An ISO 9001:2015 Registered Company

E-IDLE751-A

Idle Lock™ with Autosense Technology

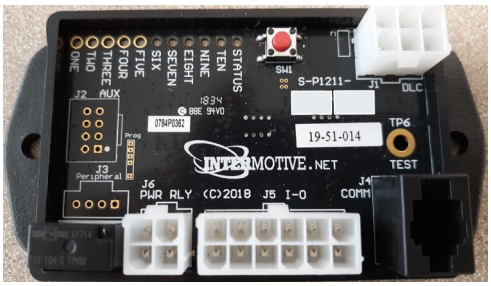
2019-2021 RAM 1500 Classic*

2019-2021 RAM 2500-5500

Contact InterMotive for additional vehicle applications

*A RAM 1500 Classic will have a '6' or '7' in the 6th position of the VIN

Not for Vehicles with Key-in Ignition Switches



Introduction

The IdleLock for RAM Trucks will detect when the key fob leaves the vehicle, automatically lock the shifter in Park, and will allow the user to remove the key fob with the engine running. It also provides outputs to disable the weapon rack, trunk release, or other equipment when the vehicle is in IdleLock. If the service brake is pressed while in Idle-Lock mode the horn will sound as an alarm. The IDLE751 will keep equipment enabled for 10 seconds (configurable) after IdleLock is entered.

Installation Instructions

Disconnect vehicle battery before proceeding with the installation.

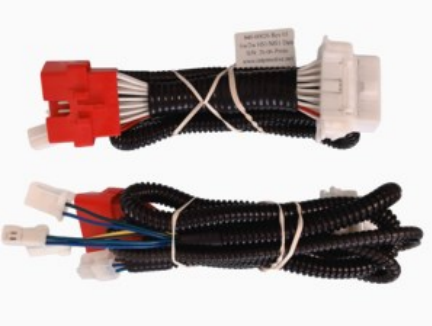
WARNING
Disconnect the battery to prevent setting a check engine light.

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.

E-IDLE751 Add-On Options

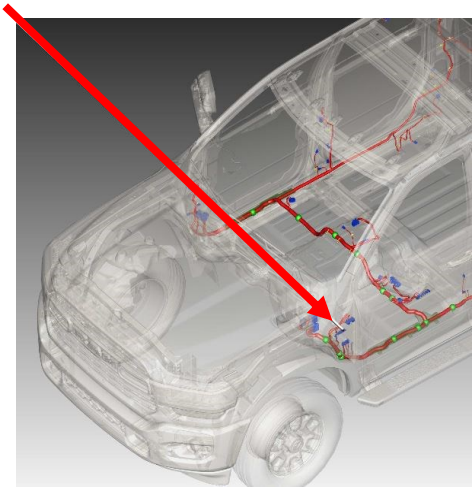
-E: Auto Door Locks (locks doors when Idle-Lock is active).
-K: Engine kill on service brake pressed (Idle-Lock active).

Plug and Play Harness (**E-IDLE751**)

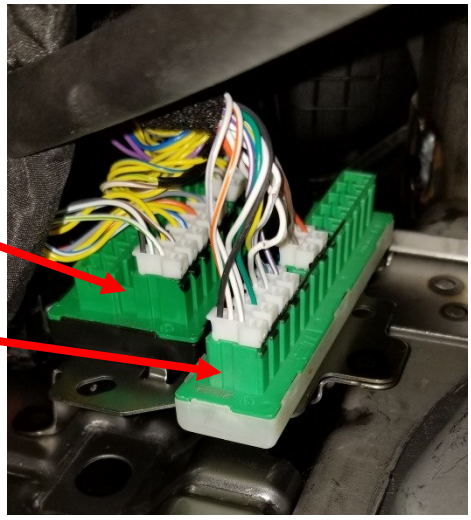


Harness 840-00026

1. Locate the vehicle OBDII Data Link Connector. It's a White 16-pin connector around the area above the drivers left foot.
2. Use a flat screwdriver to remove the OEM OBDII connector. There are tabs on the sides of the connector that allow it to snap into place. Press the tabs and push the connector up and out of its bracket. The UIM kit includes a Data Link harness (see picture). Plug the red connector from the UIM Data Link Harness into the vehicle's OBDII connector. Ensure the connection is fully seated and secured with the supplied wire tie.
3. Mount the white connector from the UIM Data Link Harness in the former location of the vehicle's OBDII connector, by snapping it into place.
4. Plug the free end of the Data Link Harness into the extended harness which then plugs into the mating 6-pin connector on the E-IDLE751 module.
5. Locate the STAR connector bank in the location shown (next to the Park Brake).



RAM 2500– RAM 5500

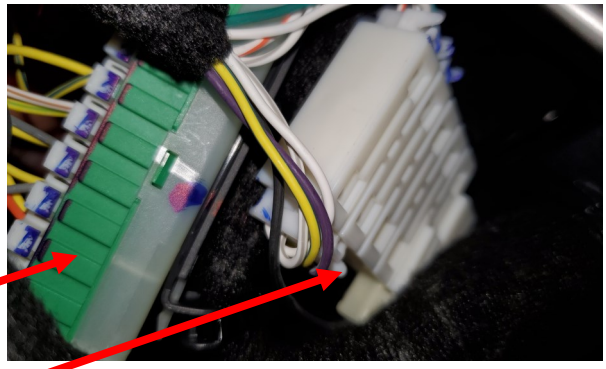


1. There are multiple banks of Star connectors. One of the banks has a White base and the other has a Black base.
2. Plug the 2-pin E-IDLE751 connector with **Yellow and Brown wires** into one of the unused ports with the **Black base**.
3. Plug the 2-pin E-IDLE751 connector with **Green and Blue wires** into one of the unused ports with the **White base**.

Plug and Play Harness (**E-IDLE751**) Continued

RAM 1500 (Classic)

On the Data link harness locate the larger white 2 pin connector with the blue and green wires. This connector will be used to plug into the vehicle.



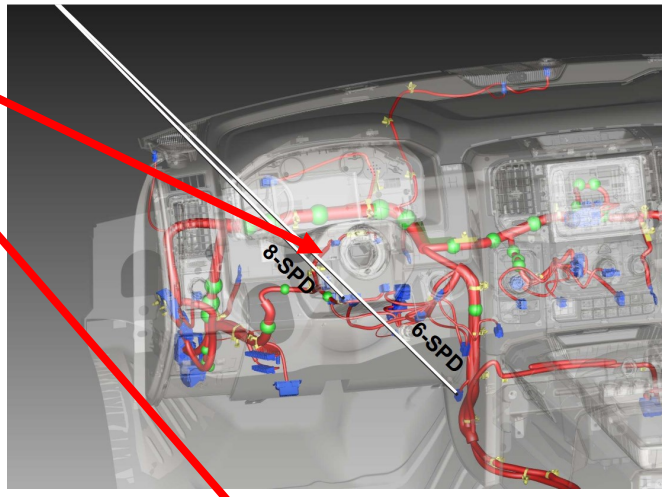
1. There are multiple banks of Star connectors. Located above the parking brake. One of the banks has a Green and White base and the other a solid white base.

2. Plug the 2-pin E-IDLE751 connector with **Yellow and Brown wires** into one of the unused ports with the **Green base**.

3. Plug the **larger** 2-pin E-IDLE751 connector with **Green and Blue wires** into one of the unused ports with the **White base**.

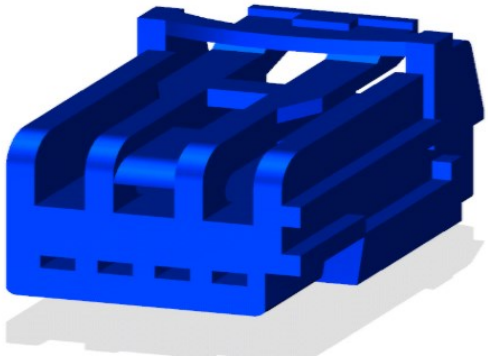
Shift Lock connector for Vehicles with Column Shifter ONLY

Shift lock on column shifters must be done discretely using the on board relay on the Intermotive Module.



1. The BTSI connector is located behind the steering wheel. To access the connector the driver knee panel must be removed.
2. The BTSI is a 4 pin connector seen in the picture below.
3. Locate the Brown/Yellow wire on pin 3.
4. Verify with a DVM there is 12V on the wire when the service brake is presseD and 0V when the service brake is released.
5. Cut the Brown/Yellow wire.
6. Attach the connector side to the Blue wire on the 4pin connector of the Intermotive harness. (Part# S-H65LX)
7. Attach the harness side to the Purple wire on the 4pin connector of the Intermotive harness. (Part# S-H65LX)

Isometric View:



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

Lock Output (Active High)

Pin 2, Red 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 vehicle.

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 vehicle. Mounted in an appropriate location these indicators will allow the operator to easily determine if Idle-Lock mode is active.

Idle-Lock Active Relay Output

Pin 2 ,Violet and Pin 4, Blue of the 4 pin connector is the connections to the On-board Relay. When Idle-Lock is enabled, this output becomes active. This output remains active until the key is back in the run position.

For vehicles with a column shifter these connections must be made to the BTSI connector. See page 3.

For vehicles with a rotary shifter the on-board relay can be used for other equipment.

Horn/Alarm Output (Active Low)

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

IdleLock Operating Instructions :

Auto Enable

Preconditions: Transmission in PARK, Engine running, Idle-Lock OFF.

- Every time the door is closed, IdleLock will check the location of the key fob. If the fob is present, nothing will happen. If the fob is NOT present, IdleLock will lock the shifter.
- If the door is left open, IdleLock will check the key fob location every 10 seconds. Once IdleLock determines the key fob has left, Idle-Lock will lock the shifter.

Auto Disable

Preconditions: Transmission in PARK, Engine running, Idle-Lock ON.

- Anytime the door is open, IdleLock will check the key fob location every second. Once IdleLock determines the key fob is present, Idle-Lock will be disabled.
- If the service brake is pressed, IdleLock will check the key fob for its location and if the key fob is present then IdleLock will disable Idle-Lock. If the key is not present the Horn will sound for 20 seconds.
- If the seatbelt is buckled, IdleLock will check the key fob for its location and if the key fob is present then IdleLock will disable Idle-Lock.

IdleLock Post Installation Instructions

Perform the following tests before mounting the module to allow viewing of the diagnostic LED's, if needed.

1. With the engine running, confirm Idle-Lock is off by shifting out of Park.
2. Place transmission in Park, step away from the vehicle with the Key Fob in hand and close the driver door.
3. Place the Key Fob around 10 feet from the vehicle.
4. Open the driver door, get in the driver seat, and confirm the shifter is locked in Park. The Horn will sound for 20 seconds as an alarm.
5. Grab the key fob and place it in your pocket. Get back in the driver seat and at this point the Idle-Lock should be disabled. Confirm by shifting out of Park.

DO NOT PUT VEHICLE IN SERVICE IF IT DOES NOT PASS ALL OF THE ABOVE TESTS

Contact InterMotive at 1-800-969-6080 for technical assistance.

Diagnostics

Diagnostic mode is entered by pressing the red test button. The module provides diagnostic LEDs which illuminate according to the following table. LEDs 1-10 show the state of IDLE-LOCK. Contact Intermotive for assistance.

Page 1			
LED	**Description**	**ON**	**OFF**
6	Auto Door Locks (-E Option)	Enabled	Disabled
7	Service Brake Kill (-K Option)	Enabled	Disabled
8	Shifter	Rotary	Column
9	Horn Alarm	Enabled	Enabled
10	Key Fob Range	Enabled	Disabled

CAN Horn Control Enable/Disable Programming Sequence

By default Idle-Lock will control the OEM horn via CAN. If desired, this feature can be disabled with the following procedure:

1. With module installed and engine on turn the key to Run.
2. Transmission must be in park at this point.
3. **Set the Park Brake**.
4. Put the module in test mode by pressing the Red test button on the module. While in test mode, several of the LEDs on the module will start to flash.
5. Press the service brake five times within 10 seconds.

Once the above sequence is executed, LED 9 on the module will flash six times. If LED 9 does not flash, then the sequence was not recognized and should be re-attempted after waiting 10 seconds.

Note: To re-enable CAN horn control, repeat the steps above. When the sequence is correctly executed, LED 9 will flash three times. If LED 9 does not flash, then the sequence was not recognized and should be re-attempted after waiting 10 seconds.

Key Fob Range Programming sequence

By default the Key Fob must be in the driver seat to unluck the shifter. The range can be extended to within 5 feet of the vehicle. The following procedure must be performed:

1. Start the Engine
2. Press the red test button to get in to the diagnostic mode.
3. Apply the Park Brake.
4. Apply and hold the Service Brake.
5. Put the transmission in **PARK.**
6. Cycle the High Beams On/Off 3 times within 5 seconds.
7. All LED's will flash once for confirmation.
8. LED10 off means the key fob is standard. LED10 on means key fob is extended.

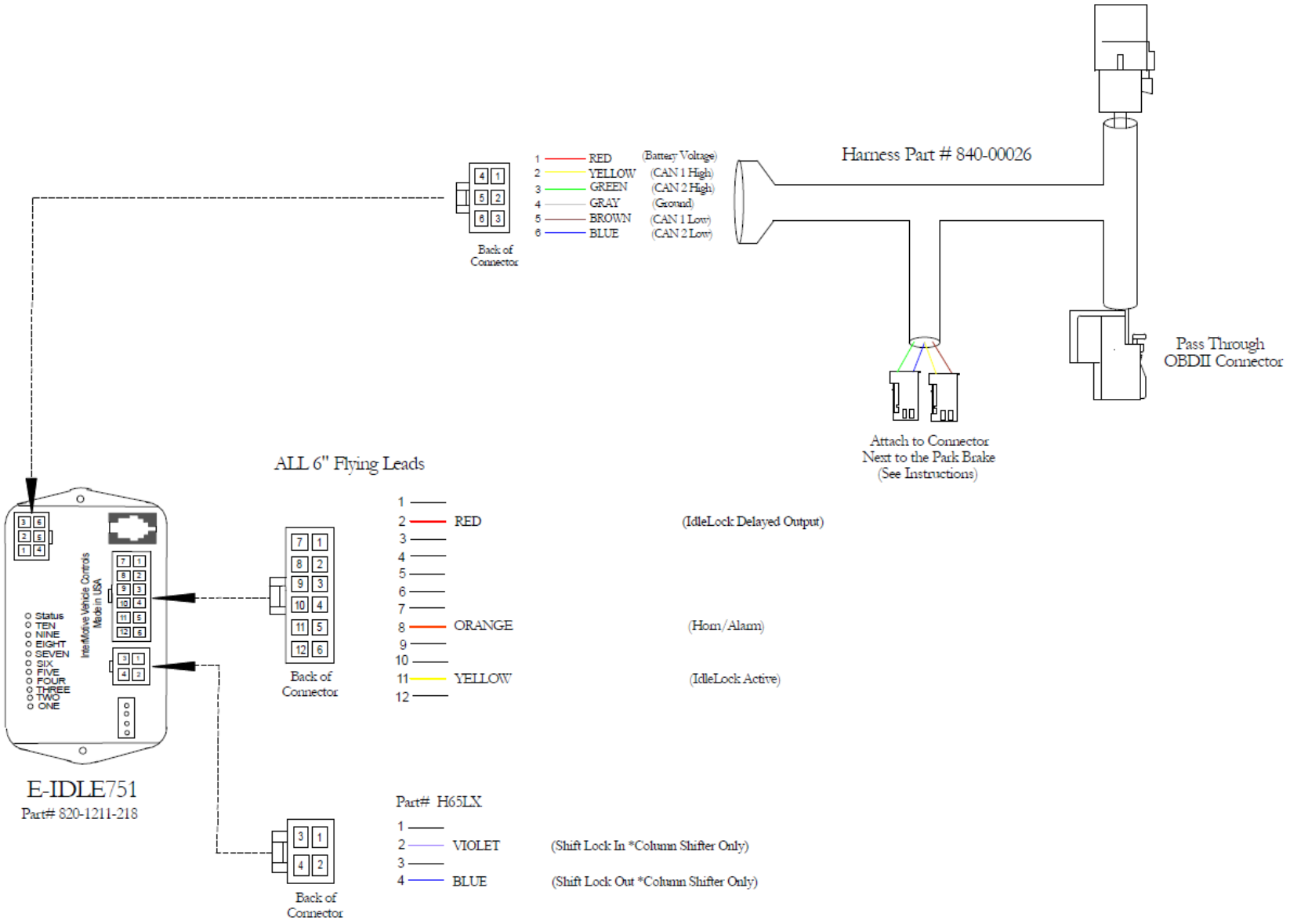
Repeating this procedure will toggle between the ranges.

Selecting between Column and Rotary Shifter

To toggle between the Column or Rotary Shifter the following procedure must be performed:

1. Start the Engine.
2. Press the red test button to get in to the diagnostic mode.
3. Apply the Park Brake.
4. Apply and hold the Service Brake.
5. Put the transmission in **REVERSE.**
6. Cycle the High Beams On/Off 3 times within 5 seconds.
7. All LED's will flash once for confirmation.
8. LED8 will display which shifter is selected

Repeating this procedure will toggle between the Column and Rotary shifter.



Submit product registration at www.intermotive.net

If the E-IDLE751 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

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