H-IDLE508-A
Idle Lock™ Anti-Theft
2024 Ford F150
Contact InterMotive for additional vehicle applications.

*<u>This product is for key ignitions only</u>.

Introduction

Idle-Lock is an anti-theft system that allows the engine to idle with the key removed from the ignition and the shifter in PARK. The system is activated by pressing a momentary enable switch and removing the key within three seconds. If the service brake is pressed while in Idle-Lock mode the horn will sound as an alarm (if wired). **The IDLE508 will not lock the shifter. The vehicle automatically shifts back to PARK when the engine stops.**

CAUTION

All electronic products are susceptible to damage from Electrostatic Discharge or ESD. Ground yourself before handling or working with the module and harnessing by first touching chassis ground, such as the barrel of the cigarette lighter.

Installation Instructions

Disconnect vehicle battery before proceeding with installation

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

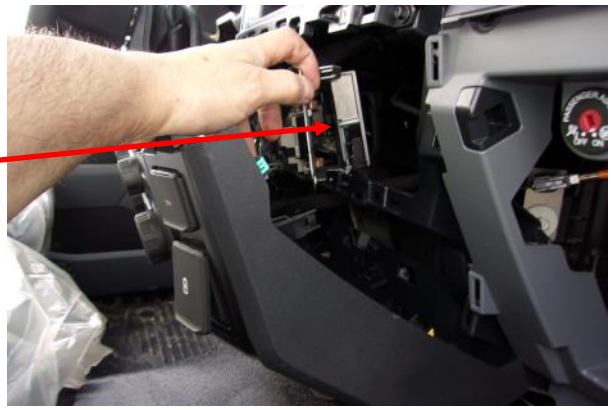
It is the installer's responsibility to route and secure all wiring harnesses where they cannot be damaged by sharp objects, mechanical moving parts and high heat sources. Failure to do so could result in damage to the system or vehicle and create possible safety concerns for the operator and passengers.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

H-IDLE508-A Module

Remove the lower dash panel below the steering column and find a suitable location to mount the module. Locate the module in an area away from excessive heat sources (engine, heater ducts, etc.). Ensure when routing harnesses that the tilt steering column does not contact them in the full down position. When installing the harnesses, leave several inches of take-out such that the module can be removed if necessary. Do not mount the module until all wire harnesses are routed and secure. The last step of the installation is to mount the module.

Data Link Harness Installation

The Ford F150 has an OEM Gateway module located on the other side of the SYNC 4 module, which is behind the center console. Follow the steps below to access it:



Data Link Harness Installation Cont.

1. Remove the upper center stack bezel using a plastic trim tool. There are 8 clips securing it to the dash.

2. Remove the RH instrument panel trim using a trim removal tool. The trim starts at the ignition switch and ends at the silver clip. The glove compartment can be opened to better access the back side of the trim.

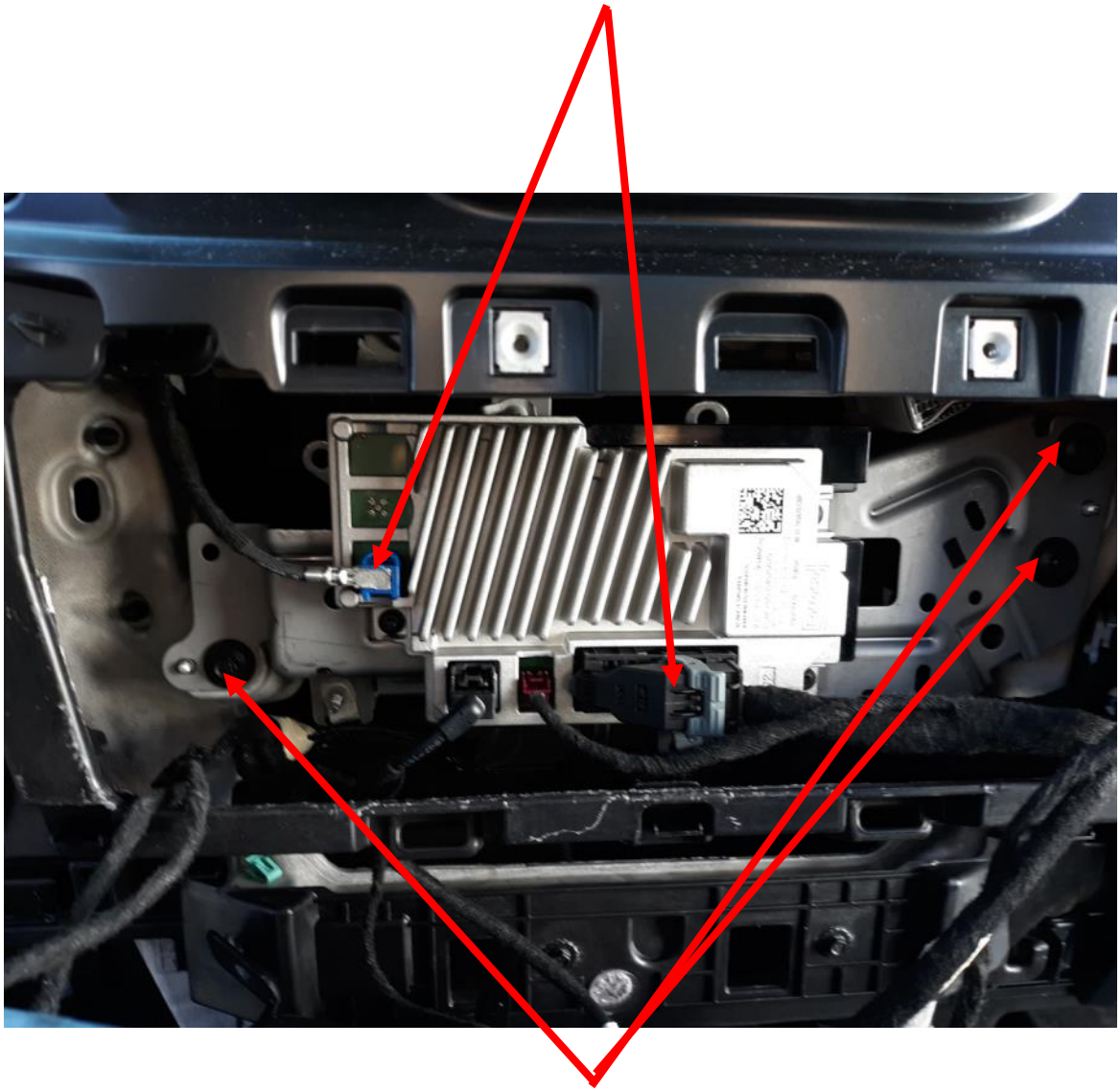
Installation Instructions (continued)

3. Remove the left and right lower center stack trim panels. They each have 5 clips securing it to the dash.

4. Remove the (4) 7 mm screws from the lower center stack trim panel.

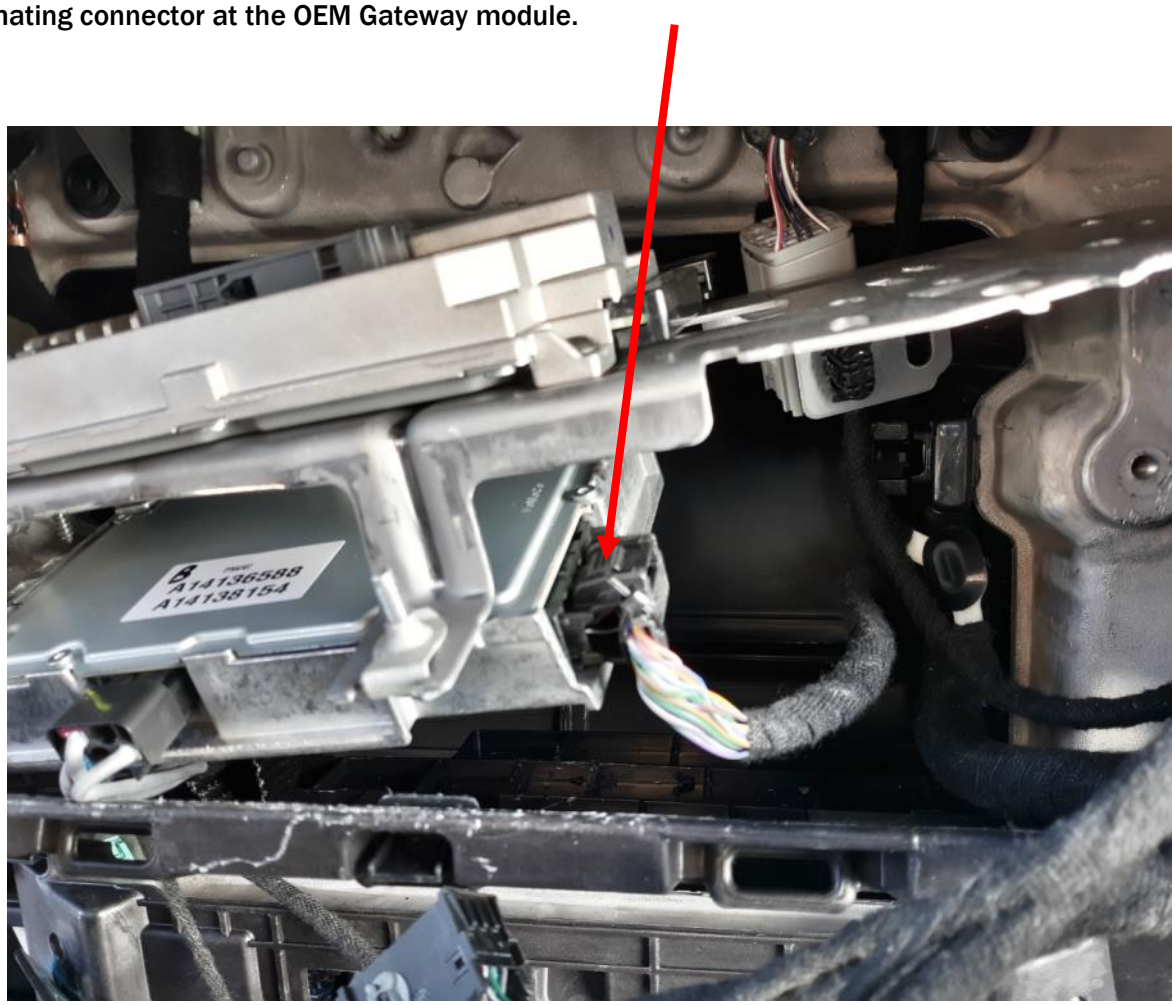
5. Grab the centerstack trim panel and pull towards the rear to release the clips holding it to the dash. There is no reason to disconnect any of the connectors.

6. Locate the module below the radio and remove the these connectors from the module. There are also two wires on the right side of the bracket attached with black plastic “trees”. The “trees” need to be removed from the bracket so it can be rotated in the next step.



7. Remove the (3) 8 mm screws from the module located below the radio. Carefully move the bracket away from the dash and rotate it to access the Gateway module mounted on the backside of the bracket.

8. Locate the 26-pin connector and disconnect it from the Gateway Module. Plug the 26-pin connector into the mating connector on the Intermotive harness. Plug the Male connector from the Intermotive harness into the mating connector at the OEM Gateway module.

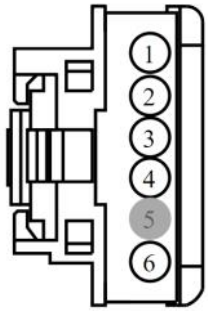


9. Plug the free end of the Data Link harness into the mating 6-pin connector on the H-IDLE508 module.

Ignition Switch Harness

1. Locate the 7-pin ignition switch connector (C250) and disconnect it from the ignition switch.
2. Install the Idle-Lock harness between the Ignition Switch and the OEM connector.

Front of C250



I/O Wiring, Features, and Descriptions: (Solder and heat shrink all connections)

Lock Output (Active High)

Pin 2, White wire of the 12 pin connector is the Idle-Lock output. This output (500mA max current) can control installer supplied normally closed relays to lock/disable equipment when Idle-Lock is active. This minimizes possible theft when Idle-Lock is active and the vehicle is unattended.

When Idle-Lock is enabled, this output becomes active after 10 seconds. This output remains active until the key is back in the run position.

Idle-Lock Active Output (Active High)

Pin 11, Yellow wire of the 12 pin connector is the Idle-Lock Active output. This output (500mA max current) can control installer supplied normally closed relays or auxiliary indicator LEDs. When Idle-Lock is enabled, this output becomes active. This output remains active until the key is back in the run position. Mounted in an appropriate location these indicators will allow the operator to easily determine if Idle-Lock mode is active.

Horn/Alarm Output (Active Low)

The H-IDLE508 provides a horn/alarm output that can be connected to the OEM horn circuit to activate the OEM horn or an alarm when the Service Brake is pressed while in Idle-Lock mode.

Pin 8, Orange wire of the 12 pin connector is the Horn/Alarm Output. This output (500mA max current) can control the OEM horn relay or an installer supplied alarm.

Idle-Lock Enable Switch and Active LED

An LED is provided in the kit which illuminates when Idle-Lock is active.

1. Drill a 16mm (0.630”) hole in the desired mounting location. One possibility is the dash panel to the left of the Steering Wheel.
2. Route the LED harness through the hole and mount the LED in the hole.
3. Slide the LED’s lock nut onto the harness and snug it down onto the back of the LED.
4. Plug in the 4 pin (Black) connector of the LED harness into the mating connector on the Idle-Lock main harness.
5. Apply optional “Idle-Lock Enable/Active” label included in the kit.

H-IDLE508 Module Mounting

Ensure all harnesses are properly connected and routed, and are not hanging below the dash area. Mount the module as described on page one and secure with supplied screws or double sided tape.

H-IDLE508 Harness (4 Pin connector and 12 Pin connector)

1. Plug the H-IDLE508 4 Pin connector into the mating 4 pin connector on the H-IDLE508 module.
2. Plug the H-IDLE508 12 Pin connector into the mating 12 pin connector on the H-IDLE508 module.

Reconnect the vehicle battery

Reverse disassembly instructions to reassemble the vehicle interior.

Post Installation Operational Test

Test 1. Start the Engine.

Test 2. While the engine is running, enable Idle-Lock by asserting the enable request input.

- The Red LED will flash five times and then blink every two seconds.
- Remove the key from the ignition within 3 seconds, the engine will continue to idle.
- Idle-Lock is now active.

Test 3. Verify that the Lock Output disables/locks equipment at the proper times (if wired).

Test 4. Attempt to shift the vehicle out of PARK. The shifter will not be locked in PARK. When the IDLE508 detects a shift out of PARK it will turn off the engine. The vehicle will automatically shift back to PARK when the engine turns off. At this time the OEM horn may sound (if wired) for 20 seconds after the service brake is pressed.

Test 5. Insert key and restart the engine. Repeat Test 2 above. Reinsert the key and turn to RUN to turn off Idle-Lock. The button LED will flash 5 times.

- The system will deactivate (shut down engine) if the vehicle is shifted out of PARK while Idle-Lock is active. The vehicle will automatically shift back to PARK when the engine turns off. The factory did not provide a shift lock mechanism on the 2024+ F150.

If the system fails any of the above tests, check the related wiring. If necessary, call InterMotive Technical Support at 530-823-1048. Do NOT release vehicle for service unless it has passed ALL of the above tests.

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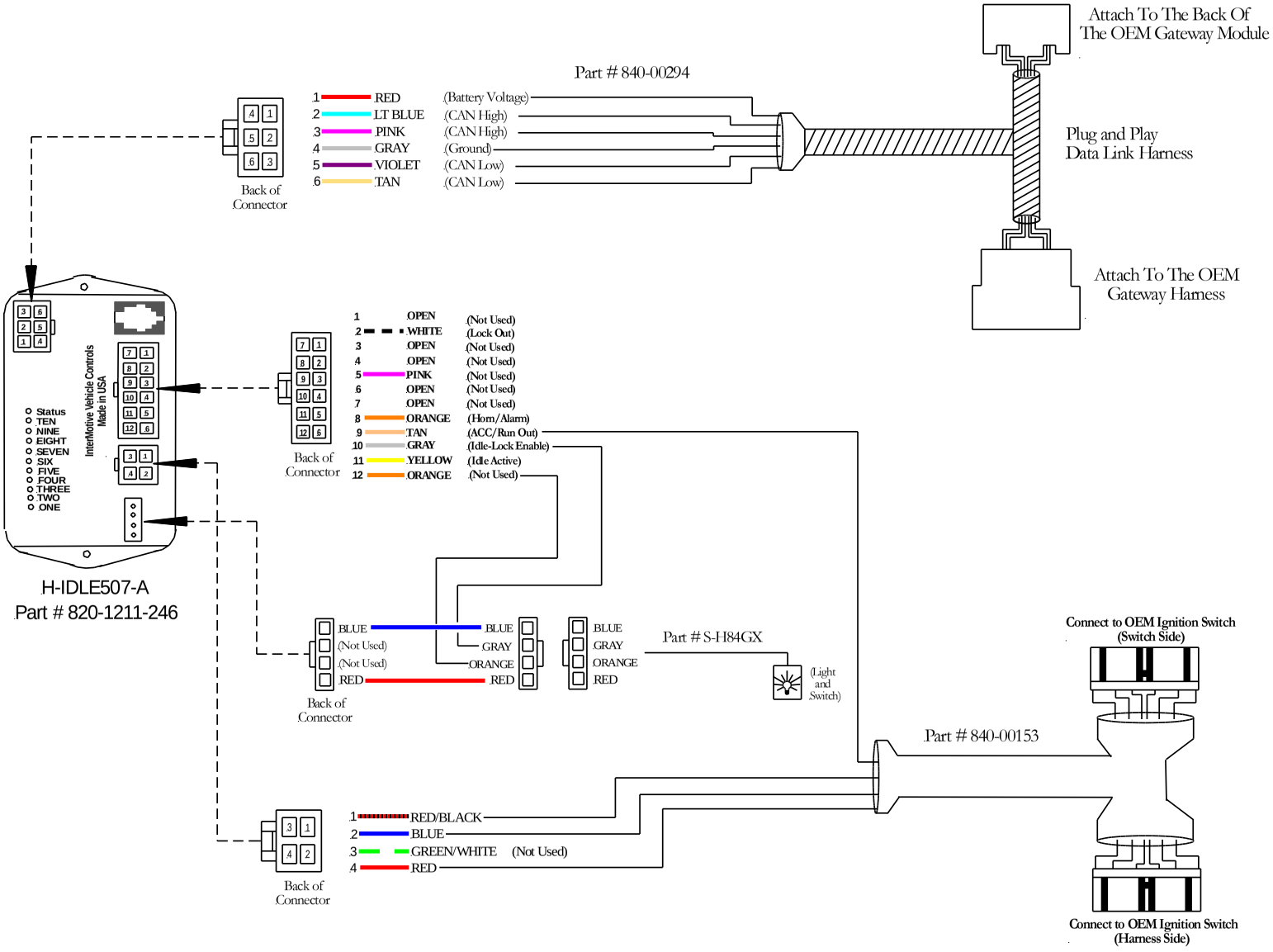
- Idle-Lock is enabled by removing the key from the ignition within 3 seconds of asserting the Idle-Lock enable input. Transmission must be in Park and engine must be running.
- To prevent unattended vehicle theft (Idle-Lock active), the horn may sound (if wired) if someone attempts to shift the vehicle out of Park. The shifter can be shifted out of PARK but the Idle-Lock will shut down the engine. The vehicle will then automatically shift back to PARK.
- Inserting the key and turning it to Run restores normal operation. The Lock Output will turn off.



Submit product registration at www.intermotive.net

If the Idle-Lock 506 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.