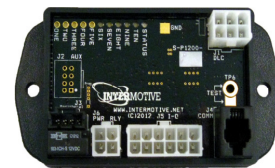


WTSI507-A Work Truck Shift Interlock

2020 Ford F250-F550

2021 Ford E-Series

Contact InterMotive for additional vehicle applications.



Introduction

The WTSI507-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.

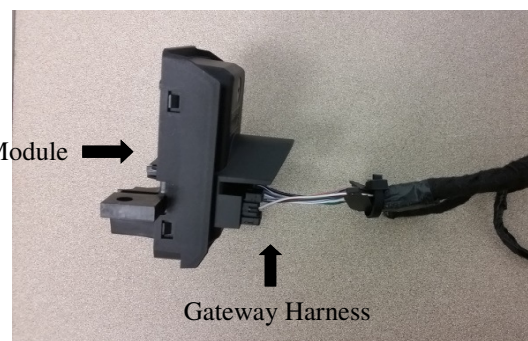
WTSI507 Module

Remove the lower dash panel below the steering column area and find a suitable location to mount the WTSI507 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.

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 WTSI Gateway harness so that it does not hang below the lower dash panel.

Gateway Module →



↑
Gateway Harness

Installation Instructions (continued)

Shift Lock Harness

1. Remove the upper and lower steering column covers by removing the 3 screws in the lower column cover.



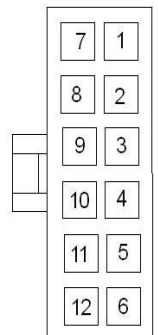
2. Locate the Shift Lock (4-pin) harness.
3. Unplug the Shift Lock connector.
4. Plug the OEM Shift Lock connector into the mating connector on the WTSI507 harness.
5. Plug the 4-pin connector on the WTSI507 harness into the mating connector on the OEM Shift Lock harness.



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 - Grounding 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.



Installation Instructions (continued)

WTSI507 Module Mounting

Ensure all harnesses are properly connected and routed, and are not hanging below the dash area. Mount the WTSI507 module using screws or double sided tape and reinstall all removed panels.

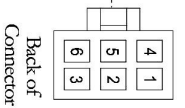
Post-Installation Test (Ignition on)

The system will lock the shifter in Park until the Service Brake is applied. WTSI507-A will further keep the shifter locked even when Service Brake is applied when the shift lock input Blue wire is grounded (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.

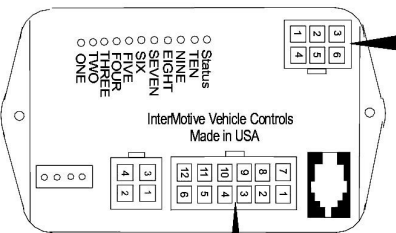
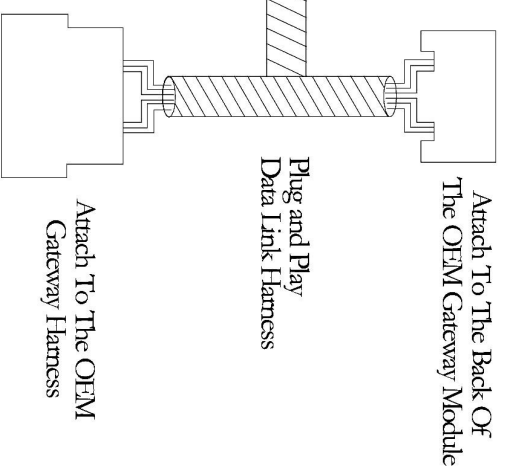
1. Ground the Shift Lock input Blue wire by un-stowing equipment (12 Pin Connector Pin #11 Blue wire).
2. Verify that the vehicle will **not** shift out of Park when depressing the Service Brake.
3. Stow equipment and confirm Shift Lock is released by applying Service Brake and shifting out of Park.

The WTSI507-A must pass this system test before the installation is complete.

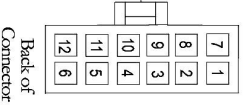


- 1 — RED (Battery Voltage)
- 2 — YELLOW (CAN 1 High)
- 3 — GREEN (CAN 2 High)
- 4 — GRAY (Ground)
- 5 — BROWN (CAN 1 Low)
- 6 — BLUE (CAN 2 Low)

Part # S-HI33AX

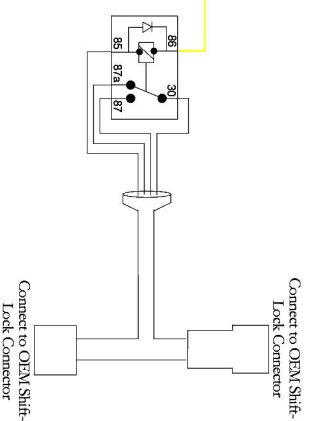


WTSI507-A
820-1211-213



- 1 — YELLOW (Shift Lock)
- 2 — ORANGE (Park Output)
- 3 — ORANGE (Park Output)
Ground signal when
Transmission is in Park
- 4
- 5
- 6
- 7 — RED (Shift Lock Control Input)
Ground signal when equipment is
not properly stowed.
- 8
- 9
- 10 — BLUE (Shift Lock Control Input)
Ground signal when equipment is
not properly stowed.
- 11
- 12 — RED

Part # 840-00057



Submit product registration at www.intermotive.net

If the WTSI507-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.