

## **SBM550-B Seat Belt Minder** **2011-2014 Ford F-250 through F-550** **All Engines**



### **Introduction**

The SBM550 Seat Belt Minder monitors the driver's seat belt buckle whenever the vehicle's ignition key is in Run. It provides two complimentary outputs which indicate the status of the drivers seat belt. One output is high true (12V) and the other is low true (ground) when the drivers seat belt is buckled. Either output can be connected to monitoring equipment as desired. These outputs are capable of sourcing/sinking 0.5 Amps.

### **Installation Instructions**

**Disconnect vehicle battery before proceeding with installation**



#### **WARNING**

Disconnect the battery to prevent setting a check engine light.

### **IMPORTANT—READ BEFORE INSTALLATION**

It is the installer's responsibility to route and secure all wiring harnesses where they cannot be damaged by sharp objects, mechanical moving parts and high heat sources. Failure to do so could result in damage to the system or vehicle and create possible safety concerns for the operator and passengers. Avoid placing the module where it could encounter strong magnetic fields from high current cabling connected to motors, solenoids, etc. Avoid radio frequency energy from antennas or inverters next to the module. Avoid high voltage spikes in vehicle wiring by always using diode clamped relays when installing upfitter circuits.

### **SBM550 Module**

Remove the lower dash panel below the steering column area and find a suitable location to mount the module. Locate the module in an area away from any high heat sources (engine heat, heater ducts, etc.) and where the harnessing won't be damaged by the tilt steering wheel, or Park Brake mechanism. Leave the module hanging down until installation and testing is completed so the diagnostic LEDs can be observed if needed. Do not mount the module until all wire harnesses are routed and secure. Screws, Velcro or double backed tape may be used to mount the module when post installation testing is complete.

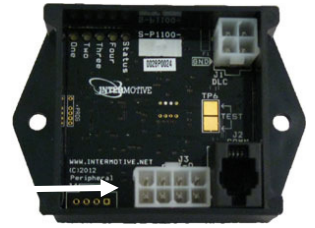
### **Data Link Harness Installation**

1. Locate the vehicle OBDII Data Link Connector, mounted below the lower left dash panel.
2. Remove the OEM mounting screws for the OBDII connector. Plug the red connector from the Data Link Harness into the vehicle's OBDII connector. Ensure the connection is fully seated and secure connectors together with the supplied wire tie.
3. Mount the Black pass-through connector from the Data Link Harness in the former location of the vehicle's OBDII connector.
4. Secure the SBM550 Data Link harness so that it does not hang below the lower dash panel.



## 8 Pin Connector

1. **Pin 3**, Orange wire on the 8 pin connector will provide a ground output whenever the driver's seat belt is buckled and the key is in the On position. When the driver's seat belt is unbuckled, pin 3 will output a VBAT signal (key in Run). This VBAT signal is suppressed by 0.7 Amps due to a 1N4005 diode included in the harness
2. **Pin 7** (no wire installed, see last page for connector pin definitions) of the 8 pin connector will output VBAT (12V) whenever the driver's seat belt is buckled and the key is in Run. When the driver's seat belt is unbuckled, pin 7 will provide a ground output. This pin is considered optional usage and has no wire installed in this position of the connector.
3. Extend the output wire as needed and connect to monitoring equipment.
4. Plug the 8 pin connector into the SBM550 module.



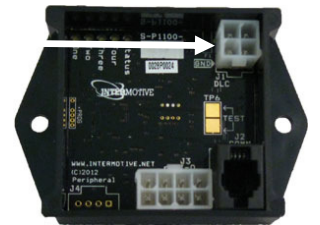
## Post Installation Test

Energize the SBM module by plugging in the 4-pin Data Link connector into the module.

Turn the ignition switch to Run (engine off).

Enter the module's Diagnostic Mode by shorting the two Test pads together on the module. This can be done carefully with a screwdriver or other metallic object. The LED's on the module will become active in Diagnostic Mode:

- The amber "Status" LED will be On when in Diagnostic Mode.
- LED 3 will be On when the ignition switch is in Run/Crank.
- LED 4 will be On when the drivers seat belt is buckled.
- Cycling the ignition switch will exit Diagnostic Mode.

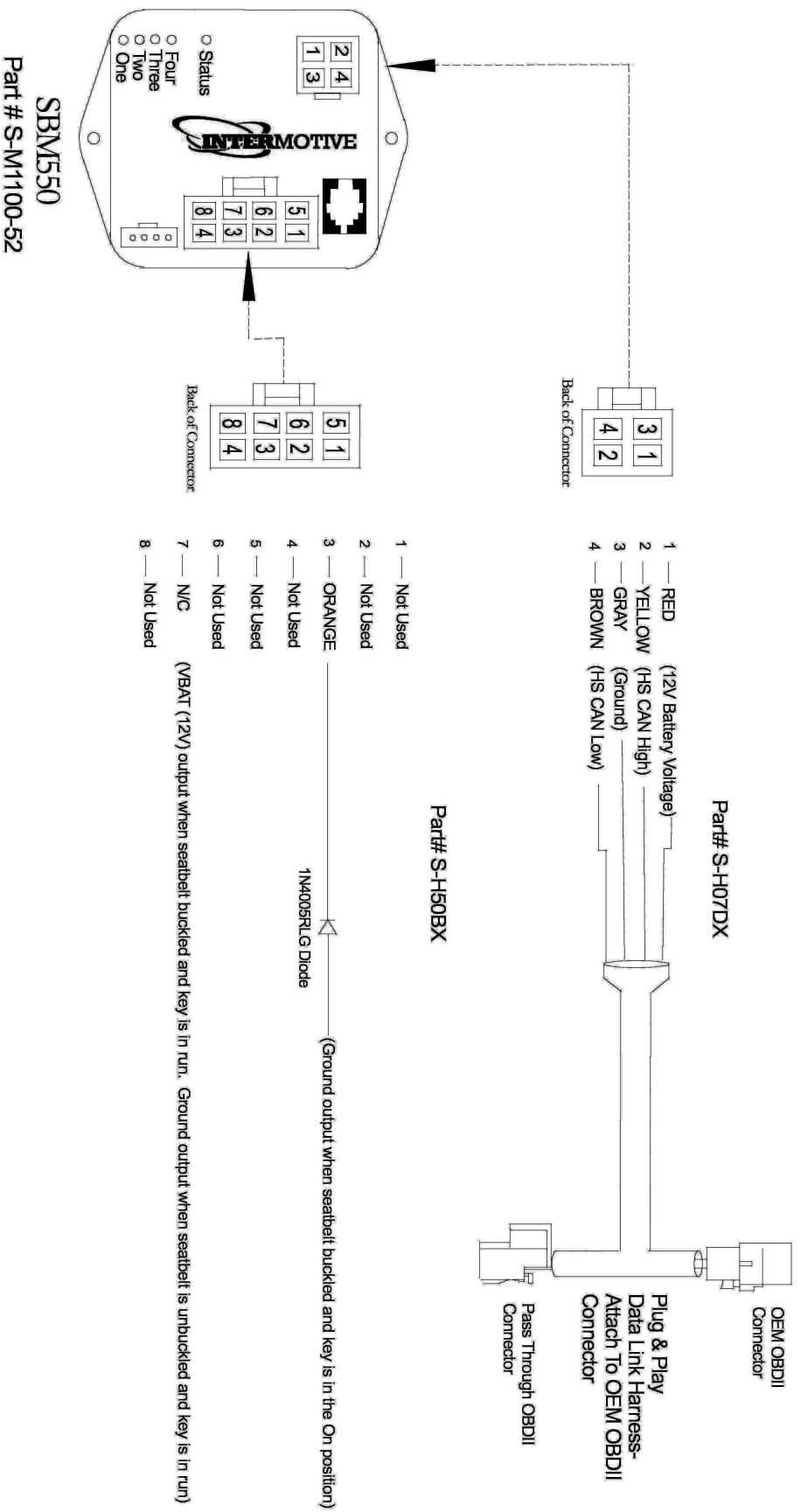


If the SBM fails to respond with the correct LEDs or the output pins do not track the seat belt buckle properly,

- Ensure that you are installing the system in the correct make and model year vehicle listed at the top of page 1.
- Recheck wiring and if necessary, call Intermotive Technical Support 530-823-1043

## SBM550 Module Mounting

If the module works properly as described above, route and secure the harnesses under the dash, ensuring they do not hang below the dash area. Mount the SBM module as described on page one using screws, Velcro, or double sided tape.



**Submit product registration at [www.intermotive.net](http://www.intermotive.net)**  
 the SBM550 fails any step in the Post Installation Test, review the installation instructions and check all connections.  
 If necessary, call Intermotive Technical Support at (530) 823-1048.