EcoLock™ ECL554-A
Stop/Start Idle Reduction with Anti-Theft
2013—2015 Ford Interceptor (Sedan or Utility)

Introduction

EcoLock is an automatic engine stop/start system that provides improved fuel economy, lower vehicle emissions, improved engine life, and extended oil changes by shutting off the engine when appropriate. When enabled by the driver (Transmission in Park), EcoLock allows an officer to remove the keys from the ignition, and leave the vehicle unattended, but with electrical loads left on (light bar, etc.). EcoLock continuously monitors battery voltages (OEM and aux battery if equipped), cabin and 2-way radio temperatures, while securing the vehicles shift lock, trunk/hatch and weapons rack.

If battery voltages or temperatures move outside of a configurable range, EcoLock will automatically restart the engine, charging the battery and enabling AC/Heat as appropriate (regardless of the state of the controls). EcoLock will cycle the engine over time as needed to maintain battery voltages and/or cabin/radio temperatures. EcoLock will automatically shut off the engine if anyone attempts to steal the vehicle by shifting out of Park while the keys are removed (shifter remains locked in Park). EcoLock is instantly disabled when the keys are inserted and turned to Run. EcoLock can be used on K-9 units to maintain cabin temperatures in a preset range.

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.

EcoLock ECL554 Module

Remove the dash end cap on the drivers side and mount the module as shown.

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.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 1 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Installation Instructions (continued)

Data Link Harness

1. Locate the vehicle's OBDII Data Link Connector. It will be mounted below the lower left dash panel.
2. Remove the mounting screws for the OBDII connector. Plug the Red connector from the EcoLock 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 EcoLock Data Link Harness in the former location of the vehicle's OBDII connector.
4. Secure the EcoLock Data Link harness so that it does not hang below the lower dash panel.
5. Plug the free end of the Data Link harness into the mating 6-pin connector on the EcoLock module.

Data Link Harness plugs in here

Ignition Switch Harness

The ignition switch must be accessed in order to connect the EcoLock ignition harness. The following sections provide separate ignition switch harness installation instructions for the Sedan and Utility Interceptors. Several dash trim panels must be removed. See appropriate section for your installation.

Sedan Interceptor

- Remove the lower center instrument panel by firmly grasping the panel and pulling toward the rear of the vehicle.

- Remove the instrument panel face trim by removing one screw, firmly grasping the panel, and pulling it towards the rear of the vehicle.

- Not shown—Remove the lower left dash panel under the steering column.

InterMotive Inc.   Phone: (530) 823-1048   www.intermotive.net
12840 Earhart Ave.   Fax: (530) 823-1516   products@intermotive.net
Auburn, CA 95602   Page 2 of 17   ECL554-A-061517-INS

- Remove the panel to the left of the ignition switch by firmly grasping and pulling the panel towards the rear of the vehicle.

- Remove the right hand side dash panel above the glove box by pulling towards the rear of vehicle.

- Remove the upper dashboard tray by removing the two screws on the top of the tray, firmly grasping the tray, and pulling towards the rear of the vehicle.
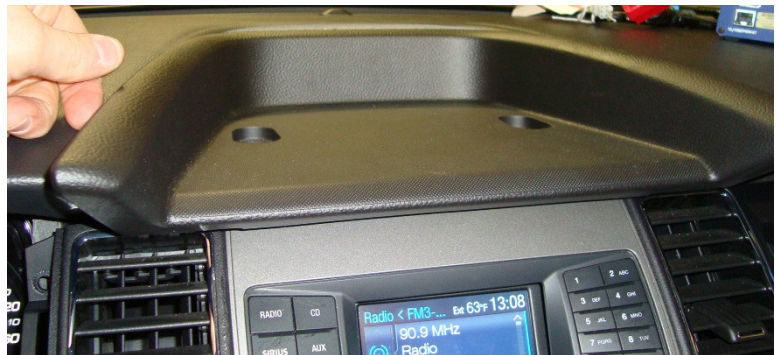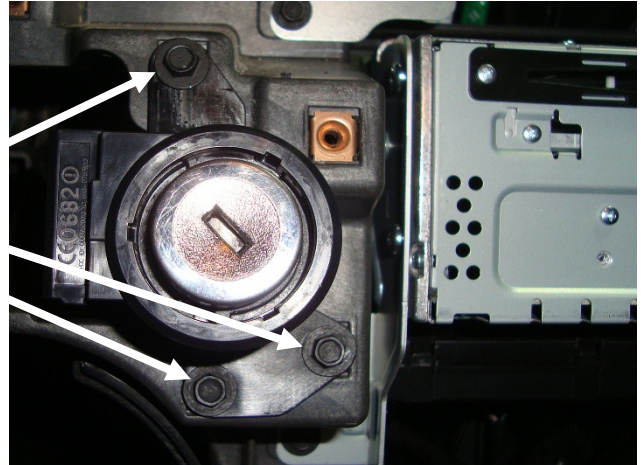

- Remove the center instrument panel by removing the ten screws, firmly grasping the panel, and pulling towards the rear of the vehicle.
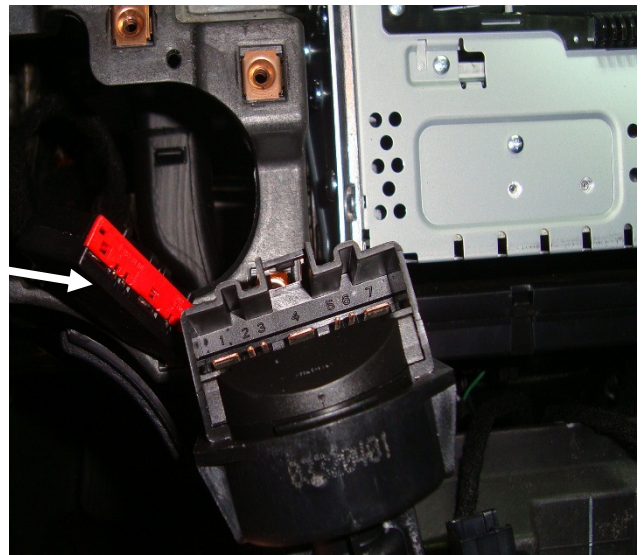
InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 3 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

- Remove the ignition switch by removing the three screws and pulling the switch out of the opening.

- Remove the OEM 7 pin connector from the ignition switch and connect it to the female connector of the EcoLock harness.   Connect the male EcoLock connector to the OEM ignition switch.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 4 of 17

www.intermotive.net
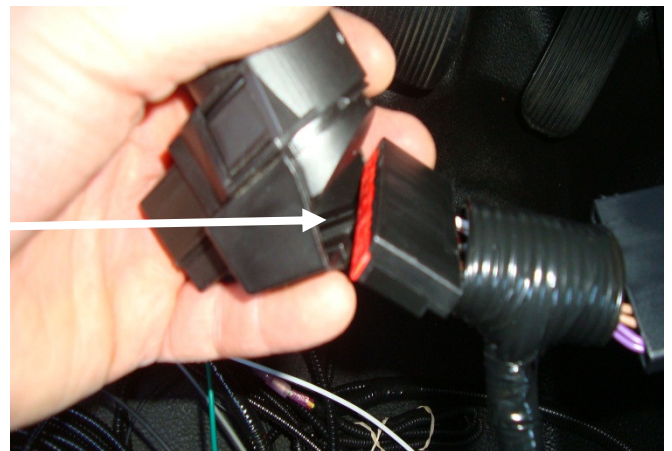products@intermotive.net
ECL554-A-061517-INS

- Using a non-marring pry tool, remove the LH and RH finish panels from the center stack on the dash. Remove the screws securing the center instrument finish panel, disconnect the connectors from the back, and remove it from the dash.

- Remove the four screws securing the radio to the dash, disconnect the connectors from the back, and remove it from the dash.

- Reach behind the ignition switch, locate the ignition switch connector, and disconnect it from the ignition switch.

Ignition Switch portion of EcoLock Harness.
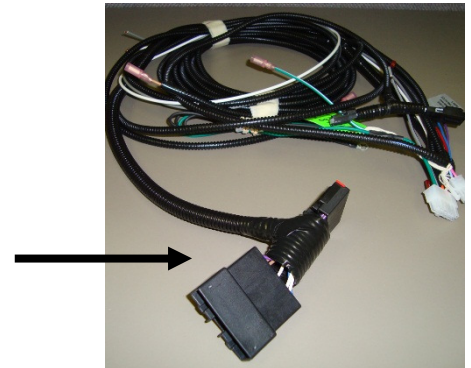
- Plug the OEM switch harness connector into the female connector of the EcoLock Ignition Switch harness.

- Connect the male EcoLock Ignition switch harness connector to the OEM ignition switch.
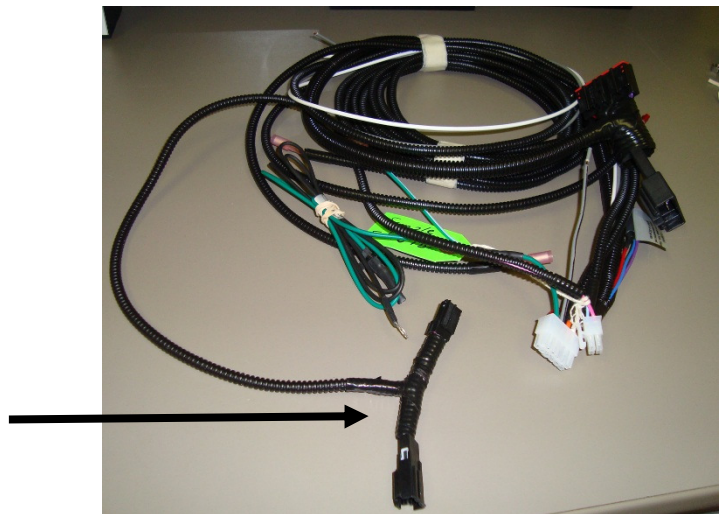

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 5 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Shift Lock Harness Installation
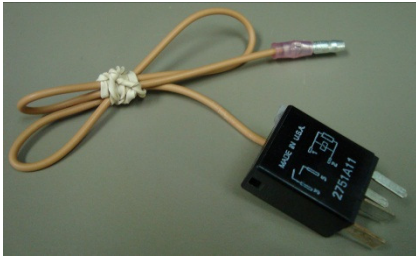
Sedan and Utility

1. Locate the OEM shift lock solenoid at the right side of the steering column (photo below).

2. Remove the OEM 4-pin Black connector from the shift lock solenoid assembly.

3. EcoLock provides a shift lock T-harness. Plug one leg of the EcoLock T-harness into the OEM shift lock solenoid, and the other leg into the OEM harness.

4. Route the third leg of the EcoLock T-harness to the EcoLock module on the left side of the dash. Plug the White 4 pin connector into the mating connector on the EcoLock module.
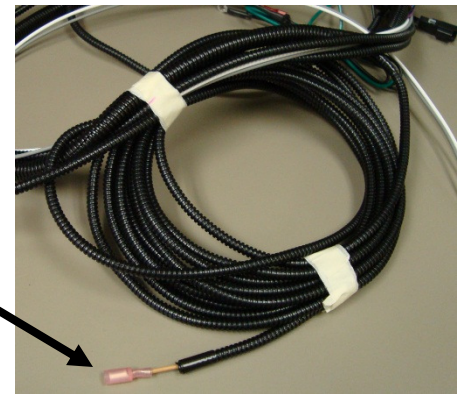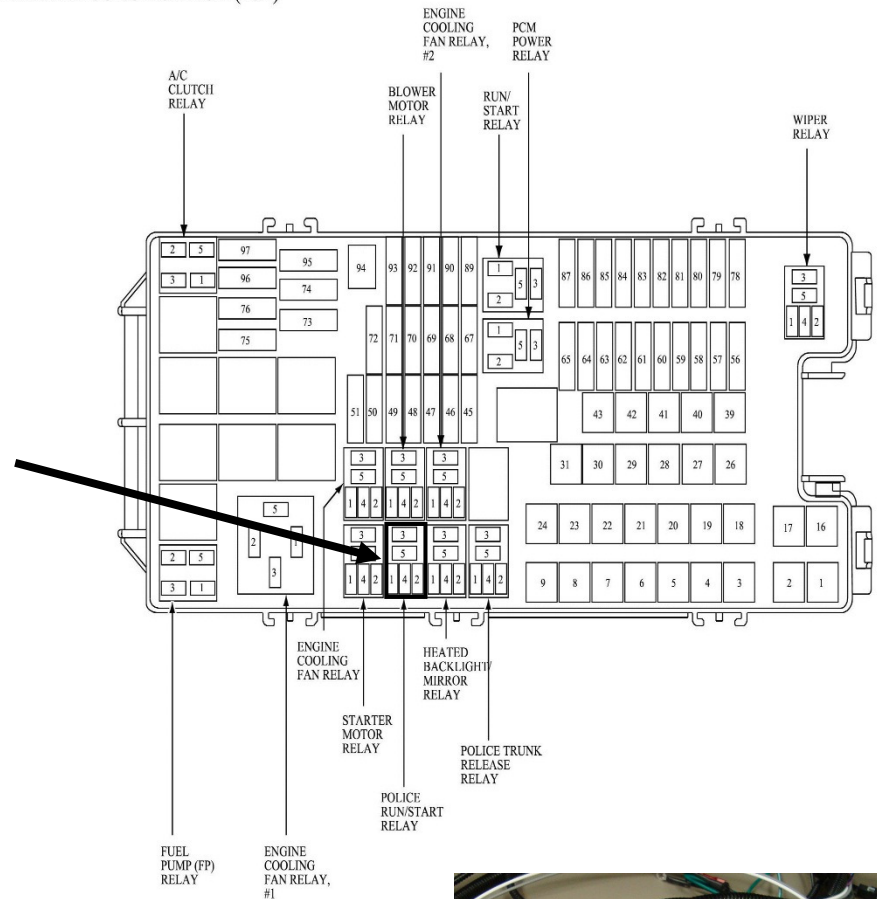
Shift Lock portion of EcoLock Harness

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 6 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Police Run/Start Relay
Sedan and Utility

Special relay with Tan wire for Police Run/Start Relay replacement in BJB, provided in kit.

1. The Battery Junction Box (BJB) is located under the hood on the drivers side. Remove the cover and remove the OEM Police Run/Start Relay and replace it with the relay with the Tan wire, supplied in the Eco Lock kit (picture above).

2. The relay's Tan wire mates with a similar Tan wire (bullet connector) from the EcoLock module. Starting at the module, route the Tan wire (Pin 1 of the 12 pin connector) at the EcoLock module through the bulkhead into the engine compartment (If needed, see instructions for pass through wiring at www.intermotive.net).

3. Release the clips on the sides of the BJB which hold it in place and lift it up to allow routing the Tan wire underneath the BJB. Bring the Tan wire up on the side of the BJB closest to the cab, and into the BJB (as show in picture at right). Plug the two halves of the bullet connector together, route the wire inside the BJB as shown, and cable tie the wire to the post in BJB.

BATTERY JUNCTION BOX (BJB)

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 7 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

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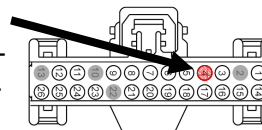
Lock Output

Pin 2, White wire of the 12 pin connector is the EcoLock output. This output (500mA max current) can control installer supplied normally closed relays to disable the trunk and weapon rack release buttons when EcoLock is active. When EcoLock activates this output, the relays will open the circuits from the buttons and disable them. This minimizes possible theft when Eco-Lock is active and the vehicle is unattended.

When EcoLock is enabled, this output becomes active after a configurable delay (default 10 seconds). This output remains active until the key is back in the run position.

### Police Interceptor *Sedan* Trunk Release Circuit

The trunk release circuit is pin 4 Brown-Yellow wire in BCM (behind Park Brake) connector 2280C. Use a normally closed relay controlled by the Lock Output to interrupt & disable the trunk release switch.
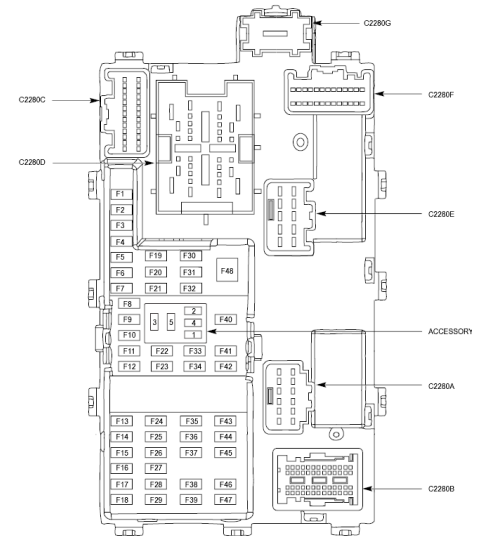
2280C Connector Face

Police Interceptor *Utility* Lift Gate Release Circuit

The lift gate release circuit is pin 23 Brown wire in BCM (behind Park Brake) connector 2280C. Use a normally closed relay controlled by the Lock Output to interrupt & disable the lift gate release switch.
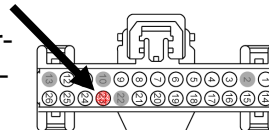
2280C Connector Face

EcoLock Enable Input

Pin 10 Gray wire of the 12 pin connector is the EcoLock system enable. This input can be connected to an installer supplied momentary switch or to another signal (control head, or steering wheel switch, etc.) that will automatically enable EcoLock. An "EcoLock Enable" label is included in the kit to identify the enable switch. By default, this enable input is high true (12V). A programming sequence can be used to toggle this input between High and Low true (gnd). The following steps detail the procedure:

With the key in Run, engine off and transmission in Park

1. Ground the TEST pad on the module
2. Shift to Reverse
3. Press and release the Service Brake 5 times in approximately 10 seconds

Onboard LED 7 will flash to indicate that the programming sequence was successful. If the LED flashes 3 times, the input is now High True. If the LED flashes 6 times, the input is now Low True. If the LED did not flash, shift back to Park, wait 15 seconds and attempt the sequence again. Call InterMotive Technical Support for further assistance.

Aux Battery Input (up to 36 Volt)

The EcoLock module internally monitors the OEM battery voltage. A second auxiliary battery may also be monitored. Pin #4 (Gray with Black stripe wire) of the 12 Pin Connector is an auxiliary battery voltage monitor input. It measures the analog battery input and can trigger a low battery restart when this input falls below a user defined level. Extend the Gray/Black wire as needed and connect to aux battery. By default, this trigger is disabled, but may be enabled using the free EcoLock software application. Contact InterMotive for details.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 8 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Restart Beeper

When active, EcoLock will periodically stop and start the engine. Pin #3 Orange wire (inside split loom) of the 12 Pin Connector drives a warning beeper that will sound for 2 seconds prior to an auto restart. The bezel on the beeper can be rotated to control volume.

- Attach the beeper using zip ties in the location shown in the picture (below where the module will be installed).

- Connect the Orange lead to the Red post of beeper, and Black lead to the negative post.

- The Black lead eyelet must be grounded in order for the beeper to function. Attach the eyelet to the location in the photo.
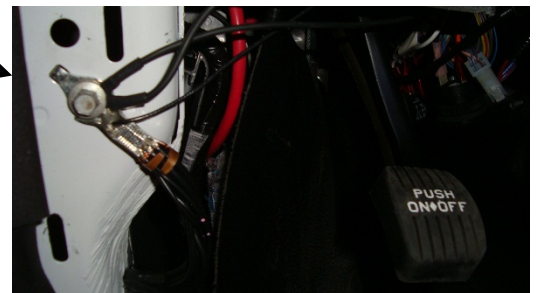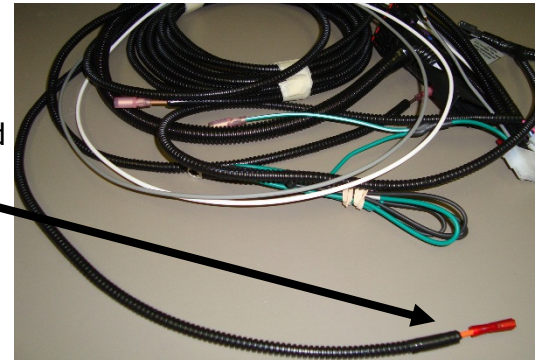
EcoLock Active LED

An LED is provided in the kit which lights when EcoLock is active.

1. Drill a 12mm (0.492") hole in the desired mounting location. One possibility is the dash panel to the left of the Steering Wheel (see picture below).

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 EcoLock module.

5. Apply optional "EcoLock Active" label included in the kit.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 9 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS
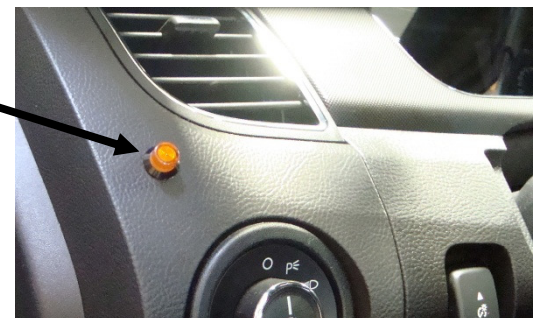
Thermostat/Thermistor

The thermistor option may be used to auto restart the engine as a result of hot or cold temperatures. It may be used to prevent the cabin or the engine from getting too cold or too hot in severe environments. It may also be used in police K9 vehicles to prevent cabin temperature extremes.

1. Mount the thermistor, pin #5 (12 pin connector, Green wire) in a location where it cannot be damaged by sharp objects and mechanical moving parts such as the Park Brake or tilt steering wheel mechanisms.

2. Attach the thermistor Ground eyelet to the location in the photo.
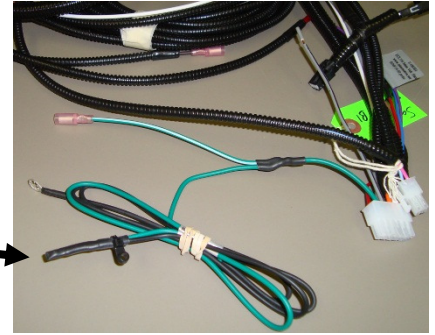
Low Temperature Thermostat Engine Cycling

ECL554 will turn the cabin heater on high when low temperature auto-restart occurs. If the cabin temperature does not increase 3 degrees in 6 minutes after a low temperature restart, the thermostat is disabled until the key is cycled.

High Temperature Thermostat Engine Cycling

ECL554 will turn the cabin air conditioner on the max A/C setting when a high temperature auto-restart occurs. If the cabin temperature does not decrease 3 degrees in 6 minutes after a high temperature restart, the thermostat is disabled until the key is cycled.

-Q Option - Bimetal 2-way Radio/Equipment Protection Thermostat

A Bimetallic thermostat switch and 15' harness is included in this optional kit which will close when its temperature reaches 150° F. This is connected to pin #5 (12 pin connector, Green wire with White stripe), which will trigger an engine restart and ECL554 will turn the cabin air conditioner on max. Once the thermostat switch contacts open again (135° F), the air conditioner will turn off and the engine will shutdown (all other conditions met). The Thermostat can be screwed or thermal epoxied to a 2-way radio's case, or other equipment.
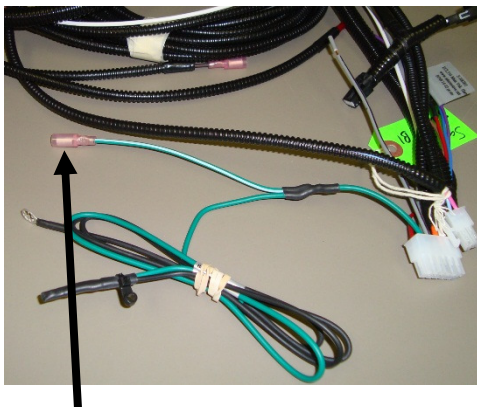
Thermostat switch harness connects here.

2-Way Radio/Equipment Thermostat 15' Harness

Thermostat switch. Attach with screws or thermal epoxy to equipment being monitored for temperature.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
ax: (530) 823-1516
Page 10 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Hood Open Disable Switch

The Hood Open Disable Switch is **not** an optional input. This grounding connection **must** be made in order for the system to operate. It is one of the most important safety features and the time must be taken to properly install the switch provided in this kit as directed.

Pin #3 (4 pin connector, Brown wire inside split loom) is the Hood Open Disable input. As an important safety feature, this connection must be made to prevent auto restarting when someone is working under the hood area. Ford provides a pass-through grommet in the bulkhead on the passenger side. The following routing instructions assume the use of this grommet.

There are two sections to the Brown Hood Open Disable wire. They plug together in the vicinity of the passenger kick panel in the cabin.

1. Run this Brown wire from the module to the right kick panel area.

2. Install the included hood switch into the OEM bracket location shown. It may be necessary to first remove a plastic connector stub and an unused harness from the bottom of the stub. Plug the stub back into the OEM harness and secure out of the way.

3. Plug the EcoLock Hood Switch harness into the switch. Connect the Black wire eyelet to a good chassis ground. A poor ground will prevent the entire system from working.

4. Route the Brown Hood Switch wire (in split loom) towards the passenger side and back towards the bulkhead. Locate the Ford provided bulkhead pass-through grommet and run this wire through it and into the cabin.

5. Once inside, mate the two sections of the Hood Switch harness together using the bullet connector and secure the harness so it does not hang down.
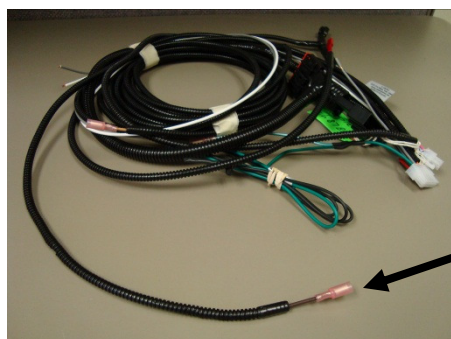
Brown Hood switch wire from EcoLock module.

Hood switch harness—from switch to right side engine compartment & back through bulkhead. Mates with harness from module near passenger kick panel.

Hood switch provided in kit must be installed and wired properly for system to function.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 11 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

ECL554 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.

ECL554 Harness (4 Pin connector and 12 Pin connector)

1. Plug the ECL554 12 Pin connector into the mating 12 pin connector on the ECL554 module.
2. Plug the ECL554 4 Pin connector into the mating 4 pin connector on the ECL554 module.

Reconnect the vehicle battery

Configurable options (with default settings)

- Battery restart, recharge, and delay values:

    * Restart Voltage = 11.8V

    * Restart Delay (the battery Voltage must be below the threshold for this period of time before a low battery auto-restart) = 5 Seconds

    * Recharge Voltage = 13.5V (engine runs until this voltage is reached, then the Recharge Timer starts (see below).

    * Recharge Timer = 60 Seconds (engine continues to run after reaching Recharge Voltage for this length of time).

- Secondary battery restart, recharge, and delay values (disabled by default).

- EcoLock enable settings (this input activates the system— usually a switch controls this).

    * EcoLock enable sense = High true

    * EcoLock enable delay = 3 seconds (key must be removed within 3 seconds after pushing enable button)

- EcoLock timer duration (this timer is for vehicle lock-down, gun rack and trunk) = 10 Seconds

- Idle shutoff timer duration (after driver shuts key off, engine shuts down) = 2 Seconds

- Enable/disable idle shutoff timer = Enabled

- Minimum engine temperature for auto-shutoff to occur = -40° F

- Operation of the Brake pedal = Auto-restart

- Thermostat settings:

    * Enable/Disable thermostat = Enabled

    * Low restart temperature = 40° F

    * High restart temperature = 85° F

    * Warm-up temperature = 55° F (after a low temperature restart, engine will not shut off until cabin temperature exceeds this).

    * Cool-down temperature = 75° F (after a high temperature restart, engine will not shut off until cabin cools to this value).

InterMotive Inc.   Phone: (530) 823-1048   www.intermotive.net
12840 Earhart Ave.   Fax: (530) 823-1516   products@intermotive.net
Auburn, CA 95602   Page 12 of 17   ECL554-A-061517-INS

ECL554 Programming Utility Instructions

The EcoLock Programming Utility allows the operation of the system to be customized by modifying the configurable options on the previous page, and to optimize it for your particular application.

Requirements

- Java Runtime Environment (v1.6.0_18 or later [32 bit]) must be installed on your computer prior to running this utility. Most PC's already have Java installed. The most recent version can be obtained for free at http://java.com/en/download/manual.jsp.

- The ECL554 Programming Utility. This is a free Intermotive software program that will need to be loaded on your PC. The files are available from the download page at www.intermotive.net. It is recommended that an "InterMotive" folder be created to store the files.

- USB to Serial cable (part# s-h37a1) is included with the a-IPU kit and is a one-time purchase. This kit is required for all programming and includes a power adapter for desk use.

Once ECL554 Programming Utility has been run and the specific configuration has been created, it can be downloaded onto the ECL554 module(s) with the Programming Utility.

Computer Installation

1. Ensure the proper driver is installed for the USB to Serial download cable. This driver can be found at: **http://www.ftdichip.com/Drivers/VCP.htm**

2. To install the programming utility, unzip the ECL554 Programming Utility folder to your local hard drive.

3. Create a shortcut on the desktop if necessary, but do not separate the ECL554 Programming Utility.exe file from the rxtxSerial.dll file!

4. Plug in the USB cable (Part# s-h37a1) prior to starting the application.

5. Double click the ECL554 Programming Utility.exe file to launch.

6. This screen will come up.
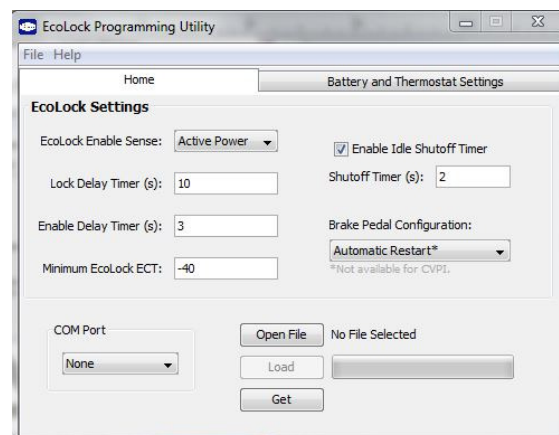
If the program does not launch, close all applications and re-install the Java Runtime Environment and the ECL554 Programming Utility.

All options in the configuration menu come with descriptions that explain what parameters are currently set and how to update them.

7. Configure the settings as desired.

8. Select "Save Configuration" under the "File" tab.

9. Enter a configuration name (Max. 16 characters) and click "OK".

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 13 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Desktop Programming the ECL554

The InterMotive "a-IPU" kit is sold separately and allows programming the ECL554 on your desktop. It consists of a 12VDC wall adapter and download cable and works with the ECL554 programming software utility.

Note: Do not have the ECL554 Programming Utility opened until instructed to do so.

1. Plug the Module Desktop Power/Ground Supply inverter into a 120V AC power source.

2. Locate the 6-Pin Female connector on the module, but do not connect the AC adapter to the ECL554 module until indicated in the following steps.

3. Plug the phone jack end of the download cable into the J4 COMM port of the ECL554 module and the USB end into the PC.
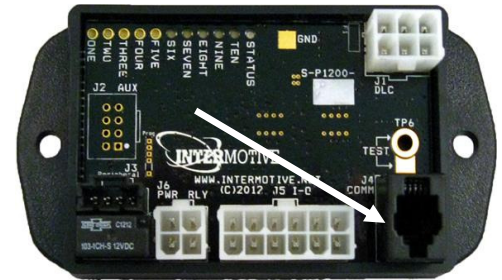
J4 COMM Port

Loading previously created Configuration file into the ECL554

Open the ECL554 Programming Utility. Under the "Download" tab on the ECL554 Programming Utility, choose the COM Port the USB cable is connected to.

Note: This can be determined on Windows 7 by right-clicking on 'Computer' and selecting 'Properties.' From this window click on 'Device Manager.' In the Device Manager window, expand the 'Ports' menu and the download cable will display as 'USB Serial Port (COM#).'

Click the 'Open File' button.

1. Open the ECL*.ims or configuration file to load on the ECL554 module. (This file must already be loaded on the computer).

2. Click the load button on the computer screen. "Waiting" will come up next to the progress bar. This means the program is waiting for the download cable to be plugged into the ECL554 module.

3. Plug in the 6 pin connector of the power adapter into the ECL554 module. The progress bar on the computer screen will display status as the configuration loads and takes approximately 2 seconds or less. Configuration is loaded once the screen says "DONE" and programming is complete.

4. To verify that the correct data was loaded into the module, disconnect the 6 pin connector from the module and press the 'Get" button on the screen. Plug in the 6 pin connector and the information will be displayed.

To program another module with the same configuration file, start with step 2.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 14 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Post Installation Operational Test

Installation Test Mode

With the module configured as desired, and installed in the vehicle, the Installation Test Mode can be entered by shorting the two pads marked "test" together for approximately 5 seconds with the key on. All the LED's on the module will briefly flash and LED 3 will stay illuminated.
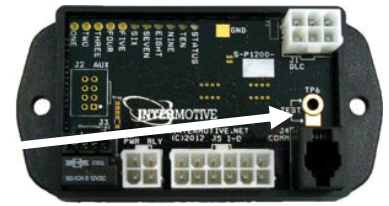
EcoLock will now function without monitoring the following pre-conditions: Engine Temp, Battery Voltage, and Thermostat. It will also enable Service Brake restarts. This allows for easier testing for the installer.

Several conditions will prevent EcoLock from auto-shutdown in test mode: Service Brake Applied, Hood Open (Open = Not Grounded), or Vehicle Speed not 0.

Test 1. Start the Engine (Trans = Park, Hood closed).

Test 2. While the engine is running, enable EcoLock by asserting the enable request input (depending on installation, could be a switch, button, control head, etc.).

- The Yellow LED will flash five times and then blink every two seconds.

- Remove the key from the ignition within 3 seconds (configurable).

- The engine will remain on for two seconds (Configurable Idle Timer) after the key is removed.

Test 3. EcoLock is now active and will begin monitoring restart triggers. Press the Service Brake to manually trigger a restart. Release the Service Brake and engine will shut off in 2 seconds.

Test 4. Ten seconds (configurable) after the key is removed, EcoLock disables the trunk and weapon rack release buttons (if implemented). Ensure trunk and weapons release buttons are disabled.

Test 5. With the engine Off and EcoLock active, open the hood. Press the Service Brake and the engine must **not** restart. Once the hood is closed, the Service Brake will restart the engine.

Test 6. To deactivate the system, insert key and turn to run. The Yellow LED will flash five times and stop.

Notes:

With EcoLock active (key out, yellow LED with short flash every 2.5 seconds), the system will shut down the engine (if running) and keep the shifter locked if anyone attempts to steal the vehicle by shifting out of Park.

EcoLock will never auto restart the engine unless it has been activated (yellow LED with short flash every 2.5 seconds).

If the Thermistor ground wire is not properly grounded, the system will flash LED 8 and the engine will not auto shut down—this assumes the system is NOT in Test mode as described above.

Do not put vehicle in service unless hood open disables EcoLock from auto restarting engine.

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.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 15 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Leave in Vehicle
Operating Instructions
EcoLock™ ECL554-A Stop/Start Idle Reduction with Anti-Theft
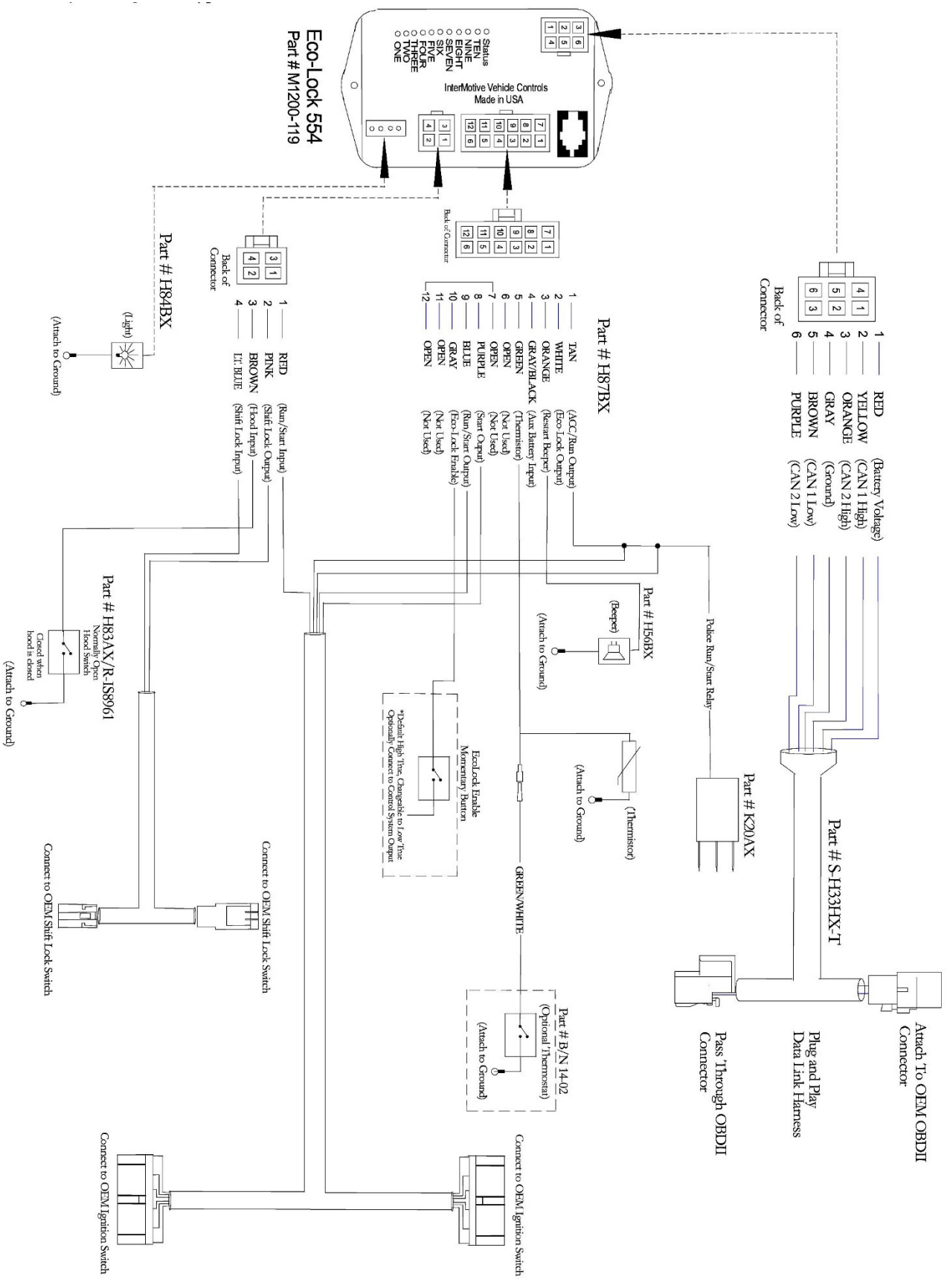### 2013—2015 Ford Interceptor (Sedan or Utility)

The EcoLock ECL554 provides enhanced fuel economy and lower vehicle emissions by eliminating unnecessary idle time. Once activated by pushing the button and removing the key, the engine shuts down, and locks the shifter. Auto engine restarts are triggered by low battery voltage, cabin/radio temperatures (if enabled), or holding the Service Brake on. The system allows a vehicle to be left unattended with various equipment left on (light bar, radio's, etc.), and will cycle the engine to prevent the batteries from being discharged, or cabin temperatures from exceeding preset limits. The trunk switch and weapons rack release buttons are disabled at this time. The system also provides anti-theft capabilities described below.

- EcoLock is enabled by removing the key from the ignition within 3 seconds of pushing the EcoLock enable button. Transmission must be in Park and Service Brake not pushed.

- When activated, the engine will shut down two seconds (settable) after the key is removed. Note that the Service Brake will prevent engine shutoff. ECL554 locks the shifter in Park while active.

- Once the engine has been auto-stopped (ECL554 active) the system monitors the main battery voltage, in addition to an optional auxiliary battery (possibly in trunk). If either battery falls below a minimum value, the system will sound an alarm for 2 seconds and auto-restart the engine to recharge the batteries. After a pre-set charging time, the engine will shut off again.

- The driver may reenter the vehicle and press/hold the Service Brake to run the heater or A/C without disabling EcoLock. Releasing Service Brake will allow the engine to shut down (assuming the engine off conditions are met).

- To prevent unattended vehicle theft (EcoLock active), the engine will turn off if someone attempts to shift the vehicle out of Park. The shifter will remain locked, and the trunk and weapons rack release buttons will remain disabled.

- Inserting the key and turning it to Run restores normal operation. Weapons release buttons and truck release are restored to normal operation.

Default requirements for auto engine shut off	
ECOLock Active	Transmission in Park
Hood Closed	Service Brake Not Applied
Battery Voltage > 11.8V (settable)	Cabin Temperature in Normal Range

Default requirements for auto engine restart	
ECOLock Active	Transmission in Park
Hood Closed	Engine Auto-stopped

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

Phone: (530) 823-1048
Fax: (530) 823-1516
Page 16 of 17

www.intermotive.net
products@intermotive.net
ECL554-A-061517-INS

Eco-Lock 554
Part # M1200-119

InterMotive Vehicle Controls
Made in USA

○ Status
○ TEN
○ NINE
○ EIGHT
○ SEVEN
○ SIX
○ FIVE
○ FOUR
○ THREE
○ TWO
○ ONE

Back of Connector

Part # H94BX

Back of Connector

(Light)

(Attach to Ground)

Part # H87BX

1 —— RED   (Run/Start Input)
2 —— PINK   (Shift Lock Output)
3 —— BROWN   (Hood Input)
4 —— Lt. BLUE   (Shift Lock Input)

1 —— TAN   (ACC/Run Output)
2 —— WHITE   (Eco-Lock Output)
3 —— ORANGE   (Restart Beeper)
4 —— GRAY/BLACK   (Aux Battery Input)
5 —— GREEN   (Thermistor)
6 —— OPEN   (Not Used)
7 —— OPEN   (Not Used)
8 —— PURPLE   (Start Output)
9 —— BLUE   (Run/Start Input)
10 —— GRAY   (Eco-Lock Enable)
11 —— OPEN   (Not Used)
12 —— OPEN   (Not Used)

1 —— RED   (Battery Voltage)
2 —— YELLOW   (CAN 1 High)
3 —— ORANGE   (CAN 2 High)
4 —— GRAY   (Ground)
5 —— BROWN   (CAN 1 Low)
6 —— PURPLE   (CAN 2 Low)

Back of Connector

Part # H83AX/R-IS8961
Normally Open
Hood Switch
Closed when hood is closed

(Attach to Ground)

Connect to OEM Shift Lock Switch

Part # H56BX
(Beeper)

(Attach to Ground)

(Attach to Ground)

*Default High/True, Changeable to Low/True
Optionally Connect to Control System Output

EcoLock Enable
Momentary Button

Connect to OEM Shift Lock Switch

(Thermistor)

GREEN/WHITE

Part # B/N 14-02
(Optional Thermostat)

(Attach to Ground)

Police Run/Start Relay

Part # K20AX

Part # S-H33HX-T

Pass Through OBDII Connector

Plug and Play
Data Link Harness

Attach To OEM OBDII Connector

Connect to OEM Ignition Switch

Connect to OEM Ignition Switch

Submit product registration at www.intermotive.net

If the EcoLock554 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.