

TECHNICAL BULLETIN VBSD32

Subject: VBSD32 has no function and does not produce self-test when power is applied

Definition:

- Self-test: When power is applied to module the system will automatically detect sensors and GPS antenna
 - A successful test is indicated by both LED (pillar) lights illuminating solid for 2 seconds
 - A failed test will show:
 - **the left LED blinking at 2 second intervals for 10 seconds** will indicate the left sensor is bad (missing/shorted/etc.)
 - **the right LED blinking at 2 second intervals for 10 seconds** will indicate the right sensor is bad (missing/shorted/etc.)
 - **both left and right LEDs blinking at 2 second intervals for 10 seconds** will indicate both left and right sensors are bad (missing/shorted/etc.)
 - **both left and right LEDs blinking at 0.66 second intervals for 10 seconds** will indicate the GPS antenna is abnormal (loose connection or missing antenna)

System Explained:

Connected to the VBSD32 module is a harness which runs from the front of the vehicle towards the rear and will have connections for both sensors, both LED lights, alert buzzer, and GPS antenna

Power, both LED lights, alert buzzer, and GPS antenna connections are available on the **front** of the harness only

Left, Right, and Reverse Triggers are available on both the **front and rear** of the harness to provide options during installation

The system will detect objects in motion that move greater than or equal to 13 mph. When an object is detected the LED light will illuminate on the side which sensor has detected the object. The alert buzzer will only sound when the corresponding trigger is activated with voltage. If the driver uses the left turn signal while driving and the left sensor detects an object, the alert buzzer will sound alongside the left LED light illuminating to notify the driver an object is on the left side. Without the left turn signal active, only the LED alert will illuminate to notify the driver of an object passing.



- VBSD32 will monitor vehicle's blind spots and is adjustable from 39 ft or 23 ft
- Detection is for vehicles approaching blind spot from behind and oncoming
- System can be set to begin function when vehicle (VBSD32 is installed on) reaches 13 mph or 0 mph
 - If set to 0 mph the vehicle (VBSD32 is installed on) will need to be driven to test system
- If a vehicle is in a blind spot while driving the corresponding LED will light up to visually notify the driver
- If a vehicle is in a blind spot while driving **AND** turn signal is activated, or you are in reverse gear then the corresponding LED light(s) will light up as well as activate buzzer to notify the driver audibly and visually

Complaint: The module does nothing, no Power-On-Self-Test (POST) on pillar lights or smells burning from module. For systems with a damaged/shorted module, you must eliminate the short within the system before replacing the module. Without identifying the short, damage could occur to any replacement module installed.

You will need: a 2A fuse and inline fuse holder

Finding the short:

1. Remove power from module
2. Remove damaged module from application
3. Disconnect all accessories from the VBSD32 main harness
 - a. both sensors, both LED lights, alert buzzer, and GPS antenna
4. Add 2A fuse in line with the red +12V IGN/ACC wire on the main harness
5. Connect the main harness to the replacement (good) module but **do not connect any other components yet**
6. Apply power to the main harness to power the module and check the 2A fuse
 - a. If the 2A fuse **is** blown the short is on the main harness
 - i. Further diagnostics are needed to identify the cause and location of the short
 - ii. Repair or replacement of the main harness is needed to resolve the issue
 - iii. Dealer technician should consult with OEM for guidance
 - b. If the 2A fuse **is not** blown then the short is not on the main harness
7. Remove power to the main harness to remove power from the module
8. Connect Left/Driver Sensor
 - a. Apply power to the main harness to power the module and check 2A fuse
 - i. If the 2A fuse **is** blown the short is within the Left/Driver sensor
 1. Remove power and replace Left/Driver Sensor
 - ii. If the 2A fuse **is not** blown then the short is not within the Left/Drive Sensor
9. Connect Right/Passenger Sensor
 - a. Apply power to the main harness to power the module and check 2A fuse
 - i. If the 2A fuse **is** blown the short is within the Right/Passenger sensor
 1. Remove power and replace Right/Passenger Sensor
 - ii. If the 2A fuse **is not** blown then the short is not within the Right/Passenger Sensor
10. Connect GPS Antenna
 - a. Apply power to the main harness to power the module and check 2A fuse
 - i. If the 2A fuse **is** blown the short is within the GPS Antenna
 1. Remove power and replace GPS Antenna
 - ii. If the 2A fuse **is not** blown then the short is not within the GPS Antenna

NOTE 1: The left/right (driver/passenger) sensors are not interchangeable. The replacement sensor must match the side that is being replaced (left/right). Be sure to orient the sensor so the printed word "TOP" indicator is facing upwards.

NOTE 2: The L/R LED Indicators and the Buzzer are low current devices and should not damage the module if shorted. Though their functionality would be affected if shorted.

