

Rear Object Detection

Vehicles: 2000 to 2004 Escalade and DeVille

The rear parking assist uses three indicators (amber, amber and red) located above the rear window, which can be seen through the rear view mirror. To verify that the system is working properly, a bulb check can be performed by illuminating all three indicators for two seconds. The rear parking assist is activated when the shift lever is moved to the Reverse position, and the vehicle speed is less than three miles per hour.

When 40 inches to 5 feet away from an object, the outside amber lamp will illuminate and the module will chime one time. When 20 to 40 inches away from an object, the outside and middle amber lamps will illuminate and the module will chime one time. When less than 12 inches away from an object, all three lamps will illuminate and will chime continuously.

The rear parking assist has its own on-board diagnostics that is capable of displaying codes using the three indicator lamps on the rear parking assist display. When a problem is recognized by the parking assist system, the red outside lamp on the rear display will flash after the bulb check has been completed.

To enter the diagnostic mode, the following steps must be followed:

1. With the ignition turned to Off, short the rear parking assist diagnostic connector to ground while the vehicle is in Park. Refer to a service manual for the diagnostic connector location or call us. The connector location will vary from vehicle to vehicle.
2. Turn the ignition to On.
3. Place foot on the brake.
4. Shift the vehicle into Reverse within 5 seconds.

The shift lever must be placed in the Reverse position for voltage to be applied to the rear parking assist module to activate the system. Once the shift lever is placed in Reverse, battery voltage is applied to the rear parking assist module, and then the rear parking assist module applies 8.63 volts to the rear sensors. The gray wire is a ground that is grounded through the object sensor control module.

The object sensor signal wire has 7.8 volts and a frequency reading that continually jumps from 52 to 88 Hz with nothing behind the car. When an object is placed behind the car (our test was at about 2-3 feet away from the rear), the voltage on the signal wire changes very little, but the frequency jumps to 95 to 136 Hz. When shifted back into Park, all voltages dropped to zero volts.

—Ken Hughes, Identifix GM Specialist
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