancel the call, and SYNC makes a successful call, a pre-recorded message plays for the 911 operator, and then the occupant(s) in your vehicle is able to talk with the operator. Be prepared to provide your name, phone number and location immediately, because not all 911 systems are capable of receiving this information electronically.

# SYNC™ 3 (If Equipped)

## 911 Assist May Not Work If

- Your cellular phone or 911 Assist hardware sustains damage in a crash.
- The vehicle's battery or the SYNC system has no power.
- The phone(s) thrown from your vehicle are the ones paired and connected to the system.

## 911 Assist Privacy Notice

When you switch on 911 Assist, it may disclose to emergency services that your vehicle has been in a crash involving the deployment of an airbag or activation of the fuel pump shut-off. Certain versions or updates to 911 Assist may also be capable of electronically or verbally disclosing to 911 operators your vehicle location or other details about your vehicle or crash to assist 911 operators to provide the most appropriate emergency services. If you do not want to disclose this information, do not switch the feature on.

## Safety Information



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

- Do not attempt to service or repair the system. Have an authorized dealer check your vehicle.
- Do not operate playing devices if the power cords or cables are broken, split or damaged. Place cords and cables out of the way, so they do not interfere with the operation of pedals, seats, compartments or safe driving abilities.
- Do not leave playing devices in your vehicle during extreme conditions as it could cause them damage. See your device's user guide for further information.
- For your safety, some SYNC 3 functions are speed-dependent. Their use is limited to when your vehicle is traveling at speeds under 3 mph (5 km/h). Make sure that you review your device's manual before using it with SYNC 3.

## Speed-restricted Features

Some features of this system may be too difficult to use while your vehicle is moving so they are restricted from use unless your vehicle is stationary.

- Screens crowded with information, such as Point of Interest reviews and ratings, SiriusXM Traffic and Travel Link sports scores, movie times or ski conditions.
- Any action that requires you to use a keyboard is restricted, such as entering a navigation destination or editing information.
- All lists are limited so the user can view fewer entries (such as phone contacts or recent phone call entries).

See the following table for more specific examples.

## SYNC™ 3 (If Equipped)

<b>Restricted features</b>	
Cellular Phone	Pairing a Bluetooth phone.
	Browsing of list entries is limited for phone contacts and recent phone calls.
System Functionality	Editing the keypad code.
	Enabling Valet Mode.
	Editing settings while the rear view camera or active park assist are active.
Wi-Fi	Editing Wi-Fi settings.
	Editing the list of wireless networks.
	Connecting to a new Wi-Fi network.
Text Messages	Viewing received text messages.
Navigation	Using the keyboard to enter a destination.
	Adding or editing Navigation Favorites entries or Avoid Areas.

### Creating a SYNC Owner Account

Why do I need a SYNC owner account?

- Essential for keeping up with the latest software and connected features.
- Access to customer support for any questions you may have.
- Maintain account permissions.

Visit the website to sign up and register.

<b>Website</b>
<a href="http://www.owner.ford.com">www.owner.ford.com</a> <a href="http://www.syncmyride.ca">www.syncmyride.ca</a>

<b>Website</b>
<a href="http://www.syncmaroute.ca">www.syncmaroute.ca</a>

### FordPass™ Connect (If Equipped)

With a FordPass-equipped vehicle, you can use FordPass to track your vehicle's location and remotely access vehicle features such as start, lock and unlock and vehicle status including fuel level and approximate mileage. You can also schedule specific times to remotely start your vehicle so it's ready to hit the road as soon as you are. FordPass is available through a free download via the Apple App Store® or Google Play™. Message and data rates may apply. Services may be limited by mobile phone network coverage area.



## Updating Your System

You can choose to download the update onto a USB drive or use Wi-Fi to deliver automatic updates.

### USB Updates

To use the USB update you need to log into your owner account and visit the SYNC software update page.

Website
www.owner.ford.com www.syncmyride.ca www.syncmaroute.ca

The website notifies you if an update is available. You can then select to download the update.

You will need an empty USB drive. Please check the website for minimum requirements. Once you have inserted the USB drive into your computer, choose to start the download. Follow the instructions provided to download the files to the USB drive.

The installation of most files occurs in the background, and does not interrupt your use of the system. Navigation updates cannot be installed in the background, because the files are too large.

To install the update in your vehicle, remove anything that is plugged in the USB ports on the media hub and plug in the USB drive containing the update. When the USB drive is plugged in, the installation should begin immediately. After a successful installation, the update is available the next time the vehicle is started.

Please reference the website for any further actions.

## Updating Over Wi-Fi

To update your System over Wi-Fi your vehicle must be connected to a Wi-Fi access point. Data rates may apply.

### To connect your system to Wi-Fi, select:

Menu Item	
Settings	
Wi-Fi	
Available Wi-Fi Networks	You can then select your Wi-Fi network. You may have to enter the security code if the network is secured. The system confirms when it has connected to the network.

You must also give the system permission to update automatically. Upon vehicle delivery, the System asks you if you would like to use the automatic update feature. If you agree to automatic updates, you can press OK to confirm. If this selection does not appear upon vehicle delivery you can access it through the General Settings. See **Settings** (page 389). You can also perform a master reset. See **SYNC™ 3 Troubleshooting** (page 403).

**If you would like to switch this feature on later, select:**

Menu Item	
Settings	
General	
Automatic System Updates	From this menu, you can enable automatic updates. If you have not done so already, the system prompts you to set up a Wi-Fi connection when you enable this feature.

When the system is connected via Wi-Fi and automatic updates are enabled, your system checks for software updates periodically. If a new version is available, it downloads at that time. Software downloads can take place for up to 30 minutes after you have switched your vehicle off. The updates do not interrupt the normal use of your SYNC 3 system. If a download does not complete for any reason, the download continues where it left off at the next Wi-Fi connected opportunity. Upon activation of an update, a banner displays on the touchscreen indicating the system update. Select the icon to see more detail. This icon displays for two ignition cycles.

**To switch this feature off:**

Menu Item	
Settings	
General	
Automatic System Updates	In this menu selection, you can change the selection for automatic updates to OFF.

## Customer Assistance

The SYNC support team is available to help you with any questions you are not able to answer on your own.

Monday-Saturday, 8:30am-8:00pm EST.

United States: 1-800-392-3673.

Canada: 1-800-565-3673.

Mexico: 01-800-719-8466.

Times are subject to change due to holidays.

## Privacy Information

When you connect a cellular phone to SYNC 3, the system creates a profile within your vehicle that links to that cellular phone. This profile helps in offering you more cellular features and operating more efficiently. Among other things, this profile may contain data about your cellular phone book, text messages (read and unread), and call history, including history of calls when your cell phone was not connected to the system. In addition, if you connect a media device, the system creates and retains an index of supported media content. The system also records a short diagnostic log of approximately 10 minutes of all recent system activity. The log profile and other system data may be used to improve the system and help diagnose any problems that may occur.

The cellular profile, media device index, and diagnostic log remain in your vehicle unless you delete them and are generally accessible only in your vehicle when the cellular phone or media player is connected.

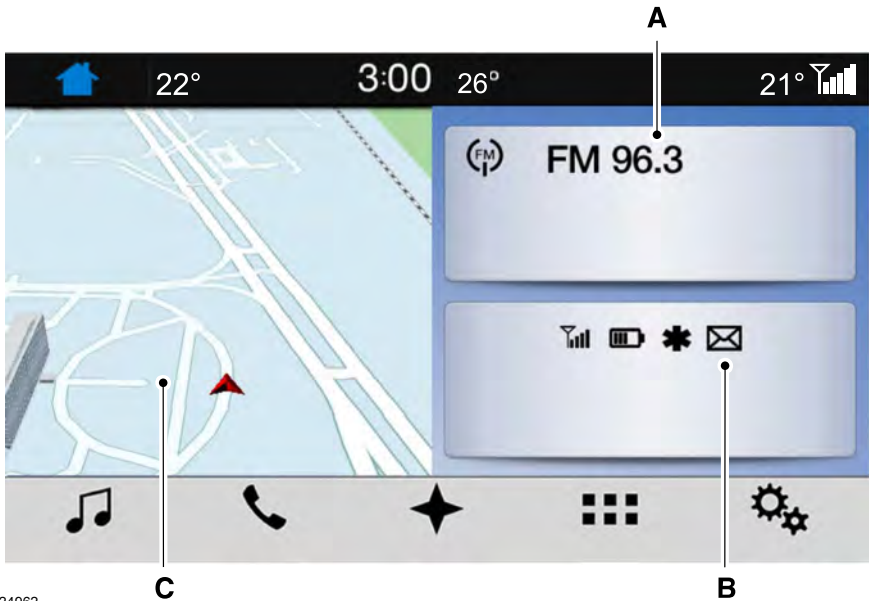
If you no longer plan to use the system or your vehicle, we recommend you perform a Master Reset to erase all stored information. You can find more information about the Master Reset in General Settings. See **Settings** (page 389). System

## SYNC™ 3 (If Equipped)

data cannot be accessed without special equipment and access to your vehicle's SYNC 3 module. Ford Motor Company, Ford of Canada and The Lincoln Motor Company do not access the system data for any purpose other than as described absent consent, a court order, or where

required by law enforcement, other government authorities, or other third parties acting with lawful authority. Other parties may seek to access the information independently of Ford Motor Company, Ford of Canada and The Lincoln Motor Company.

### HOME SCREEN



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Item	Title	Home screen display
A	Audio	Shows the active media source.

## SYNC™ 3 (If Equipped)

Item	Tile	Home screen display
		If your vehicle does not have navigation, this space contains the compass.
B	Phone	The name of the connected phone appears on the screen. The status of the phone features also appear. This includes signal strength, battery charge, text messaging and roaming.
C	Navigation *	This map displays your current location or current route in real time. When you have navigation active, you also see the next turn and the length of time and distance to your destination. If your vehicle does not have navigation, this space contains the audio information.

\* If equipped.

You can touch any of the feature displays to access that feature.

Anytime you select the home button, the system returns you to this screen.

### USING VOICE RECOGNITION

The SYNC 3 system allows you to use voice commands, to control features like audio and climate controls. By using voice commands, you can keep your hands on the wheel and your eyes on the road.

You can access each feature controlled by SYNC 3 through a variety of commands.



To activate the SYNC 3 voice commands push the voice button on the steering wheel and wait for the prompt.

\_\_\_ is a dynamic listing, meaning that it can be the name of anything, such as artist, the name of contact or number. The context and the description of the command tell you what to say for this dynamic option.

There are some commands that work for every feature, these commands are:

Voice Command	Action and Description
Main Menu	Brings you to the main menu.
Go back	Returns you to the previous screen.
Cancel	Ends the voice session.
List of Commands	Gives you a list of possible voice commands.
___ List of Commands	You can name any feature and the system gives a list of commands available for the feature. For example, you could say:

## SYNC™ 3 (If Equipped)

Voice Command	Action and Description
	Phone List of Commands
	Navigation List of Commands
Next Page	You can use this command to view the next page of options on any screen where multiple pages of choices are given.
Previous Page	You can use this command to view the previous page of options on any screen where multiple pages of choices are given.
Help	Gives you available commands you can use on the current screen.

Included here are some of the most popular commands for each SYNC 3 feature.

### Audio Voice Commands

\_\_\_ is a dynamic listing, meaning that for audio voice commands it can be the name of a Sirius channel or a channel number, a radio frequency number, or the name of an artist, album, song or a genre.

**To control the media features, press the voice button and when prompted, say:**

Voice command	Description
Sirius Channel ___ <sup>1</sup>	You can say the Sirius channel name or number such as "Sirius channel 16".
You can also turn to a Sirius channel by saying the channel's name, such as "The Pulse".	
AM ___ FM ___	Allows you to tune to a specific FM or AM frequency such as "FM 88.7" or "AM 1580".
FM ___ HD ___ <sup>1</sup>	Allows you to tune to a specific HD frequency such as "FM 88.7 HD 1".
Bluetooth Audio	Allows you to listen to music on your Bluetooth connected device.
USB	Allows you to listen to music on your USB connected device.
Play Genre ___ Play Playlist ___ Play Artist ___ Play Album ___	For USB audio only, you can say the name of an artist, album, song or a genre to listen to that selection. Your system must finish indexing before this option is available. For example, you could say "Play artist, The Beatles" or "Play song, Penny Lane".

## SYNC™ 3 (If Equipped)

Voice command	Description
Play Podcast ___ Play Song ___ Play Audiobook ___	
Browse ___	For USB audio only, you can say the name of an artist, album, or a genre to browse by that selection. Your system must finish indexing before this option is available. For example you can say "Browse The Beatles" or "Browse folk".

<sup>1</sup> This option may not be available in all markets or may require a subscription.

### Climate Voice Commands

You can control the temperature of the vehicle using voice commands.

\_\_\_ is a dynamic listing, meaning that for climate voice commands it can be the desired degrees for the temperature setting.

#### To adjust the temperature, say:

Voice command	Description
Set Temperature ___	Adjust the temperature between 60–85°F (15.5–29.5°C).

### Phone Voice Commands

#### Pairing a Phone

You can use voice commands to connect your Bluetooth enabled phone to the system.

#### To pair your phone, press the voice button and when prompted, say:

Voice command	Description
Pair Phone	Follow the on-screen instructions to complete the pairing process. See <b>Settings</b> (page 389).

### Making Calls

\_\_\_ is a dynamic listing, meaning that for phone voice commands it can be the name of the contact you wish to call or the digits you want to dial.

# SYNC™ 3 (If Equipped)

**Press the voice button and say a command similar to the following:**

Voice command	Description
Call ___	Allows you to call a specific contact from your phonebook such as "Call Jenny".
Call ___ at ___	Allows you to call a specific contact from your phonebook at a specific location such as "Call Jenny at Home".
Dial ___	Allows you to dial a specific number such as "Dial 867-5309".

Please make sure that you are saying the contact name exactly as it appears in your contact list.

**Once you have provided the digits of the phone number, you can say the following commands:**

Voice Command	Description
<0-9>	If you did not enter the full number with the first command, you can continue saying the number.
Dial	Tells SYNC 3 to make the phone call.
Delete	Tells SYNC 3 to erase the last block of digits you state.
Clear	Tells SYNC 3 to erase the entire number.

## Text Message Voice Commands

**To access text message options, press the voice button and say:**

Voice command	Description
Listen to Message	
Listen to text message ___	You can say the number of the message you would like to hear.
Reply to Message	

# SYNCTM 3 (If Equipped)

## Navigation Voice Commands (If Equipped)

### Setting a Destination

You can use any of the following commands to set a destination or find a

point of interest.

\_\_\_ is a dynamic listing, meaning that for navigation voice commands it can be a POI category or a major brand name, where major brand name is a chain with more than 20 locations

### You can find an address, a point of interest (POI), or search for points of interest by category:

Voice command	Description
Find an Address	Allows you to enter the address search functionality. You can also search for an address in a specific state or province.
Find a ___	State the name of the POI category or major brand name you would like to search for such as "Find restaurants".
Find a POI	Allows you to enter the POI search functionality.
Find an Intersection	Allows you to enter the intersection search functionality.
Find the Nearest <POI Category>	State the name of a POI category or major brand name you would like to search for.
Show Previous Destinations	Allows you to see a list of your previous destinations.
Show Favorites	Allows you to see a list of your favorite destinations.
Drive Home	Allows you to route to your home address.
Drive to Work	Allows you to route to your work address.

### In addition, you can say these commands when a route is active:

Voice command	Description
Cancel Route	Cancels the current route.
Detour	Allows you to select an alternate route.
Repeat Instruction	Repeats the last guidance prompt.
Show Route	Displays the active route.
Route Summary	Displays the list of upcoming maneuvers.



## SYNC™ 3 (If Equipped)

Voice command	Description
Where Am I	Provides current location.
Zoom in	Allows you to zoom in on the map.
Zoom out	Allows you to zoom out from the map.

### Mobile App Voice Commands (If Equipped)

The following voice commands are always available:

Voice command	Description
Mobile Apps	SYNC 3 will prompt you to say the name of an app to start it on SYNC 3.
List Mobile Apps	SYNC 3 will list all of the currently available Mobile Apps.
Find Mobile Apps	SYNC 3 will search and connect to compatible app(s) running on your mobile device.

There are also voice commands that you can use when app(s) are connected to SYNC 3:

Voice command	Description
Say the name of an app	At any time, you can say the name of a mobile app to start the mobile app on SYNC 3.
Say the name of an app, followed by help	SYNC 3 will list the available voice commands for the specified app if the app is running on SYNC 3.

### SiriusXM Traffic and Travel Link Voice Commands (If Equipped)

SiriusXM Traffic and Travel Link may not be available in all markets. Activation and a subscription are required.

## SYNC™ 3 (If Equipped)

### You can say the following commands to access SiriusXM Traffic and Travel Link:

Voice command	Description
Show Traffic	Displays a list of traffic incidents.
Show Weather Map	Displays the current weather map.
Show Fuel Prices	Displays a list of fuel prices.
Show 5 Day Forecast	Displays the 5 day weather forecast.
Help	

### Voice Settings Commands

#### You can say the following commands to access the voice settings:

Voice command	Description
Voice Settings	Allows you to enter the voice settings functionality.
Interaction Mode Standard	Sets standard prompting with longer prompts.
Interaction Mode Advanced	Sets advanced prompting with shorter prompts.
Call Confirmation On	Allows the system to confirm before making a phone call.
Call Confirmation Off	The system does not confirm before placing a call.
Voice Command Lists On	The system displays a short list of available commands.
Voice Command Lists Off	The system does not display the list of commands.

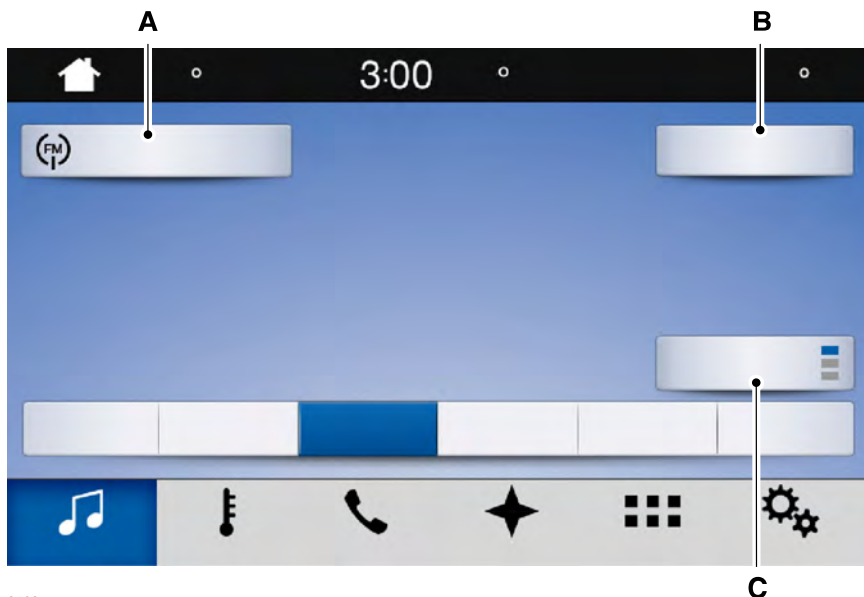
You can use the volume control to adjust the volume of the system voice prompts. While prompt is active, adjust the volume control up or down to your desired setting.

**Note:** Depending on the current climate control settings, the fan speed may automatically go down while issuing voice commands or while making and receiving phone calls via SYNC to reduce the amount of background noise in the vehicle. The fan speed will automatically return to normal operation once the voice session ends. You can adjust the fan speed during a voice session, simply press the fan buttons (or turn the fan knob) to increase or decrease the fan speed to the setting you prefer.

## SYNC™ 3 (If Equipped)

To disable this automatic fan speed reduction feature during voice sessions, press and hold the climate control AC and Recirculated air buttons simultaneously, release and then increase fan speed within 2 seconds. To re-enable this feature, repeat the above sequence.

### ENTERTAINMENT



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Message	Message and Description
A	Sources
B	Direct Tune
C	Presets

# SYNC™ 3 (If Equipped)

**Note:** Your vehicle may allow you to save presets from different audio sources on the same page.

You can access these options using the touchscreen or voice commands.

## Sources

Press this button to select the source of media you want to listen to.

Menu Item	
AM	
FM	
SIRIUS	<sup>1</sup>
CD	<sup>1</sup>
USB	The name of the USB that is plugged in displays here.
Bluetooth Stereo	
Apps	If you have SYNC 3 compatible apps on your connected smart phone, they display here as individual source selections.

<sup>1</sup> This feature may not be available in all markets and requires an active subscription.

## AM/FM Radio

### Tuning a Station

You can use the tune or seek controls on the radio bezel to select a station.

### To tune a station using the touchscreen, select:

Menu Item
Direct Tune

A pop up appears, allowing you to type in the frequency of a station. You can only enter a valid station for the source you are currently listening to.

You can press the backspace button to delete the previously entered number.

### Once you have entered the station's call numbers, you can select:

Menu Item	Action and Description
Enter	Press to begin playing the station you have entered.
Cancel	Press to exit without changing the station.

## Presets

To set a new preset, tune to the station and then press and hold one of the memory preset buttons. The audio mutes briefly while the system saves the station and then returns.

## SYNC™ 3 (If Equipped)

There are two preset banks available for AM and three banks for FM. To access additional presets, tap the preset button. The indicator on the preset button shows which bank of presets you are currently viewing.

### SiriusXM® Satellite Radio (If Activated)

**Note:** *This feature may not be available in all markets and requires an active subscription.*



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SiriusXM satellite radio is a subscription-based satellite radio service that broadcasts a variety of music, sports, news, weather, traffic and entertainment programming. Your factory-installed SiriusXM satellite radio system includes hardware and a limited subscription term that begins on the date of sale or lease of your vehicle. See an authorized dealer for availability.

For more information on extended subscription terms (a service fee is required), the online media player and a list of SiriusXM satellite radio channels, and other features, please visit [www.siriusxm.com](http://www.siriusxm.com) in the United States, [www.siriusxm.ca](http://www.siriusxm.ca) in Canada, or call SiriusXM at 1-888-539-7474.

**Note:** *SiriusXM reserves the unrestricted right to change, rearrange, add or delete programming. This includes canceling, moving or adding particular channels, and its prices, at any time, with or without notice to you. We are not responsible for any such programming changes.*

**Note:** *This receiver includes the eCos real-time operating system. eCos is published under the eCos License.*

### The following buttons are available for SiriusXM:

Menu Item	Action and Description	
Browse	Touch this button to see a list of available stations.	
Direct Tune	A pop-up appears, allowing you to type in the call numbers of a station. Once you enter the stations call numbers, you can select:	
	Enter	The system tunes to the station you select.
	Cancel	You exit the pop-up and the current station continues to play.
	You can press the backspace button to delete the previous number.	

## SYNC™ 3 (If Equipped)

Menu Item	Action and Description	
Replay	Replay audio on the current channel. You can replay approximately 45 minutes of audio as long as you remain tuned to the current station. Changing stations erases the previous audio.	
	Live	When you are in replay mode, you are not able to select a different preset until you return to live audio. Pressing this button returns you to the live broadcast.
ALERT	Save the current song, artist, or team as a favorite. The system alerts you when it plays again on any channel. Selecting this button allows you to enable and edit alerts. See <b>Settings</b> (page 389).	

### Memory Presets

To set a preset, tune to the station then press and hold one of the memory preset buttons. The audio mutes briefly while the system saves the station and returns once the station is stored.

There are three preset banks available for SiriusXM. To access additional presets, tap the preset button. The indicator on the preset button shows which bank of presets you are currently viewing.

### Satellite Radio Electronic Serial Number (ESN)

You need your ESN to activate, modify or track your satellite radio account. See **Settings** (page 389).

### SiriusXM Satellite Radio Reception Factors and Troubleshooting

Potential Reception Issues	
Antenna obstructions	For optimal reception performance, keep the antenna clear of snow and ice build-up and keep luggage and other materials as far away from the antenna as possible.
Terrain	Hills, mountains, tall buildings, bridges, tunnels, freeway overpasses, parking garages, dense tree foliage and thunderstorms can interfere with your reception.
Station overload	When you pass a ground-based broadcast-repeating tower, a stronger signal may overtake a weaker one and the audio system may mute.
Satellite radio signal interference	Your display may show ACQUIRING... to indicate the interference and the audio system may mute.

## SYNC™ 3 (If Equipped)

Troubleshooting Tips		
Message	Cause	Action
Acquiring Signal	Radio requires more than two seconds to produce audio for the selected channel.	No action required. This message should disappear shortly.
Satellite antenna fault SIRIUS system failure	There is an internal module or system failure present.	If this message does not clear shortly, or with an ignition key cycle, your receiver may have a fault. See an authorized dealer for service.
Invalid Channel	The channel is no longer available.	Tune to another channel or choose another preset.
Unsubscribed Channel	Your subscription does not include this channel.	Contact SiriusXM at 1-888-539-7474 to subscribe to the channel, or tune to another channel.
Satellite acquiring signal...	The signal is lost from the SiriusXM satellite or SiriusXM tower to your vehicle antenna.	The signal is blocked. When you move into an open area, the signal should return.
Updating...	Update of channel programming in progress.	No action required. The process may take up to three minutes.
Questions? Call 1-888-539-7474	Your satellite service is no longer available.	Contact SiriusXM at 1-888-539-7474 to resolve subscription issues.
None found. Check channel guide.	All the channels in the selected category are either skipped or locked.	Use the channel guide to turn off the Lock or Skip function on that station.
SIRIUS Subscription updated	SiriusXM has updated the channels available for your vehicle.	No action required.

### HD Radio™ Information (If Available)

**Note:** This feature may not be available in all markets.

To activate HD radio, please see the Radio Settings in the Settings Chapter. See **Settings** (page 389).

**Note:** HD Radio broadcasts are not available in all markets.

## SYNCTM 3 (If Equipped)

HD Radio technology is the digital evolution of analog AM/FM radio. Your system has a special receiver that allows it to receive digital broadcasts (where available) in addition to the analog broadcasts, it already receives. Digital broadcasts provide a better sound quality than analog broadcasts with free, crystal-clear audio and no static or distortion. For more information, and a guide to available stations and programming, please visit:

<b>Website</b>
<a href="http://www.hdradio.com">www.hdradio.com</a>

When HD Radio is on and you tune to a station broadcasting HD Radio technology, you may notice the following indicators on your screen:



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The HD logo is grey when acquiring a digital station, and then changes to orange when digital audio is playing. When this logo is available, you may also see Title and Artist fields on-screen.

The multicast indicator appears in FM mode (only) if the current station is broadcasting multiple digital broadcasts. The highlighted numbers signify available digital channels where new or different content is available. HD1 signifies the main programming status and is available in analog and digital broadcasts. Other multicast stations (HD2 through HD7) are only available digitally.

**Note:** *There is also an additional feature for stations that have more than 1 HD multicast (For example, HD1 or HD2). The HD logo and Radio text appears as a button. Pressing this button allows you to cycle through all of the HD stations on that specific frequency. For example, if you are on 101.1 and it has HD1, HD2, HD3, pressing the button repeatedly causes the radio to cycle through the HD stations in a cyclic increasing order.*

### When HD Radio broadcasts are active, you can access the following functions:

Message	Action and Description
Presets	Allows you to save an active channel as a memory preset. Touch and hold a memory preset slot until the sound returns. There is a brief mute while the radio saves the station. Sound returns when the channel saves. When switching to an HD2 or HD3 memory preset, the sound mutes before the digital audio plays, because the system has to reacquire the digital signal.

**Note:** *As with any station you save, you cannot access the saved station if your vehicle is outside the station's reception area.*



# SYNC™ 3 (If Equipped)

## HD Radio Reception and Station Troubleshooting

Potential Reception Issues	
Reception area	<p>If you are listening to a multicast station and you are on the fringe of the reception area, the station may mute due to weak signal strength.</p> <p>If you are listening to HD1, the system changes back to the analog broadcast until the digital broadcast is available again. However, if you are listening to any of the possible HD2-HD7 multicast channels, the station mutes and stays muted unless it is able to connect to the digital signal again.</p>
Station blending	<p>When the system first receives a station (aside from HD2-HD7 multicast stations), it first plays the station in the analog version. Once the receiver verifies the station is an HD Radio station, it shifts to the digital version. Depending on the station quality, you may hear a slight sound change when the station changes from analog to digital. Blending is the shift from analog to digital sound or digital back to analog sound.</p>

In order to provide the best possible experience, use the contact form to report any station issues found while listening to a station broadcasting with HD Radio technology. Independent entities own and operate each station. These stations are responsible for ensuring all audio streams and data fields are accurate.

Potential Station Issues		
Issues	Cause	Action
Echo, stutter, skip or repeat in audio. Increase or decrease in audio volume.	This is poor time alignment by the radio broadcaster.	No action required. This is a broadcast issue.
Sound fading or blending in and out.	The radio is shifting between analog and digital audio.	No action required. The reception issue may clear up as you continue to drive.
There is an audio mute delay when selecting HD2 or HD3, multicast preset or Direct Tune.	The digital multicast is not available until the HD Radio broadcast is decoded. Once decoded, the audio is available.	No action required. This is normal behavior. Wait until the audio is available.

## SYNCTM 3 (If Equipped)

Potential Station Issues		
Issues	Cause	Action
Cannot access HD2 or HD3 multicast channel when recalling a preset or from a direct tune.	The previously stored multicast preset or direct tune is not available in your current reception area.	No action required. The station is not available in your current location.
Text information does not match currently playing audio.	Data service issue by the radio broadcaster.	Fill out the station issue form. <sup>1</sup>
There is no text information shown for currently selected frequency.	Data service issue by the radio broadcaster.	Fill out the station issue form. <sup>1</sup>

<sup>1</sup> You can find the form here:

Website
<a href="http://hdradio.com/stations/feedback">http://hdradio.com/stations/feedback</a>

HD Radio Technology manufactured under license from iBiquity Digital Corporation and foreign patents. HD Radio and the HD and HD Radio logos are proprietary trademarks of DTS. The vehicle manufacturer and DTS are not responsible for the content sent using HD Radio technology. Content may be changed, added or deleted at any time at the station owner's discretion.

### CD (If equipped)

Once you select this option, the system returns you to the main audio screen.

The current audio information appears on the screen.

### The following buttons are also available:

Button	Function
Browse	You can use the browse button to select a track.
Repeat	Select this button and a small number one displays to indicate the track is set to repeat.

## SYNC™ 3 (If Equipped)

Button	Function
	For MP3 CDs, this button allows you to toggle through repeat off, repeat one track (a small number one displays), and repeat current folder (a small folder displays).
Shuffle	Select the shuffle symbol to have the audio on the disk play in random order.

You can use the forward, reverse, pause or play buttons to control the audio playback.

### Bluetooth Stereo or USB

Bluetooth Stereo and USB allow you to access media that you store on your Bluetooth device or USB device such as music, audio books or podcasts.

### The following buttons are available for Bluetooth and USB:

Button	Function
Repeat	Pressing the repeat button toggles the repeat setting through three modes: repeat off (button not highlighted), repeat all (button highlighted) and repeat track (button highlighted with a small number one).
Shuffle	Play the tracks in random order.

You can use the forward, reverse, pause or play buttons to control the audio playback.

To get more information about the currently playing track, press the cover art or Info button.

For some devices, SYNC 3 is able to provide 30-second skip buttons when you listen to audio books or podcasts. These buttons allow you to skip forward or backward within a track.

While playing audio from a USB device you can look for certain music by selecting the following:

Button	Function
Browse	If available, displays the list of tracks in the Now Playing playlist.
New Search	This option, which is available under browse, allows you to play all tracks or to filter the available media into one of the below categories.
	Play All

## SYNCTM 3 (If Equipped)

Button	Function
	Playlists
	Artist
	Albums
	Songs
	Genres
	Podcasts
	Audio books
	Composers
A-Z Jump	This button allows you to choose a specific letter to view within the category you are browsing.
Explore Device	If available, this allows you to browse the folders and files on your USB device.

### USB Ports



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The USB ports are in the center console or behind a small access door in the instrument panel.

This feature allows you to plug in USB media devices, memory sticks, flash drives or thumb drives, and charge devices if they support this feature.

Select this option to play audio from your USB device.

### Apps

The system supports the use of certain audio apps such as iHeartRadio through a USB or Bluetooth enabled device.

Each app gives you different on-screen options depending on the app's content. See **Apps** (page 386).

### Supported Media Players, Formats and Metadata Information

The system is capable of hosting nearly any digital media player, including iPod, iPhone, and most USB drives.

Supported audio formats include MP3, WMA, WAV, AAC, and FLAC.

Supported audio file extensions include MP3, WMA, WAV, M4A, M4B, AAC, and FLAC.

## SYNC™ 3 (If Equipped)

Supported USB file systems include: FAT, exFAT, and NTFS.

SYNC 3 is also able to organize the media from your USB device by metadata tags. Metadata tags, which are descriptive software identifiers embedded in the media files, provide information about the file.

If your indexed media files contain no information embedded in these metadata tags, SYNC 3 may classify the empty metadata tags as unknown.

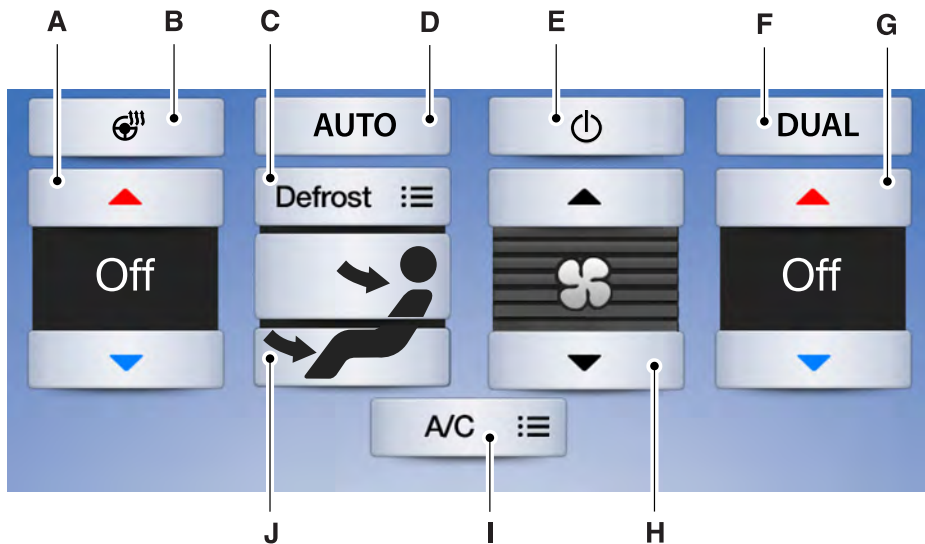
SYNC 3 is capable of indexing up to 50,000 songs per USB device, for up to 10 devices.

## CLIMATE

Climate is optional for your vehicle.

Touch the climate button on the touchscreen to access your climate control features. Depending on your vehicle line and option package, your climate screen may look different from one of the screens shown below. Your screen may not contain all of the features shown.

**Note:** You can switch temperature units between Fahrenheit and Celsius. See **Settings** (page 389).



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## SYNCTM 3 (If Equipped)

Callout	Item	Description	
A	Left-hand front seat temperature:	Touch up or down to adjust the temperature.	
B	Heated steering wheel:	Touch the heated steering wheel icon to switch the heated steering wheel on and off (if equipped).	
C	Defrost	A pop up appears on the screen to display the defrost options.	
		MAX Defrost:	Touch the button to maximize defrosting. Outside air flows through the windshield vents, the fan automatically adjusts to the highest speed and the temperature dial returns to the full heat position. You can use this setting to defog or clear a thin covering of ice from the windshield. The heated rear window also automatically turns on when you select MAX Defrost. Touch this button again to return to the previous airflow selection.
		Defrost	Touch to clear the windshield of fog and thin ice. Touch again to return to the previous airflow selection. When on, defrost provides outside air to reduce window fogging and distributes air through the windshield defroster vents and demister vents. <b>Note:</b> To prevent window fogging, you cannot select recirculated air when Defrost is on.
D	AUTO	Touch the button to switch on automatic operation. Select the desired temperature using the temperature control. The system adjusts fan speed, air distribution, air conditioning operation, and selects outside air or recirculated air to heat or cool the vehicle in order to maintain the desired temperature.	
E	Power	Touch the button to switch the system on and off. Switching off the climate control system prevents outside air from entering the vehicle.	

## SYNC™ 3 (If Equipped)

Callout	Item	Description						
F	DUAL	This button lights up when the passenger controls are active. To switch the dual zone operation off and link the passenger temperature to the driver temperature, touch the DUAL button to switch it off.						
G	Right-hand front seat temperature	Touch up or down to adjust the temperature.						
H	Fan speed	Touch up or down to increase or decrease the volume of air circulated in your vehicle.						
I	A/C	A popup appears on the screen to display the air conditioning options.						
		<table border="1"> <tr> <td>MAX A/C</td> <td>Touch to cool your vehicle with recirculated air. Touch again for normal A/C operation. MAX A/C distributes air through instrument panel vents and may help reduce odors from entering your vehicle. MAX A/C is more economical and efficient than normal A/C mode.</td> </tr> <tr> <td>A/C</td> <td>Touch to switch the air conditioning on or off. Use A/C with recirculated air to improve cooling performance and efficiency. A/C engages automatically in MAX A/C, defrost and footwell/defrost</td> </tr> <tr> <td>Recirculated air:</td> <td>Touch to switch the recirculated air on or off which may reduce the amount of time needed to cool down the interior and help reduce odors from reaching the interior. Recirculated air also engages automatically when you select MAX A/C. You can engage this manually in any airflow mode except defrost. It may also turn off in all airflow modes except MAX A/C to reduce fog potential.</td> </tr> </table>	MAX A/C	Touch to cool your vehicle with recirculated air. Touch again for normal A/C operation. MAX A/C distributes air through instrument panel vents and may help reduce odors from entering your vehicle. MAX A/C is more economical and efficient than normal A/C mode.	A/C	Touch to switch the air conditioning on or off. Use A/C with recirculated air to improve cooling performance and efficiency. A/C engages automatically in MAX A/C, defrost and footwell/defrost	Recirculated air:	Touch to switch the recirculated air on or off which may reduce the amount of time needed to cool down the interior and help reduce odors from reaching the interior. Recirculated air also engages automatically when you select MAX A/C. You can engage this manually in any airflow mode except defrost. It may also turn off in all airflow modes except MAX A/C to reduce fog potential.
	MAX A/C	Touch to cool your vehicle with recirculated air. Touch again for normal A/C operation. MAX A/C distributes air through instrument panel vents and may help reduce odors from entering your vehicle. MAX A/C is more economical and efficient than normal A/C mode.						
A/C	Touch to switch the air conditioning on or off. Use A/C with recirculated air to improve cooling performance and efficiency. A/C engages automatically in MAX A/C, defrost and footwell/defrost							
Recirculated air:	Touch to switch the recirculated air on or off which may reduce the amount of time needed to cool down the interior and help reduce odors from reaching the interior. Recirculated air also engages automatically when you select MAX A/C. You can engage this manually in any airflow mode except defrost. It may also turn off in all airflow modes except MAX A/C to reduce fog potential.							
J	Manual airflow distribution controls	Select these controls individually, together, or with Defrost to direct the air flow to the area you desire.						
	Panel	Distributes air through the instrument panel vents.						
	Floor	Distributes air through the demister vents, floor vents and rear seat floor vents.						

## PHONE

 <b>WARNING:</b> Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.
--

Hands-free calling is one of the main features of the system. Once you pair your cell phone, you can access many options using the touchscreen or voice commands. While the system supports a variety of features, many are dependent on your cell phone's functionality.

### Pairing Your Cell Phone for the First Time

Pair your Bluetooth enabled phone with the system before using the functions in hands-free mode.

Switch on Bluetooth on your device to begin pairing. See your phone's manual if necessary.

#### To add a phone, select:

Menu Item
Add a Bluetooth Device

1. Follow the on-screen instructions.
2. A prompt alerts you to search for the system on your phone.
3. Select your vehicle on your phone.

4. Confirm that the six-digit number appearing on your phone matches the six-digit number on the touchscreen.
5. The touchscreen indicates when the pairing is successful.
6. Your phone may prompt you to give the system permission to access information. To check your phone's compatibility, see your phone's manual or visit the website.

#### Alternatively, to add a phone, select:

Menu Item
Add a Bluetooth Device
<b>Then select:</b>
Discover Other Bluetooth Devices

1. Follow the on-screen instructions.
2. Select your phone's name when it appears on the touchscreen.
3. Confirm that the six-digit number appearing on your phone matches the six-digit number on the touchscreen.
4. The touchscreen indicates when the pairing is successful.
5. Your phone may prompt you to give the system permission to access information. To check your phone's compatibility, see your phone's manual or visit the website.

At a minimum, most cell phones with Bluetooth wireless technology support the following functions:

- Answering an incoming call.
- Ending a call.
- Dialing a number.
- Call waiting notification.
- Caller identification.

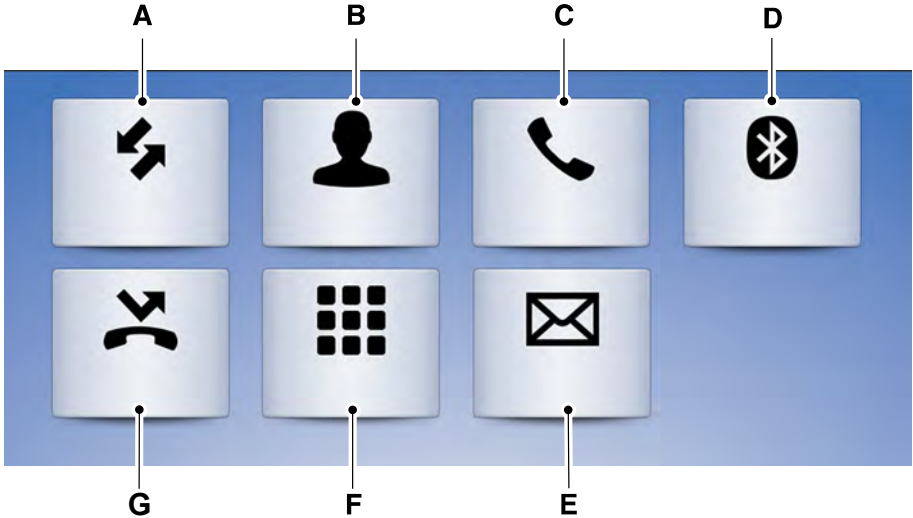


## SYNC™ 3 (If Equipped)

Other features, such as text messaging using Bluetooth and automatic phonebook download, are phone-dependent features.

### Phone Menu

This menu becomes available after pairing a phone.



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Item	Menu Item	Action and Description			
A	Recent Call List	Displays your recent calls. You can place a call by selecting an entry from this list. You can also sort the calls by selecting the drop down menu at the top of the screen. You can choose:			
		All	Incoming	Outgoing	Missed
B	Contacts	All of your contacts from your phone display in alphabetical order.			
		A-Z Jump		Selecting this button allows you to choose a specific letter to view.	

## SYNC™ 3 (If Equipped)

Item	Menu Item	Action and Description
C	Phone Settings	Displays the name of your phone and takes you to the phone settings options. From this menu, you can pair subsequent devices, set ring tones and alerts.
D	Change Device	Gives you access to the list of paired or connected Bluetooth devices allowing you to change or select a device.
E	Text Messages	Displays all recent text messages.
F	Phone Keypad	Use this keypad to dial in a phone number. Use the backspace button to delete numbers.
		Call
G	Do Not Disturb	Touch this button to reject all incoming calls automatically. Text message notifications do not display on the screen. All ringtones and alerts are set to silent.

Users with phones having voice services may see a button to access the feature. For example, iPhone users see a Siri button. A press and hold of the voice button on the steering wheel also accesses this feature.

### Making Calls

There are many ways to make calls from the SYNC 3 system, including using voice commands. See **Using Voice Recognition** (page 353). You can use the touchscreen to place calls as well.

# SYNC™ 3 (If Equipped)

## To call a number in your contacts, select:

Menu Item	Action and Description
Contacts	You can then select the name of the contact you want to call. Any numbers stored for that contact display along with any stored contact photos. You can then select the number that you want to call. The system begins the call.

## To call a number from your recent calls, select:

Menu Item	Action and Description
Recent Call List	You can then select an entry that you want to call. The system begins the call.

## To call a number that is not stored in your phone, select:

Menu Item	Action and Description
Phone Keypad	Select the digits of the number you wish to call.
Call	The system begins the call.

Pressing the backspace button deletes the last digit you typed.

## Receiving Calls

During an incoming call, an audible tone sounds. Caller information appears in the display if it is available.

## To accept the call, select:

Menu Item
Accept

**Note:** You can also accept the call by pressing the phone button on the steering wheel.

## To reject the call, select:

Menu Item
Reject

**Note:** You can also reject the call by pressing the phone button on the steering wheel.

Ignore the call by doing nothing. SYNC 3 logs it as a missed call.

## During a Phone Call

During a phone call, the contacts name and number display on the screen along with the call duration.

The phone status items are also visible:

- Signal Strength.
- Battery.

You can select any of the following during an active phone call:

## SYNC™ 3 (If Equipped)

Item	
End Call	Immediately end a phone call. You can also press the button on the steering wheel.
Keypad	Press this to access the phone keypad.
Mute	You can switch the microphone off so the caller does not hear you.

Item	
Privacy	Transfer the call to the cell phone or back to SYNC 3.

### Text Messaging

**Note:** Downloading and sending text messages using Bluetooth are cell phone-dependent features.

**Note:** Certain features in text messaging are speed-dependent and not available when your vehicle is traveling at speeds over 3 mph (5 km/h).

### Receiving a Text Message

**When a new message arrives, an audible tone sounds and the screen displays a pop-up with the sender name and ID, if supported by your cell phone. You can select:**

Menu Item	Action and Description
Hear It	Have SYNC 3 read the message to you.
View	View the text on the touchscreen.
Call	To call the sender.
Reply	You can select from 15 preset messages. Press the message that you would like to use and confirm to send the message. SYNC 3 confirms when the message is sent successfully.
Close	To exit the screen.

### Smartphone Connectivity (If Equipped)

SYNC 3 allows you to use Apple CarPlay and Android Auto to access your phone.

When you use Apple CarPlay or Android Auto, you can:

- Make calls.
- Send and receive messages.
- Listen to music.
- Use your phone's voice assistant.

Apple CarPlay and Android Auto disable some SYNC 3 features.

Most Apple CarPlay and Android Auto features use mobile data.

#### Apple CarPlay

Apple CarPlay requires an iPhone 5 or newer with iOS 7.1 or newer. Updating to the latest iOS version is recommended.

1. Plug your phone into a USB port. See **USB Port** (page 321).

## SYNC™ 3 (If Equipped)

2. Follow the prompts on the touchscreen.
3. Follow the prompts that appear on your phone to allow access to Apple CarPlay.

After completing the setup, your phone connects to CarPlay automatically when plugged into a USB port.

### To disable this feature from the Settings screen, select:

Menu Item
Apple CarPlay Preferences
Your device is listed if SYNC detects Apple CarPlay. Select the name of your device and set the Apple CarPlay switch to off.

To return to SYNC 3, go to the Apple CarPlay home screen and select the SYNC app.

**Note:** Contact Apple for Apple CarPlay support.

### Android Auto

Android Auto is compatible with most devices with Android 5.0 or newer.

1. Download the Android Auto app to your device from Google Play to prepare your device (this may require mobile data usage).

**Note:** The Android Auto App may not be available within your current market.

2. Plug your device into a USB port. See **USB Port** (page 321).
3. Follow the prompt on the touchscreen.
4. Follow the prompts that appear on your device.

**Note:** You may be prompted to update additional apps on your device (this may require mobile data usage).

### To disable this feature from the Settings screen, select:

Menu Item
Android Auto Preferences
Your device is listed if SYNC detects Android Auto. Select the name of your device and set the Android Auto switch to off.

**Note:** You may need to slide your Settings screen to the left to select **Apple CarPlay Preferences** or **Android Auto Preferences**.

To return to SYNC 3, select the speedometer icon in the Android Auto menu bar at the bottom of the touchscreen, and then touch the option to return to SYNC.

**Note:** Contact Google for Android Auto support.

## NAVIGATION

Your navigation system is comprised of two main features, destination mode and map mode.

### Map Mode

Map mode shows advanced viewing comprised of 2D city maps, 3D landmarks and 3D city models (when available). 2D city maps show detailed outlines of buildings, visible land use, landscape features, and detailed railroad infrastructure for the most essential cities around the globe.

3D landmarks appear as clear, visible objects that are typically recognizable and have a certain tourism value.

## SYNCTM 3 (If Equipped)

3D city models are complete 3D models of entire city areas including navigable roads, parks, rivers and rendered buildings. 3D landmarks and city models appear in 3D map mode only. Coverage of these varies and improves with updated map releases.



Select the zoom in icon to see a closer view of the map.



Select the zoom out icon to see a farther away view of the map.

You can adjust the view in preset increments. You can also pinch to zoom in or out of the map.

The information bar tells you the names of streets, cities or landmarks as you hover over them with the crosshair cursor.

You can change your view of the map by tapping on the location indicator icon on the right hand side of the screen. You can choose from the following options:



**Heading up (2D map)** This always shows the direction of forward travel to be upward on the screen. This view is available for map scales up to 3 mi (5 km).

N



**North up (2D map)** always shows the northern direction to be upward on the screen.

3D



**3D map mode** provides an elevated perspective of the map. Adjust this viewing angle and rotate the map 180 degrees by touching the map twice, and

then dragging your finger along the shaded bar with arrows at the bottom of the map.



Re-center the map by pressing this icon whenever you scroll the map away from your vehicle's current location.



**Mute:** Press to mute the audio navigation guidance. Press the button again to un-mute the guidance.



### Points of Interest (POI)

**grouping icon:** You can choose up to three POI icons to display on the map. If the chosen POIs are located close together or are

at the same location a box is used to display a single category icon instead of repeating the same icon, in order to reduce clutter. When you select the box on the map, a pop-up appears indicating how many POIs are in this location. Select the pop up to see a list of the available POIs. You can scroll through and select POIs from this list.

If your vehicle is low on charge or fuel, station icons automatically display on the map.

If you have subscribed to SiriusXM Traffic and Travel Link (where available), traffic flow will be indicated on the map by green (clear), yellow (slowing), and red (stopped) road highlights. Traffic flow is indicated where the information is available and varies across the US.

You can choose to display traffic icons on the map representing twelve different types of incidents. See **Settings** (page 389).

You can set a destination by hovering above a location and selecting:

# SYNC™ 3 (If Equipped)

<b>Button</b>
---------------

<b>Button</b>
Start

## Destination Mode

**To set a destination, press:**

Menu Item	Description
Destination	
Enter a navigation destination in any of the following formats:	
Search	<p>Street Address (number, street, city, state) For example "12 Mainstreet Dearborn MI"</p>
	<p>Partial Address (number, street) if searching in current state (number, street and zip code (or postal code in Canada)) if searching out of state You can enter unique addresses that contain door number prefixes with or without the prefix. For example, you could enter "6N340 Fairway Lane" or "340 Fairway Lane".</p>
	<p>City (name or zip code)</p>
	<p>Point of Interest (name or category)</p>
	<p>Intersection (street 1 / street 2) (street 1 and street 2) (street 1 &amp; street 2) (street 1 @ street 2) (street 1 at street 2)</p>
	<p>Latitude and Longitude (##.##### , ##.#####) This is in a decimal degrees format, one to six decimal places are accepted.</p>
	<p>You are given autocomplete options below the address bar to select as you type.</p>

## SYNCTM 3 (If Equipped)

Menu Item	Description	
	If you do not give an exact destination, a menu displays with your possible selections.	
Previous Destinations	Collections of your last 40 navigation destinations display here. You can select any option from the list to select it as your destination.	
	Delete All	Select this option to remove all previous destinations.
Home	Select to navigate to your set Home destination. The time it takes to travel from your current location to Home displays. To set your Home, press:	
	Home	A prompt appears asking if you would like to create a favorite for home. Select:
	Yes	Enter a location into the search bar and press:
	Save	
Work	Select to navigate to your set Work destination. The time it takes to travel from your current location to Work displays. To set your Work:	
	Work	A prompt appears asking if you would like to create a favorite for work. Select:
	Yes	Enter a location into the search bar and press:
	Save	
Favorites	Favorites include any location you have previously saved. To add Favorites:	
	Add a Favorite	Select this button and enter a location into the destination bar.
	Search	Select this option to have the system locate the address you have entered.
	Save	Select this button when the address you have entered appears on the screen.
	The address saves as a favorite and you see the favorites screen. You can now select this address from the favorites screen.	
Point of Interest (POI) Categories	POI categories that may display (based on market and vehicle configuration):	
	Food	



## SYNC™ 3 (If Equipped)

Menu Item	Description
	Fuel
	Hotel
	ATM
See All	Press to view additional categories. Once you have selected a category, follow the menus to find what you are looking for.
	Inside of these categories you can search by:
	Nearby
	Along Route
	Near Destination
	In a City

### Once you have chosen your destination, press:

Menu Item	Action and Description	
Save	This saves the destination to your favorites.	
Start	This shows you a map of your entire route. You can then choose your route from three different options.	
	Fastest	Uses the fastest moving roads possible.
	Shortest	Uses the shortest distance possible.
	Economical Route	Uses the most fuel-efficient route.
	The time and distance for each route also displays.	
Cancel	On the route screen, you can choose to cancel the current navigation. The system asks for confirmation then returns you to the map mode screen.	

### Once you have chosen your destination, press:

Menu Item	Action and Description
Start	The system uses a variety of screens and prompts to guide you to your destination.

# SYNC™ 3 (If Equipped)

Menu Item	Action and Description
	<p>During Route guidance, you can press the maneuver arrow icon on the map if you want the system to repeat route guidance instructions. When the system repeats the last guidance instruction, it updates the distance to the next guidance instruction, since it detects that the vehicle is moving.</p> <p>The navigation map shows your estimated time of arrival, remaining travel time and the distance to your destination.</p> <p>SYNC 3 may not always announce vehicle arrival at the exact point of your destination and you may have to cancel a route manually.</p>

## Navigation Menu

In map mode and during active navigation you can access the navigation menu.

During active navigation, touch the bottom of the screen to view the menu and other buttons.

### To access the Navigation menu, press:

Button			
Menu			
<b>You can then select:</b>			
Screen View	Full Map	A full screen map displays during navigation.	
	Highway Exit Info	<p>Highway exit information displays on the right hand side of the screen during navigation.</p> <p>Points of interest icons display for restaurants, hotels, fuel stations and ATMs when they are present at the exit. You can select the POI icons to receive a listing of specific locations. You can select the POI location as a waypoint or destination if desired.</p>	
	Turn List	<p>Only available during an active route. Displays all of the turns on the current route.</p> <p>You can choose to avoid any road on the turn list by selecting the road from the list. A screen then appears and you can press:</p> <table border="1" data-bbox="412 1099 1003 1203"> <tr> <td data-bbox="412 1099 487 1141">Avoid</td> <td data-bbox="487 1099 1003 1203">The system calculates a new route and displays a new turn list.</td> </tr> </table>	Avoid
Avoid	The system calculates a new route and displays a new turn list.		
Traffic List	You can find the SiriusXM Traffic and Travel Link information by pressing this button. This information requires an active subscription to SiriusXM Traffic and Travel Link.		

## SYNC™ 3 (If Equipped)

<b>Button</b>				
	When a route is not active, a list of nearby traffic incidents displays (if any are present). When a route is active, you can choose to display a list of traffic nearby or on the route.			
Navigation Settings	Press this button to adjust your preferences. See <b>Settings</b> (page 389).			
Where Am I?	Provides your current location city and the nearest road.			
The following are only available on the menu during an active navigation route:				
Cancel Route	The system asks for confirmation and then returns you to the map mode screen.			
View Route	Press this to see a map of the full route.			
Detour	An alternate route displays in comparison with the current route.			
Edit Waypoints	Only available if you have an active waypoint on your route. See <b>Waypoints</b> later in this section for information on how to set waypoints.			
	Use this button to re-order or remove your waypoints.			
	<table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">You can also have the system set the order for you by pressing:</td> <td>Optimize Order</td> </tr> <tr> <td>To return to your route press:</td> <td>Go</td> </tr> </table>	You can also have the system set the order for you by pressing:	Optimize Order	To return to your route press:
You can also have the system set the order for you by pressing:	Optimize Order			
To return to your route press:	Go			

### Waypoints

You can add a waypoint to a navigation route as a destination along your route.

To add a waypoint:

1. Select the search icon (magnifying glass) while on an active route. This brings up the destination menu.
2. Set your destination using any of the given methods. Once the destination has been selected, the screen allows you to set the destination as a waypoint by selecting:

## SYNC™ 3 (If Equipped)

Menu Item	
Add Waypoint	The waypoint list then appears and you are able to re-order all of your waypoints by selecting the menu icon on the right hand side of the location. You can select up to five waypoints.
You can also have the system set the order for you by pressing:	Optimize Order
To return to your route, press:	Go

### SYNC AppLink

The AppLink app allows you to use some SYNC 3 navigation features on your phone.

#### First Mile Navigation

When you switch your ignition off, the location of your vehicle is recorded and sent to your SYNC AppLink app. The location of your vehicle can be viewed within the app. You can also view walking directions to your vehicle.

#### Last Mile Navigation

When you park near your destination, the system provides walking directions to your destination.

#### POI Search

Your paired phone can be used to access additional points of interest (POI). These points of interest can only be accessed when your phone is paired.

#### Send To Car

You can send destinations to your navigation system using a computer or phone using AppLink.

### cityseeker (If Equipped)

**Note:** *cityseeker point of interest (POI) information is limited to approximately 1,110 cities (1,049 in the United States, 36 in Canada and 15 in Mexico).*



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cityseeker, when available, is a service that provides more information about certain points of interest such as restaurants, hotels and attractions.

When you have selected a point of interest, the location and information appear, such as address, phone number and a star rating.

Press **More Information** to see a photo, a review, a list of services and facilities, the average room or meal price and the web address. This screen displays the point of interest icons.

## SYNC™ 3 (If Equipped)

For restaurants, cityseeker can provide information such as star rating, average cost, review, handicap access, hours of operation, and website address.

For hotels, cityseeker can provide information such as star rating, price category, review, check-in and checkout times, hotel service icons and website address. Hotel service icons include:

- Restaurant
- Business center
- Handicap facilities
- Laundry
- Refrigerator
- 24 hour room service
- Fitness center
- Internet access
- Pool
- Wi-Fi

Attractions include nearby landmarks, amusement parks, historic buildings and more. cityseeker can provide information such as star rating, reviews, hour of operation and admission price.

### **SiriusXM Traffic and Travel Link (If Equipped)**

SiriusXM Traffic and Travel Link is available on vehicles equipped with navigation and only in select markets. You must activate and subscribe to receive SiriusXM Traffic and Travel Link information. It helps you locate the best gas prices, find movie listings, get current traffic alerts, view the weather map, get accurate ski conditions and see current sports scores. See **Apps** (page 386).

The system calculates a reasonable efficient route based on available speed limits, traffic, and road conditions. You may know a local short cut that is more efficient at a given time than the route provided by SYNC 3, but you should expect a slight difference in minutes or miles with the SYNC 3 route.

### **Navigation Map Updates**

Annual navigation map updates are available for purchase through your dealership, by calling 1-866-462-8837 in the United States and Canada or 01-800-557-5539 in Mexico. You can also visit:

Website
<a href="http://www.navigation.com/sync">www.navigation.com/sync</a>

You need to specify the make and model of your vehicle to determine if there is an update available.

HERE is the digital map provider for the navigation application. If you find map data errors, you may report them directly to HERE by going to [www.here.com/mapcreator](http://www.here.com/mapcreator). HERE evaluates all reported map errors and responds with the result of their investigation by e-mail.

Map coverage includes the USA (including Puerto Rico and the US Virgin Islands), Canada and Mexico.

### **APPS**

The system enables voice, steering wheel, and touch screen control of SYNC 3 AppLink enabled smartphone apps.

Once an app is running through AppLink, you can control main features of the app through voice commands and steering wheel controls.

## SYNC™ 3 (If Equipped)

**Note:** Available AppLink enabled apps will vary by market.

**Note:** You must pair and connect your smartphone via Bluetooth to SYNC 3 to access AppLink.

**Note:** iPhone users need to connect the phone to the USB port.

**Note:** For information on available apps, supported smartphone devices and troubleshooting tips please visit:

Websites
owner.ford.com www.syncmyride.ca www.syncmaroute.ca

**Note:** Make sure you have an active account for the app that you have downloaded. Some apps will work automatically with no setup. Other apps will want you to configure your personal settings and personalize your experience by creating stations or favorites. We recommend you do this at home or outside of your vehicle.

**Note:** We encourage you to review the smartphone app's terms of service and privacy policies because Ford is not responsible for your app or its use of data.

**Note:** AppLink is a native SYNC system feature. Accessing mobile apps through AppLink is only possible when Android Auto or Apple CarPlay are disabled. Some apps may only be accessible in the car through AppLink and others only through Android Auto or Apple CarPlay. Please refer to the Smartphone Connectivity information to disable Android Auto or Apple CarPlay.

**Note:** In order to use an app with SYNC 3, the app needs to be running in the background of your phone. If you shut down the app on your phone, it shuts down the app on SYNC 3 as well.

**Note:** If a SYNC 3 AppLink compatible app is not shown in the Apps Domain, make sure the required app is running on the mobile device.

Menu Item	Action and Description
Find Mobile Apps	SYNC 3 will search and connect to compatible app(s) running on your mobile device.

### Enabling SYNC 3 Mobile Apps

In order to enable mobile apps, SYNC 3 requires user consent to send and receive app authorization information and updates using the data plan associated with the connected device.

The connected device sends data to Ford in the United States. The information is encrypted and includes your VIN, SYNC 3 module number, odometer, usage statistics and debugging information. We retain this data for only as long as necessary to provide this service, troubleshoot, and improve products and services and to offer you products and services that may interest you where allowed by law.

**Note:** You must enable mobile apps for each connected device the first time you select a mobile app using the system.

**Note:** Ford reserves the right to limit functionality or deactivate mobile apps at any time.

**Note:** Standard data rates apply. Ford is not responsible for any additional charges you may receive from your service provider, when your vehicle sends or receives data through the connected device. This includes any additional charges incurred due to driving in areas when roaming out of a home network.

## SYNC™ 3 (If Equipped)

You can enable and disable apps through settings. See **Settings** (page 389).

### App Permissions

The system organizes the App permissions into groups. You can grant these group permissions individually. You can change a permission group status any time when not driving, by using the settings menu. While in the settings menu, you can also see the data included in each group.

When you launch an app using SYNC 3, the system may ask you to grant certain permissions, for example Vehicle information, Driving characteristics, GPS and Speed, and/or Push notifications. You can enable all groups or none of them during the initial app permissions prompts. The settings menu offers individual group permission control.

**Note:** You are only prompted to grant permissions the first time you use an app with SYNC 3.

**Note:** If you disable group permissions, apps will still be enabled to work with SYNC 3 unless you deactivate All Apps in the settings menu.

### SiriusXM Traffic and Travel Link (If Equipped)



**WARNING:** Driving while distracted can result in loss of vehicle control, crash and injury. We strongly recommend that you use extreme caution when using any device that may take your focus off the road. Your

primary responsibility is the safe operation of your vehicle. We recommend against the use of any hand-held device while driving and encourage the use of voice-operated systems when possible. Make sure you are aware of all applicable local laws that may affect the use of electronic devices while driving.

**Note:** *SiriusXM Traffic and Travel Link may not be available in all markets.*

**Note:** *In order to use SiriusXM Traffic and Travel Link, your vehicle must have navigation.*

**Note:** *A paid subscription is required to access and use these features. Go to [www.siriusxm.com/travellink](http://www.siriusxm.com/travellink) for more information.*

**Note:** *Visit [www.siriusxm.com/traffic](http://www.siriusxm.com/traffic) and click on Coverage map and details for a complete listing of all traffic areas covered by SiriusXM Traffic and Travel Link.*

**Note:** *Neither Sirius nor Ford is responsible for any errors or inaccuracies in the SiriusXM Traffic and Travel Link services or its use in vehicles.*

When you subscribe to SiriusXM Traffic and Travel Link, it can help you locate the best gas prices, find movie listings, get current traffic alerts, view the current weather map, get accurate ski conditions and see scores to current sports games.

## SYNCTM 3 (If Equipped)

Menu Item	Action and Description	
Traffic on Route	Touch these buttons to identify traffic incidents on your route, near your vehicle's current location or near any of your favorite places, if programmed.	
Traffic Nearby		
Fuel Prices	Touch this button to view fuel prices at stations close to your vehicle's location or on an active navigation route.	
Movie Listings	Touch this button to view nearby movie theaters and their show times, if available.	
Weather	Touch this button to view the nearby weather, current weather, or the five-day forecast for the chosen area.	
	Map	Select to see the weather map, which can show storms, radar information, charts and winds.
	Area	Select to choose from a listing of weather locations.
Sports Info	Touch this button to view scores and schedules from a variety of sports. You can also save up to 10 favorite teams for easier access. The score automatically refreshes when a game is in progress.	
Ski Conditions	Touch this button to view ski conditions for a specific area.	

## SETTINGS

Under this menu, you can access and adjust the settings for many of the system features. To access additional settings, swipe the screen left or right.

### Sound

Pressing this button allows you to adjust the following:

Sound Settings	
Reset All	Returns Treble, Midrange, and Bass sound settings to factory levels.
Treble	Adjusts the high frequency level.
Midrange	Adjusts the middle frequency level.
Bass	Adjusts the low frequency level.
Balance / Fade	Adjusts the sound ratio from side to side or front to back.



## SYNC™ 3 (If Equipped)

Sound Settings	
Speed Compensated Vol.	Adjusts the amount the audio system volume increases with speed, or turns the feature off.
Occupancy Mode	Optimizes the sound based on the location of the listeners.
Sound Settings	Stereo
	Surround

Your vehicle might not have all of these features.

### Media Player

This button is available when a media device such as a Bluetooth Stereo or USB device is the active audio source. Pressing the button allows you to access the following options for active devices only.

Menu Item	Action and Description		
Podcast Speed	For some USB devices, SYNC 3 can adjust the playback speed of podcasts. When a podcast is playing, you can choose:		
	Slower	Normal	Faster
Audiobook Speed	For some USB devices, SYNC 3 can adjust the playback speed of audiobooks. When an audiobook is playing, you can choose:		
	Slower	Normal	Faster
Cover Art Priority	Media Player	Cover art displays from your device's music files. If no cover art for the files exists on the device, then the Gracenote Database provides cover art.	
	Gracenote®	The Gracenote Database supplied cover art is used for your music files. This overrides any cover art from your device.	
Gracenote® Management	Switches on and off Gracenote® to provide metadata information such as genre, artist, album.		

## SYNCTM 3 (If Equipped)

Menu Item	Action and Description
Gracenote® Database Info	This allows you to view the version level of the Gracenote Database.
Device Information	This allows you to view the manufacturer and model number of your media device.
Update Media Index	Erase the stored in media information in order to re-index.

### Clock

You can adjust the following features:

To adjust the time, select the up and down arrows on either side of the screen. The arrows on the left adjust the hour and arrows on the right adjust the minute. You can then select AM or PM.

Menu Item	Action and Description
Clock Format	Select how time displays.
Auto Time Zone Update	When active, the clock adjusts to time zone changes. This feature is only available in vehicles with navigation.
Reset Clock to GPS Time	When selected, the vehicle clock resets to GPS satellite time.

The system automatically saves any updates you make to the settings.

### Bluetooth

Pressing this button allows you to access the following:

Menu Item	Action
Bluetooth	Turning Bluetooth off disconnects all devices and does not permit new connections.

You must activate Bluetooth to pair a Bluetooth-enabled device.

The processes of pairing a Bluetooth device is the same as pairing a phone. **See Pairing a Device** in Phone settings for how to pair a device and the available options.

### Phone

Pair your Bluetooth-enabled phone with the system before using the functions in hands-free mode.

Switch on Bluetooth on your device to begin pairing. See your phone's manual if necessary.

## SYNC™ 3 (If Equipped)

### To add a phone, select:

Menu Item
Add Phone

1. Follow the on-screen instructions.
2. A prompt alerts you to search for the system on your phone.
3. Select your vehicle's make and model as it displays on your phone.
4. Confirm that the six-digit number appearing on your phone matches the six-digit number on the touchscreen.
5. The touchscreen indicates when the pairing is successful.
6. Your phone may prompt you to give the system permission to access information. To check your phone's compatibility, see your phone's manual or visit the website.

### Alternatively, to add a phone, select:

Menu Item
Add Phone
<b>Then select:</b>
Discover Other Bluetooth Devices

1. Follow the on-screen instructions.
2. Select your phone's name when it appears on the touchscreen.
3. Confirm that the six-digit number appearing on your phone matches the six-digit number on the touchscreen.
4. The touchscreen indicates when the pairing is successful.
5. Your phone may prompt you to give the system permission to access information. To check your phone's compatibility, see your phone's manual or visit the website.

Other features, such as text messaging using Bluetooth and automatic phonebook download, are phone-dependent features.

### To check your phone's compatibility, see your phone's manual or visit the website:

Website
owner.ford.com www.syncmyride.ca www.syncmaroute.ca

Once you have paired a device you can adjust the following options.

Menu Item	Action and Description
View Devices	
<b>You can then select:</b>	
Add a Bluetooth Device	You can add a Bluetooth-enabled device by following the steps in the previous table.
You can select a phone by touching the name of the phone on the screen. You then have the following options:	
Connect	Depending on the status of the device, you can select either of these options to interact with the selected device.

## SYNC™ 3 (If Equipped)

Menu Item	Action and Description
Disconnect	
Make Primary	Allows you to select this device to be your preferred device.
Delete	Removes the selected device from the system.

Pressing the info icon next to the device name allows you to see phone and device information

Menu Item	Action and Description	
Manage Contacts		
<b>You can then select:</b>		
Auto-Download Contacts	Enable this option to have SYNC 3 periodically re-download your phonebook to keep your contact list up to date.	
Sort By:	Choose how you would like the system to display your contacts. You can choose:	
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">First Name</td> <td style="width: 50%; text-align: center;">Last Name</td> </tr> </table>	First Name
First Name	Last Name	
Re-download Contacts	Select this option to re-download your contact list manually.	
Delete Contacts	Select this option to delete the in vehicle contact list. Deleting the in vehicle list does not erase the contact list on the connected phone.	

Menu Item	Action and Description
Set Phone Ringtone	
<b>You can then select:</b>	
No Ringtone	No sound plays when a call comes to your phone.
Use Phone Ringtone	The currently selected ringtone on your phone plays when you receive a call. This option may not be available for all phones. If this option is available, it is the default setting.
You can also select one of the three available ringers.	

## SYNC™ 3 (If Equipped)

Menu Item	Action and Description
Text Messaging	
<b>You can then select:</b>	
No Alert (Silence)	No sound plays when a message comes to your phone.
You can select one of the three available notification sounds.	
Voice Readout	When enabled, a voice prompt alerts you when you receive a new message.

### You can enable and disable the following options as well:

Menu Item	Action and Description
Mute Audio in Privacy	When enabled, vehicle audio (such as radio or apps) is muted for the duration of the phone call even when the phone call is in privacy.
Roaming Warning	When enabled, an alert displays that your phone is roaming when you attempt to place a call.
Low Battery Notification	When enabled, a message displays when the battery on your phone is running low.

### 911 Assist

**Note:** *This service is only available in the United States and Canada.*

Select this button to modify the on or off setting for this feature. If the mobile phone's contacts have been downloaded, you can adjust the following option:

Menu Item	Action and Description
Set Emergency Contacts	You can select up to two numbers from your mobile device's phone-book as emergency contacts for quick access at the end of the 911 Assist call process.

### Radio

This button is available if a Radio source such as AM or FM is the active media source. Pressing the button allows you to access the following features:

## SYNC™ 3 (If Equipped)

Menu Item	Action and Description
FM HD Radio AM HD Radio (Dependent on current radio source, If Available)	Activation of this feature allows you to listen to HD radio broadcasts.
Radio Text	This feature is available when FM Radio is your active media source. Activate this feature to have the system display radio text.
Autoset Presets (AST)	Refresh Selecting this option stores the six strongest stations in your current location to the last preset bank of the currently tuned source.

### Sirius XM (If equipped)

Menu Item	Action and Description
Set Category for Seek	After selecting a category, the seek function only stops on channels that are inside that selected category.
Parental Lockout	Select to create a personal identification number (PIN). This allows you to lock or unlock channels. Your initial PIN is 1234.
Edit Alerts	Select to switch on, off or delete alerts.

The Electronic Serial Number is on this screen. This number is necessary to activate, modify or track your account through Sirius XM.

### Navigation

You can adjust many of the Navigation preferences by selecting the following menus.

# SYNC™ 3 (If Equipped)

## Map Preferences

Menu Item	Action and Description	
Map Preferences		
<b>Then select any of the following:</b>		
3D City Model	When this option is active, the system shows 3D renderings of buildings.	
Breadcrumbs	When enabled, your vehicle's previously traveled route displays with white dots.	
POI Icons	Enable this feature to display up to 3 POI icons on the navigation map. A rest area POI icon may display on the map regardless of this setting.	
	When this feature is active you can select the icons you want displayed by selecting:	Select POIs
Incident Map Icons	This menu allows you to choose which incident icons you would like to have displayed on the navigation map.	

## Route Preferences

Menu Item	Second Level Messages, Actions and Descriptions		
Route Preferences			
<b>Then select any of the following:</b>			
Preferred Route	Choose to have the system display your chosen route type.		
	Shortest	Fastest	Eco
Always Use ____ Route	Bypass route selection in destination programming. The system only calculates one route based on your preferred route setting. When activated, the system uses your selected route type to calculate only one route to the desired destination.		
Use HOV Lanes	The system selects High Occupancy Vehicle or car pool lanes when providing route guidance.		
Automatically Find Parking	The system searches for and displays available parking locations as you approach your destination.		
Eco Time Penalty	Select a level of cost for the calculated Eco Route. The higher the setting, the longer the time allotment is for the route.		

## SYNC™ 3 (If Equipped)

Menu Item	Second Level Messages, Actions and Descriptions
Dynamic Route Guidance	Enable or disable considering traffic information when planning a route. The system can find a faster route based on heavy traffic flow information or detect a Road Closed incident and find a detour route if possible.
Avoid Freeways	If selected, SYNC 3 avoids freeways when computing a navigation route.
Avoid Toll Roads	If selected, SYNC 3 avoids Toll Roads when computing a navigation route.
Avoid Ferries/Car Trains	If selected, SYNC 3 avoids the use of Ferries or Trains when computing a navigation route.

### Navigation Preferences

Menu Item	Action and Description
Navigation Preferences	
Guidance Prompts	You can adjust how the system provides prompts.
<b>Then select any of the following:</b>	
Voice and Tones	A tone sounds followed by voice instructions.
Voice Only	Only voice instructions are given.
Tones Only	Only a tone sounds to prompt you.

### Mobile Apps

You can enable the control of compatible mobile apps running on your Bluetooth or USB device on SYNC 3. In order to enable mobile apps, SYNC 3 requires user consent to send and receive app authorization information and updates using the data plan associated with the connected device.

The connected devices send data to us in the United States. The encrypted information includes your VIN, SYNC 3 module number, anonymous usage statistics and debugging information. Updates may take place.

**Note:** *All Mobile Apps may not be compatible with the system.*



## SYNC™ 3 (If Equipped)

**Note:** Standard data rates will apply. We are not responsible for any additional charges you may receive from your service provider, when your vehicle sends or receives data through the connected device. This includes any additional charges incurred due to driving in areas when roaming out of a home network.

Menu Item	Action and Description		
Mobile Apps	Enable or disable the use of mobile apps on SYNC 3. Disabling mobile apps in the settings menu disables automatic updates and the use of mobile apps on SYNC 3.		
	You can view the status of mobile app permissions in the settings menu.		
Once Mobile Apps is enabled, you have the following options:			
Update Mobile Apps	This provides information on the current state of available app updates.		
	There are three possible statuses:		
	Update Needed	Up-To-Date	Updating Mobile Apps...
	The system has detected a new app requiring authorization or a general permissions update is required.	No update is required.	The system is trying to receive an update.
	Request Update		Select this button if an update is required and you want to request this update manually. For example, when your mobile device is connected to a Wi-Fi hotspot, select:

## SYNC™ 3 (If Equipped)

Menu Item	Action and Description
	Request Update
All Apps	Grant or deny permissions to all apps at once.
There may also be SYNC 3 enabled apps listed under these options.	Grant or deny an individual app particular permissions. App permissions are organized into groups. By pressing the info book icon, you can see which signals are included in each group.

**Note:** *We are not responsible or liable for any damages or loss of privacy relating to usage of an app, or dissemination of any vehicle data that you give us approval to provide to an app.*

### General

Access and adjust the system settings, voice features, as well as phone, navigation and wireless settings.

Menu Item	
Language	Select to have the touchscreen display in English, Spanish or French.
Distance	Select to display units in kilometers or miles.
Temperature	Select to display units in Celsius or Fahrenheit.
Touch Panel Beep	Select to have the system beep to confirm choices made through the touchscreen.
Automatic System Updates	When you activate this option, the system automatically updates when you have an available Internet connection through a Wi-Fi network or mobile connection.
About SYNC	Information pertaining to the system and its software.
Software Licenses	Documentation of the software license for the system.
Master Reset	Select to restore factory defaults. This erases all personal settings and personal data.

### Wi-Fi & Hotspot

Access SYNC Wi-Fi and Vehicle Hotspot settings and information.

### System Wi-Fi

You can access the following:

## SYNC™ 3 (If Equipped)

Menu Item	Action and Description
Wi-Fi	Enable this option to connect to Wi-Fi for SYNC 3 vehicle software updates.
Available Networks	This provides you with a list of available Wi-Fi networks within range.
	Clicking on a network from the list allows you to connect or disconnect from that network. The system may require a security code to connect.
	When you click the information button next to a network, more information about the network displays such as the signal strength, connection status and security type.
Wi-Fi Available Notifications	The system alerts you when your vehicle is parked and a Wi-Fi network is within range if SYNC is not already connected.

### Vehicle Hotspot (If Equipped)

You can access the following:

Menu Item	Action and Description
Wi-Fi Hotspot On/Off	Allows you to turn the hotspot on and off.
Settings	Allows you to view and edit hotspot settings such as the SSID and password.
Data Usage	Allows you to view your vehicle's hotspot plan and data usage.
Manage Devices	Allows you to manage devices connected to your hotspot.

**Note:** The Vehicle Wi-Fi Hotspot (Vehicle Hotspot) may be operational while ignition is On and may remain operational while the ignition is Off.

**Note:** The vehicle network carrier provides Vehicle Hotspot services, subject to your vehicle network carrier agreement, coverage and availability.

**Note:** It is the account owner's responsibility to remove the vehicle from the vehicle network carrier account when ownership of the vehicle is transferred. If the owner would like to remove the vehicle from the account for any reason, please contact your vehicle network carrier for more information.

## SYNC™ 3 (If Equipped)

**Note:** Data you share, e.g. the Vehicle Identification Number (VIN), SIM Card ID, and data plan usage, between us and the vehicle network carrier is used to provide the Vehicle Hotspot service in accordance with your vehicle network carrier agreement, coverage and availability, and may be used to enable a seamless transition from an old to new embedded modem and to confirm any successfully delivered updates.

**Note:** For your convenience data usage may be available for monitoring under Settings but may not reflect actual or current usage. The vehicle network carrier is responsible for providing information about your account. Please contact the vehicle network carrier for more information.

**Note:** We may need to update operating system software on your vehicle, including security updates and bug fixes, to keep connected services current, like Vehicle Hotspot, without prior notice to you.

**Note:** If you do not have an active vehicle hotspot data plan, open your web browser and go to a website using the HTTP protocol to be automatically redirected to the vehicle network carrier landing page where you can purchase data. Websites using HTTPS will not automatically redirect.

### Camera Settings

To make adjustments using the touchscreen, select:

Message	Action and Description
Camera Settings	
<b>Then select from the following:</b>	
Enhanced Park Aids	When the reverse sensing system detects an object, it displays red, yellow and green highlights at the top of the image.
Rear Camera Delay	You can enable or disable this option using the slider.

You can find more information on the rear-view camera system in the parking aids chapter of your owner manual.

### Ambient Lighting (If Equipped)

Tap a color once to active ambient lighting. This sets the color to the highest intensity.

You can drag the colors up and down to increase or decrease the intensity.

To switch ambient lighting off, press the active color once or drag the active color all the way down to zero intensity.

### Vehicle

**Note:** Your vehicle may not have all of these features.

You can select the following features to update their settings.

### Door Keypad Code (If equipped)

Select this button to add or erase a personal door keypad code. To add or erase a personal code, you first need to enter the five-digit factory set code. You can find this code on the owner's wallet card in the glove box or from your authorized dealer.

# SYNC™ 3 (If Equipped)

## Onboard Modem Serial Number (ESN)

Selecting this button on the settings menu

shows you the ESN number for your system. You need this number for certain registrations such as Satellite Radio.

## Display

To make adjustments using the touchscreen, select:

Menu Item	Action and Description	
Display Off	The screen goes black and does not display anything. To switch the screen back on, simply tap the screen.	
Brightness	Make the screen display brighter or dimmer.	
Calm Screen	Enable this option to have your screen display minimal content. Pressing anywhere on the screen, using the reverse camera, or touching an interactive icon returns the screen to normal content.	
Background	Allows you to select a screen background color.	
Mode	You can select:	
	Auto	The screen automatically switches between day and night modes based on the outside light level.
	Day	The screen displays with a light background to enhance daytime viewing.
Night	The screen displays with a darker background to make nighttime viewing easier.	
Auto Dim	Enable this option to automatically dim the display brightness based on ambient lighting conditions.	

## Voice Control

You can adjust the voice control settings by selecting the following options.

## SYNC™ 3 (If Equipped)

Menu Item	
Advanced Mode	Enable this option to remove additional voice prompts and confirmations.
Phone Confirmation	Enable this option to have the system confirm a contacts name with you before making a call.
Voice Command List	Enable this option to have the system display a list of available voice commands when the voice button is pressed.

### Valet Mode

Valet mode allows you to lock the system. No information is accessible until the system is unlocked with the correct PIN.

When you select valet mode a pop up appears informing you that a four digit code must be entered to enable and disable valet mode. You can use any PIN you chose but you must use the same PIN to disable valet mode. The system asks you to input the code.

**Note:** *If the system is locked and you cannot remember the PIN, please contact the Customer Relationship Center.*

*United States: 1-800-392-3673  
Canada: 1-800-565-3673*

To enable valet mode, enter your chosen PIN. The system then asks to confirm your PIN by reentering it. The system then locks.

To unlock the system, enter the same pin number. The system reconnects to your phone and all of your options are available again.

### SYNC™ 3 TROUBLESHOOTING

Your SYNC 3 system is easy to use. However, should questions arise, please refer to the tables below.

To check your cell phone's compatibility, refer to the regional Ford or Lincoln website.

Cell phone issues		
Issue	Possible cause	Possible solution
There is background noise during a phone call.	The audio control settings on your cell phone may be affecting SYNC 3 performance.	Refer to your device's manual about audio adjustments.
During a call, I can hear the other person but they cannot hear me.	Possible cell phone malfunction.	Try switching your cell phone off, resetting it or removing the battery, then try again.
		Make sure that the microphone for SYNC 3 is not set to off. Look for the microphone icon on the phone screen.

## SYNC™ 3 (If Equipped)

<b>Cell phone issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
During a call, I cannot hear the other person and they cannot hear me.	The system may need to be restarted.	To restart your system, shut down the engine, open and close the door, and then lock the door and wait for 2-3 minutes. Make sure that your SYNC 3 screen is black and the lighted USB port is off.
SYNC 3 is not able to download my phonebook.	This is a cell phone-dependent feature.	Check your cell phone's compatibility.
	Possible cell phone malfunction.	Make sure you allow SYNC 3 to retrieve contacts from your phone. Refer to your cell manual.
		You must switch on your cell phone and the automatic phonebook download feature on SYNC 3.  Try switching your cell phone off, resetting it or removing the battery, then try again.
The system says "Phonebook downloaded" but my SYNC 3 phonebook is empty or is missing contacts.	Limitations on your cell phone's capability.	Make sure you allow SYNC 3 to retrieve contacts from your phone. Refer to your cell manual.
		If the missing contacts are stored on your SIM card, move them to your cell phone's memory.
		You must switch on your cell phone and the automatic phonebook download feature on SYNC 3.
I am having trouble connecting my cell phone to SYNC 3.	This is a cell phone-dependent feature.	Check your cell phone's compatibility.
	Possible cell phone malfunction.	Try switching your cell phone off, resetting it or removing the battery, then try again.
		Try deleting your device from SYNC 3 and deleting SYNC from your device, then trying again.
		Always check the security and auto accept prompt settings relative to the SYNC 3 Bluetooth connection on your cell phone.  Update your cell phone's firmware.

## SYNC™ 3 (If Equipped)

<b>Cell phone issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
		Switch the auto download setting off.
Text messaging is not working on SYNC 3.	This is a cell phone-dependent feature.	Check your cell phone's compatibility.
	Possible cell phone malfunction.	Try switching your cell phone off, resetting it or removing the battery, then try again.
	iPhone	<ul style="list-style-type: none"> <li>• Go to your cell phone's Settings.</li> <li>• Go to the Bluetooth Menu.</li> <li>• Press the blue circle to the right of the device named with your vehicle make and model to enter the next menu.</li> <li>• Turn Show Notifications on.</li> <li>• Disconnect then reconnect your iPhone from the SYNC 3 system to activate this settings update.</li> </ul> <p>Your iPhone is now set up to forward incoming text messages to SYNC 3. Repeat these steps for every other SYNC 3 vehicle that you connect. Your iPhone will only forward incoming text messages to SYNC 3 if the iPhone is not unlocked in the messaging application. Replying to text messages using SYNC 3 is not supported by iPhone. Text messages from WhatsApp and Facebook Messenger are not supported.</p>
Audible text messages do not work on my cell phone.	This is a cell phone-dependent feature.	Your cell phone must support downloading text messages through Bluetooth to receive incoming text messages.
	This is a cell phone limitation.	Because each cell phone is different, refer to your device's manual for the specific cell phone you are pairing. In fact, there can be differences between cell phones due to brand, model, service provider and software version.



## SYNC™ 3 (If Equipped)

<b>USB and Bluetooth Stereo issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
I am having trouble connecting my device.	Possible device malfunction.	Disconnect the device from SYNC 3. Try switching your device off, resetting it or removing the battery, then reconnect it to SYNC 3.
		Make sure you are using the manufacturer's cable.
		Make sure to correctly insert the USB cable into the device and your vehicle's USB port.
	Make sure that the device does not have an auto-install program or active security settings.	
	The device has a lock screen enabled.	Make sure your device is unlocked before connecting it to SYNC 3.
SYNC 3 does not recognize my device when I start my vehicle.	This is a device limitation.	Make sure you are not leaving the device in your vehicle during very hot or cold temperatures.
Bluetooth audio does not stream.	This is a device-dependent feature.	Make sure you connect the device to SYNC 3 and that you have started the media player on your device.
	The device is not connected.	
	The device is in a bad state.	Try switching your device off, resetting it or removing the battery, then reconnect it to SYNC 3.
SYNC 3 does not recognize music that is on my device.	Your music files may not contain the correct artist, song title, album or genre information.	Make sure that all song details are populated.
	The file may be corrupted.	Try replacing the corrupt file with a new version.
	The song may have copyright protection that does not allow it to play.	Some devices require you to change the USB settings from mass storage to media transfer protocol class.

## SYNC™ 3 (If Equipped)

<b>USB and Bluetooth Stereo issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
	The file format is not supported by SYNC 3.	Convert the file to a supported format. See <b>Entertainment</b> (page 360).
	The device needs to be re-indexed.	Update media index. See <b>Settings</b> (page 389).
	The device has a lock screen enabled.	Make sure your device is unlocked before connecting it to SYNC 3.
When I connect my device, I sometimes do not hear any sound.	This is a device limitation.	Disconnect the device from SYNC 3. Try switching your device off, resetting it or removing the battery, then connect it back to SYNC 3.
		To listen to Apple devices through USB, select AirPlay from the devices Control Center, then select Dock Connector.
		To listen to Apple devices through Bluetooth Stereo, select AirPlay from the devices Control Center, then select SYNC.
SYNC 3 does not display the song information, repeat, or shuffle buttons.	The device or media player is incompatible.	Connect a compatible device or media player.

<b>Wi-Fi Access Point issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
Failed connection.	Password error.	Verify password.
	Weak signal.	Check for a poor Wi-Fi signal.
	Multiple Access points within range with the same SSID.	Use a unique name for your SSID, don't use the default name unless it contains a unique identifier, such as part of the MAC address.

## SYNC™ 3 (If Equipped)

<b>Wi-Fi Access Point issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
Disconnecting after successful connection.	Weak signal probably due to distance from the access point, obstruction or high interference.	Position the vehicle close to the access point with the front of the vehicle facing the access point direction and remove obstacles if possible. Other Wi-Fi, Bluetooth, microwave and cordless phones may cause interference.
Poor signal seen by SYNC 3 despite being near a access point.	There may be an obstruction between SYNC 3 and the access point.	If the vehicle is equipped with heated windshield, try positioning the vehicle so that the windshield is not facing the access point. If you have metallic window tinting but not on the windshield, position the vehicle to face the access point. If all windows are tinted, you can open the windows in the direction of the access point if that is feasible. Try to remove other obstructions that may impact signal quality such as opening the garage door.
An access point is not listed in the list of available networks.	The access point was defined as a hidden network.	Please set the network to visible and try again.

## SYNC™ 3 (If Equipped)

<b>Wi-Fi Access Point issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
SYNC 3 is not seen when searching for Wi-Fi networks from your phone or other devices.	SYNC 3 does not currently provide an access point.	SYNC 3 currently does not provide an access point.
Software download takes too long.	Poor signal strength, too far from the access point, access point is supporting multiple connections, slow Internet connection or other problems.	Check the signal quality (under network details), if SYNC 3 indicates good or excellent, test with another high-speed equipped access point where the environment is more predictable.
SYNC 3 seems to connect with an access point and the signal strength is excellent but the software is not being updated.	It is possible that there is no new software. The connected access point may be a managed one and it requires either a subscription or agreeing to the terms and conditions.	Test the connection with another device, if the access point requires a subscription, you may contact the service provider.

## SYNC™ 3 (If Equipped)

<b>AppLink Issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
AppLink Mobile Applications: When I select "Find Mobile Apps," SYNC 3 does not find any applications.	You did not connect an AppLink Compatible phone to SYNC 3.	Make sure you have a compatible smart-phone; an Android with OS 2.3 or higher or an iPhone 3GS or newer with iOS 5.0 or higher. Additionally, make sure you pair and connect your phone to SYNC 3 in order to find AppLink-capable apps on your device. iPhone users must also connect to a USB port with an Apple USB cable.
My phone is connected, but I still cannot find any apps.	AppLink-enabled apps are not installed and running on your mobile device.	Make sure you have downloaded and installed the latest version of the app from your phone's app store. Make sure the app is running on your phone. Some apps require you to register or login to the app on the phone before using them with AppLink. Also, some may have a "Ford SYNC" setting, so check the app's settings menu on the phone.
My phone is connected, my app(s) are running, but I still cannot find any apps.	Sometimes apps do not properly close and re-open their connection to SYNC 3, over ignition cycles, for example.	Closing and restarting apps may help SYNC 3 find the application if you cannot discover it inside the vehicle. On an Android device, if apps have an 'Exit' or 'Quit' option, then select it and restart the app. If the app does not have that option, select the phone's settings menu and select 'Apps', then find the particular app and choose 'Force stop.' Do not forget to restart the app afterward, then select "Find Mobile Apps" on SYNC 3.
		On an iPhone with iOS7+, to force close an app, double tap the home button then swipe up on the app to close it. Tap the home button again, then select the app again to restart it. After a few seconds, the app should then appear in SYNC 3's Mobile App's Menu.

## SYNC™ 3 (If Equipped)

<b>AppLink Issues</b>		
<b>Issue</b>	<b>Possible cause(s)</b>	<b>Possible solution(s)</b>
My Android phone is connected, my app(s) are running, I restarted them, but I still cannot find any apps.	There is a Bluetooth issue on some older versions of the Android operating system that may cause apps that were found on your previous vehicle drive to not be found again if you did not switch Bluetooth off.	Switch Bluetooth off and then on to reset it on your phone. If you are in your vehicle, SYNC 3 should be able to automatically reconnect to your phone if you press the "Phone" button.
My iPhone is connected, my app is running, I restarted the app but I still cannot find it on SYNC 3.	You may need to reset the USB connection to SYNC 3.	Unplug the USB cable from the phone, wait a moment, and plug the USB cable back in to the phone. After a few seconds, the app should appear in SYNC 3's Mobile Apps Menu. If not, "Force Close" the application and restart it.
I have an Android phone. I found and started my media app on SYNC 3, but there is no sound or the sound is very low.	The Bluetooth volume on the phone may be low.	Increase the Bluetooth volume of the device by using the device's volume control buttons which are most often found on the side of the device.
I can only see some of the AppLink apps running on my phone listed in the SYNC 3 Mobile Apps Menu.	Some Android devices have a limited number of Bluetooth ports that apps can use to connect. If you have more AppLink apps on your phone than the number of available Bluetooth ports, you will not see all of your apps listed in the SYNC 3 mobile apps menu.	Force close or uninstall the apps you do not want SYNC 3 to find. If the app has a "Ford SYNC" setting, disable that setting in the app's settings menu on the phone.

## SYNC™ 3 (If Equipped)

<b>Voice command issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
SYNC 3 does not understand what I am saying.	You may be using the wrong voice commands.	Review the cell phone voice commands and the media voice commands at the beginning of their respective sections. Refer to the audio display during an active voice session to find a list of voice commands there.
	You may be speaking too soon or at the wrong time.	Wait for the system to prompt you before you state your command.
SYNC 3 does not understand the name of a song or artist.	You may be using the wrong voice commands.	Review the media voice commands at the beginning of the media section.
	You may not be saying the name exactly as it appears on your device.	Say the song or artist name exactly as it is displayed on your device. For example, say "Play Artist Prince" or "Play song Purple Rain".
		Make sure you are saying the complete title such as "California remix featuring Jennifer Nettles".
	If there are any abbreviations in the name, like ESPN or CNN, you have to spell those: "E-S-P-N" or "C-N-N".	
The song or artist name may have some special characters that are not being recognized by SYNC 3.	Make sure that song titles, artists, album, and playlists names do not have any special characters like *, - or +.	
SYNC 3 does not understand or is calling the wrong contact when I want to make a call.	You may not be saying the name exactly as it appears on your phone-book.	Make sure that you are saying the name exactly as it appears on your phone. For example, if your contact is "Joe Wilson", say "Call Joe Wilson". If your contact name is "Mom", say "Call Mom".
	The contact name may contain special characters.	Make sure that your contact names do not have any special characters like *, - or +.

## SYNC™ 3 (If Equipped)

<b>Voice command issues</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
The SYNC 3 voice control system is having trouble recognizing foreign names stored on my cell phone.	You may not be saying the name exactly as it appears on your phonebook.	SYNC 3 applies the phonetic pronunciation rules of the selected language to the contact names stored on your cell phone.
		<b>Helpful Hint:</b> You can select your contact manually. Press <b>PHONE</b> . Select the option for phonebook and then contact name. Press the soft-key option to hear it. SYNC 3 will read the contact name to you, giving you some idea of the pronunciation it is expecting.
The SYNC 3 voice control system is having trouble recognizing foreign tracks, artists, albums, genres and playlist names from my media player or USB flash drive.	You may be saying the foreign names using the currently selected language for SYNC 3.	SYNC 3 applies the phonetic pronunciation rules of the selected language to the names stored on your media player or USB flash drive. It is able to make some exceptions for very popular artist names (for example, U2) such that you can always use the English pronunciation for these artists.
The system generates voice prompts and the pronunciation of some words may not be accurate for my language.	SYNC 3 uses text-to-speech voice prompt technology.	SYNC 3 uses a synthetically generated voice rather than pre-recorded human voice.
		SYNC 3 offers several new voice control features for a wide range of languages. Dialing a contact name directly from the phonebook without pre-recording (for example, "call John Smith") or selecting a track, artist, album, genre or playlist directly from your media player (for example, "play artist Madonna").



## SYNC™ 3 (If Equipped)

<b>Personal Profiles</b>	
<b>Issue</b>	<b>Possible cause and solution</b>
I cannot create a profile.	Personal Profiles have not been set up.
	An invalid profile name was entered.
	A memory button was not selected when prompted.
	The vehicle's ignition was not On and in Park or was shifted out of Run or Park while creating a profile.
	Personal Profiles is turned off.
I cannot link a keyfob.	The lock button was not selected on a keyfob when prompted.
	The keyfob selected was already associated to another profile and an overwrite was declined.
	A profile recall was performed while linking a keyfob.
	The vehicle's ignition was not On and in Park, or was shifted out of Run or Park while linking a keyfob.
	The old linking method is used.
My personalized settings do not save.	The unsaved setting is not supported by Personal Profiles.
	A different Personal Profile is active than expected.
	Another user has changed settings for the wrong Personal Profile.
My profile will not recall.	A Personal Profile has not been created.
	Personal Profiles is turned off.
	The requested profile is already active.
	The memory button being used is not linked to a profile.

## SYNCTM 3 (If Equipped)

<b>Personal Profiles</b>	
<b>Issue</b>	<b>Possible cause and solution</b>
	The keyfob being used is not linked to a profile.
	The wrong keyfob is being used.
	A button other than unlock or remote start is being pressed on a linked keyfob.
	The Personal Profile was deleted.
My preset positions recall but my profile does not.	Personal Profiles is turned off.
My profile recalls but my preset positions do not.	The vehicle is in motion.
	The preset positions are the same as the Guest or previously active profile.
I lost a keyfob.	Unlink and relink your keyfob in the Personal Profiles menu. You may need to see your authorized dealer.
I lost all profiles.	Keyfobs had been erased and reprogramed. This could happen if you let dealership add a new keyfob to replace lost one.
	Master Reset had been performed without your acknowledgement.

## SYNC™ 3 (If Equipped)

<b>General</b>		
<b>Issue</b>	<b>Possible cause</b>	<b>Possible solution</b>
<p>The language selected for the instrument cluster and information and entertainment display does not match the SYNC 3 language (phone, USB, Bluetooth audio, voice control and voice prompts).</p>	<p>SYNC 3 does not support the currently selected language for the instrument cluster and information and entertainment display.</p>	<p>SYNC 3 only supports four languages in a single module for text display, voice control and voice prompts. The country where you bought your vehicle dictates the four languages based on the most popular languages spoken. If the selected language is not available, SYNC 3 remains in the current active language.</p>
		<p>SYNC 3 offers several new voice control features for a wide range of languages. Dialing a contact name directly from the phonebook without pre-recording (for example, "call John Smith") or selecting a track, artist, album, genre or playlist directly from your media player (for example, "play artist Madonna").</p>

<b>SYNC 3 System Reset</b>
<p>The system has a System Reset feature that can be performed if the function of a SYNC 3 feature is lost. This reset is intended to restore functionality and will not erase any information previously stored in the system (such as paired devices, phonebook, call history, text messages, or user settings). To perform a System Reset, press and hold the Seek Up (&gt;&gt; ) button while pressing and holding the Radio Power button. After approximately 5 seconds the screen will go black. Allow 1-2 minutes for the system reset to complete. You may then resume using the SYNC 3 system.</p>

For additional assistance with SYNC 3 troubleshooting, refer to the regional Ford or Lincoln website.

# Accessories

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For a complete listing of the accessories that are available for your vehicle, please contact your authorized dealer or visit the online store web site:

<b>Web Address (United States)</b>
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<a href="http://www.Accessories.Ford.com">www.Accessories.Ford.com</a>
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<b>Web Address (Canada)</b>
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<a href="http://www.Accessories.Ford.ca">www.Accessories.Ford.ca</a>
--

Ford Accessories are available for your vehicle through an authorized Ford dealer. Ford Motor Company will repair or replace any properly authorized dealer-installed Ford Original Accessory found to be defective in factory-supplied materials or workmanship during the warranty period, as well as any component damaged by the defective accessories.

Ford Motor Company will warrant your Ford Original Accessory through the warranty that provides the greatest benefit:

- 24 months, unlimited mileage.
- The remainder of your new vehicle limited warranty.

Contact an authorized dealer for details and a copy of the warranty.

## Exterior Style

- Chrome exhaust tips.
- Chrome kits.
- Fender flares\*.
- Fog lamps\*.
- Hood deflector.
- Splash guards.
- Step bars.
- Tailgate lock\*.
- Tow hooks.

## Interior Style

- Ambient lighting.
- Floor mats.
- Premium floor liners.
- Seat covers\*.

## Lifestyle

- Ash cup or smoker's package.
- Bed covers\*.
- Bed liners.
- Bed mats.
- Bed rug\*.
- Bed trays.
- Bluetooth speakers\*.
- Hitch balls and tow bars.
- Rear seat entertainment\*.
- Sport tents\*.
- Trailer hitches, wiring harnesses and accessories.
- Truck bed cargo organization and management.

## Peace of Mind

- Console vault\*.
- Keyless entry keypad.
- Remote start.
- Roadside assistance\*.
- Vehicle security systems.
- Wheel locks.
- Wheels.

# Accessories

Footnote
<p>*Ford Licensed Accessory. The accessory manufacturer designs, develops and therefore warrants Ford Licensed Accessories, and does not design or test these accessories to Ford Motor Company engineering requirements. Contact an authorized Ford dealer for the manufacturer's limited warranty details, and request a copy of the Ford Licensed Accessories product limited warranty from the accessory manufacturer.</p>

- Mobile communications systems may harm the operation of your vehicle, particularly if their manufacturer did not design them specifically for automotive use.
- If you or an authorized Ford dealer add any non-Ford electrical or electronic accessories or components to your vehicle, you may adversely affect battery performance and durability, and may adversely affect the performance of other electrical systems in the vehicle.

For maximum vehicle performance, keep the following information in mind when adding accessories or equipment to your vehicle:

- When adding accessories, equipment, passengers and luggage to your vehicle, do not exceed the total weight capacity of the vehicle or of the front or rear axle (GVWR or GAWR as indicated on the Safety Compliance Certification label). Ask an authorized dealer for specific weight information.
- The Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulate the use of mobile communications systems that are equipped with radio transmitters, for example two-way radios, telephones and theft alarms. Any such equipment installed in your vehicle should comply with Federal Communications Commission (FCC) and Canadian Radio Telecommunications Commission (CRTC) regulations and should be installed only by an authorized dealer.

# Ford Protect

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PROTECT YOURSELF FROM THE RISING COST OF VEHICLE REPAIRS WITH A FORD PROTECT EXTENDED SERVICE PLAN.

## **Ford Protect Extended Service Plans (U.S. Only)**

Ford Protect extended service plan means peace of mind. It's the extended service plan backed by Ford Motor Company, and provides more protection beyond the New Vehicle Limited Warranty coverage. When you visit your Ford Dealer, Insist on Ford Protect extended service plans!

## **Ford Protect Can Quickly Pay for Itself**

One trip to the Service Center could easily exceed the price of your Ford Protect extended service plan. With Ford Protect extended service plan you minimize your risk for unexpected repair bills and rising repair costs.

## **Up to 1,000+ Covered Vehicle Components**

There are four mechanical Ford Protect extended service plans with different levels of coverage. Ask your authorized dealer for details.

1. PremiumCARE - Our most comprehensive coverage. With over 1,000 covered components, this plan is so complete it's probably easier to list what's not covered.
2. ExtraCARE - Covers 113 components, and includes many high-tech items.
3. BaseCARE - Covers 84 components.
4. PowertrainCARE - Covers 29 critical components.

Ford Protect extended service plans are honored by all authorized Ford dealers in the U.S., Canada and Mexico.

That means you get:

- Reliable, quality service at any Ford or Lincoln dealership.
- Repairs performed by factory trained technicians, using genuine parts.

## **Rental Car Reimbursement**

### ***1st day Rental Benefit***

If you bring your car into your dealer for service, we'll give you a loaner to use for the day.

### ***Extended Rental Benefits***

If your vehicle is kept overnight for covered repairs, you are eligible for rental car coverage, including warranty repairs, and Field Service Actions.

## **Roadside Assistance**

Exclusive 24/7 roadside assistance, including:

- Towing, flat-tire change and battery jump starts.
- Out of fuel and lock-out assistance.
- Travel expense reimbursement for lodging, meals and rental car.
- Assistance for taxi, shuttle, rental car coverage or other transportation.

## **Transferable Coverage**

If you sell your vehicle before your Ford Protect extended service plan coverage expires, you can transfer any remaining coverage to the new owner. Which should give you and your potential buyer a little more peace of mind.

# Ford Protect

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## Less Cost to Properly Maintain Your Vehicle

Ford Protect extended service plan also offers a Premium Maintenance Plan that covers all scheduled maintenance, and selected wear items. The coverage is prepaid, so you never have to worry about the cost of your vehicle's maintenance.

Covered maintenance includes:

- Windshield wiper blades.
- Spark plugs.
- The clutch disc (if equipped).
- Brake pads and linings.
- Shock absorbers.
- Struts.
- Engine Belts.
- Engine coolant hoses, clamps and o-rings.
- Diesel exhaust fluid replenishment (if equipped).
- Cabin air filter replacement every 20,000 mi (32,000 km) (electric vehicles only).

## Interest Free Finance Options

Just a 10% down payment will provide you with an affordable, no interest, no fee payment program allowing you all the security and benefits Ford Protect extended service plan has to offer while paying over time. You are pre-approved with no credit check or hassles. To learn more, call our Ford Protect extended service plan specialists at 800-367-3377.

Ford Protect Extended Service Plan  
P.O. Box 321067  
Detroit, MI 48232

## Ford Protect Extended Service Plan (CANADA ONLY)

You can get more protection for your vehicle by purchasing a Ford Protect extended service plan. Ford Protect extended service plan is the only service contract backed by Ford Motor Company of Canada, Limited. Depending on the plan you purchase, Ford Protect extended service plan provides benefits such as:

- Rental reimbursement.
- Coverage for certain maintenance and wear items.
- Protection against repair costs after your New Vehicle Limited Warranty Coverage expires.
- Roadside Assistance benefits.

There are several Ford Protect extended service plans available in various time, distance and deductible combinations. Each plan is tailored to fit your own driving needs, including reimbursement for towing and rental. When you purchase Ford Protect extended service plan, you receive added peace-of-mind protection throughout Canada, the United States and Mexico, provided by a network of participating authorized Ford Motor Company dealers.

**Note:** *Repairs performed outside of Canada, the United States and Mexico are not eligible for Ford Protect extended service plan coverage.*

This information is subject to change. For more information; visit your local Ford of Canada dealer or [www.ford.ca](http://www.ford.ca) to find the Ford Protect extended service plan that is right for you.

# Scheduled Maintenance

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## GENERAL MAINTENANCE INFORMATION

### Why Maintain Your Vehicle?

Carefully following the maintenance schedule helps protect against major repair expenses resulting from neglect or inadequate maintenance and may help to increase the value of your vehicle when you sell or trade it. Keep all receipts for completed maintenance with your vehicle.

We have established regular maintenance intervals for your vehicle based upon rigorous testing. It is important that you have your vehicle serviced at the proper times. These intervals serve two purposes; one is to maintain the reliability of your vehicle and the second is to keep your cost of owning your vehicle down.

It is your responsibility to have all scheduled maintenance performed and to make sure that the materials used meet the specifications identified in this owner's manual. See **Capacities and Specifications** (page 302).

Failure to perform scheduled maintenance invalidates warranty coverage on parts affected by the lack of maintenance.

### Why Maintain Your Vehicle at Your Dealership?

#### Factory-Trained Technicians

Service technicians participate in extensive factory-sponsored certification training to help them become experts on the operation of your vehicle. Ask your dealership about the training and certification their technicians have received.

### Genuine Ford and Motorcraft® Replacement Parts

Dealerships stock Ford, Motorcraft and Ford-authorized branded re-manufactured replacement parts. These parts meet or exceed our specifications. Parts installed at your dealership carry a nationwide 24-month or unlimited mile (kilometer) parts and labor limited warranty.

If you do not use Ford authorized parts they may not meet our specifications and depending on the part, it could affect emissions compliance.

### Convenience

Many dealerships have extended evening and Saturday hours to make your service visit more convenient and they offer one stop shopping. They can perform any services that are required on your vehicle, from general maintenance to collision repairs.

**Note:** *Not all dealers have extended hours or body shops. Please contact your dealer for details.*

### Protecting Your Investment

Maintenance is an investment that pays dividends in the form of improved reliability, durability and resale value. To maintain the proper performance of your vehicle and its emission control systems, make sure you have scheduled maintenance performed at the designated intervals.

Your vehicle is equipped with the Intelligent Oil-Life Monitor system, which displays a message in the information display at the proper oil change interval. This interval may be up to one year or 10,000 mi (16,000 km).



# Scheduled Maintenance

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When the oil change message appears in the information display, it is time for an oil change. Make sure you perform the oil change within two weeks or 500 mi (800 km) of the message appearing. Make sure you reset the Intelligent Oil-Life Monitor after each oil change. See **Oil Change Indicator Reset** (page 248).

If your information display resets prematurely or becomes inoperative, you should perform the oil change interval at six months or 5,000 mi (8,000 km) from your last oil change. Never exceed one year or 10,000 mi (16,000 km) between oil change intervals.

Your vehicle is very sophisticated and built with multiple, complex, performance systems. Every manufacturer develops these systems using different specifications and performance features. That is why it is important to rely upon your dealership to properly diagnose and repair your vehicle.

Ford Motor Company has recommended maintenance intervals for various parts and component systems based upon engineering testing. Ford Motor Company relies upon this testing to determine the most appropriate mileage for replacement of oils and fluids to protect your vehicle at the lowest overall cost to you and recommends against maintenance schedules that deviate from the scheduled maintenance information.

We strongly recommend the use of only genuine Ford, Motorcraft or Ford-authorized re-manufactured replacement parts engineered for your vehicle.

## Additives and Chemicals

This owner's manual and the Ford Workshop Manual list the recommended additives and chemicals for your vehicle. We do not recommend using chemicals or additives not approved by us as part of your vehicle's normal maintenance. Please consult your warranty information.

## Oils, Fluids and Flushing

In many cases, fluid discoloration is a normal operating characteristic and, by itself, does not necessarily indicate a concern or that the fluid needs to be changed. However, a qualified expert, such as the factory-trained technicians at your dealership, should inspect discolored fluids that also show signs of overheating or foreign material contamination immediately.

Make sure to change your vehicle's oils and fluids at the specified intervals or in conjunction with a repair. Flushing is a viable way to change fluid for many vehicle sub-systems during scheduled maintenance. It is critical that systems are flushed only with new fluid that is the same as that required to fill and operate the system or using a Ford-approved flushing chemical.

## Owner Checks and Services

Make sure you perform the following basic maintenance checks and inspections every month or at six-month intervals.

# Scheduled Maintenance

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<b>Check Every Month</b>
Engine oil level.
Function of all interior and exterior lights.
Tires (including spare) for wear and proper pressure.
Windshield washer fluid level.
Fuel and water separator. Drain if necessary (or if indicated by the information display).
Holes and slots in the tail pipe to make sure they are functional and clear of debris.

<b>Check Every Six Months</b>
Battery connections. Clean if necessary.
Body and door drain holes for obstructions. Clean if necessary.
Cooling system fluid level and coolant strength.
Door weatherstrips for wear. Lubricate if necessary.
Hinges, latches and outside locks for proper operation. Lubricate if necessary.
Parking brake for proper operation.
Seatbelts and seat latches for wear and function.
Safety warning lamps (brake, ABS, airbag and seatbelt) for operation.
Washer spray and wiper operation. Clean or replace blades as necessary.

## Multi-Point Inspection

In order to keep your vehicle running right, it is important to have the systems on your vehicle checked regularly. This can help identify potential issues and prevent major problems. We recommend having the following multi-point inspection performed at every scheduled maintenance interval to help make sure your vehicle keeps running great.

## Scheduled Maintenance

Multi-Point Inspection	
Accessory drive belt(s)	Hazard warning system operation
Battery performance	Horn operation
Engine air filter	Radiator, cooler, heater and air conditioning hoses
Exhaust system	Suspension components for leaks or damage
Exterior lamps operation	Steering and linkage
Fluid levels <sup>1</sup> ; fill if necessary	Tires (including spare) for wear and proper pressure <sup>2</sup>
For oil and fluid leaks	Windshield for cracks, chips or pits
Half-shaft dust boots	Washer spray and wiper operation

<sup>1</sup> Brake, coolant recovery reservoir, automatic transmission and window washer

<sup>2</sup> If your vehicle is equipped with a temporary mobility kit, check the tire sealant expiration Use By date on the canister. Replace as needed.

Be sure to ask your dealership service advisor or technician about the multi-point vehicle inspection. It is a comprehensive way to perform a thorough inspection of your vehicle. Your checklist gives you immediate feedback on the overall condition of your vehicle.

### **NORMAL SCHEDULED MAINTENANCE**

# Scheduled Maintenance

## Intelligent Oil-Life Monitor

### Normal Maintenance Intervals

<b>At Every Oil Change Interval as Indicated by the Information Display<sup>1</sup></b>	
Change engine oil and filter.	
Rotate tires, inspect tire wear and measure tread depth.	
Perform a multi-point inspection, recommended.	
Inspect the automatic transmission fluid level (if equipped with dipstick). Consult your dealer for requirements.	
Inspect the brake pads, shoes, rotors, drums, brake linings, hoses and parking brake.	
Inspect the engine cooling system strength and hoses.	
Inspect the exhaust system and heat shields.	
Inspect front axle and U-joints. Lubricate if equipped with grease fittings. Four-wheel drive vehicles.	
Inspect the half-shaft boots.	
Inspect the steering linkage, ball joints, suspension, tire-rod ends, driveshaft and U-joints. Lubricate any areas with grease fittings.	
Inspect the wheels and related components for abnormal noise, wear, looseness or drag.	
Fuel and water separator. Drain if necessary or if indicated by the information display.	
Inspect the air filter restriction gauge. Replace the filter if necessary.	

<sup>1</sup> Do not exceed one year or 10,000 mi (16,000 km) between service intervals.

<b>Other Maintenance Items<sup>1</sup></b>	
Every 20,000 mi (32,000 km)	Replace cabin air filter.
Every 30,000 mi (48,000 km)	Replace engine air filter.
	Replace the engine-mounted and frame-mounted fuel filters.
At 100,000 mi (160,000 km)	Change engine coolant. <sup>2</sup>

# Scheduled Maintenance

Other Maintenance Items <sup>1</sup>	
Every 100,000 mi (160,000 km)	Replace spark plugs.
	Inspect accessory drive belt or belts. <sup>3</sup>
Every 150,000 mi (240,000 km)	Change automatic transmission fluid and filter.
	Change front axle fluid. Four-wheel drive vehicles.
	Change rear axle fluid.
	Change transfer case fluid. Four-wheel drive vehicles.
	Replace accessory drive belt or belts.

<sup>1</sup> Perform these maintenance items within 3,000 mi (4,800 km) of the last engine oil and filter change. Do not exceed the designated distance for the interval.

<sup>2</sup> Initial replacement at six years or 100,000 mi (160,000 km), then every three years or 50,000 mi (80,000 km).

<sup>3</sup> After initial inspection, inspect every other oil change until replaced.

## SPECIAL OPERATING CONDITIONS SCHEDULED MAINTENANCE

If you operate your vehicle **primarily** in any of the following conditions, you need to perform extra maintenance, as indicated. If you operate your vehicle **occasionally** under any of these conditions, it is not necessary to perform the extra maintenance. For specific recommendations, see your dealership service advisor or technician.

Perform the services shown in the following tables when specified or within 3,000 mi (4,800 km) of the **OIL CHANGE REQUIRED** message appearing in the information display.

- **Example 1:** The **OIL CHANGE REQUIRED** message comes on at 28,751 mi (46,270 km). Perform the 30,000 mi (48,000 km) automatic transmission fluid replacement.
- **Example 2:** The **OIL CHANGE REQUIRED** message has **not** come on, but the odometer reads 30,000 mi (48,000 km) (for example, the Intelligent Oil-Life Monitor was reset at 25,000 mi (40,000 km)). Perform the engine air filter replacement.

# Scheduled Maintenance

<b>Towing a Trailer or Using a Car-top Carrier</b>	
As required	Change engine oil and filter as indicated by the information display and perform services listed in the Normal Scheduled Maintenance chart.
Inspect frequently, service as required	Inspect and lubricate U-joints.
	See axle maintenance items under <b>Exceptions</b> .
Every 60,000 mi (96,000 km)	Replace spark plugs.

<b>Extensive Idling or Low-speed Driving for Long Distances, as in Heavy Commercial Use (Such as Delivery, Taxi, Patrol Car or Livery)</b>	
As required	Change engine oil and filter as indicated by the information display and perform services listed in the Normal Scheduled Maintenance chart.
Inspect frequently, service as required	Replace engine air filter.
Every 60,000 mi (96,000 km)	Replace spark plugs.

<b>Operating in Dusty or Sandy Conditions (Such as Unpaved or Dusty Roads)</b>	
Inspect frequently, service as required	Replace engine air filter.
Every 5,000 mi (8,000 km)	Inspect the wheels and related components for abnormal noise, wear, looseness or drag.
	Rotate tires, inspect tires for wear and measure tread depth.
Every 5,000 mi (8,000 km) or six months	Change engine oil and filter. <sup>1</sup>

<sup>1</sup>Reset your Intelligent Oil-Life Monitor after each engine oil and filter change.

# Scheduled Maintenance

Off-road Operation	
Inspect frequently, service as required	Inspect steering linkage, ball joints and U-joints. Lubricate if equipped with grease fittings.
	Replace engine air filter.
Every 5,000 mi (8,000 km) or six months	Change engine oil and filter. <sup>1</sup>
	Inspect the wheels and related components for abnormal noise, wear, looseness or drag.
	Rotate tires, inspect tires for wear and measure tread depth.

<sup>1</sup>Reset your Intelligent Oil-Life Monitor after each engine oil and filter change.

## Exceptions

There are several exceptions to the Normal Schedule.

### Axle and Transfer Case Maintenance

Axle(s) and transfer case (Four-wheel drive vehicles) fluid changes or level checks are not required unless a leak is suspected or the assembly has been submerged in water. Contact an authorized dealer for service.

### California Fuel Filter Replacement

If you register your vehicle in California, the California Air Resources Board has determined that the failure to perform this maintenance item does not nullify the emission warranty or limit recall liability before the completion of your vehicle's useful life. Ford Motor Company, however, urges you to have all recommended maintenance services performed at the specified intervals and to record all vehicle service.

## Hot Climate Oil Change Intervals

Vehicles operating in the Middle East, North Africa, Sub-Saharan Africa or locations with similar climates using an American Petroleum Institute (API) Certified for Gasoline Engines (Certification mark) oil of SM or SN quality, the normal oil change interval is 3,000 mi (4,800 km).

If the available API SM or SN oils are not available, then the oil change interval is 1,800 mi (2,900 km).

## Engine Air Filter Replacement

The life of the engine air filter is dependent on exposure to dusty and dirty conditions. Vehicles operated in these conditions require frequent inspection and replacement of the engine air filter.

## SCHEDULED MAINTENANCE RECORD

# Scheduled Maintenance

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<input type="radio"/> Repair Order #:	<p>Dealer stamp</p>
<input type="radio"/> Distance:	
<input type="radio"/> Engine hours (optional):	
<input type="radio"/> Multi-point inspection (recommended): <input type="checkbox"/>	
<input type="radio"/> Signature:	

<input type="radio"/> Repair Order #:	<p>Dealer stamp</p>
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<input type="radio"/> Engine hours (optional):	
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<input type="radio"/> Signature:	

# Appendices

## ELECTROMAGNETIC COMPATIBILITY



**WARNING:** Do not place objects or mount equipment on or near the airbag cover, on the side of the seatbacks (of the front seats), or in front seat areas that may come into contact with a deploying airbag. Failure to follow these instructions may increase the risk of personal injury in the event of a crash.



**WARNING:** Do not fasten antenna cables to original vehicle wiring, fuel pipes and brake pipes.

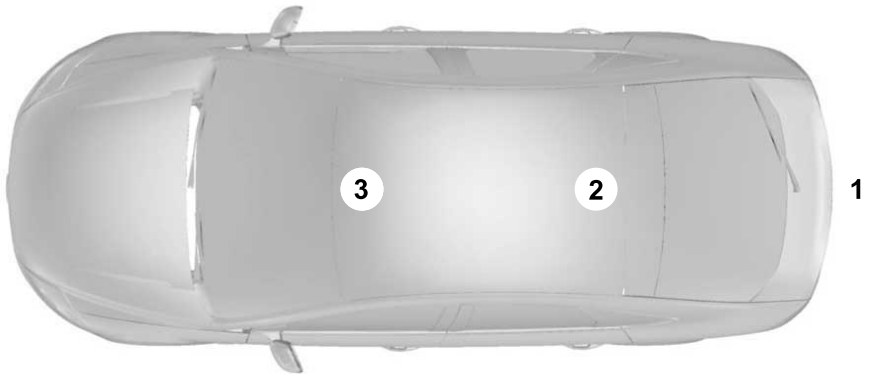


**WARNING:** Keep antenna and power cables at least 4 in (10 cm) from any electronic modules and airbags.

**Note:** We test and certify your vehicle to meet electromagnetic compatibility legislation (UNECE Regulation 10 or other applicable local requirements). It is your responsibility to make sure that any equipment an authorized dealer installs on your vehicle complies with applicable local legislation and other requirements.

**Note:** Any radio frequency transmitter equipment in your vehicle (such as cellular telephones and amateur radio transmitters) must keep to the parameters in the following table. We do not provide special provisions or conditions for installations or use.

### Car



E239120

# Appendices

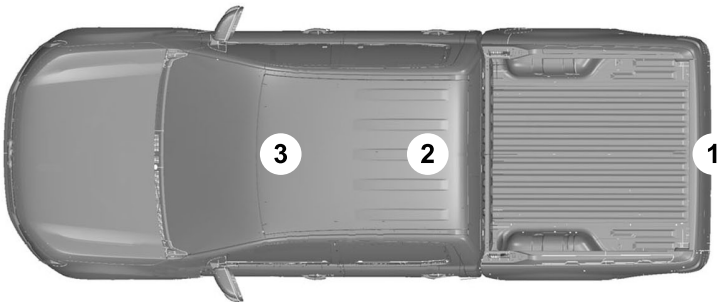
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## Van



E239122

## Truck



E239121

# Appendices

Frequency Band MHz	Maximum output power Watt (Peak RMS)	Antenna Positions
1-30	50	1
50-54	50	2, 3
68-88	50	2, 3
142-176	50	2, 3
380-512	50	2, 3
806-870	10	2, 3

**Note:** After the installation of radio frequency transmitters, check for disturbances from and to all electrical equipment in your vehicle, both in the standby and transmit modes.

Check all electrical equipment:

- With the ignition ON.
- With the engine running.
- During a road test at various speeds.

Check that electromagnetic fields generated inside your vehicle cabin by the transmitter installed do not exceed applicable human exposure requirements.

## END USER LICENSE AGREEMENT

### VEHICLE SOFTWARE END USER LICENSE AGREEMENT (EULA)

- You ("You" or "Your" as applicable) have acquired a vehicle having several devices, including SYNC ® and various control modules, ("DEVICES") that include software licensed or owned by Ford Motor Company and its affiliates ("FORD MOTOR COMPANY"). Those software products of FORD MOTOR COMPANY origin, as well as associated media, printed materials, and "online" or electronic documentation ("SOFTWARE") are protected by international intellectual property laws and treaties. The SOFTWARE is licensed, not sold. All rights reserved.
- The SOFTWARE may interface with and/or communicate with, or may be later upgraded to interface with and/or communicate with additional software and/or systems provided by FORD MOTOR COMPANY.

# Appendices

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**IF YOU DO NOT AGREE TO THIS END USER LICENSE AGREEMENT ("EULA") DO NOT USE THE DEVICES OR COPY THE SOFTWARE. ANY USE OF THE SOFTWARE, INCLUDING BUT NOT LIMITED TO USE ON THE DEVICES, WILL CONSTITUTE YOUR AGREEMENT TO THIS EULA (OR RATIFICATION OF ANY PREVIOUS CONSENT).**

**GRANT OF SOFTWARE LICENSE:** This EULA grants you the following license:

- You may use the SOFTWARE as installed on the DEVICES and as otherwise interfacing with systems and/or services provide by or through FORD MOTOR COMPANY or its third party software and service providers.

## **Description of Other Rights and Limitations**

- **Speech Recognition:** If the SOFTWARE includes speech recognition component(s), you should understand that speech recognition is an inherently statistical process and that recognition errors are inherent in the process. Neither FORD MOTOR

COMPANY nor its suppliers shall be liable for any damages arising out of errors in the speech recognition process. It is your responsibility to monitor any speech recognition functions included in the system.

- **Limitations on Reverse Engineering, Decompilation and Disassembly:**

You may not reverse engineer, decompile, translate, disassemble or attempt to discover any source code or underlying ideas or algorithms of the SOFTWARE nor permit others to reverse engineer, decompile or disassemble the SOFTWARE, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation or to the extent as may be permitted by the licensing terms governing use of any open source components included with the SOFTWARE.

- **Limitations on Distributing, Copying, Modifying and Creating Derivative Works:**

You may not distribute, copy, make modifications to or create derivative works based on the SOFTWARE, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation or to the extent as may be permitted by the licensing terms governing use of any open source components included with the SOFTWARE.

- **Single EULA:** The end user documentation for the DEVICES and related systems and services may contain multiple EULAs, such as multiple translations and/or multiple media versions (e.g., in the user documentation and in the software). Even if you receive multiple EULAs, you are licensed to use only one (1) copy of the SOFTWARE.

# Appendices

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- **SOFTWARE Transfer:** You may permanently transfer your rights under this EULA only as part of a sale or transfer of the DEVICES, provided you retain no copies, you transfer all of the SOFTWARE (including all component parts, the media and printed materials, any upgrades, and, if applicable, the Certificate(s) of Authenticity), and the recipient agrees to the terms of this EULA. If the SOFTWARE is an upgrade, any transfer must include all prior versions of the SOFTWARE.
- **Termination:** Without prejudice to any other rights, FORD MOTOR COMPANY may terminate this EULA if you fail to comply with the terms and conditions of this EULA.
- **Internet-Based Services Components:** The SOFTWARE may contain components that enable and facilitate the use of certain Internet-based services. You acknowledge and agree that FORD MOTOR COMPANY, third party software and service suppliers, its affiliates and/or its designated agent may automatically check the version of the SOFTWARE and/or its components that you are utilizing and may provide upgrades or supplements to the SOFTWARE that may be automatically downloaded to your DEVICES.
- **Additional Software/Services:** The SOFTWARE may permit FORD MOTOR COMPANY, third party software and service suppliers, its affiliates and/or its designated agent to provide or make available to you SOFTWARE updates, supplements, add-on components, or Internet-based services components of the SOFTWARE after the date you obtain your initial copy of the SOFTWARE ("Supplemental Components".) SOFTWARE updates may cause you to incur additional charges from your wireless service provider. If FORD MOTOR COMPANY or third party software and services suppliers provide or make available to you Supplemental Components and no other EULA terms are provided along with the Supplemental Components, then the terms of this EULA shall apply. FORD MOTOR COMPANY, its affiliates and/or its designated agent reserve the right to discontinue without liability any Internet-based services provided to you or made available to you through the use of the SOFTWARE.
- **Links to Third Party Sites:** The SOFTWARE may provide you with the ability to link to third party sites. The third party sites are not under the control of FORD MOTOR COMPANY, its affiliates and/or its designated agent. Neither FORD MOTOR COMPANY nor its affiliates nor its designated agent are responsible for (i) the contents of any third party sites, any links contained in third party sites, or any changes or updates to third party sites, or (ii) webcasting or any other form of transmission received from any third party sites. If the SOFTWARE provides links to third party sites, those links are provided to you only as a convenience, and the inclusion of any link does not imply an endorsement of the third party site by FORD MOTOR COMPANY, its affiliates and/or its designated agent.
- **Obligation to Drive Responsibly:** You recognize your obligation to drive responsibly and keep attention on the road. You will read and abide with the DEVICES operating instructions particularly as they pertain to safety and you agree to assume any risk associated with the use of the DEVICES.

# Appendices

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## **UPGRADES AND RECOVERY MEDIA:**

If the SOFTWARE is provided by FORD MOTOR COMPANY separate from the DEVICES on media such as a ROM chip, CD ROM disk(s) or via web download or other means, and is labeled "For Upgrade Purposes Only" or "For Recovery Purposes Only" you may install one (1) copy of such SOFTWARE onto the DEVICES as a replacement copy for the existing SOFTWARE, and use it in accordance with this EULA, including any additional EULA terms accompanying the upgrade SOFTWARE.

## **INTELLECTUAL PROPERTY RIGHTS:**

All title and intellectual property rights in and to the SOFTWARE (including but not limited to any images, photographs, animations, video, audio, music, text and "applets" incorporated into the SOFTWARE), the accompanying printed materials, and any copies of the SOFTWARE, are owned by FORD MOTOR COMPANY, or its affiliates or suppliers. The SOFTWARE is licensed, not sold. You may not copy the printed materials accompanying the SOFTWARE. All title and intellectual property rights in and to the content which may be accessed through use of the SOFTWARE is the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants you no rights to use such content outside its intended use. All rights not specifically granted under this EULA are reserved by FORD MOTOR COMPANY, its affiliates, and third party software and service providers and suppliers. Use of any on-line services which may be accessed through the SOFTWARE may be governed by the respective terms of use relating to such services. If this SOFTWARE contains documentation that is provided only in electronic form, you may print one copy of such electronic documentation.

**EXPORT RESTRICTIONS:** You acknowledge that the SOFTWARE is subject to U.S. and European Union export jurisdiction. You agree to comply with all applicable international and national laws that apply to the SOFTWARE, including the U.S. Export Administration Regulations, as well as end-user, end-use and destination restrictions issued by U.S. and other governments.

**TRADEMARKS:** This EULA does not grant you any rights in connection with any trademarks or service marks of FORD MOTOR COMPANY, its affiliates, and third party software and service providers.

**PRODUCT SUPPORT:** Please refer to FORD MOTOR COMPANY instructions provided in the documentation for the DEVICES product support, such as the vehicle owner guide.

Should you have any questions concerning this EULA, or if you desire to contact FORD MOTOR COMPANY for any other reason, please refer to the address provided in the documentation for the DEVICES.

## **No Liability for Certain Damages:**

EXCEPT AS PROHIBITED BY LAW, FORD MOTOR COMPANY, ANY THIRD PARTY SOFTWARE OR SERVICES SUPPLIERS, AND THEIR AFFILIATES SHALL HAVE NO LIABILITY FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE SOFTWARE. THIS LIMITATION SHALL APPLY EVEN IF ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE. THERE ARE NO WARRANTIES OTHER THAN THOSE THAT MAY BE EXPRESSLY PROVIDED FOR YOUR NEW VEHICLE.

# Appendices

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## **SYNC® Automotive Important Safety Information Read and follow instructions:**

- Before using your SYNC® system, read and follow all instructions and safety information provided in this end user manual ("Owner Guide".) Not following precautions found in the Owner Guide can lead to an accident or other serious injuries.

### General Operation

- **Voice Command Control:** Certain functions within the SYNC® system may be accomplished using voice commands. Using voice commands while driving helps you to operate the system without removing your hands from the wheel or eyes from the road.
- **Prolonged Views of Screen:** Do not access any function requiring a prolonged view of the screen while you are driving. Pull over in a safe and legal manner before attempting to access a function of the system requiring prolonged attention.
- **Volume Setting:** Do not raise the volume excessively. Keep the volume at a level where you can still hear outside traffic and emergency signals while driving. Driving while unable to hear these sounds could cause an accident.
- **Navigation Features:** Any navigation features included in the system are intended to provide turn by turn instructions to get you to a desired destination. Please make certain all persons using this system carefully read and follow instructions and safety information fully.
- **Distraction Hazard:** Any navigation features may require manual (non-verbal) setup. Attempting to perform such set-up or insert data while driving can distract your attention and could cause an accident or other serious injury. Stop the vehicle in a safe and legal manner before attempting these operations.
- **Let Your Judgment Prevail:** Any navigation features are provided only as an aid. Make your driving decisions based on your observations of local conditions and existing traffic regulations. Any such feature is not a substitute for your personal judgment. Any route suggestions made by this system should never replace any local traffic regulations or your personal judgment or knowledge of safe driving practices.
- **Route Safety:** Do not follow the route suggestions if doing so would result in an unsafe or illegal maneuver, if you would be placed in an unsafe situation, or if you would be directed into an area that you consider unsafe. The driver is ultimately responsible for the safe operation of the vehicle and therefore, must evaluate whether it is safe to follow the suggested directions.
- **Potential Map Inaccuracy:** Maps used by this system may be inaccurate because of changes in roads, traffic controls or driving conditions. Always use good judgment and common sense when following the suggested routes.
- **Emergency Services:** Do not rely on any navigation features included in the system to route you to emergency services. Ask local authorities or an emergency services operator for these locations. Not all emergency services such as police, fire stations, hospitals and clinics are likely to be contained in the map database for such navigation features.



# Appendices

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## Your Responsibilities and Assumptions of Risk

- You agree to each of the following: (a) Any use of the SOFTWARE while driving an automobile or other vehicle in violation of applicable law or otherwise driving in an unsafe manner presents a significant risk of distracted driving and should not be attempted under any circumstances; (b) Use of the SOFTWARE at excessive volume poses a significant risk of hearing damage and should not be attempted under any circumstances; (c) The SOFTWARE may not be compatible with new or different versions of an operating system, third party software, or third party services, and the SOFTWARE may potentially cause a critical failure of an operating system, third party software, or third party service. (d) Any third party service accessed by or third party software used with the SOFTWARE (I) may charge an additional fee for access, (ii) may not work correctly, on an uninterrupted basis, or error free, (iii) may change streaming formats or discontinue operation, (iv) may contain adult, profane or offensive content; and (v) may contain inaccurate, false or misleading traffic, weather, financial or safety information or other content; and (e) Use of the SOFTWARE may cause you to incur additional charges from your wireless service provider (WSP) and any data or minute calculators that may be included in the software program are for reference only, are not warranted in any way and should not be relied upon in anyway.
- When using the SOFTWARE, you agree to be responsible for and assume the entire risk to the items set forth in Section (a) – (e) above.

## Disclaimer of Warranty

YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF THE DEVICES AND SOFTWARE IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, COMPATIBILITY, ACCURACY AND EFFORT IS WITH YOU. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE SOFTWARE AND ANY THIRD PARTY SOFTWARE OR THIRD-PARTY SERVICES ARE PROVIDED "AS IS" AND "AS AVAILABLE", WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND FORD MOTOR COMPANY HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE SOFTWARE, THIRD PARTY SOFTWARE, AND THIRD-PARTY SERVICES, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, OF SATISFACTORY QUALITY, OF FITNESS FOR AN PARTICULAR PURPOSE, OF ACCURACY, OF QUIET ENJOYMENT, AND NON-INFRINGEMENT OF THIRD-PARTY RIGHTS. FORD MOTOR COMPANY DOES NOT WARRANT (a) AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES, (b) THAT THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL MEET YOUR REQUIREMENTS, (c) THAT THE OPERATION OF THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL BE UNINTERRUPTED OR ERROR-FREE, (d) OR THAT DEFECTS IN THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES WILL BE CORRECTED. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY FORD MOTOR COMPANY OR ITS AUTHORIZED REPRESENTATIVE SHALL

# Appendices

CREATE A WARRANTY. SHOULD THE SOFTWARE, THIRD PARTY SOFTWARE, OR THIRD-PARTY SERVICES PROVE DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. SOME JURISDICTIONS DO NOT ALLOW THE DISCLAIMER OF IMPLIED WARRANTIES OR LIMITATIONS ON APPLICABLE STATUTORY RIGHTS OF A CONSUMER, SO THE ABOVE DISCLAIMER MAY NOT FULLY APPLY TO YOU. THE SOLE WARRANTY PROVIDED BY FORD MOTOR COMPANY SHALL BE FOUND IN THE WARRANTY INFORMATION INCLUDING WITH YOUR OWNER GUIDE. TO THE EXTENT THAT THERE IS ANY CONFLICT BETWEEN THE TERMS OF THIS SECTION AND THE WARRANTY BOOKLET, THE WARRANTY BOOKLET SHALL CONTROL.

## Applicable Law, Venue, Jurisdiction

- The laws of the State of Michigan govern this EULA and Your use of the SOFTWARE. Your use of the SOFTWARE may also be subject to other local, state, national, or international laws. Any litigation arising out of or related to this EULA shall be brought and maintained exclusively in a court of the State of Michigan located in Wayne County or in the United States District Court for the Eastern District of Michigan. You hereby consent to submit to the personal jurisdiction of a court in the State of Michigan located in Wayne County and the United States District Court for the Eastern District of Michigan for any dispute arising out of or relating to this EULA.

## Binding Arbitration and Class Action Waiver

**(a) Application.** This Section applies to any dispute EXCEPT IT DOES NOT INCLUDE A DISPUTE RELATING TO COPYRIGHT INFRINGEMENT, OR TO THE ENFORCEMENT OR VALIDITY OF YOUR, FORD MOTOR COMPANY, OR ANY OF FORD MOTOR COMPANY'S LICENSORS' INTELLECTUAL PROPERTY RIGHTS.

Dispute means any dispute, action, or other controversy between You and FORD MOTOR COMPANY, other than the exceptions listed above, concerning the SOFTWARE (including its price) or this EULA, whether in contract, warranty, tort, statute, regulation, ordinance, or any other legal or equitable basis.

**(b) Notice of Dispute.** In the event of a Dispute, You or FORD MOTOR COMPANY must give the other a "Notice of Dispute", which is a written statement of the name, address, and contact information of the party giving it, the facts giving rise to the dispute, and the relief requested. You and FORD MOTOR COMPANY will attempt to resolve any dispute through informal negotiation within 60 days from the date the Notice of Dispute is sent. After 60 days, You or FORD MOTOR COMPANY may commence arbitration.

**(c) Small claims court.** You may also litigate any dispute in small claims court in your county of residence or FORD MOTOR COMPANY'S principal place of business, if the dispute meets all requirements to be heard in the small claims court. You may litigate in small claims court whether or not You negotiated informally first.

**(d) Binding arbitration.** If You and FORD MOTOR COMPANY, do not resolve any dispute by informal negotiation or in small claims court, any other effort to resolve the dispute will be conducted exclusively by binding arbitration. You are giving up

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the right to litigate (or participate in as a party or class member) all disputes in court before a judge or jury. Instead, all disputes will be resolved before a neutral arbitrator, whose decision will be final except for a limited right of appeal under the Federal Arbitration Act. Any court with jurisdiction over the parties may enforce the arbitrator's award.

**(e) Class action waiver.** Any proceedings to resolve or litigate any dispute in any forum will be conducted solely on an individual basis. Neither you nor FORD MOTOR COMPANY, will seek to have any dispute heard as a class action, as a private attorney general action, or in any other proceeding in which any party acts or proposes to act in a representative capacity. No arbitration or proceeding will be combined with another without the prior written consent of all parties to all affected arbitrations or proceedings.

**(f) Arbitration procedure.** Any arbitration will be conducted by the American Arbitration Association (the "AAA"), under its Commercial Arbitration Rules. If You are an individual and use the SOFTWARE for personal or vehicle use, or if the value of the dispute is \$75,000 or less whether or not You are an individual or how You use the SOFTWARE, the AAA Supplementary Procedures for Consumer-Related Disputes will also apply. To commence arbitration, submit a Commercial Arbitration Rules Demand for Arbitration form to the AAA. You may request a telephonic or in-person hearing by following the AAA rules. In a dispute involving \$10,000 or less, any hearing will be telephonic unless the arbitrator finds good cause to hold an in-person hearing instead. For more information, see [adr.org](http://adr.org) or call 1-800-778-7879. You agree to commence arbitration only in your county of residence or FORD MOTOR COMPANY'S principal place of business. The arbitrator

may award the same damages to You individually as a court could. The arbitrator may award declaratory or injunctive relief only to You individually, and only to the extent required to satisfy Your individual claim.

### **(g) Arbitration fees and incentives.**

- I. Disputes involving \$75,000 or less. FORD MOTOR COMPANY will promptly reimburse your filing fees and pay the AAA's and arbitrator's fees and expenses. If you reject FORD MOTOR COMPANY'S last written settlement offer made before the arbitrator was appointed ("last written offer"), your dispute goes all the way to an arbitrator's decision (called an "award"), and the arbitrator awards you more than the last written offer, FORD MOTOR COMPANY will give you three incentives: (1) pay the greater of the award or \$1,000; (2) pay twice your reasonable attorney's fees, if any; and (3) reimburse any expenses (including expert witness fees and costs) that your attorney reasonably accrues for investigating, preparing, and pursuing your claim in arbitration. The arbitrator will determine the amounts.
- ii. Disputes involving more than \$75,000. The AAA rules will govern payment of filing fees and the AAA's and arbitrator's fees and expenses.
- iii. Disputes involving any amount. In any arbitration you commence, FORD MOTOR COMPANY will seek its AAA or arbitrator's fees and expenses, or Your filing fees it reimbursed, only if the arbitrator finds the arbitration frivolous or brought for an improper purpose. In any arbitration FORD MOTOR COMPANY commences, it will pay all

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filing, AAA, and arbitrator's fees and expenses. It will not seek its attorney's fees or expenses from you in any arbitration. Fees and expenses are not counted in determining how much a dispute involves.

**(h) Claims or disputes must be filed within one year.** To the extent permitted by law, any claim or dispute under this EULA to which this Section applies must be filed within one year in small claims court (Section c) or in arbitration (Section d). The one-year period begins when the claim or dispute first could be filed. If such a claim or dispute is not filed within one year, it is permanently barred.

**(i) Severability.** If the class action waiver (Section e) is found to be illegal or unenforceable as to all or some parts of a dispute, then that portion of Section e will not apply to those parts. Instead, those parts will be severed and proceed in a court of law, with the remaining parts proceeding in arbitration. If any other provision of that portion Section e is found to be illegal or unenforceable, that provision will be severed with the remainder of Section e remaining in full force and effect.

## **Telenav Software End User License Agreement**

Please read these terms and conditions carefully before you use the TeleNav Software. Your use of the TeleNav Software indicates that you accept these terms and conditions. If you do not accept these terms and conditions, do not break the seal of the package, launch, or otherwise use the TeleNav Software. TeleNav may revise this Agreement and the privacy policy at any time, with or without notice to you. You agree to visit <http://www.telenav.com> from time to time to review the then current version of this Agreement and of the privacy policy.

## **1. Safe and Lawful Use**

You acknowledge that devoting attention to the TeleNav Software may pose a risk of injury or death to you and others in situations that otherwise require your undivided attention, and you therefore agree to comply with the following when using the TeleNav Software:

- (a) observe all traffic laws and otherwise drive safely;
  - (b) use your own personal judgment while driving. If you feel that a route suggested by the TeleNav Software instructs you to perform an unsafe or illegal maneuver, places you in an unsafe situation, or directs you into an area that you consider to be unsafe, do not follow such instructions;
  - (c) do not input destinations, or otherwise manipulate the TeleNav Software, unless your vehicle is stationary and parked;
  - (d) do not use the TeleNav Software for any illegal, unauthorized, unintended, unsafe, hazardous, or unlawful purposes, or in any manner inconsistent with this Agreement;
  - (e) arrange all GPS and wireless devices and cables necessary for use of the TeleNav Software in a secure manner in your vehicle so that they will not interfere with your driving and will not prevent the operation of any safety device (such as an airbag).
- You agree to indemnify and hold TeleNav harmless against all claims resulting from any dangerous or otherwise inappropriate use of the TeleNav Software in any moving vehicle, including as a result of your failure to comply with the directions above.

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## 2. Account Information

You agree: (a) when registering the TeleNav Software, to provide TeleNav with true, accurate, current, and complete information about yourself, and (b) to inform TeleNav promptly of any changes to such information, and to keep it true, accurate, current and complete.

## 3. Software License

- Subject to your compliance with the terms of this Agreement, TeleNav hereby grants to you a personal, non-exclusive, non-transferable license (except as expressly permitted below in connection with your permanent transfer of the TeleNav Software license), without the right to sublicense, to use the TeleNav Software (in object code form only) in order to access and use the TeleNav Software. This license shall terminate upon any termination or expiration of this Agreement. You agree that you will use the TeleNav Software only for your personal business or leisure purposes, and not to provide commercial navigation services to other parties.

### 3.1 License Limitations

- **(a)** reverse engineer, decompile, disassemble, translate, modify, alter or otherwise change the TeleNav Software or any part thereof; **(b)** attempt to derive the source code, audio library or structure of the TeleNav Software without the prior express written consent of TeleNav; **(c)** remove from the TeleNav Software, or alter, any of TeleNav's or its suppliers' trademarks, trade names, logos, patent or copyright notices, or other notices or markings; **(d)**

distribute, sublicense or otherwise transfer the TeleNav Software to others, except as part of your permanent transfer of the TeleNav Software; or **(e)** use the TeleNav Software in any manner that

- i. infringes the intellectual property or proprietary rights, rights of publicity or privacy or other rights of any party,
- ii. violates any law, statute, ordinance or regulation, including but not limited to laws and regulations related to spamming, privacy, consumer and child protection, obscenity or defamation, or
- iii. is harmful, threatening, abusive, harassing, tortuous, defamatory, vulgar, obscene, libelous, or otherwise objectionable; and (f) lease, rent out, or otherwise permit unauthorized access by third parties to the TeleNav Software without advanced written permission of TeleNav.

## 4. Disclaimers

- To the fullest extent permissible pursuant to applicable law, in no event will TeleNav, its licensors and suppliers, or agents or employees of any of the foregoing, be liable for any decision made or action taken by you or anyone else in reliance on the information provided by the TeleNav Software. TeleNav also does not warrant the accuracy of the map or other data used for the TeleNav Software. Such data may not always reflect reality due to, among other things, road closures, construction, weather, new roads and other changing conditions. You are responsible for the entire risk arising out of your use of the TeleNav Software. For example but without limitation, you agree not to rely on the TeleNav Software for critical navigation in areas where the well-being or survival of you or others

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is dependent on the accuracy of navigation, as the maps or functionality of the TeleNav Software are not intended to support such high risk applications, especially in more remote geographical areas.

- TELENAV EXPRESSLY DISCLAIMS AND EXCLUDES ALL WARRANTIES IN CONNECTION WITH THE TELENAV SOFTWARE, WHETHER STATUTORY, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES WHICH MAY ARISE FROM COURSE OF DEALING, CUSTOM OR TRADE AND INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS WITH RESPECT TO THE TELENAV SOFTWARE.
- Certain jurisdictions do not permit the disclaimer of certain warranties, so this limitation may not apply to you.

## **5. Limitation of Liability**

- TO THE EXTENT PERMITTED UNDER APPLICABLE LAW, UNDER NO CIRCUMSTANCES SHALL TELENAV OR ITS LICENSORS AND SUPPLIERS BE LIABLE TO YOU OR TO ANY THIRD PARTY FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR EXEMPLARY DAMAGES (INCLUDING IN EACH CASE, BUT NOT LIMITED TO, DAMAGES FOR THE INABILITY TO USE THE EQUIPMENT OR ACCESS DATA, LOSS OF DATA, LOSS OF BUSINESS, LOSS OF PROFITS, BUSINESS INTERRUPTION OR THE LIKE) ARISING OUT OF THE USE OF OR INABILITY TO USE THE TELENAV SOFTWARE, EVEN IF TELENAV HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING ANY DAMAGES THAT YOU MIGHT INCUR FOR ANY

REASON WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ALL DAMAGES REFERENCED HEREIN AND ALL DIRECT OR GENERAL DAMAGES IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE), THE ENTIRE LIABILITY OF TELENAV AND OF ALL OF TELENAV'S SUPPLIERS SHALL BE LIMITED TO THE AMOUNT ACTUALLY PAID BY YOU FOR THE TELENAV SOFTWARE. SOME STATES AND/OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

## **6. Arbitration and Governing Law**

- You agree that any dispute, claim or controversy arising out of or relating to this Agreement or the TeleNav Software shall be settled by independent arbitration involving a neutral arbitrator and administered by the American Arbitration Association in the County of Santa Clara, California. The arbitrator shall apply the Commercial Arbitration Rules of the American Arbitration Association, and the judgment upon the award rendered by the arbitrator may be entered by any court having jurisdiction. Note that there is no judge or jury in an arbitration proceeding and the decision of the arbitrator shall be binding upon both parties. You expressly agree to waive your right to a jury trial. This Agreement and performance hereunder will be governed by and construed in accordance with the laws of the State of California, without giving effect to its conflict of law provisions. To the extent judicial action is necessary in connection with the binding arbitration, both TeleNav and you agree to submit

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to the exclusive jurisdiction of the courts of the County of Santa Clara, California. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

## **7. Assignment**

- You may not resell, assign, or transfer this Agreement or any of your rights or obligations, except in totality, in connection with your permanent transfer of the TeleNav Software, and expressly conditioned upon the new user of the TeleNav Software agreeing to be bound by the terms and conditions of this Agreement. Any such sale, assignment or transfer that is not expressly permitted under this paragraph will result in immediate termination of this Agreement, without liability to TeleNav, in which case you and all other parties shall immediately cease all use of the TeleNav Software. Notwithstanding the foregoing, TeleNav may assign this Agreement to any other party at any time without notice, provided the assignee remains bound by this Agreement.

## **8. Miscellaneous**

### **8.1**

This Agreement constitutes the entire agreement between TeleNav and you with respect to the subject matter hereof.

### **8.2**

Except for the limited licenses expressly granted in this Agreement, TeleNav retains all right, title and interest in and to the TeleNav Software, including without limitation all related intellectual property rights. No licenses or other rights which are not expressly granted in this Agreement are intended to, or shall be, granted or

conferred by implication, statute, inducement, estoppel or otherwise, and TeleNav and its suppliers and licensors hereby reserve all of their respective rights other than the licenses explicitly granted in this Agreement.

### **8.3**

By using the TeleNav Software, you consent to receive from TeleNav all communications, including notices, agreements, legally required disclosures or other information in connection with the TeleNav Software (collectively, "Notices") electronically. TeleNav may provide such Notices by posting them on TeleNav's Website or by downloading such Notices to your wireless device. If you desire to withdraw your consent to receive Notices electronically, you must discontinue your use of the TeleNav Software.

### **8.4**

TeleNav's or your failure to require performance of any provision shall not affect that party's right to require performance at any time thereafter, nor shall a waiver of any breach or default of this Agreement constitute a waiver of any subsequent breach or default or a waiver of the provision itself.

### **8.5**

If any provision herein is held unenforceable, then such provision will be modified to reflect the intention of the parties, and the remaining provisions of this Agreement will remain in full force and effect.



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## 8.6

The headings in this Agreement are for convenience of reference only, will not be deemed to be a part of this Agreement, and will not be referred to in connection with the construction or interpretation of this Agreement. As used in this Agreement, the words "include" and "including" and variations thereof, will not be deemed to be terms of limitation, but rather will be deemed to be followed by the words "without limitation".

## 9. Other Vendors Terms and Conditions

- The Telenav Software utilizes map and other data licensed to Telenav by third party vendors for the benefit of you and other end users. This Agreement includes end-user terms applicable to these companies (included at the end of this Agreement), and thus your use of the Telenav Software is also subject to such terms. You agree to comply with the following additional terms and conditions, which are applicable to Telenav's third party vendor licensors::

### 9.1 End User Terms Required by HERE North America, LLC

The data ("Data") is provided for your personal, internal use only and not for resale. It is protected by copyright, and is subject to the following terms and conditions which are agreed to by you, on the one hand, and Telenav ("Telenav") and its licensors (including their licensors and suppliers) on the other hand.

© 2013 HERE. All rights reserved.

The Data for areas of Canada includes information taken with permission from Canadian authorities, including: © Her Majesty the Queen in Right of Canada, © Queen's Printer for Ontario, © Canada Post Corporation, GeoBase®, © Department of Natural Resources Canada.

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©United States Postal Service® 2014. Prices are not established, controlled or approved by the United States Postal Service®. The following trademarks and registrations are owned by the USPS: United States Postal Service, USPS, and ZIP+4

The Data for Mexico includes certain data from Instituto Nacional de Estadística y Geografía.

### 9.2 End User Terms Required by NAV2 (Shanghai) Co., Ltd

The data ("Data") is provided for your personal, internal use only and not for resale. It is protected by copyright, and is subject to the following terms and conditions which are agreed to by you, on the one hand, and NAV2 (Shanghai) Co., Ltd ("NAV2") and its licensors (including their licensors and suppliers) on the other hand. 20xx. All rights reserved

#### Terms and Conditions

**Permitted Use.** You agree to use this Data together with the Telenav Software solely for the internal business and personal purposes for which you were licensed, and not for service bureau, time-sharing or other similar purposes. Accordingly, but subject to the restrictions set forth in the following paragraphs, you agree not to otherwise reproduce, copy, modify, decompile, disassemble, create any derivative works of, or reverse engineer any portion of this Data, and may not transfer or distribute it in any form, for any purpose, except to the extent permitted by mandatory laws.



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**Restrictions.** Except where you have been specifically licensed to do so by Telenav, and without limiting the preceding paragraph, you may not use this Data (a) with any products, systems, or applications installed or otherwise connected to or in communication with vehicles, capable of vehicle navigation, positioning, dispatch, real time route guidance, fleet management or similar applications; or (b) with or in communication with any positioning devices or any mobile or wireless-connected electronic or computer devices, including without limitation cellular phones, palmtop and handheld computers, pagers, and personal digital assistants or PDAs.

**Warning.** The Data may contain inaccurate or incomplete information due to the passage of time, changing circumstances, sources used and the nature of collecting comprehensive geographic data, any of which may lead to incorrect results.

**No Warranty.** This Data is provided to you “as is,” and you agree to use it at your own risk. Telenav and its licensors (and their licensors and suppliers) make no guarantees, representations or warranties of any kind, express or implied, arising by law or otherwise, including but not limited to, content, quality, accuracy, completeness, effectiveness, reliability, fitness for a particular purpose, usefulness, use or results to be obtained from this Data, or that the Data or server will be uninterrupted or error-free.

**Disclaimer of Warranty:** TELENAV AND ITS LICENSORS (INCLUDING THEIR LICENSORS AND SUPPLIERS) DISCLAIM ANY WARRANTIES, EXPRESS OR IMPLIED, OF QUALITY, PERFORMANCE, MERCHANTABILITY, FITNESS FOR A

PARTICULAR PURPOSE OR NON-INFRINGEMENT. Some States, Territories and Countries do not allow certain warranty exclusions, so to that extent the above exclusion may not apply to you.

**Disclaimer of Liability:** TELENAV AND ITS LICENSORS (INCLUDING THEIR LICENSORS AND SUPPLIERS) SHALL NOT BE LIABLE TO YOU: IN RESPECT OF ANY CLAIM, DEMAND OR ACTION, IRRESPECTIVE OF THE NATURE OF THE CAUSE OF THE CLAIM, DEMAND OR ACTION ALLEGING ANY LOSS, INJURY OR DAMAGES, DIRECT OR INDIRECT, WHICH MAY RESULT FROM THE USE OR POSSESSION OF THE INFORMATION; OR FOR ANY LOSS OF PROFIT, REVENUE, CONTRACTS OR SAVINGS, OR ANY OTHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF YOUR USE OF OR INABILITY TO USE THIS INFORMATION, ANY DEFECT IN THE INFORMATION, OR THE BREACH OF THESE TERMS OR CONDITIONS, WHETHER IN AN ACTION IN CONTRACT OR TORT OR BASED ON A WARRANTY, EVEN IF TELENAV OR ITS LICENSORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some States, Territories and Countries do not allow certain liability exclusions or damages limitations, so to that extent the above may not apply to you.

**Export Control.** You shall not export from anywhere any part of the Data or any direct product thereof except in compliance with, and with all licenses and approvals required under, applicable export laws, rules and regulations, including but not limited to the laws, rules and regulations administered by the Office of Foreign Assets Control of the U.S. Department of Commerce and the Bureau of Industry and Security of the U.S. Department of Commerce. To the extent that any such

# Appendices

export laws, rules or regulations prohibit HERE from complying with any of its obligations hereunder to deliver or distribute Data, such failure shall be excused and shall not constitute a breach of this Agreement.

**Entire Agreement.** These terms and conditions constitute the entire agreement between Telenav (and its licensors, including their licensors and suppliers) and you pertaining to the subject matter hereof, and supersedes in their entirety any and all written or oral agreements previously existing between us with respect to such subject matter.

**Governing Law.** The above terms and conditions shall be governed by the laws of the State of Illinois [insert "Netherlands" where European HERE Data is used], without giving effect to (i) its conflict of laws provisions, or (ii) the United Nations Convention for Contracts for the International Sale of Goods, which is explicitly excluded. You agree to submit to the jurisdiction of the State of Illinois [insert "The Netherlands" where European HERE Data is used] for any and all disputes, claims and actions arising from or in connection with the Data provided to you hereunder.

**Government End Users.** If the Data is being acquired by or on behalf of the United States government or any other entity seeking or applying rights similar to those customarily claimed by the United States government, this Data is a "commercial item" as that term is defined at 48 C.F.R. ("FAR") 2.101, is licensed in accordance with these End-User Terms, and each copy of Data delivered or otherwise furnished shall be marked and embedded as appropriate with the following "Notice of Use," and shall be treated in accordance with such Notice:

NOTICE OF USE
CONTRACTOR (MANUFACTURER/SUPPLIER) NAME: HERE
CONTRACTOR (MANUFACTURER/SUPPLIER) ADDRESS: c/o Nokia, 425 West Randolph Street, Chicago, Illinois 60606
This Data is a commercial item as defined in FAR 2.101 and is subject to these End-User Terms under which this Data was provided.
© 1987 – 2014 HERE – All rights reserved.

If the Contracting Officer, federal government agency, or any federal official refuses to use the legend provided herein, the Contracting Officer, federal government agency, or any federal official must notify HERE prior to seeking additional or alternative rights in the Data.

## I. US/Canada Territory

A. United States Data. The End-User Terms for any Application containing Data for the United States shall contain the following notices:

"HERE holds a non-exclusive license from the United States Postal Service® to publish and sell ZIP+4® information."

"©United States Postal Service® 20XX. Prices are not established, controlled or approved by the United States Postal Service®. The following trademarks and registrations are owned by the USPS: United States Postal Service, USPS, and ZIP+4."

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B. Canada Data. The following provisions apply to the Data for Canada, which may include or reflect data from third party licensors (“Third Party Data”), including Her Majesty the Queen in Right of Canada (“Her Majesty”), Canada Post Corporation (“Canada Post”) and the Department of Natural Resources of Canada (“NRCan”):

1. Disclaimer and Limitation: Client agrees that its use of the Third Party Data is subject to the following provisions:

a. Disclaimer: The Third Party Data is licensed on an “as is” basis. The licensors of such data, including Her Majesty, Canada Post and NRCan, make no guarantees, representations or warranties respecting such data, either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy or fitness for a particular purpose.

b. Limitation on Liability: The Third Party Data licensors, including Her Majesty, Canada Post and NRCan, shall not be liable: (i) in respect of any claim, demand or action, irrespective of the nature of the cause of the claim, demand or action alleging any loss, injury or damages, direct or indirect, which may result from the use or possession of such Data; or (ii) in any way for loss of revenues or contracts, or any other consequential loss of any kind resulting from any defect in the Data.

2. Copyright Notice: In connection with each copy of all or any portion of the Data for the Territory of Canada, Client shall affix in a conspicuous manner the following copyright notice on at least one of: (i) the label for the storage media of the copy; (ii) the packaging for the copy; or (iii) other materials packaged with the copy, such as user manuals or end user license agreements: “This data includes information taken with permission from Canadian authorities, including © Her Majesty the Queen in Right of Canada, © Queen’s Printer for Ontario, © Canada Post Corporation, GeoBase®, © The Department of Natural Resources Canada. All rights reserved.”

3. End-User Terms: Except as otherwise agreed by the parties, in connection with the provision of any portion of the Data for the Territory of Canada to End-Users as may be authorized under the Agreement, Client shall provide such End-Users, in a reasonably conspicuous manner, with terms (set forth with other end user terms required to be provided under the Agreement, or as otherwise may be provided, by Client) which shall include the following provisions on behalf of the Third Party Data licensors, including Her Majesty, Canada Post and NRCan:

The Data may include or reflect data of licensors, including Her Majesty the Queen in the Right of Canada (“Her Majesty”), Canada Post Corporation (“Canada Post”) and the Department of Natural Resources Canada (“NRCan”). Such data is licensed on an “as is” basis. The licensors, including Her Majesty, Canada Post and NRCan, make no guarantees, representations or warranties respecting such data,

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either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy or fitness for a particular purpose. The licensors, including Her Majesty, Canada Post and NRCan, shall not be liable in respect of any claim, demand or action, irrespective of the nature of the cause of the claim, demand or action alleging any loss, injury or damages, direct or indirect, which may result from the use or possession of the data or the Data. The licensors, including Her Majesty, Canada Post and NRCan, shall not be liable in any way for loss of revenues or contracts, or any other consequential loss of any kind resulting from any defect in the data or the Data.

End User shall indemnify and save harmless the licensors, including Her Majesty, Canada Post and NRCan, and their officers, employees and agents from and against any claim, demand or action, irrespective of the nature of the cause of the claim, demand or action, alleging loss, costs, expenses, damages or injuries (including injuries resulting in death) arising out of the use or possession of the data or the Data.

4. Additional Provisions: The terms contained in this Section are in addition to all of the rights and obligations of the parties under the Agreement. To the extent that any of the provisions of this Section are inconsistent with, or conflict with, any other provisions of the Agreement, the provisions of this Section shall prevail.

II. Mexico. The following provision applies to the Data for Mexico, which includes certain data from the Instituto Nacional de Estadística y Geografía (“INEGI”):

A. Any and all copies of the Data and/or packaging containing Data for Mexico shall contain the following notice: “Fuente: INEGI (Instituto Nacional de Estadística y Geografía)”

III. Latin America Territory

A. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Territory	Notice
Argentina	IGN “INSTITUTO GEOGRAFICO NACIONAL ARGENTINO”
Ecuador	“INSTITUTO GEOGRAFICO MILITAR DEL ECUADOR AUTORIZACION N° IGM-2011-01- PCO-01 DEL 25 DE ENERO DE 2011” “source: © IGN 2009 - BD TOPO ®”
Guadeloupe, French Guiana and Martinique Mexico	“Fuente: INEGI (Instituto Nacional de Estadística y Geografía)”

IV. Middle East Territory

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A. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Country	Notice
Jordan	“© Royal Jordanian Geographic Centre”. The foregoing notice requirement for Jordan Data is a material term of the Agreement. If Client or any of its permitted sublicensees (if any) fail to meet such requirement, HERE shall have the right to terminate Client’s license with respect to the Jordan Data.

B. Jordan Data. Client and its permitted sublicensees (if any) are restricted from licensing and/or otherwise distributing HERE’s database for the country of Jordan (“Jordan Data”) for use in Enterprise Applications to (i) non-Jordanian entities for use of the Jordan Data solely in Jordan or (ii) Jordan-based customers. In addition, Client, its permitted sublicensees (if any) and End-Users are restricted from using the Jordan Data in Enterprise Applications if such party is (i) a non-Jordanian entity using the Jordan Data solely in Jordan or (ii) a Jordan-based customer. For purposes of the foregoing, “Enterprise Applications” shall mean Geomarketing applications, GIS applications, mobile business asset management applications, call center applications, telematics applications, public organization Internet applications or for providing geocoding services.

## V. Europe Territory

### A. Use of Certain Traffic Codes in Europe

1. General Restrictions Applicable to Traffic Codes. Client acknowledges and agrees that in certain countries of the Europe Territory, Client will need to obtain rights directly from third party RDS-TMC code providers to receive and use the Traffic Codes in the Data and to deliver to End-Users Transactions in any way derived from or based on such Traffic Codes. For such countries, HERE shall deliver the Data incorporating Traffic Codes to Client only after receiving certification from Client of its having obtained such rights.

2. Display of Third Party Rights Legends for Belgium. Client shall, for each Transaction that uses Traffic Codes for Belgium, provide the following notice to the End-User: “Traffic Codes for Belgium are provided by the Ministerie van de Vlaamse Gemeenschap and the Ministère de l’Équipement et des Transports.”

B. Paper Maps. With respect to any license granted to Client relating to making, selling or distributing paper maps (i.e., a map fixed on a paper or paper-like medium): (a) such license with respect to Data for the Territory of Great Britain is conditioned on Client’s entering into and complying with a separate written agreement with the Ordnance Survey (“OS”) to create and sell paper maps, Client’s paying to the OS any and all applicable paper map royalties, and Client’s complying with the OS copyright notice requirements; (b) such license for selling or otherwise distributing for charge with respect to Data for the Territory of Czech Republic

# Appendices

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C. OS Enforcement. Without limiting Section IV(B) above, with respect to Data for the Territory of Great Britain, Client acknowledges and agrees that the Ordnance Survey ("OS") may bring a direct action against Client to enforce compliance with the OS copyright notice (see Section IV(D) below) and paper map requirements (see Section IV(B) above) contained in this Agreement.

D. Third Party Notices. Any and all copies of the Data and/or packaging relating thereto shall include the respective Third Party Notices set forth below and used as described below corresponding to the Territory (or portion thereof) included in such copy:

Country(ies) Notice

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Croatia Cyprus, Estonia, Latvia, Lithuania, Moldova, Poland, Slovenia and/or Ukraine	"© EuroGeographics"
France	"source: © IGN 2009 – BD TOPO ®"
Germany	"Die Grundlagendaten wurden mit Genehmigung der zuständigen Behörden entnommen"
Great Britain	"Contains Ordnance Survey data © Crown copyright and database right 2010 Contains Royal Mail data © Royal Mail copyright and database right 2010"
Greece	"Copyright Geomatics Ltd."
Hungary	"Copyright © 2003; Top-Map Ltd."
Italy	"La Banca Dati Italiana è stata prodotta usando quale riferimento anche cartografia numerica ed al tratto prodotta e fornita dalla Regione Toscana."
Norway	"Copyright © 2000; Norwegian Mapping Authority"
Portugal	"Source: IgeoE – Portugal"

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Sweden “Based upon electronic data © National Land Survey Sweden.”

Switzerland “Topografische Grundlage: © Bundesamt für Landestopographie.

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Product incorporates data which is © 20XX Telstra Corporation Limited, GM Holden Limited, Intelomatics Australia Pty Ltd and Continental Pty Ltd.

B. Third Party Notices for Australia. In addition to the foregoing, the End-User Terms for any Application containing RDS-TMC Traffic Codes for Australia shall contain the following notice: “Product incorporates traffic location codes which is © 20XX Telstra Corporation Limited and its licensors.”

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# Appendices

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(iii) END USER HAS NO PROPERTY RIGHT IN ANY NUMBER ASSIGNED TO THE DEVICE.

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## **VII. China Territory**

### ***Personal Use Only***

You agree to use this Data together with [insert name of Client Application] for the solely personal, non-commercial purposes for which you were licensed, and not for service bureau, time-sharing or other similar purposes. Accordingly, but subject to the restrictions set forth in the following paragraphs, you may copy this Data only as necessary for your personal use to (i)



# Appendices

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## Appendices

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## Radio Frequency Statement

FCC ID: ACJ-SYNCG3-L

IC: 216B-SYNCG3-L

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.



**WARNING:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Taiwan Territory

Note: In accordance with the management approach of low-power radio wave radiation motors:

Article 12: For approved and certified low-power radiation motor models, companies, firms or users must not alter the frequency, increase the power or change the characteristics and functions of the original design without authorization.

Article 14: The usage of low-power radio-frequency motors must not affect aviation safety and interfere with legal telecommunications. Should interference be detected, immediately stop using the device and only resume usage after ensuring that there is no longer any interference. For the legal telecommunication and wireless telecommunication of the telco, the low-power radio frequency motor must be able to tolerate legal limits of interference from telecommunication, industrial, scientific and radio wave equipment.

## SUNA TRAFFIC CHANNEL – TERMS AND CONDITIONS

By activating, using and/or accessing the SUNA Traffic Channel, SUNA Predictive or other content or material provided by Intelematics (together, **SUNA Products and/or Services**), you must accept certain terms and conditions. The following is a brief summary of the terms and conditions that apply to you. To view the full terms and conditions relevant to your use of the SUNA Products and/or Services, please consult:

### Website

[www.sunatrafic.com.au/termsandconditions/](http://www.sunatrafic.com.au/termsandconditions/)

## 1. Acceptance

# Appendices

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Website
<a href="http://www.sunattraffic.com.au/termsandconditions/">www.sunattraffic.com.au/termsandconditions/</a>

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## 4. Use of SUNA Products and Services while driving

You, and other authorised drivers of the vehicle in which SUNA Products and/or Services are available or installed and active, remain at all times responsible for observing all relevant laws and codes of safe driving. In particular, you agree to only actively operate SUNA Products and/or Services when the Vehicle is at a complete stop and it is safe to do so.

## 5. Service Continuity and Reception of the SUNA Traffic Channel

We will use reasonable endeavours to provide the SUNA Traffic Channel 24 hours a day, 365 days a year. The SUNA Traffic Channel may occasionally be unavailable for technical reasons or for planned maintenance. We will try to perform maintenance at times when congestion is light. We reserve the right to withdraw SUNA Products and/or Services at any time.

Also, we cannot assure the uninterrupted reception of the SUNA Traffic Channel RDS-TMC signal at any particular location.

## 6. Limitation of Liability

Neither Intelematics (nor its suppliers or the manufacturer of your device (the “**Suppliers**”)) shall be liable to you or to any third party for any damages either direct, indirect, incidental, consequential or otherwise arising out of the use of or inability to use SUNA Products and/or Services even if Intelematics or a Supplier has been advised of the possibility of such damages. You also acknowledge that the neither Intelematics nor any Supplier guarantees nor make any warranties that relate to the availability, accuracy or completeness of SUNA Products and/or Services, and to the extent which it is lawful to do so, both Intelematics and each Supplier excludes any warranties which might otherwise be implied by any State or Federal legislation in relation to SUNA Products and/or Services.

## 7. Please Note

Great care has been taken in preparing this manual. Constant product development may mean that some information is not entirely up-to-date. The information in this document is subject to change without notice.

# Appendices

## TYPE APPROVALS

### Radio Frequency Certifications for Tire Pressure Monitoring Sensor(s)

#### Argentina



E207816

#### Brazil



E197509

#### Canada

IC: 850K-11545917

IC: 2546A-FP3

#### European Union EU

Herby, Schrader Electronics UK Ltd., declares that this TPMS is in compliance with the essential requirements and other provisions of directive 1999/5/EC. The declaration of conformity may be consulted at [emcteam@schrader.co.uk](mailto:emcteam@schrader.co.uk)

E207818

#### Ghana

NCA APPROVED: 3R88M14030

E253824

#### Jordan

Kingdom of Jordan Type approval for tyre pressre sensor  
Model : AG2SZ4  
Manufacturer:Schrader Electronics Ltd  
Type Approval Number:TRC/LPD/2014/56  
Equipment Type: Low Power Device (LPD)

E253823

#### Malaysia



E253822

#### Mexico

IFT: RLVSCMR15-1238

E253812

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IFT: RLVSCMR15-1249

E253813

## Moldova



E197811

## Morocco



E207821

## Oman

OMAN TRA

TA-R/1752/14

D090258

E253817

## Philippines



NTC

Type Approved

No:ESD-1408639C

E198001

## Russia



E253816

## Serbia



E197844

## Singapore

Complies with  
IDA Standards  
DA 105282

E253820

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## South Africa



TA-2014/064

Approved

E198002

## South Korea



E253819

MSIP-CRM-SRD-AG2SZ4

## Taiwan



CCAM14LP0090T3

E203679

## Ukraine



E253818

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## United Arab Emirates

TRA  
REGISTERED NO:ER0130238/14  
DEALER NO:DA0047074/10

E207817

## United States of America

FCC ID: OUC11545917

FCC ID: MRXFP3

## Radio Frequency Certifications for Mid Range Radar

## Argentina

MMR ID: C-20001

E269659



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## Ghana

MRR ID:  
NCA approved: 0R2-9H-7E1-x4D.

E269662

## South Africa

MRR ID:  
TA-2017/370

E269664

## Jordan

MRR:  
Type Approval No.: TRC/LPD/2017/158  
Equipment Type: Low Power Device (LPD) ID: C-20001

E269660

## United Arab Emirates

MRR ID:  
ERS4071/17, Dealer License Number (WAC Dealer License Number: DA37380/15)

E269663

## Morocco

MRR ID:  
No. D'Agreement: MR 13639 ANRT 2017 (28 March 2017)

E269661

## Radio Frequency Certifications for Passive Anti-Theft System

### Argentina

**CNC** COMISIÓN NACIONAL  
DE COMUNICACIONES

CNC ID: H-13170

E274065

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## Brazil

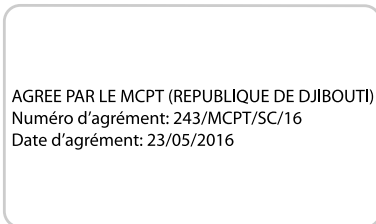


E269675

## Canada

IC: 850K-11545917

## Djibouti



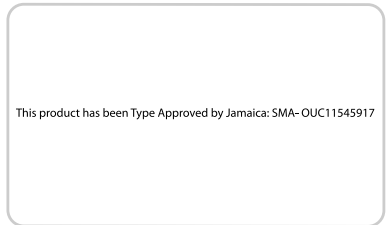
E274068

## Ghana



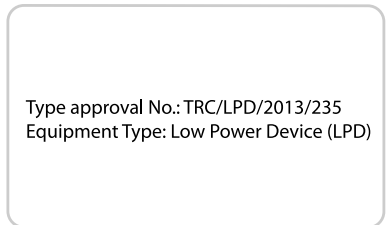
E269674

## Jamaica



E274067

## Jordan



E269666

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## Malaysia



E269673

## Morocco



E269670

## Paraguay



E274066

## Pakistan



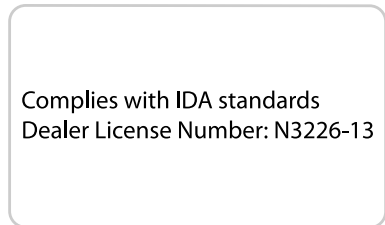
E275754

## Serbia



E269672

## Singapore



E269676

# Appendices

## South Africa



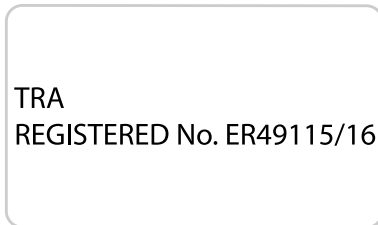
E269667

## Ukraine



E269671

## United Arab Emirates



E269668

## United States of America

FCC ID: OUC11545917

## Vietnam



E269677

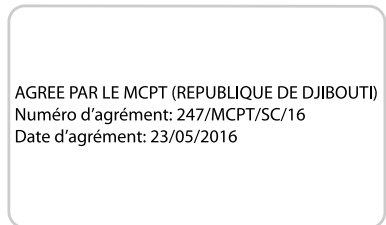
## Radio Frequency Certifications for Radio Transceiver Module

### Canada

IC: 3659A-F03AM315RX

IC: 3659A-F04AM902TRX

### Djibouti



E272192

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## Jamaica

This product has been Type Approved by Jamaica:  
SMA – F03-AM315RX

E272193

## Pakistan

Pakistan Telecommunication Authority  


TAC NO: 14.1008/2015

E269684

## Jordan

Type approval No.: TRC/LPD/2013/233  
Equipment Type: Low Power Device (LPD)

E272194



Date of issuance : 06/01/2015

E287633

## Morocco

N° D'AGRÉMENT: MR 12432 ANRT 2016

E269683

## Paraguay



NR: 2012-11-1-0189

E272195

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## Serbia



E269681

## United Arab Emirates

TRA REGISTERED No. ER46324/16  
DEALER No.: DA37380/15

E272196

## South Africa



E269685

## United States of America

FCC ID: LTQF03AM315RX  
FCC ID: LTQF04AM902TRX

### Radio Frequency Certifications for Blind Spot Information System

#### Canada

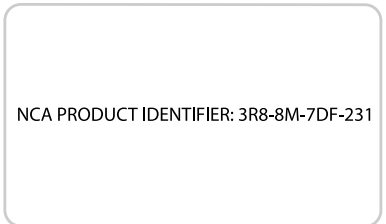
RSS-310 compliant, per FCC Test report  
no.: 1-8707/14-01-03

#### Ghana

## Ukraine



E269682



E269695

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## Malaysia



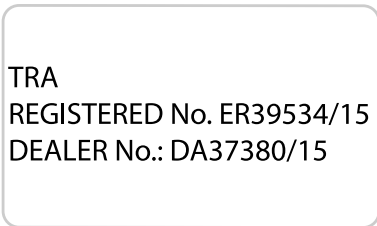
E269697

## South Africa



E269696

## United Arab Emirates



E269694

## United States of America

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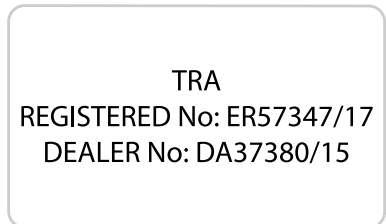
## Vietnam



E269693

## Radio Frequency Certifications for Wireless Charging

## United Arab Emirates



E272903

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## South Korea



E273475

## Radio Frequency Certifications for SYNC 3

### Brazil

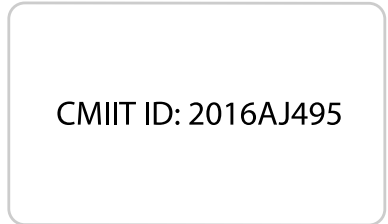


E252722



E282218

## China



E291427

## Radio Frequency Certifications for Cruise Control Module

### Canada

IC: 3432A-0065TR

### United States of America

FCC ID: L2C0065TR

## Radio Frequency Certifications for Body Control Module

### Canada

IC: 7812A-A2C738448

Model #: M: A2C750526

Model #: M: A2C750561

### United States of America

FCC ID: M3NA2C738448

Model #: M: A2C750526

Model #: M: A2C750561

## Radio Frequency Certification for Keys and Remote Controls

### Canada

IC: 7812A-A2C931423

IC: 7812A-A2C931426



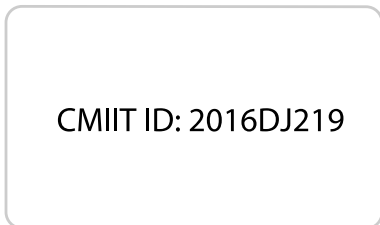
# Appendices

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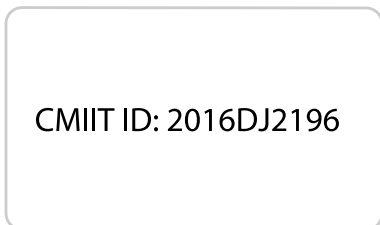
IC: 3248A-A08TAA

IC: 3248A-A08TDA

## China



E291429



E291430

## United States of America

FCC ID : M3N-A2C931423

FCC ID : M3N-A2C931426

FCC ID : N5F-A08TAA

FCC ID : N5F-A08TDA

## Radio Frequency Statement for Audio Unit

### Canada

IC: 3043A-UP375AHU

## United States

FCC ID: NT8-16UP375AHU

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