A-IDLE806-B
Idle Lock™ Anti-Theft
J1939-Based Vehicles
Thomas Built Bus
Freightliner C2 and Evolved C2 Chassis
NOT FOR JOULEY Models

Contact InterMotive for additional vehicle applications and specific model years.

Introduction

Idle Lock is an anti-theft system that allows the engine to idle with the key removed from the ignition and the vehicle secured. With the engine running and the parking brake applied, the system is activated by pressing a momentary enable switch and removing the key within three seconds. The system provides outputs to indicate Idle Lock status and to further secure the vehicle.

Installation Instructions

Disconnect vehicle battery before proceeding with installation

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.

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.

Installation Instructions (continued)

Data Link Harness

1. Locate the vehicle's J1939 Connector. It is usually located below the lower left dash panel.
2. Remove the J1939 Connector from the mounting bracket.
3. Connect the Data Link harness J1939 female connector to the vehicle's J1939 connector.
4. Mount the Data Link harness J1939 male connector to the vehicle's J1939 connector mounting bracket.
5. Plug the free end of the Data Link harness into the mating 6-pin connector on the module.
6. Secure the Data Link harness so that it does not hang below the lower dash panel.
7. Do not plug the 6-pin connector into the module until the last step of installation.

Installation Instructions (continued)

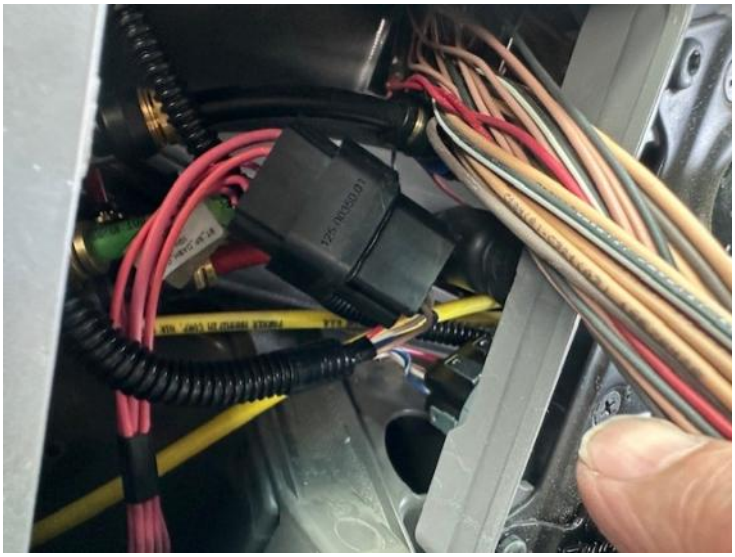
Ignition Switch Connection

1. Remove the dash surround panel.

2. Remove the mounting screws for the switch panel and pull the panel away from the dash.

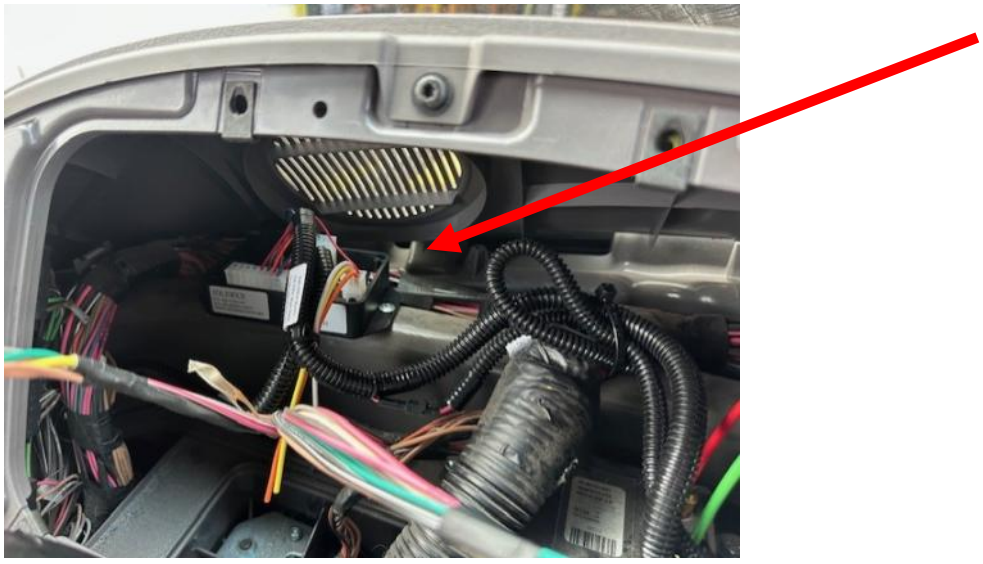
Installation Instructions (continued)

3. Unplug the ignition switch and plug the OEM connector into the mating connector on the InterMotive harness. Plug the mating connector on the InterMotive harness into the ignition switch.



Module Mounting Location

1. Remove the screws holding the gauge cluster in place and pull the cluster away from the dash.
2. Route the InterMotive harnessing to the area behind the cluster. Plug the harness connectors into the mating headers on the module:
   - Plug the 4 Pin connector into the mating 4 pin header J5 on the module.
   - Plug the 8 Pin connector into the mating 8 pin header J4 on the module.
   - Plug the 16 Pin connector into the mating 16 pin header J7 on the module.
   - Plug the 4 Pin connector into the mating 4 pin header J8 on the module.
   - Plug the 6 Pin connector into the mating 6 pin header J11 on the module.
3. InterMotive recommends mounting the module in the location shown in the picture below.



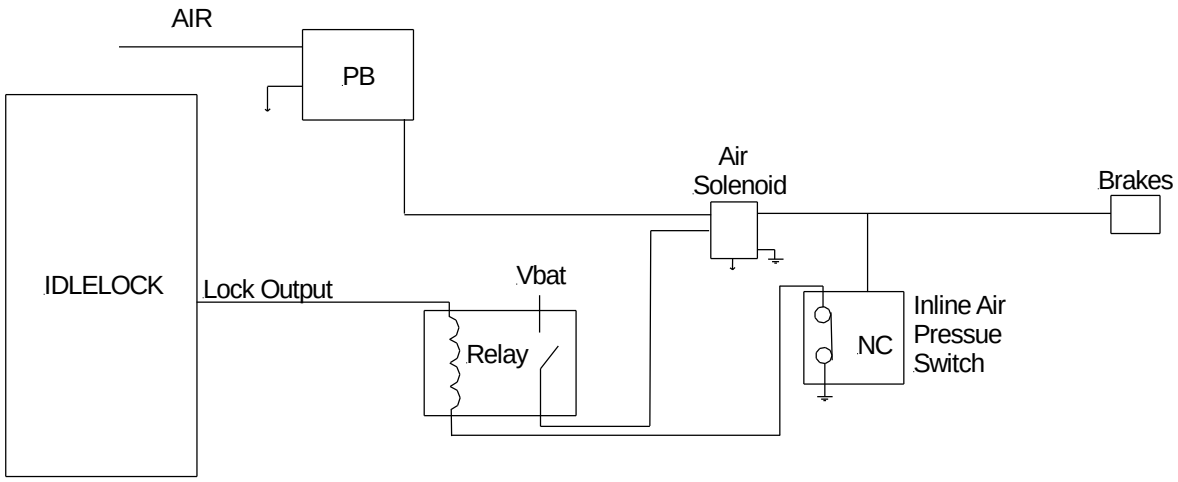
I/O Wiring, Features, and Descriptions: (Solder and heat shrink all connections)

Lock Output (Active High)

Pin 3, White wire of the 4 pin J5 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 activated, this output turns on after 10 seconds. This output remains active until the key is back in the run position.

NOTE: It is STRONGLY RECOMMENDED that this output be used to prevent the air brakes from releasing in the event IdleLock is engaged. If this is not done, the air brakes can potentially release when the engine is stopped by the IdleLock module. An example of how to accomplish this is provided below.



Idle Lock Active Output (Active High)

Pin 4, Yellow wire of the 4 pin J5 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 Idle Lock is de-activated. Mounted in an appropriate location these indicators will allow the operator to easily determine if Idle Lock mode is active.

Alarm Output (Active High)

Pin 2, Orange wire of the 4 pin J5 connector will output a pulsing signal (500mA max current) for 20 seconds anytime Idle Lock is enabled and the Service Brake is pressed or someone attempts to shift into gear. This can be attached to an alarm or lights to alert individuals outside the vehicle that the vehicle is being tampered with.

Note: Idle Lock outputs are rated at 1/2A and are intended to drive relay coils or other low current loads. When driving relays, a diode-protected type must be used. Intermotive recommends DigiKey #PB682-ND Relay.

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.

Reinstall gauge cluster, switch panel, and dash surround

Reconnect the vehicle battery

Post Installation Operational Test

Test 1. Conditions Not Met: With engine running and parking brake released, press the Idle Lock enable switch.

- The red LED on enable switch should not flash.

Test 2. Activate Idle Lock: With engine running, transmission in neutral and parking brake applied, press the Idle Lock enable switch and remove the key from the ignition switch within 3 seconds.

- The engine will continue to idle.
- The red LED on the enable switch will flash five times and then blink every two seconds.
- The Idle Lock active output will turn on (+12V).
- After 10 seconds the Lock output will turn on (+12V).

Test 3. De-Activate Idle Lock: With Idle Lock active, insert key and turn to RUN.

- The red LED on the enable switch will flash five times and then turn off.
- The Idle Lock active output will turn off.
- The Lock output will turn off.

Test 4. Vehicle Secured: The system will deactivate (shut down engine) if the service brake is pressed, the parking brake is released or the transmission shifts into gear. With Idle Lock active, press the service brake.

- The engine will stop.
- The red LED on the enable switch will flash five times and then turn off.
- The alarm output will pulse for 20 seconds (+12V).
- The Idle Lock active output will turn off.
- The Lock output will remain on (+12V) until the vehicle's key is turned to the RUN position.

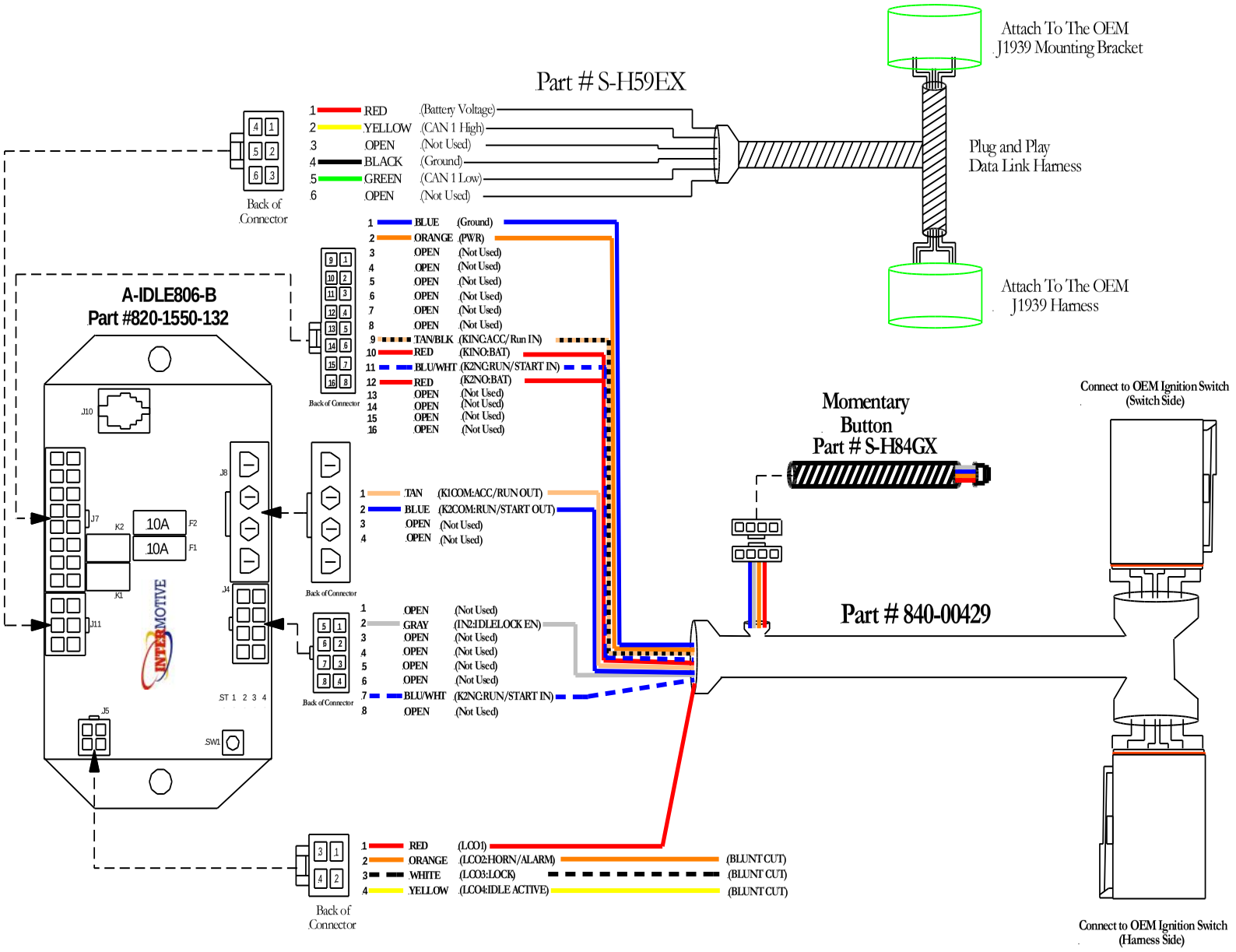
If the system fails any of the above tests, check the related wiring. If necessary, call InterMotive Technical Support at 530-823-1048. Do NOT release vehicle for service unless it has passed ALL of the above tests.

Operating Instructions
A-IDLE806-B
Idle Lock™ Anti-Theft
J1939-Based Vehicles
Thomas Built Bus
Saf-T-Liner C2 and Evolved Saf-T-Liner C2 models
NOT FOR JOULEY Models

Leave in vehicle

Idle Lock is an anti-theft system that allows the engine to idle with the key removed from the ignition and the vehicle secured. With the engine running and the parking brake applied, the system is activated by pressing a momentary enable switch and removing the key within three seconds. The system provides outputs to indicate Idle Lock status and to further secure the vehicle.

- To Activate Idle Lock:
  - With the engine running, transmission in neutral and parking brake set, press the Idle Lock enable switch and remove the key from the ignition switch within 3 seconds.
  - The red LED on the enable switch will flash 5 times quickly and then every 2 seconds.
  - The engine will continue to run.
- To De-Activate Idle Lock:
  - Insert the key and turn to the run position.
  - The red LED on the enable switch will flash 5 times quickly and then turn off.
- The engine will stop if the service brake is pressed, the parking brake is released or the transmission is shifted into gear with Idle Lock active. Depending on how the vehicle has been upfit, the horn may honk and/or lights may flash as well.



Submit product registration at www.intermotive.net

If the Idle Lock 517 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.