OMB Control No.: 2127-0004

# **Part 573 Safety Recall Report**

## 16V-160

**Manufacturer Name :** General Motors LLC

Submission Date: MAR 16, 2016 NHTSA Recall No.: 16V-160 Manufacturer Recall No.: 22010



#### **Manufacturer Information:**

Manufacturer Name: General Motors LLC

Address: 30001 VAN DYKE

MAIL CODE 480-210-2V WARREN MI 48090

Company phone: 5961733

### **Population:**

Number of potentially involved: 6,280 Estimated percentage with defect: 100

#### **Vehicle Information:**

Vehicle: 2014-2014 Chevrolet Caprice Police Pursuit Vehicle

Vehicle Type : Body Style :

Power Train: NR

Descriptive Information: Certain 2014 Chevrolet Police Pursuit Vehicles

Production Dates: MAY 15, 2013 - AUG 21, 2014

#### **VIN (Vehicle Identification Number) Range**

 $\begin: NR \\ \begin : NR \\ \begin : NR \\ \begin : NR$ 

Vehicle: 2015-2015 Cevrolet Caprice Police Pursuit Vehicle

Vehicle Type : Body Style : Power Train : NR

Descriptive Information: Certain 2015 Chevrolet Police Pursuit Vehicles

Production Dates : JUL 16, 2014 - AUG 05, 2015

#### **VIN (Vehicle Identification Number) Range**

 $\begin: NR \\ \begin : NR \\ \begin : NR \\ \begin : NR$ 

Vehicle: 2016-2016 Chevrolet Caprice Police Pursuit Vehicle

Vehicle Type : Body Style : Power Train : NR

Descriptive Information: Certain 2016 Chevrolet Police Pursuit Vehicles

Production Dates : AUG 25, 2015 - MAR 03, 2016

VIN (Vehicle Identification Number) Rang	ge
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## **Description of Defect:**

Description of the Defect : General Motors has decided that a defect which relates to motor vehicle safety

exists in certain 2014 - 2016 Chevrolet Caprice Police Pursuit Vehicles (PPVs). Subject to the extended idling times and elevated temperatures experienced in typical police applications, these vehicles may experience loss of electric power steering (EPS) assistance while driving or idling as a result of fretting corrosion on the connector between the EPS module and the torque sensor.

FMVSS 1:NR FMVSS 2:NR

Description of the Safety Risk: If power steering is lost, manual steering functionality is retained but would require an increased steering effort, particularly at lower speeds, increasing the

risk of a crash.

Description of the Cause : In the affected vehicles, the connector between the EPS module and the torque sensor may experience fretting corrosion due to extended idling times and elevated

temperatures experienced in typical police applications.

Identification of Any Warning that can Occur: If power steering assist is lost (i.e., the vehicle reverts to manual steer), a malfunction indicator light displays on the instrument

panel and a chime sounds to inform the driver.

## **Supplier Identification:**

# Component Manufacturer

 $Name: Mando\ Corporation$ 

Address: 5-22, bangye-Ri, Munmak-Eub,

Wonju-City, Gangwon-Do FOREIGN STATES

Country: Korea, Republic of

## **Chronology:**

On September 1, 2015, a GM employee submitted a report to GM's Speak Up for Safety (SUFS) program after complaints from the LaGrange, Illinois police department were received regarding loss of power steering in its Chevrolet Caprice Police Pursuit Vehicle (PPV) fleet.

On October 7, 2015, GM's Holden division of Australia, the assembler of the affected vehicles, commenced a formal investigation into the issue. In January 2016, the assigned investigator found that a previous field action for Model Year 2014 – 2016 Chevrolet Caprice vehicles, in which dielectric grease was applied to the torque sensor harness to address fretting corrosion in its connectors, did not provide sufficient protection against fretting corrosion under the heavy usage schedules for police vehicles (often exceeding 20 hours per day). The investigation found that, because fretting corrosion at the torque sensor harness is a function of cyclic movement under heat and vibration conditions, the heavy usage schedules for police vehicles caused the connector between the EPS module and the torque sensor to experience fretting corrosion at a significantly higher rate than the civilian vehicle population.

The investigation results were reviewed in Open Investigation Review for GM's International Operations division on February 25, 2016, GM's Global Open Investigation Review on March 2, 2015, and GM's North American Open Investigation Review on March 7, 2016. On March 9, 2016, GM's Safety Field Action Decision Authority (SFADA) decided to conduct a safety recall.

# **Description of Remedy:**

Description of Remedy Program: For vehicles still in transit from the plant, epoxy will be applied to the back

of the connector and at the interface between the connector and the steering gear control unit prior to delivery. For vehicles in the field, dealers will replace the steering gear assembly. Pursuant to  $49 \, \text{C.F.R.} \, \S \, 573.13 \, (d) \, (1)$ , all covered vehicles are under warranty so reimbursement is not offered.

 $How\ Remedy\ Component\ Differs\ from\ Recalled\ Component:\ Replacement\ steering\ gears\ have\ gold\ plated$ 

terminals resistant to fretting corrosion. For vehicles still in transit from the plant, the epoxy glue application will minimize the relative movement of the connector terminals that causes fretting corrosion. Recalled Component Name: GEAR ASM-ELEC BELT DRIVE R/PINION STRG Recalled Component Description: Steering

Gear assembly

Recalled Component Part Number: 92280375

**Recalled Component Country of Origin:** 

Korea

Identify How/When Recall Condition was Corrected in Production : As of March 11, 2016, epoxy glue is being added to the back of the connector and at the interface between the connector and

the steering gear during production.

### **Recall Schedule:**

Description of Recall Schedule: General Motors will provide dealer bulletin and owner letter notification dates

when available.

Planned Dealer Notification Date: MAR 16, 2016 - MAR 16, 2016

Planned Owner Notification Date: NR - NR

\* NR - Not Reported