



# Technical Service Information

## **GM 4L60/65E & 4L80/85E SHIFT STABILIZATION & TOW/HAUL MODE**

### **SHIFT STABILIZATION**

Selected GM trucks and vans are programmed with a feature called “Shift Stabilization”. The purpose of Shift Stabilization is to reduce shift busyness during operating conditions that would otherwise result in frequent upshifts and downshifts such as towing or high altitude grade climbing.

The Shift Stabilization feature will determine if and when to delay upshifts. Shift Stabilization only affects upshifts, not downshifts.

This feature is a program that is internal to the vehicles computer. Shift Stabilization is operational in Normal Mode, Cruise Mode and Tow/Haul Mode.

Shift Stabilization calculates the required torque at the wheels in the current gear as well as the maximum torque available at the wheels in the next higher gear. If the torque in the higher gear is not sufficient, the transmission will remain in the current gear. If the torque in the higher gear is greater than or equal to the required torque, then the upshift is allowed.

High throttle opening will disable Shift Stabilization and normal downshifts will occur. Shift Stabilization occurs in the 4L60E for 203 and 3-4 shifts only while in the 4L80E it occurs for the 1-2, 2-3 and the 3-4 upshifts.

### **TOW/HAUL MODE**

The purpose of the Tow/Haul Mode feature is to reduce the frequency and improve shifting when pulling a heavy load. This is most apparent in city traffic. Without Tow/Haul Mode, the transmission may upshift on a closed throttle off throttle situation. This reduces shift busyness.

Tow/Haul Mode also provides the same solid shift feel when pulling a heavy load as when the vehicle is unloaded. It also improves control of vehicle speed while requiring less throttle pedal activity when pulling a heavy load.

Tow/Haul Mode is selected via a switch at the end of the Manual shift lever, (Refer to Figure 1), or on the shifter console. A lamp on the instrument panel will illuminate to indicate that Tow/Haul Mode has been selected, (Refer to Figure 2). Tow/Haul Mode must be reselected every time the ignition is cycled.

Tow/haul Mode is designed to be most effective when the vehicle and load combined weight is at least 75% of the vehicle's Gross Combined Weight Rating (GCWR).

Operation of Tow/Haul Mode in a lightly loaded or “no load” vehicle will not cause any damage, but may result in uncomfortable shift qualities and reduced fuel economy. Tow/Haul Mode only affects shift points below 55 mph (88 km/h).

## SHIFT STABILIZATION & TOW/HAUL MODE

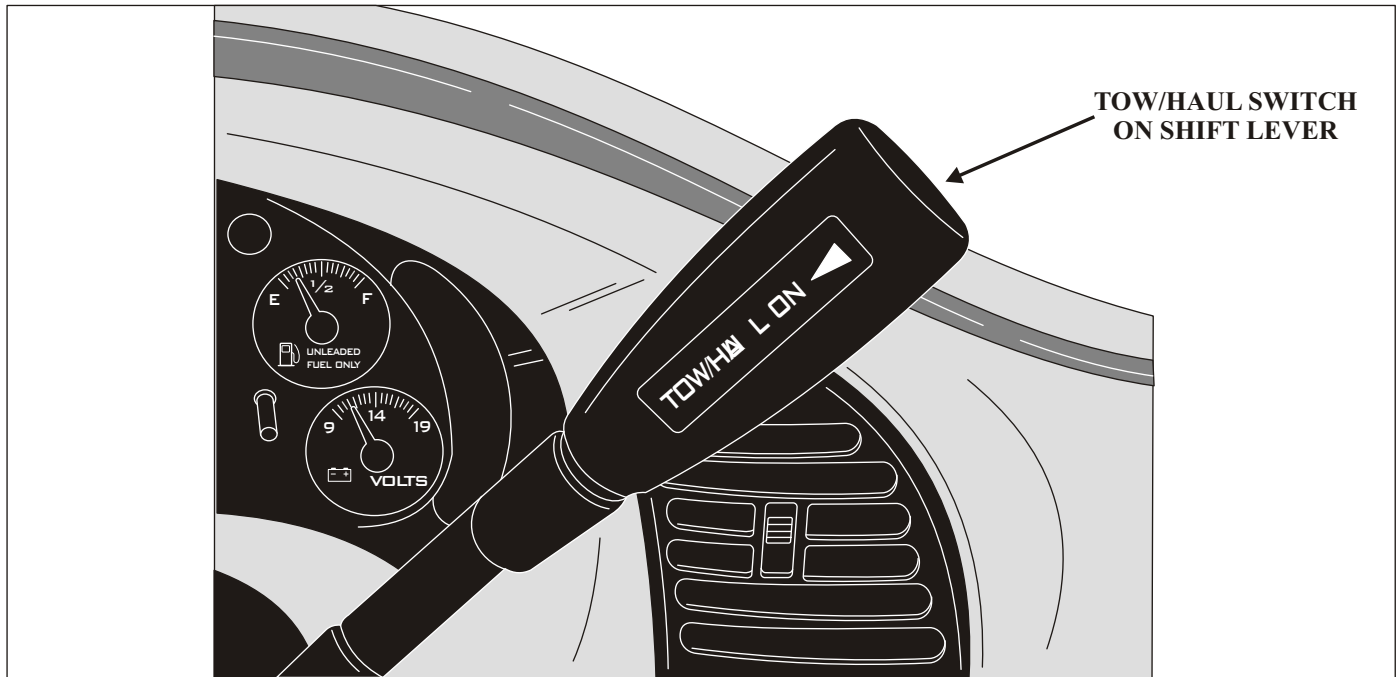


Figure 1

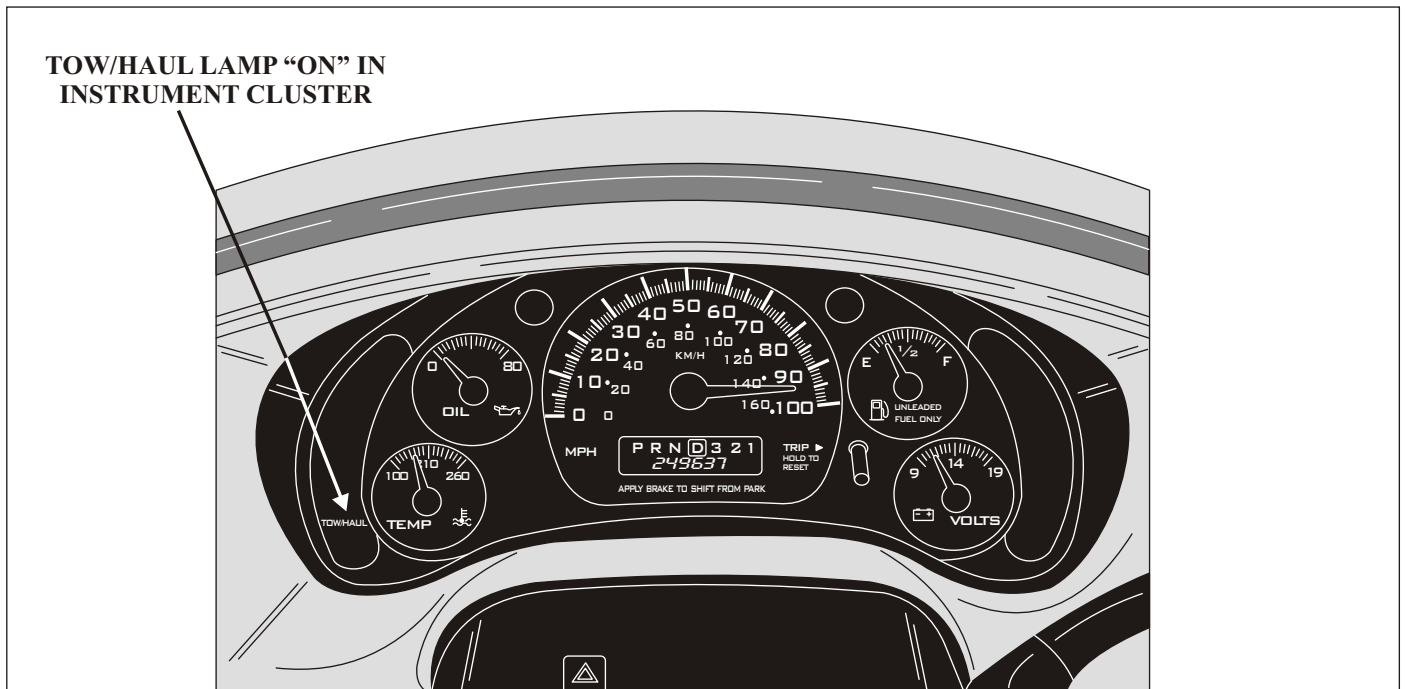


Figure 2