

#07-06-04-034: 6.0L (LY6/L76) Engine - Low Power, 4L70/4L80/6L90 Automatic Transmission - Hesitation, Difficult to Obtain Downshifts (Reprogram TCM and/or ECM) - (Dec 18, 2007)



6.0L (LY6/L76) Engine - Low Power, 4L70/4L80/6L90 Automatic Transmission -- Hesitation, Difficult to Obtain Downshifts (Reprogram TCM and/or ECM)

Subject:

**Models: 2007-2008 Chevrolet Avalanche, Silverado, Suburban, Tahoe
2007-2008 GMC Sierra, Yukon, Yukon XL
with 6.0L V8 Engine (VINs K, Y -- RPOs LY6, L76)
and 4L70/4L80 4-Speed Automatic Transmission (RPOs M70, MT1)
or 6L90 6-Speed Automatic Transmission (RPO MYD)**

Condition

Some customers may comment that the vehicle has a hesitation or lack of performance. They may also comment that it is difficult to obtain transmission downshifts. These conditions may be more pronounced when operating during high ambient temperature.

Cause

Causes that can contribute to these conditions include:

- High intake air temperatures that reduce the engine's volumetric efficiency and can reduce the amount of spark advance available, which further reduces power.
- Operating with oversized tires - which have the same effect on the vehicle as numerically reducing the final drive ratio, thereby reducing the available torque.
- Engine or transmission calibration balanced more toward detonation prevention and fuel economy.
- Improper axle ratio for operating conditions.
- Comparison to previous vehicle with higher displacement engine (Big Block L18) or different final drive ratio.

Correction

Updated ECM and TCM calibrations are now available to address these concerns. Reprogram the specified controller(s) with updated calibration files using the TIS2WEB Service Programming System (SPS) application based on the engine and transmission combinations listed below. As always, make sure your Tech 2® is updated with the latest software version.

Important: These calibrations will be selectable. Be sure to select the correct files for the vehicle you are programming.

LY6 (VIN K) Engine and 6L90 (MYD) Transmission

Reprogram the ECM with an updated engine calibration. This calibration will receive an alternative spark table to optimize available torque. Some audible spark knock may be heard under severe applications. Minor spark knock under severe operating conditions should be considered characteristic for this alternative calibration.

Reprogram the TCM with an updated transmission calibration. This calibration will make downshifts available more readily in the 64-80 km/h (40-50 mph) range, and during low speed throttle apply.

These calibrations will be available as an ECM/TCM programming sequence event.

From the controllet list, select "ECM/TCM (Automatic Transmission Only)".

There are 2 calibration part numbers that are "selectable" for each controller. Read the description to determine the correct calibration for this condition.

LY6 (VIN K) Engine and 4L80 (MT1) or 4L70 (M70) Transmission

Reprogram the ECM with an updated engine calibration. This calibration will receive changes to make the throttle progression more aggressive and to increase the idle speed at high temperatures.

No alternative transmission calibration is available.

L76 (VIN Y) Engine and 4L70 (M70) Transmission (2007 Only)

Reprogram the ECM with an updated engine calibration. This calibration will soften the feel of the active fuel management transition.

Reprogram the TCM with an updated transmission calibration. This calibration will improve engine performance and shift quality.

These calibrations will be available separately and will need to be installed individually. Both calibrations should be installed to address this condition.

Air Intake Temperatures

Inspect the seal between the air box and inner fender to assure there are no gaps or leaks. Hot engine compartment air entering the air intake can reduce the amount of available spark and have a negative impact on available engine power.

Warranty Information

For vehicles repaired under warranty, use the appropriate labor operation for the repair performed.

Labor Operation	Description	Labor Time
J6354	Powertrain Control Module -- Engine Reprogramming with SPS	0.4 hr
J7716*	Modules, Powertrain -- Engine and Transmission Reprogramming with SPS	0.6 hr

* This labor operation number is for bulletin use only. This number will not be published in the Labor Time Guide. Use warranty claim code ZZ999.

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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