

forward collision warning system

## Bendix<sup>™</sup> VORAD<sup>®</sup> Collision Warning System

Integrated Side Sensor (83895-100) Installation Notes (Formerly L-2005-09)

#### VORAD® Integrated Side Sensor 83895-100 (supersedes part number 83222-100)

In an effort to provide our customers with the latest in technological advancements, this new sensor has been designed to directly replace all VORAD<sup>®</sup> (square face) side sensors and now supercedes all previous replacement sensors part numbers.

This new sensor provides the driver with an enhanced degree of view as compared to the previous sensor design. The pulse radar technology used in this sensor also allows it to detect stationary, as well as moving objects, in its view.

# Refer to the VORAD EVT-300 Driver Instructions (VODR-0030) for complete installation and operation instructions.

#### Installation Notes:

The face of the side sensor should extend a minimum of 5/32" (4mm) beyond any surrounding surfaces or objects within 6" from the sensor to prevent false detection.

#### Installation Instructions (replacing older square style sensor):

- 1. Remove the old side sensor from the mounting bracket and inspect the harness connector for damage or corrosion.
- 2. Position the new side sensor over the square cutout on the mounting bracket or side skirt. Orientate the sensor so the writing on the face of the sensor is parallel with the ground.
- 3. Mark the location of the three mounting holes with a marking tool and drill using a #11 drill bit.
- 4. Mount sensor using hardware kit supplied. Torque mounting screws 18-22 in-lb. Note: Do not over torque mounting hardware to prevent damage to the sensor.
- 5. Connect the sensor to the wire harness, making sure the connectors are clean. Lubricate the connector seal and terminals with an approved connector dielectric lubricant\*.

\* Bendix Connector Lubricant (Nyogel), Part Number 5000492 [2-gram foil packet].

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#### **Function Test:**

- Before testing the sensor, make sure the sensor has a clear view of sight out to at least a 12 ft. diameter test area. This is most important when testing indoors because this sensor will detect stationary objects like walls, support posts, or tool chests.
- 2. Turn the vehicle ignition on (DO NOT START THE ENGINE) and make sure the VORAD<sup>®</sup> system powers up with no faults (clear any historic faults).
- 3. Verify the side sensor display inside the vehicle cab indicates NO objects are detected. If the display indicates object detection, make sure the area around the sensor is clear and the sensor mounting is appropriate. In some cases, it may be necessary to move the vehicle to a clear area.
- 4. Test the sensor detection by holding a metallic target (min 10" x 10") at the sensor, two meters (6 ft.) away from center. Move two meters to the left and then to the right, verifying the sensor detects the target at all three locations (see illustration below).



Note: For maximum energy reflection when testing the sensor, keep the face of the test target aimed directly at the sensor. The pattern above indicates the sensor's maximum detection angle, and is for testing only. The sensor may not detect all objects at these angles.

The sensor's ability to detect depends on the composition of the target and its ability to reflect pulse radar energy. The sensor may not detect humans, wood, or other non-metalic objects within the sensor's detection zone.

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