

**NUMBER:** 08-004-05

**GROUP:** Electrical

**DATE:** January 26, 2005

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#### SUBJECT:

Park Assist System - False Object Detected And Erroneous DTC's

#### **OVERVIEW:**

This bulletin involves removing the rear fascia and replacing all four Park Assist sensor spacers.

#### **MODELS:**

2005 (WK) Grand Cherokee

NOTE: This bulletin applies to vehicles equipped with the Park Assist system (sales code XAA) and built prior to January 15, 2005 (MDH 0115XX).

#### SYMPTOM/CONDITION:

The customer may experience an intermittent erroneous warning (LED illumination and/or audible alarm) from the Park Assist system. When the customer places the vehicle shifter into the Reverse position, the Park Assist system may falsely indicate that an object is behind the rear of the vehicle and is within detection range of the system. One or both red LED's may be on constantly while the vehicle is in reverse. The condition may be accompanied with Park Assist system Diagnostic Trouble Codes (DTC), and a "Service Park Assist System" message may be displayed by the Electronic Vehicle Information Center (EVIC) in the instrument cluster.

#### **DIAGNOSIS:**

Normal accumulation of debris, snow, or ice (even a thin layer accumulation) on the face of the sensor may cause the above condition. Therefore it is important to first verify that the chrome faces of all four (4) rear Park Assist sensors are clean of debris, snow, and ice.

If the rear park assist sensors are clean of debris, snow, and ice, then the false object detected condition may be caused by a possible signal reflection from the rear fascia chrome applique. The sensor has a spacer to properly position it relative to the rear fascia and applique to prevent possible erroneous signal reflections. The erroneous signal reflection from the chrome applique may generate DTC's.



Verify if one or more of the following Park Assist Diagnostic Trouble Codes (DTC) are present:

- B122F PTS Sensor 7 Ring Time Too Long.
- B1234 PTS Sensor 8 Ring Time Too Long.
- B1239 PTS Sensor 9 Ring Time Too Long.
- B123E PTS Sensor 10 Ring Time Too Long.

If one or more of the above Park Assist system related DTC's have occurred and the rear sensors are known to be free of debris, snow, and ice when the condition occurs, then perform the Repair Procedure.

#### PARTS REQUIRED:

| Qty. | Part No.   | Description                    |
|------|------------|--------------------------------|
| 6    | 06500911   | Rivet, Black Plastic           |
| 2    | 05159077AA | Clip, Fascia - Under Tail Lamp |
| 4    | 05159096AB | Spacer, Park Assist Sensor     |

#### SPECIAL TOOLS/EQUIPMENT REQUIRED:

| NPN | Plastic Rivet Installation Tool |
|-----|---------------------------------|
|-----|---------------------------------|

#### REPAIR PROCEDURE:

- 1. Open the liftgate.
- 2. Remove the four push pin fasteners (reuseable) and two screws in the step pad area.
- 3. At the left rear wheel opening, remove the three plastic rivets used to secure the leading edge of the rear fascia to the left rear wheel opening splash shield.
- 4. Remove the two push pin fasteners (reuseable) securing the left rear splash shield to the body. Remove the left rear splash shield.
- 5. Behind where the splash shield was positioned, remove the nut on the back side of the quarter panel used to secure the left side of the fascia to the body.
- 6. At the right rear wheel opening, remove the three plastic rivets, two push pins (reuseable), splash shield, and nut.
- 7. Disconnect the electrical harness connector at the right side of the rear fascia.
- 8. Remove the rear fascia and place face (outside surface) down on a protective surface.
- Remove the four push pins (reuseable) at the bottom of the fascia that are used to secure the energy absorber. Carefully remove the energy absorber from the back of the rear fascia.
- 10. Do not disconnect the Park Assist sensors from their electrical connectors.
- 11. Starting at one end, remove one Park Assist sensor from its bracket.

# NOTE: Do not remove sensor bracket from the applique. Remove the sensor from its individual bracket.

12. Remove the old sensor spacer. With a clean rag thoroughly clean the sensor face and side, and the opening in the bracket for the sensor.

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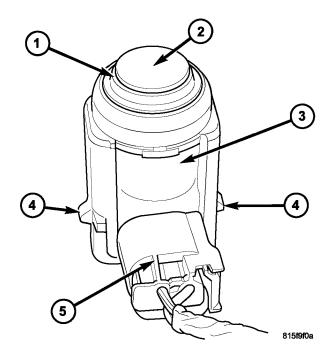


Fig. 1 PARK ASSIST SENSOR

- 1 Sensor Spacer Must Be Fully Seated On Clean Surface
- 2 Chrome Face Of Sensor Must Be Clean
- 3 Park Assist Sensor
- 4 Retention Clip Lands Both Must Be Engaged To Bracket Clips
- 5 Electrical Harness Connector
- Install the new sensor spacer. Verify that the spacer is correctly installed on the sensor and fully seated (Fig. 1).
- 14. Install the sensor with new spacer to the fascia bracket/applique. Hand effort may be higher than normal to fully engage the bracket retention clips to the sensor. Use hand pressure only to install.

NOTE: Make sure the clips on each side of the sensor are fully installed to the bracket. Verify that the sensor bracket is fully installed to the applique clips.

- 15. Replace the spacers on the remaining three sensors.
- 16. Looking at the face (outside surface) of the fascia, inspect the face of each sensor to insure that it is centered in its opening and is not contacting the bracket/applique. Inspect each spacer to ensure that it is evenly spaced between the sensor and bracket/applique (Fig. 2).

NOTE: The sensor face of each sensor must be centered and not touching the chrome bracket/applique. The new spacer must be evenly spaced around the side of the sensor face.

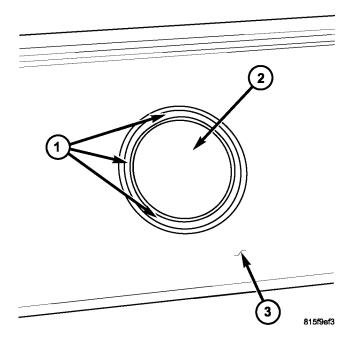


Fig. 2 SENSOR CENTERED IN FASCIA

- 1 Sensor Spacer Evenly Spaced Between Sensor And Applique
- 2 Park Assist Sensor Face Centered And Not Contacting Chrome Applique
- 3 Fascia Chrome Applique
- 17. Carefully install the energy absorber and the four attaching push pins. Verify that the bracket/applique tabs for the sensors and fascia have not been damaged.
- 18. Position the fascia onto the vehicle and connect the electrical connector.
- 19. Slightly spread the sides of the fascia to clear the painted surfaces.
- Direct the slot in the upper sides of the fascia onto the t-push pin at each quarter panel wheel opening.
- 21. Install the two screws and the four push pin fasteners in the step pad area.
- 22. Install the nuts used to retain the each side of the fascia to the quarter panel. Tighten the nuts to 9 Nm (80 in. lbs.).
- 23. Install the right rear wheel opening splash shield and the two push pin fasteners used to secure the shield to the body.
- 24. Install three new plastic rivets to attach the leading edge of the fascia to the right rear wheel opening splash shield.
- 25. Install the left rear wheel opening splash shield and the two push pin fasteners used to secure the shield to the body.
- 26. Install three new plastic rivets to attach the leading edge of the fascia to the left rear wheel opening splash shield.
- 27. Verify proper assembly.
- 28. Close the liftgate and erase any related old DTC's.

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### **POLICY:**

Reimbursable within the provisions of the warranty.

## TIME ALLOWANCE:

| Labor Operation<br>No: | Description                        | Amount   |
|------------------------|------------------------------------|----------|
| 08-20-05-90            | Replace Park Assist Sensor Spacers | 0.5 Hrs. |

### **FAILURE CODE:**

| 64 | Misaligned or Mismatched |
|----|--------------------------|
|----|--------------------------|