

## **Service Bulletin**

## PRELIMINARY INFORMATION

## Subject: 8L45 8L90 Diagnostic Tips for Harsh Shifts

| Brand:    | Model:                              | Model Year: |      | VIN: |     | Engine: | Transmission: |
|-----------|-------------------------------------|-------------|------|------|-----|---------|---------------|
|           |                                     | from        | to   | from | to  |         |               |
| Cadillac  | Escalade,<br>Escalade ESV           | 2015        | 2016 | SOP  | End | All     | 8L90          |
| Cadillac  | ATS, ATS-V,<br>CTS,<br><b>CTS-V</b> | 2016        | 2016 | SOP  | End | All     | 8L45, 8L90    |
| Chevrolet | Corvette,<br>Silverado              | 2015        | 2016 | SOP  | End | All     | 8L90          |
| Chevrolet | Camaro                              | 2016        | 2016 | SOP  | End | All     | 8L45, 8L90    |
| GMC       | Sierra, Yukon                       | 2015        | 2017 | SOP  | End | All     | 8L90          |

| Involved Region or Country | North America and N.A. Export Regions  |  |  |  |
|----------------------------|--|--|--|--|
| Additional RPO/s:          | N/A  |  |  |  |
| Condition                  | Some customers may comment on the transmission in their vehicle is not shifting correctly.       |  |  |  |
| Cause                      | This condition may be caused by one or more clutch fill times not completely learned in the TCM. |  |  |  |

## **Recommendation/Instructions**

The following diagnostic aids should be used as a starting point for 8L45/90 transmission with shift concerns.

Check for Diagnostic Trouble Codes (DTC's) in all modules. Address all DTC's prior to following the information below.

Complete a test drive with the vehicle in an attempt to duplicate the customers concern.

Note: In some case it may be necessary to have the customer drive the vehicle for the technician in an effort to duplicate their specific shift complaint.

GDS2 should be used to capture a session log of the event. A bookmark should be set when the customers shift concern is identified.

Review the GDS2 session log to identify which shift(s) are occurring at each bookmark.

The following bulletins are based on the model year of the vehicle and should only be followed based on the following.

2015 model year vehicles with 7,500 miles or less since the vehicle in service date, TCM calibration update or the Service Fast Learn (SFL) procedure being performed.

2016 model year vehicles with 5,000 miles or less since the vehicle in service date, TCM calibration update or the Service Fast Learn (SFL) procedure being performed.

2017 model year vehicles with 2,500 miles or less since the vehicle in service date, TCM calibration update or the Service Fast Learn (SFL) procedure being performed.

**Note:** Transmission replacement or valve body replacement would have required a Service Fast Learn (SFL) procedure to be performed.

For 2015 model year vehicles follow the information in bulletin 14-07-30-001F: Information on Transmission Adaptive Functions and Correcting Low Mileage Harsh Shifts, Slips, or Flares.

For model year 2016 and 2017 vehicles follow the information in bulletin 16-NA-019: Information on Transmission Adaptive Functions and Correcting Low Mileage Harsh Shifts, Slips, or Flares.

Complete the clutch drive learn procedure for the suspect clutch(s) based on the bookmarks placed in the GDS2 session.

Every clutch may not need to be learned.

The vehicle should be test drove again after the vehicle has been allowed to cool down for 8 or more hours to ensure the cold shift quality is acceptable.

**Note:** Completion of the Service Fast Learn (SFL) will reset all shift adapts and may require that the entire transmission drive learn procedure for each clutch be completed.

Note: The drive learn procedure should only be performed on smooth level roads and may take 45 minutes or more to complete.

**Note:** Vehicles that have had mileage accumulation of 7,500 miles or more for 2015 MY, 5,000 or more on a 2016 MY or 2,500 or more on a 2017 MY after vehicle in service date without a TCM calibration update, transmission replacement, valve body replacement or a Service Fast Learn (SFL) procedure without a prior shift complaint will have limited success in following the drive learn procedure bulletin.

Review TSB 16-NA-213: Diagnostic Tip for Harsh Shifts After Mileage Accumulation Without Previous Transmission Repairs and/or Calibration Updates should be referenced on transmission built between July 1, 2015 and September 14, 2015 as it may apply to the vehicle you are working on.

Transmissions that continue to experience shift quality issues in both Drive and Manual Mode 7th Gear after completing the learn process or developed a poor quality shift after mileage accumulation has developed should have the transmission pan removed and inspected for excessive clutch debris.

Manual Mode 7th Gear Evaluation is especially important in FST and SUV Applications to ensure complaint isn't specifically related to Active Fuel Management (Deactivated in M7 and lower gears), which cannot be fixed by replacing or repairing the transmission. If debris is found the transmission should be disassembled for root cause and repairs. If excessive debris is not found the valve body should be replaced.

| Version  | 1 |
|----------|---|
| Modified |   |

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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