

WTSI556-A Work Truck Shift Interlock
2011-2016 Ford F250-F550
2017 Ford F250-F550 (Uses the Ford 24-Pin Data Link Harness)
2016-2017 Ford F650/F750*



***Transmission must have Park position**

Introduction

The WTSI556-A is a Work Truck Shift Interlock which can prevent a vehicle from shifting out of Park when various equipment is not properly stowed. Any number of switches on stabilizers, booms, cranes, equipment doors, and so on may be used to lock the vehicle's transmission shifter in Park to ensure the vehicle is not inadvertently driven in an unsafe condition.

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 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.

Installation Instructions

Disconnect vehicle battery before proceeding with installation.



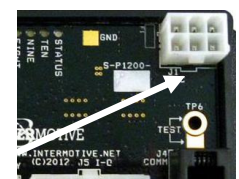
WARNING
Disconnect the battery to prevent setting a check engine light.

WTSI556 Module

Remove the lower dash panel below the steering column area and find a suitable location to mount the WTSI556 module. Locate the module in an area away from any external heat sources (engine heat, heater ducts, etc.). Do not mount the module until all wire harnesses are routed and secure. The last step of installation is to mount the module.

Data Link Harness (6-pin connector)

1. Locate the vehicle's OBDII Data Link Connector, mounted below the lower left dash panel.
2. Remove the mounting screws for the OEM OBDII connector. Plug the Red connector from the WTSI556-A Data Link Harness into the vehicle's OBDII connector. Ensure the connection is fully seated and secure with the supplied wire tie.
3. Mount the Black pass through connector from the WTSI556-A Data Link Harness in the former location of the vehicle's OBDII connector.
4. Secure the WTSI556-A Data Link harness so that it does not hang below the lower dash panel.
5. Plug the Data Link harness into the mating 6-pin connector on the WTSI556-A module.

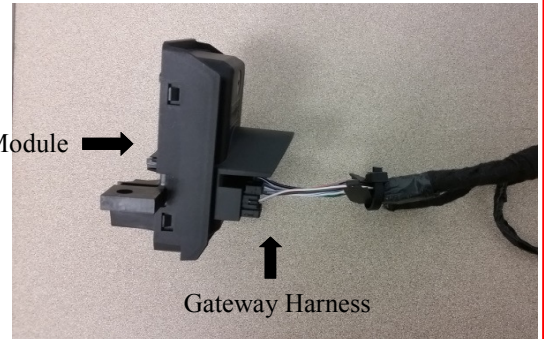


Installation Instructions (continued)

Ford 24-pin Data Link Harness (6-pin connector)

1. Locate the vehicles Gateway Module. It will be mounted below the lower left dash panel.
2. Remove the harness behind the Gateway module by pressing the locking tab and pulling outward.
3. Plug the Female side of the Intermotive Gateway Harness into the back of the Gateway module. Ensure the connection is fully seated and secured by the locking tab.
4. Plug the Male side of the Intermotive Data Link Harness into the Gateway harness.
5. Secure the PRPC Gateway harness so that it does not hang below the lower dash panel.

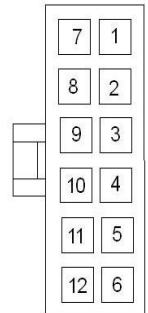
Gateway Module



Gateway Harness

Park output - An optional "Park" output Orange wire is provided (pin 3), which indicates when the vehicle is in Park, and it is safe to operate equipment. This can be used as a "ground enable" signal, which enables the equipment for operation. This output can sink 1/2A. Adding an external relay can boost this current if needed.

Shift Lock Control Input - Applying +12V to the Blue Shift Lock wire (pin #11) will lock the transmission shifter, if in Park. This can be used to prevent the vehicle from driving when equipment has not been properly stowed. This 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 Shift Lock input through the switch(es) is very low (microamps). For optimum reliability, use switches intended for low current use.

WTSI556 Module Mounting

Ensure all harnesses are properly connected and routed, and are not hanging below the dash area. Mount the WTSI556 module using screws or double sided tape and reinstall all removed panels.

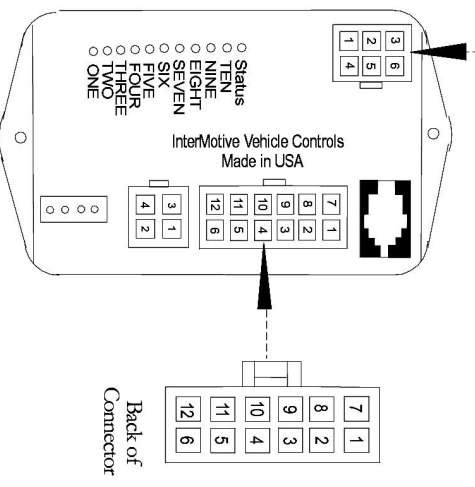
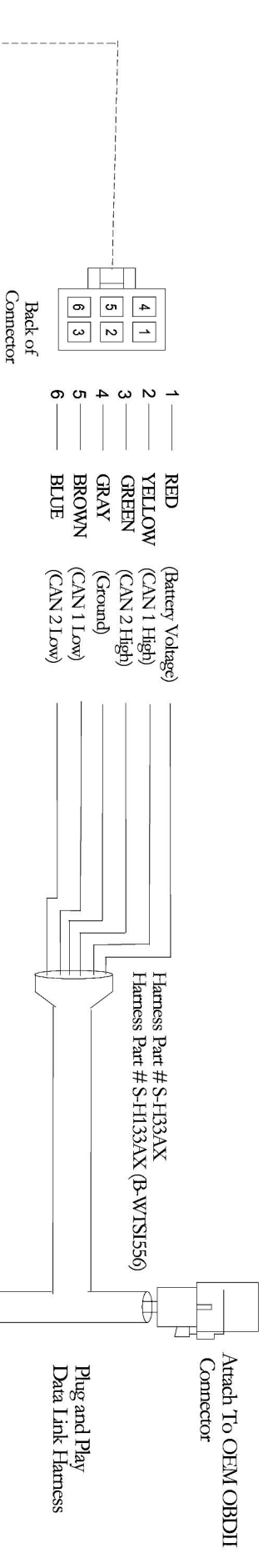
Post-Installation Test (Ignition on)

The OEM system will lock the shifter in Park until the Service Brake is applied. WTSI556-A will further keep the shifter locked even when Service Brake is applied when the shift lock input Blue wire has +12V applied (equipment not stowed). Test system operation as follows:

If the Orange wire Park output is used, confirm equipment is not enabled unless the vehicle is in Park.

1. Apply +12V the Shift Lock input Blue wire by un-stowing equipment (12 Pin Connector Pin #11 Blue wire).
2. Verify that the vehicle will *not* shift out of Park when depressing the Service Brake.
3. Stow equipment and confirm Shift Lock is released by applying Service Brake and shifting out of Park.

The WTSI556-A must pass this system test before the installation is complete.



- | | | |
|---|--------|-------------------|
| 1 | RED | (Battery Voltage) |
| 2 | YELLOW | (CAN 1 High) |
| 3 | GREEN | (CAN 2 High) |
| 4 | GRAY | (Ground) |
| 5 | BROWN | (CAN 1 Low) |
| 6 | BLUE | (CAN 2 Low) |
-
- | | | |
|---|----|---|
| 1 | 7 | 1 |
| 2 | 8 | 2 |
| 3 | 9 | 3 |
| 4 | 10 | 4 |
| 5 | 11 | 5 |
| 6 | 12 | 6 |
- Back of Connector

Harness Part # S-H54BX

(Park Output)
Ground Signal when
transmission is in Park

BLUE (Shift Lock Control Input)

(Shift Lock Control Input)
+12V signal when equipment is
not properly stowed

WTSI556
S-M1200-21

Submit product registration at www.intermotive.net

If the WTSI556-A fails any step in the System Operation Test, review the installation instructions and check all connections.
If necessary, call InterMotive Technical Support at (530) 823-1048.