# COLLISION BULLETIN

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**GROUP:** Collision Bulletin

**DATE:** March 30, 2012



***SUBJECT:***

Adaptive Cruise Control (ACC) Module Sensor and Bracket Guidelines During Collision Repair and Damage Estimating

***OVERVIEW:***

This bulletin involves aligning the ACC sensor and if necessary replacing the plastic ball stud socket clips.

***DISCUSSION:***

The ACC sensor requires alignment when:

- The ACC sensor or sensor and bracket is removed and reinstalled or replaced
- Front end structural repairs are performed.
- Diagnostic Trouble Code (DTC) indicates ACC sensor adjustment is required.
- The three plastic ball socket clips in the sensor mounting bracket must be replaced each time the ACC sensor is removed from and reinstalled onto the mounting bracket (Fig. 1).

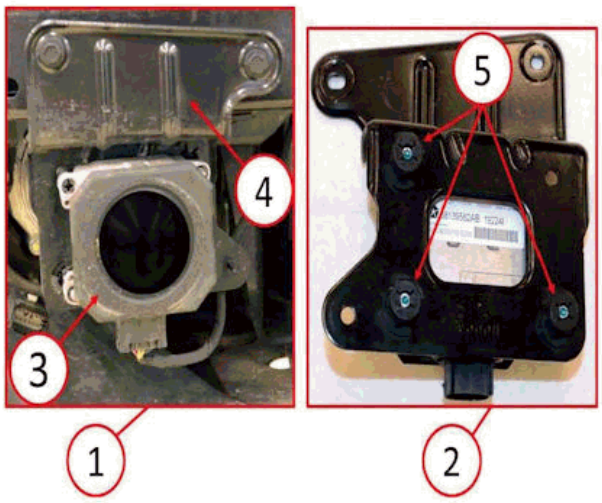


*Fig. 1 Adaptive Cruise Control Sensor*

1 - Adaptive Cruise Control Assembly Front View
2 - Adaptive Cruise Control Assembly Rear View
3 - Adaptive Cruise Control Sensor
4 - Adaptive Cruise Control Sensor Bracket
5 - Plastic Ball Socket Clips

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• The adjustable ball studs, the ACC sensor, and the ACC sensor bracket cannot be repaired. If ineffective or damaged the sensor assembly must be replaced.

• Sensor alignment consists of performing a mechanical vertical alignment using Miller Special Tool #10243 and an electronic horizontal alignment performed with a diagnostic scan tool and the appropriate diagnostic information as described in DealerConnect >TechCONNECT > under: Service Info > 08 - Electrical > 08E - Electronic Control Modules > Sensor and Bracket, Adaptive Speed Control > Standard Procedure > Adaptive Speed Control Sensor Alignment.

**NOTE: There is a different alignment procedure for 2007-2010 Chrysler 300's. Refer to detailed information in DealerConnect >TechCONNECT > under: Service Info > 08 - Electrical > 08P - Speed Control MODULE, Adaptive Cruise Control > Standard Procedure > Standard Procedure - Adaptive Cruise Control Alignment (ACC). Miller special tools 9965 and 9649 are required to perform the ACC alignment procedure on 2007-2010 Chrysler 300 vehicles only.**

***GENERAL SYSTEM INFORMATION***

One fixed ball stud (4) and two adjustable ball studs (3) secure the sensor housing through a snap fit into three molded plastic ball socket clips installed in the mounting bracket (Fig. 2). The sensor pivots on the fixed ball stud while the two adjustable ball studs allow the sensor to be vertically aligned after installation using the ACC vertical alignment special tool and a 3.5 millimeter hex nut driver special tool (Miller Special Tools #10243).

Horizontal alignment is performed electronically using a diagnostic scan tool during a ten minute drive at a steady, predetermined speed following completion of the vertical alignment.

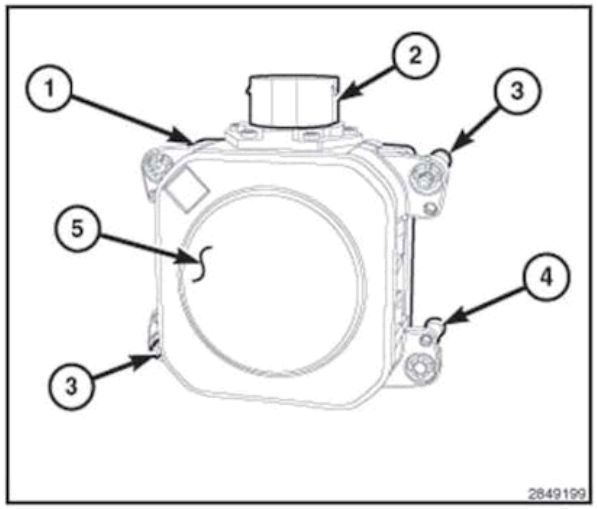


*Fig. 2 Adaptive Cruise Control Sensor*

1 - Adaptive Cruise Control Sensor
2 - Connector Receptacle
3 - Fixed Ball Stud
4 - Adjustable Ball Stud
5 - Molded Plastic Cover and Radar Dome

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The ACC sensor is also a Radio Detection And Ranging (RADAR) transceiver. The ACC sensor transmits electromagnetic signal bursts at an operating frequency of 77 gigahertz. Those signal bursts are scattered by any objects they strike within the 40 degree field of view of the transceiver, which changes the strength and frequency of the signal. The ACC sensor antenna receives and interprets the returned signals to detect any objects in the path of the vehicle as well as their speed and direction.

***POLICY:***
Information Only