



Service Bulletin

File in Section: -

Bulletin No.: PI0608A

Date: March, 2013

PRELIMINARY INFORMATION

Subject: Information and Additional Diagnostics on "Park Assist Blocked See Owner's Manual" Message

Models: 2010-2013 Cadillac Escalade Models
2010-2013 Chevrolet Avalanche, Silverado, Suburban, Tahoe
2010-2013 GMC Sierra, Yukon Models
Equipped with Rear Parking Assist (RPO UD7)

This PI is being revised to add the 2013 model year. Please discard PI0608.

Condition/Concern

Some customers may comment on the "Park Assist Blocked See Owner's Manual" message being displayed in the Driver Information Center (DIC).

Recommendation/Instructions

Follow the diagnostics and procedures outlined below:

Object Detection Systems — Ultrasonic Rear Parking Assist

The parking assist system is designed to identify and notify the driver of an object in the vehicle's path when reversing at speeds of less than 8 km/h (5 mph). The distance and location of the object is determined by four object alarm sensors located in the rear bumper. The parking assist system will notify the driver using an audible signal through the radio speakers.

For vehicles with the Ultrasonic Rear Parking Assist (URPA) system, it operates at speeds less than 8 km/h (5 mph), and assists the driver with parking and avoiding objects while in R (Reverse). The sensors on the rear bumper are used to detect the distance to an object up to 2.5 m (8 ft) behind the vehicle, and at least 25.4 cm (10 in) off the ground.

Warning: *The Ultrasonic Rear Parking Assist (URPA) system does not replace driver vision. It cannot detect:*

- Objects that are below the bumper.
- Objects under the vehicle.
- Objects too close or too far from the vehicle.
- Children, pedestrians, bicyclists or pets.

Notice: If you do not use proper care before and while backing up, vehicle damage, injury, or death could occur. Even with URPA, always check behind the vehicle before backing up. While backing up, be sure to look for objects and check the vehicle's mirrors.

If you use URPA while the tailgate is lowered, it may not detect an object behind your vehicle, and you might back into the object, damaging your vehicle. Always verify the tailgate is closed when using URPA or turn off URPA when driving with the tailgate lowered.

How the System Works

URPA comes on automatically when the shift lever is moved into R (Reverse). A single tone sounds to indicate the system is working. URPA operates only at speeds less than 8 km/h (5 mph)*. An obstacle is indicated by audible beeps. The interval between the beeps becomes shorter as the vehicle gets closer to the obstacle. When the distance is less than 30 cm (12 in) the beeps are continuous. To be detected, objects must be at least 25.4 cm (10 in) off the ground and below tailgate level. Objects must also be within 2.5 m (8 ft) from the rear bumper. This distance may be less during warmer or humid weather.

*See Additional Thought Starters #2 below.

Turning the System On and Off

The system can be disabled by pressing the rear park aid disable button located next to the radio. The indicator light comes on when the system is disabled. Also see Additional Thought Starters #3 below for additional information.

2010-2011 Trucks - When the system is turned off, PARK ASSIST OFF displays on the Driver Information Center (DIC). The message disappears after a short period of time. Prior years do not display this message.

Note: URPA defaults to the ON setting each time the vehicle is started.

Diagnostic Aids

When the "Park Assist Off", "Park Asst Blocked See Owners Manual" or "Park Assist Blocked See Owners Manual" message is displayed in the DIC, the disable reason is stored in the Park Assist Disable History. (See below for list of reasons).

The scan tool Park Assist Disable History parameters are a list of the seven previous reasons the parking assist system was disabled. This history of parameters may help in the diagnosis of an intermittent concern or a customer concern that is the result of normal system operation. The following is a brief description of potential causes that may aid in diagnosis:

When the System Does Not Seem to Work Properly

The following messages may be displayed on the DIC:

- **SERVICE PARK ASSIST:** If this message occurs, check for DTCs and review Park Assist Disable History Parameters.
- **PARK ASSIST OFF:**
 - This message occurs if the driver disables the system.
 - This message is displayed if the customer drives faster than 5 mph (8 km/h) in Reverse (Reverse Over Speed) and will temporary turn off Park Assist (see Note below).
 - Inhibit - The rear object sensor control module has lost or received invalid GMLAN signal(s).
- **PARK ASST BLOCKED SEE OWNER'S MANUAL:** This message can occur under the following conditions:
 - The ultrasonic sensors are not clean. Keep the vehicle's rear bumper free of mud, dirt, snow, ice, and slush.
 - The park assist sensors are covered by frost or ice. Frost or ice can form around and behind the sensors and not always be seen; this can occur after washing the vehicle in cold weather. The message may not clear until the frost or ice has melted.
 - Hitch/Object Attached - The rear object sensor control module is detecting an object that is attached to the vehicle or the endgate is lowered. Common items such as a hitch receiver, trailer, object hanging out of endgate, or a bicycle rack may cause this concern.
 - A trailer was attached to the vehicle, or a bicycle or an object was hanging out of the tailgate during the last drive cycle. Once the attached object is removed and the tailgate is raised, URPA will return to normal operation.
 - A tow bar (hitch) is attached to the vehicle.
 - Damage to the rear of the vehicle or a misaligned sensor may cause this concern. If the vehicle is damaged in a manner that causes the sensor to detect the bumper itself, the rear object sensor control module will interpret this as an attached object and disable the system. Carefully inspect the bumper, bumper mounting surface, and sensor retainers before continuing with normal diagnosis. After the detected cause has been addressed, the vehicle must be driven at speeds greater than 40 km/h (25 mph).
 - Sensor Disturbance - An outside interference is causing sensor movement. Such interference may be caused by a heavy pounding, like that of a nearby jackhammer, or large changes in pressure, such as a large truck's air brakes.
 - Sensor Ring Time - If the sensor fails its own diagnostic initialization, the rear object sensor control module will set this error. After the detected cause has been addressed, the vehicle must be driven at speeds greater than 40 km/h (25 mph). See Park Assist Disable History Parameters below.
 - Silicone insulator surrounding the sensor may be missing, cut, or twisted (See Example #4 below).
 - Improperly installed sensor, sensor maybe be crooked due to a tight wire harness.
 - One or more of the sensors may be scratched or the paint maybe chipped (See Example #5 below).
 - Excessive paint thickness on a sensor may cause an excessive sensor ring time. When replacing or refinishing a sensor, do not apply an excessive amount of paint or clear coat.

Important: If at any time the DIC displays any of the messages above, the system is disabled.

Note: If "Reverse Over Speed" occurs, the system will automatically turn the system back on once the vehicle drops below the 8 km/h (5 mph) and Park Assist Off Message will be removed from the DIC.

Park Assist Disable History Parameters

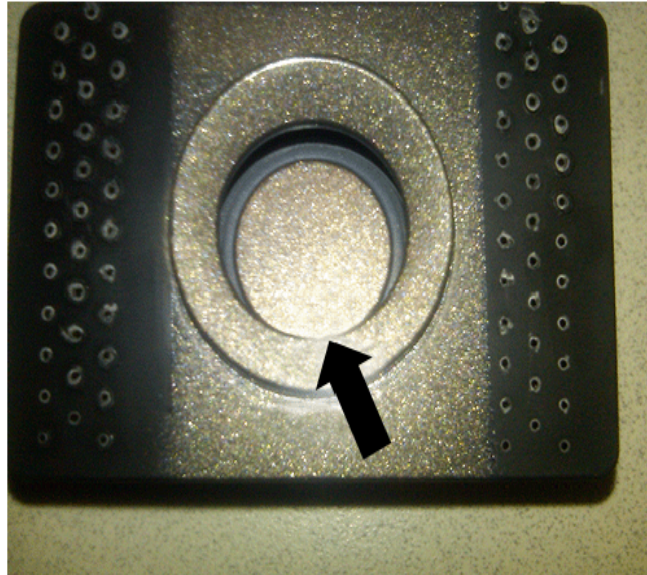
The scan tool Park Assist Disable History Parameters are a list of the seven previous reasons the parking assist system was disabled. These parameters may help in the diagnosis of an intermittent concern or a customer concern that is the result of normal system operation. The following table is a brief description of potential causes and corrective action that may aid in diagnosis:

History Buffer	Conditions That Cause This	Operating as Designed	Action Required	Corrective Action
Ring Down Time too long	One or more of the sensors may be covered or in contact with snow, mud, ice, frost or other debris. Also, frost or ice can form around and behind the sensors and may not always be seen. Typical example is going through a car wash in cold weather leaving a thin coat of ice between sensor and bezel/fascia.	Yes	Yes	Explain normal operation to customer. Refer to Owner's manual for normal operation. Remove snow, mud, ice, frost or other debris from sensor and bezel/fascia especially in the area around the sensor near the bezel/fascia.
	Bezel not fully seated and tabs not extended applying pressure on sensor causing misalignment and allowing the front surface of sensor to come in contact with Fascia/Bezel.	No	Yes	Verify that bezel locking tabs are fully engaged See Example #1 below.
	Bezel/retainer coming in contact with Sensor face	No	Yes	Reposition sensor and align it to center of bezel or retainer. See Example #2 below.
	Damaged to bezel or retainer	No	Yes	Replace Bezel/retainer See Example #3 below.
	Silicone insulator surrounding sensor may be missing, cut, or twisted.	No	Yes	Replace sensor insulator ring if damaged. See Example #4 below.
	One or more of the sensors may be scratched, the paint may be chipped or excessive paint on sensor that is greater than 6 mils thickness.	No	Yes	Replace sensor. Refer to Rear Parking Assist Alarm Sensor Replacement procedure. See Example #5 below.
	Improperly installed sensor, sensor may be crooked due to a tight wire harness.	No	Yes	Re-install sensor and correct harness strain on sensor.
	Out of round or jagged hole in fascia causing mechanical contact with painted surface of sensor	No	Yes	Make repair to fascia by removing any mechanical contact between fascia and painted surface of sensor
	Sensor fell out of retainer/bezel with sensor point toward ground or inside rear of bumper/fascia	No	Yes	Re-install sensor and verify sensor is centered in bezel/retainer. See Example #6 below.
Reverse Over Speed	Driving greater than 8 km/h (5 mph) in Reverse	Yes	Yes	Explain normal operation to customer. Refer to Owner's manual for normal operation. Note: If Reverse Over Speed occurs, the system will automatically turn the system back on once the vehicle drops below the 8 km/h (5 mph) and

History Buffer	Conditions That Cause This	Operating as Designed	Action Required	Corrective Action
				Park Assist Off Message will be removed from the DIC. (see below for more information on Reverse Over Speed condition).
Sensor Disturbance	An outside interference is causing sensor movement. Such interference may be caused by a heavy pounding, like that of a nearby jackhammer, or large changes in pressure, such as a large truck's air brakes.	Yes	Yes	Explain normal operation to customer. Refer to Owner's manual for normal operation.
Manual Disable	Customer manually turning off system with the Park Assist switch	Yes	Yes	Explain normal operation to customer. Refer to Owner's manual for normal operation.
Attached Object	Trailer , Tow bar or bike rack installed	Yes	Yes	Explain normal operation to customer. Refer to Owner's manual for normal operation. Remove attached object.
	Incorrectly installed license plate	No	Yes	Straighten or reposition license plate.
	Lowered tailgate or objects extending beyond a lowered tailgate or past rear of fascia.	Yes	Yes	Explain normal operation to customer. Refer to Owner's manual for normal operation. Raise tailgate or remove objects See Example #7 below.
	Damage to the rear of the vehicle or a misaligned sensor may cause this concern. If the vehicle is damaged in a manner that causes the sensor to detect the bumper itself, the object alarm module will interpret this as an attached object and disable the system.	No	Yes	Carefully inspect the bumper, bumper mounting surface, and sensor retainers before continuing with normal diagnosis See Example #8 below.
Invalid Signal	The object alarm module has lost or received invalid GMLAN signal(s).	Yes	No	Check for Ucodes or ECU related DTC's. No sensor replacement is needed

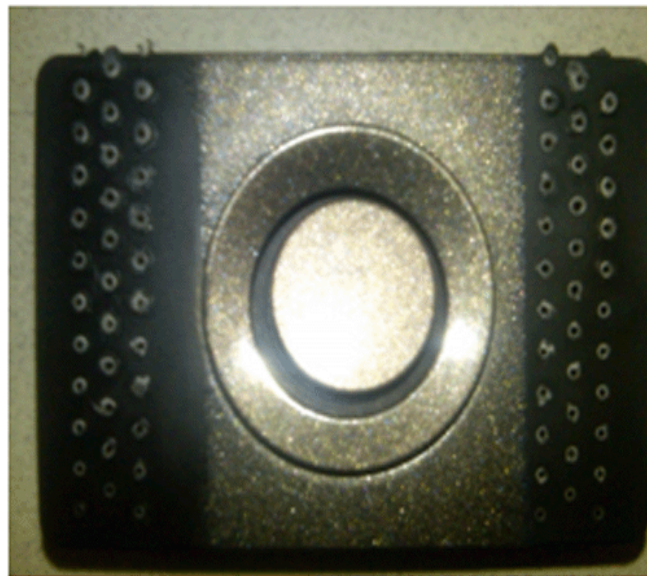
Note: After the detected cause has been addressed, the vehicle must be driven at speeds greater than 40 km/h (25 mph).

Example #1 – Sensor Contacting Bezel



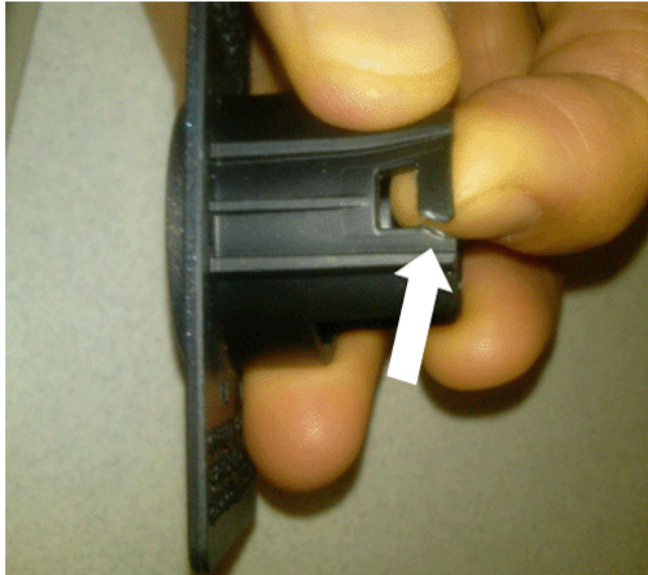
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Example #2 – Sensor Centered in Bezel



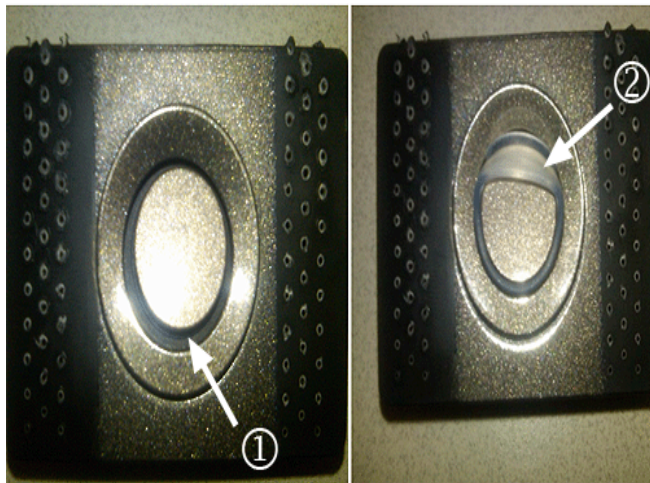
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Example #3 – Damaged Bezel/Retainer



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Example #4 – Silicone Insulator Missing (1), Twisted (2)



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Example #5 – Sensor Scratched, Paint Chipped or Excessive Paint



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Example #6 – Sensor Detached from Bezel



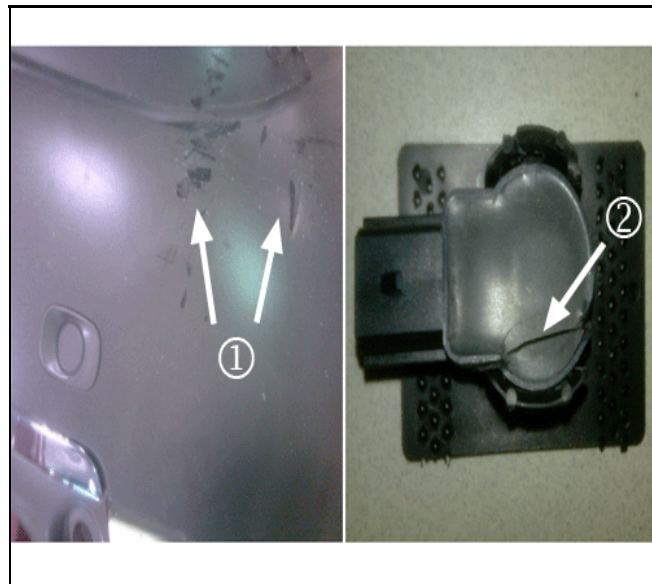
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Example #7 – Object Blocking Sensor



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Example #8 – Fascia/Bumper Damage (1), Sensor Cracked (2)



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Circuit/System Verification

Verify the Park Assist Blocked See Owner's Manual message is not ON for one of the reasons listed in table above. Perform the following steps:

- **If the message is ON and the Operating as Designed column is "Yes" per table above:** The park assist system is functioning correctly and requires no repairs. Correct the condition causing the message to be ON and explain normal operation to the customer.
- **If the message is ON and the Operating as Designed column is "No" per table above:** Perform appropriate action listed in the Corrective Action column per the table above.
- **If the message is not ON:** All OK.

Additional Thought Starters

1. **Reverse Over Speed Condition** — Some customer may have received the “Park Assist Off” Message due to a Reverse Over Speed. In this case, they may have thought that the system was actually disabled so they selected the Rear Park Aid Disable button to turn the system off. But since the system was already on, the customer has now manually turned the system off. If this is the case, the customer should bring the vehicle to a stop and select the Rear Park Aid Disable button to turn the system back on.

This condition can be verified in the History Buffer of the Rear Park Assist System. It will indicate the following messages in this order: Reverse Over Speed followed by a Manual Disable.

2. When the customer has a trailer attached and drives over 30 km/h (26 mph), the system will display a message of “Park Assist Blocked – See Owners Manual”. If the customer then selects the Rear Park Aid Disable Button, the “Park Assist Blocked – See Owners Manual” message will flash 5 times signifying the system is already disabled (condition/trailer has to still be present). If the customer then removes the trailer (and hitch), the system will then re-enable after reaching 30 km/h (26 mph).
3. Upon starting the vehicle, if the customer manually turns off the URPA system, the system will still do a check of the system once they reach 30 km/h (13 mph). If the customer has a trailer attached, the system will still notify the customer with a “Park Assist Blocked” Message indicating the system is detecting a blockage.