

Work Truck Shift Interlock - WTSI501-A1

2008-2010 Ford F250-F550, 6.4L Diesel Engines Only

Installation Instructions, Post Installation Test, and Operating Instructions

System Operation

The WTSI501-A1 is a Work Truck Shift Interlock which will prevent a vehicle from shifting out of Park when various truck equipment has not been properly stowed. Any number of switches on stabilizers, hydraulic booms, cranes, equipment doors, etc. may be used to lock the vehicle's transmission shifter in Park to ensure the vehicle is not inadvertently driven in an unsafe condition.

Installation Instructions



It is not necessary to cut any OEM wires during the installation of the WTSI501-A1. Always disconnect the battery before installing any electrical device.

The WTSI501-A1 module has several connectors. It is imperative that each harness connector be plugged into the correct module connector, or damage to the module or vehicle may result. The connections are color coded to assist with proper installation.

It is important that the module be installed in a location where the ambient temperature does not exceed 150°F during system operation. Locate the module in an area away from external heat sources, such as engine heat or heater ducts.

The harness has colored tape on the module connectors that identifies which module receptacle it plugs in to. The color of the tape on the harness **must match the color code on the module**. Do not simply match up the number of pins in a harness connector with the number of pins in a module connector. There are several connectors on the harness and module that if swapped, may cause permanent module or vehicle damage.

Data Link Harness

Locate the vehicle's OBDII Connector. It will be mounted below the lower dash panel on the driver's side. Remove the 2 mounting screws for the OBDII Connector. Plug the red connector from the WTSI 501-A1 Data Link Harness into the vehicle's OBDII Connector (see photo). Ensure the connection is fully seated and secure with the supplied wire tie. Mount the black connector from the WTSI501-A1 Data Link Harness where the vehicle's OBDII Connector was formerly located. Secure the Data Link Harness such that it does not hang below the lower dash panel.



Data Link 1 Connector

Plug the White 6 pin Data Link 1 connector (red tape) from the Data Link Harness into the "Data Link 1" (red marking) on the Control Module.

Data Link 2 Connector

Plug the Black 6 pin Data Link 2 connector from the Data Link Harness into the "Data Link 2" connector on the Control Module.

I/O Port

The WTSI501-A1 provides several outputs that may be useful in connecting to various installer supplied circuits or indicators. The outputs are as follows on the I/O Port (green) connector:

I/O Port Pin 1: Output - VSS = 2.2 Hz/MPH

I/O Port Pin 2: Output - EOT > 220°F

I/O Port Pin 3: Output - ECT > 225°F

I/O Port Pin 4: Input - Shift Lock Control Input Green Wire (see below)

A four pin connector (with green wire pre-installed in Pin #4) and 5 terminal pins (2 extra) are provided. To use these outputs, crimp the provided terminals onto wire no greater than 16 AWG. These can drive indicator lamps or other installer circuits. Install the crimped terminals with wire into the appropriate connector cavities. Make sure the terminals are fully seated in the connector. Push this newly wired connector into the module's "I/O Port" (green). Note: These outputs provide a ground signal and are designed for low current use. They can drive one standard automotive relay coil, but any current draw greater than 500 milliamps (1/2A) will result in damage to the module.

Shift Lock Control

Grounding I/O port pin 4 will lock the transmission shifter, if in Park. This is used to prevent the vehicle from driving when equipment has not been properly stowed. A green wire is provided, pre-installed in pin cavity 4 (see above), which can be connected to any number of grounding switches (connected in parallel) which can effectively "lock the vehicle down" when equipment is not properly stowed. Current flow from this input through the switch(es) is very low (microamps). For optimum long term reliability, use switches intended for low current use.

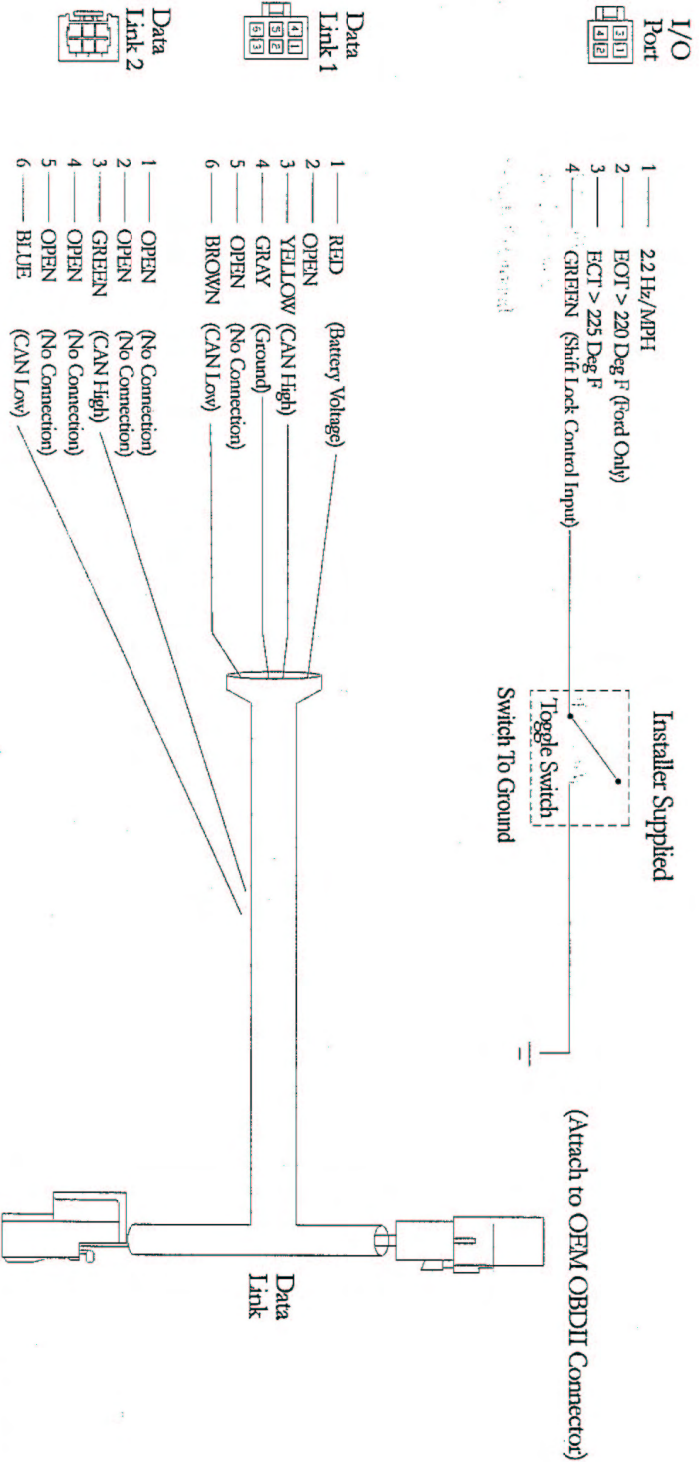
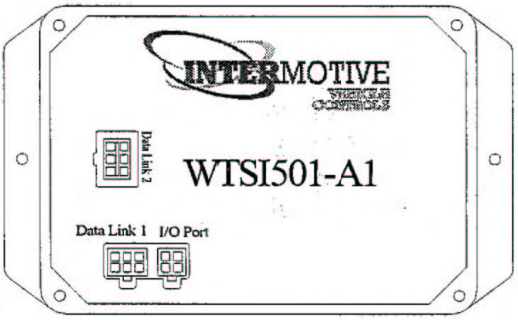
Post-Installation Test

The Ford OEM system will lock the shifter in Park until the Service Brake is applied. The WTSI501-A1 will further keep the shifter locked even when the Service Brake is applied if the shift lock input (green wire) is grounded.

Secure the module and test system operation as follows. Turn ignition switch on and apply the shift lock ground signal (I/O Port pin 4 green wire). Verify that the vehicle will not shift out of Park when depressing the Service Brake. Release the shift lock ground signal, apply the Service Brake, and verify the vehicle will shift out of Park.

The WTSI501-A1 must pass this system test before the installation is complete.

WTSI501-A1



Submit product registration at www.intermotive.net

If the WTSI501-A1 fails any step in the System Operation Test, review the installation instructions and check all connections.
If necessary, call

InterMotive technical support @ (530) 823-1048.