

# Part 573 Safety Recall Report

# 19V-086

**Manufacturer Name :** General Motors LLC**Submission Date :** FEB 07, 2019**NHTSA Recall No. :** 19V-086**Manufacturer Recall No. :** N182182760**Manufacturer Information :**

Manufacturer Name : General Motors LLC

Address : 29427 Louis Chevrolet Road  
MAIL CODE 480-210-2V WARREN MI  
48093

Company phone : 5961733

**Population :**

Number of potentially involved : 26,772

Estimated percentage with defect : 10 %

**Vehicle Information :**

Vehicle 1 : 2016-2018 Cadillac CTS

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Manufacturing records were used to identify the vehicles with the affected electric power steering ("EPS") gear assemblies. 2,875 Cadillac CTS vehicles are affected by this recall.

Production Dates : JUL 01, 2016 - MAY 24, 2017

VIN Range 1 : Begin : NR End : NR  Not sequential

Vehicle 2 : 2017-2017 Chevrolet Camaro

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Manufacturing records were used to identify the vehicles with the affected EPS assist gear assemblies. 13,944 Chevrolet Camaro vehicles are affected by this recall.

Production Dates : JUL 01, 2016 - MAY 19, 2017

VIN Range 1 : Begin : NR End : NR  Not sequential

Vehicle 3 : 2017-2017 Cadillac ATS

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Manufacturing records were used to identify the vehicles with the affected EPS assist gear assemblies. 3,694 Cadillac ATS vehicles are affected by this recall.

Production Dates : JUL 24, 2016 - MAY 30, 2017

VIN Range 1 : Begin : NR End : NR  Not sequential

Vehicle 4 : 2017-2017 Chevrolet Corvette

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Manufacturing records were used to identify the vehicles with the affected EPS assist gear assemblies. 6,259 Chevrolet Corvette vehicles are affected by this recall.

Production Dates : JUL 27, 2016 - MAY 04, 2017

VIN Range 1 : Begin :

NR

End : NR

Not sequential

## Description of Defect :

Description of the Defect : General Motors has decided that a defect which relates to motor vehicle safety exists in certain 2016 – 2018 model year Cadillac CTS and 2017 model year Chevrolet Camaro, Corvette, and Cadillac ATS vehicles. These vehicles may experience a loss of electric power steering (“EPS”) assist while driving. Loss of EPS assist may last an entire ignition cycle, but may return once the vehicle is restarted. Customers may experience this condition during subsequent ignition cycles.

FMVSS 1 : NR

FMVSS 2 : NR

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

Description of the Cause : A manufacturing error at the power steering supplier affected electrical connectivity on the printed circuit board within the steering gear assembly. The connectivity issues could result in intermittent open circuits and a loss of EPS assist.

Identification of Any Warning that can Occur : If power steering assist is lost (i.e., the vehicle reverts to manual steer) a driver information center (DIC) message and audible chime will occur within a few seconds of the intermittent condition and may alert the driver of an EPS problem.

## Supplier Identification :

### Component Manufacturer

Name : Robert Bosch Automotive Steering LLC

Address : 15 Spiral Drive

Florence KENTUCKY 41042

Country : United States

## Chronology :

On September 18, 2018, GM opened an investigation into loss of EPS in 2017 Chevrolet Camaros in response to discussions with NHTSA regarding recently filed VOQs relating to a similar issue.

Between September 19 and late October, GM's safety investigator, with help from engineering-analysis experts, analyzed VOQs, customer complaints, legal claims, and warranty data to assess the number of loss of assist cases in the field and to identify any common root causes. That analysis identified an intermittent electrical loss within the torque-sensor printed circuit board (PCB) of the Bosch power-steering-gear-assembly in roughly 80% of the cases under review. In late October, Bosch confirmed that the same issue was present on 2 Corvette steering gear assemblies returned from the field. GM then conducted a read across and identified the Cadillac CTS and ATS as potentially having the affected PCBs and added them to the suspect vehicle list.

Between November and mid-December, additional field-data analysis showed spikes in warranty rates between June and September 2016, and a three-day window in February 2017. This indicated a bounded supplier quality spill. Between mid-December and late-January 2019, GM worked with Bosch to identify the specific break points for the spill of affected circuit boards. Bosch and their sub-supplier HELLA had good traceability on the affected circuit boards. GM was able to use a Trace Identification Number (TIN) to determine the specific affected VINs.

The investigation was reviewed in GM's Open Investigation Review on January 30, 2019. On January 31, 2019, GM's Safety Field Action Decision Authority decided to conduct a safety recall.

## Description of Remedy :

**Description of Remedy Program :** Dealers will replace the power steering gear assembly. Pursuant to 577.11, GM will provide reimbursement to owners for repairs according to the plan submitted on May 19, 2017.

**How Remedy Component Differs from Recalled Component :** Steering gear assemblies used for remedy do not contain printed circuit boards produced during the suspect production window at the supplier.  
**Recalled Component Name:** GEAR ASM-ELEC BELT DRIVE R/PINION STRG  
**Recalled Component Description:** Power Steering Gear Assembly  
**Recalled Component Part Number:** 84160622, 23, 36, 41, 84165718, 84226078, 84233270, 71, 73, 74, 75, 76, 77, 78, 80, and 84237807  
**Recalled Component Country of Origin:** U.S.

**Identify How/When Recall Condition was Corrected in Production :** The supplier began manual inspection of suspect parts on May 2, 2017 and corrected the associated tooling condition on June 9, 2017.

## Recall Schedule :

**Description of Recall Schedule :** General Motors will notify dealers on Feb. 7, 2019. GM will provide owner letter mail dates when available.

**Planned Dealer Notification Date :** FEB 07, 2019 - FEB 07, 2019

Planned Owner Notification Date : NR - NR

\* NR - Not Reported