

# C-PIM760 (Police Interface Module)

2018-2024 Dodge Durango Pursuit



## Introduction

The Police Interface Module is intended to provide Dodge Durango with multiple desired functions within a single module. The PIM base features include Intelligent Switch Mode, Chime Mute, Engine Stop/Start Override, and Auto Sport Mode. Optional features include an AutoPark Override, Blackout Mode, Surveillance mode, and Idle Lock with Autosense Technology.

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\* Only available on 2018 - 2020 Durango

## Installation Instructions

**Disconnect vehicle battery before proceeding with the installation.**



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.

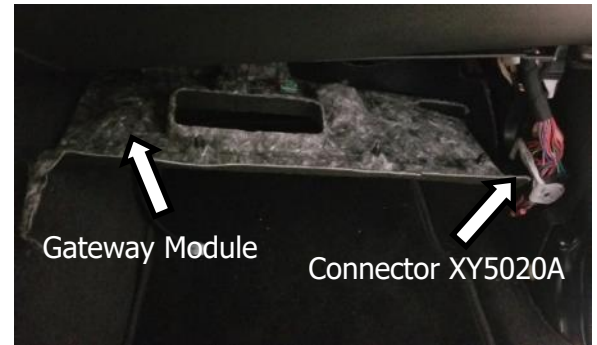
It is important to avoid placing the module where it could encounter strong magnetic fields from high current cabling connected to motors, solenoids, etc. Also avoid radio frequency energy from antenna's or inverters next to the module. Finally, avoid high voltage spikes in vehicle wiring by always using diode clamped relays when installing upfitter circuits.

## PIM Module

The Gateway module is located in the passengers side of the vehicle, find a suitable location to mount the PIM module. Place the module in an area away from any external heat sources (engine heat, heater ducts, etc.). Do not mount the module until all post installation testing is complete and wire harnesses are routed and secure.

### Data Link Harness (6-pin connector on module)

The Durango has a "Gateway" module connected to the OBDII connector. The PIM's data link harness T's into both an 8 pin and 12 pin connector on this gateway module.



1. Locate the vehicle's Gateway module located on the left side of the glove box.
2. Remove the 12-pin and 8-pin connectors from the Gateway module and plug in the 12-pin and 8-pin connectors from the Intermotive C-PIM760 Data Link harness. Plug the OEM 12-pin and 8-pin connectors into the mating connectors on the C-SMM760 Data Link harness.
3. Plug the free end of the Data Link harness into the mating 6-pin connector on the C-PIM760 module.

### Required Wire Connection

The PIM760 must connect into the Orange/Blue wire on the inline connector XY5020A on the right hand side of the glove box. The side panel must be removed from to get to the connector. **Note: Must be installed for all features to work.**

1. Locate the Orange/Blue wire on connector XY5020A on the passenger side on the vehicle.
2. Cut the wire 3 inches **above** the connector.
3. Put the Ignition in Run position and confirm the steering wheel buttons do not work.
4. Attach the harness side of the Orange/Blue wire to the Orange/Blue wire on S-H132CX harness.
5. Attach the connector side of the Orange/Blue wire to the Blue wire coming from the S-H133TDXharness.



Durango gateway module with 8 & 12 pin connectors.



Orange/Blue wire on XY5020A

## AutoPark Override (P)

The vehicles OEM AutoPark feature automatically shifts the transmission into Park if the driver's seatbelt is unbuckled, the driver's door is open, and the Service Brake pedal is released.

The Auto Park Override feature disables the OEM settings, allowing the vehicle to remain in Drive with an open door and unbuckled seat belt. If the key fob leaves the vehicle, the Auto Park settings are restored.



### Door Ajar Circuit

1. Remove the driver floor railing to get to the bundle of BCM wires.
2. Locate the Violet wire.
3. Confirm the Violet wire has Battery Voltage when the Drivers door is closed and a Ground signal when the Drivers door is open.
4. Cut this wire (Violet) and attach one side to the Violet/White wire (using solder and heat shrink) from the 840-00142 relay harness.
5. Attach the other side of the Violet wire to the Violet/Black wire (using solder and heat shrink) from the 840-00142 relay harness.
6. On the PIM module, locate the Brown wire (Pin 2 of 12 pin connector) and attach to the Red wire from the 840-00142 relay harness using solder and heat shrink.
7. Plug the 4 pin connector attached to the Black wire into the mating connector on the C-PIM702 module. If using the optional S-E1450-01 LED display, cut the Black wire and attach to the Blue wire on the S-H32DX harness using solder and heat shrink.



### Post installation test.

1. Apply the Parking Brake, start the vehicle and keep the key fob in the vehicle.
2. Unbuckle the driver seat belt and open the driver door.
3. Place the transmission in NEUTRAL and release the Service Brake.
4. Confirm the transmission stays in NEUTRAL.
5. Remove the key fob from the vehicle, when the fob is about 3 feet away from the ignition the vehicle will automatically shift the transmission to park.
6. Confirm on the instrument cluster that AutoPark is engaged.
7. Bring the key back in the vehicle and physically shift the transmission into PARK.

## Standard Features

### Engine Start/Stop Override (V6 engines only)

The vehicle's OEM system automatically shuts off the engine when the vehicle comes to a stop or is at rest. The Engine Stop/Start Override feature disables the OEM settings, allowing the engine to continue running when the vehicle is stopped.

#### Post installation test

1. Start vehicle and after 5 seconds confirm the LED under the stop/start button turns on. This feature is only applicable on V6 engines.



### Auto Sport Mode

The vehicle's OEM Sport Mode enhances throttle response, shifting, and steering. When custom conditions are set (e.g., turning on lights or sirens), Auto Sport Mode will automatically activate the vehicle's Sport Mode feature for improved driving performance without the hassle of pushing a button.

#### Post Installation Test

1. Start Vehicle and keep transmission in PARK.
2. Apply 12 volts to the Red/White wire pin 4 of the 12 pin connector and confirm the LED on the Sport On button turns on.
3. Remove the 12 volts from the Red/White wire pin 4 and confirm the LED turns off.



### Chime Mute

This option will silence the following chimes from the interior of the vehicle when the door is opened:

- Lights-on reminder
- Ignition or accessory on chime

#### Chimes Post Installation Test

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

With vehicle in Park, Park Brake applied, and ignition in ACC:

1. Open Door and verify there are no audible Chime sounds.

**DO NOT PUT VEHICLE IN SERVICE IF IT DOES NOT PASS ALL OF THE ABOVE TESTS**  
**Contact InterMotive at 530-823-1048 for technical assistance**

# Intelligence Switch Mode

The InterMotive PIM module allows much more flexibility in the use of the 4 Radio buttons behind the steering wheel (2018-2020) or the center console (2021+). Each button can be configured in any of the following ways:

- Momentary
- Timed (1 - 1,800 seconds)
- Radio Button (only one Radio Button active at a time)
- Latching (toggle on—toggle off. This is how the switches work from the factory)

The PIM provides 4 outputs that represent the state of the 4 buttons, and will operate in one of the above modes, depending on how they are configured. **Contact InterMotive regarding configuring these outputs.**



**2018-2020 Durango**

**Output 1 = Seek Forward (Left Top Button)**

**Output 2 = Seek Back (Left Bottom Button)**

**Output 3 = Volume Up (Right Top Button)**

**Output 4 = Volume Down (Right Top Button)**

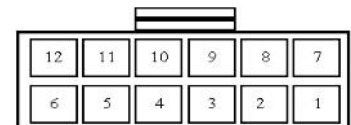


**Example:** All 4 buttons are configured as “Radio Buttons”. Their outputs from the PIM are wired to appropriate lights/sirens, etc. Pushing any one of the AUX steering wheel (2018-2020) or center console (2021+) buttons activates the desired Code and shuts the others off such that only one is active at a time. Each output provides 12 volts rated at 1/2A and is intended to drive relay coils or other low current loads.

**Note: when driving relays, a diode-protected type relay must be used. InterMotive recommends DigiKey #PB682-ND Relay. Also note that the OEM switch outputs under the center console will still be active, but will only support the OEM mode of latching. Generally these are no longer used when the PIM is installed.**

**The 4 switch outputs are defined as follows:**

- Switch Output 1: Pin #9 (Light Green/Brown wire) +12V output
- Switch Output 2: Pin #3 (Light Green/Violet) +12V output
- Switch Output 3: Pin #1 (Light Green/ Dark Blue) +12V output
- Switch Output 4: Pin #10 (Blue/White) +12V output



**Back of PIM Connector**

# Intelligence Switch Mode (cont.)

## LED Display Panel—Optional –W

1. If purchased and included in the PIM kit, it indicates the status of the aux buttons, and Chime Mute.
2. Locate a suitable position on the dashboard or center console within view of the driver for mounting the LED Display Panel. The length of the display harness is 40". This is the maximum distance the display can be mounted from the PIM module. Drill a 5/8" hole in the panel where the center of the display will be located, being careful not to damage anything behind the panel.
3. Run the LED display harness through the hole, and to the PIM modules 4-Pin black connector. Observe the polarity tab on the PIM harness connector, matching it with the PIM module connector.
4. Ensure panel is level, and secure using the supplied screws.



## Post Installation Test

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

- Push AUX 1, verify output one (Light Green/Brown wire) is ACTIVE (+12v).
- Push AUX 2, verify output two (Light Green/Violet) is ACTIVE (+12v).
- Push AUX 3, verify output three is (Light Green/ Dark Blue) is ACTIVE (+12v).
- Push AUX 4, verify output four is (Blue/White) is ACTIVE (+12v).

**Note the output behavior will depend on how the switches have been configured: momentary, latching, radio, or timed. Contact Intermotive regarding changing switch configurations. The wire connection must be made for features to work.**

## Diagnostics

The PIM has a Diagnostic mode which is entered by pressing the Test button. The amber status LED flashes to indicate Diagnostic Mode has been entered, and the other LEDs will now represent the status of the various outputs listed below.

To exit Diagnostic Mode and disable the LEDs, simply cycle the ignition switch.

| LED # | Diagnostic Mode LED Descriptions |
|-------|----------------------------------|
| 1     | Output 1 Active                  |
| 2     | Output 2 Active                  |
| 3     | Output 3 Active                  |
| 4     | Output 4 Active                  |



Press Test button to enter Diag. Mode

## Surveillance Mode Option (S)

Surveillance Mode can warn an officer if someone approaches the rear of the parked vehicle. It can close the windows, lock the doors, and chime when the sensors trip. It takes advantage of the Park Assist sensors in the Durango. Surveillance Mode is enabled by pushing a button while sitting in a stationary vehicle. When enabled, Surveillance Mode will turn on the backup camera and LCD display to provide the officer a view of the rear of his vehicle.

### Surveillance Mode Input

- Center left button behind the steering wheel will enable Surveillance mode.



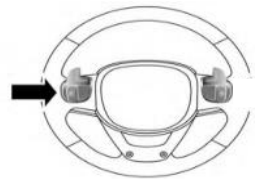
### Surveillance Mode Status Output

- The Orange wire (Pin 11 of the 12 pin connector) is at 12 volts when Surveillance Mode is active (enabled).

### Surveillance Mode Operating Instructions :

To enter Surveillance Mode, all of the following preconditions must be met:

- Transmission must be in park.
- Vehicle speed must be zero.
- All doors must be closed.
- Service Brake must NOT be applied.
- Press the center left button behind the steering wheel. (see photo above)



### The reverse camera display will turn on when surveillance mode is active/enabled.

If the backup sensors detect an object the module will lock all the doors, roll the passenger and driver window up and toggle the reverse and stop lights.

To exit Surveillance Mode any condition may be applied:

- Driver door is opened.
- Service Brake is pressed.
- Transmission cycled out of park.



## Surveillance Mode Post Installation Test

Perform the following tests before mounting the module, to allow viewing of the diagnostic LEDs, if needed. Preferably test with two people so one person can activate the rear sensors.

**Always have Fob in Pocket while testing to avoid being locked out of vehicle.**

1. Sit in drivers seat with transmission in Park and drivers door closed. Do not apply the Service Brake.
2. Roll the driver and passenger door windows all the way down and unlock doors.
3. Enable Surveillance Mode by pushing button.
4. Have another person trip the sensors by walking behind the vehicle.
5. Verify the system trips: the windows close, the doors lock, and the vehicle chimes.
6. Verify the Tail Lights are flashing.
7. To exit surveillance mode, push Service Brake, shift out of Park, or push the Surveillance Mode button.
8. Verify Tail lights are off.

## Surveillance Mode Diagnostics

Diagnostic mode is entered by pressing the Test button on the module. The module provides diagnostic LEDs which illuminate according to the following table. To exit this mode, cycle the ignition to off. **For diagnostics for the SMM portion of the PIM module, momentarily press Test button Two times. The Status LED will Flash 2 times repeatedly.**

| LED # | Diagnostic Mode LED Descriptions |
|-------|----------------------------------|
| 1     | Surveillance Mode Active         |
| 2     | Transmission in Park             |
| 3     | Vehicle speed Less than 2 MPH    |
| 4     | Door Closed                      |
| 5     | Service Brake released           |
| 6     | Surveillance Mode Enable Input   |
| 10    | Flashing Reverse Lights          |



Press Test button to enter Diag. Mode



## Blackout Mode Option (B)

- The Blackout Mode has the ability to eliminate all exterior lighting to aid in covert operations. This includes parking lamps, reverse lights, and Brake lights. A maximum speed 'exit speed' can be set to automatically return brake lights for safety purposes.

### Blackout Input

- Center Right Button behind the steering wheel.

### Blackout Status Output

- The Yellow wire (Pin 8 of the 12 pin connector) will be +12 volts when Blackout Mode is active. Connect to LED with integral resistor.



### Blackout Mode Operating Instructions:

To enter Blackout Mode, all five preconditions must be met:

- Cluster Brightness must be turned Off.
- Speed must be below configured maximum speed (5-20 mph).
- Push enable button to enter Blackout Mode.
- The instrument cluster will dim down when Blackout Mode is engaged.
- Blackout Status Output will be +12v when Blackout Mode is active.

To exit Blackout Mode any condition may be applied:

- Press Center Right button
- Drive vehicle above configured speed.



## How to turn OFF Cluster Backlighting



Rotate the left dimmer control to the extreme bottom OFF position. The interior lights will remain off when the doors are open, and the PIM will mute the driver door related chimes.

## Blackout Mode Post Installation Test

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

1. Start vehicle
2. Push Blackout enable button.
3. Verify the cluster brightness goes down.
4. Holding Service Brake down, place transmission in Reverse
5. Have helper verify that neither the brake nor backup lights are on.
6. Blackout Mode output (Yellow wire) should be 12 Volts
7. Disable Blackout Mode by pressing enable button.
8. Verify the brake and backup lights now function properly.

**DO NOT PUT VEHICLE IN SERVICE IF IT DOES NOT PASS ALL OF THE ABOVE TESTS  
Contact InterMotive at 530-823-1048 for technical assistance**

## Blackout Mode Diagnostics

Diagnostic Mode is entered by pressing the Test button on the module. The module provides diagnostic LEDs which illuminate according to the following table. To exit this mode, cycle the key.  
**For diagnostics for the Blackout Mode portion of the PIM module, momentarily press the Test button Three times. The Status LED will Flash 3 times repeatedly.**

| LED # | Diagnostic Mode LED Descriptions |
|-------|----------------------------------|
| 1     | Blackout Mode Active             |
| 2     | VSS less than 15mph              |
| 3     | Low Beams Off                    |
| 4     | High Beams Off                   |
| 5     | Park Lamps Off                   |
| 6     | DRL Off                          |
| 7     | Cluster Off                      |
| 8     | Blackout Input Status            |
| 9     | Speed Inhibit Enabled            |



Press Test button to enter Diag Mode

U.S. Patent #9,469,261

# IdleLock with Autosense Technology (L\*)

\* Only available on 2018 - 2020 Durango

The IdleLock for Dodge Durango will automatically lock the shifter in Park and allows the officer to remove the key fob with the engine running. The PIM provides outputs to also disable the weapon rack, trunk release, or other equipment when the vehicle is in IdleLock. The PIM has an onboard relay which can be used to interrupt the gun rack release wire. The PIM will keep the rack enabled for 10 seconds (configurable) after IdleLock is entered. Once this time has expired, the weapon rack release button will be disabled.

The trunk disable requires an external relay (not provided) and connects to a second output of the PIM. The trunk release will also stay enabled for 10 seconds after entering IdleLock.

## Weapon Rack Disable Relay Connections

The PIM has an onboard Normally Closed pass-through relay that will open 10 seconds after Idlelock is engaged. The usual connection is to route the weapon rack release wire through the PIM's relay.

### 4-Pin White Connector

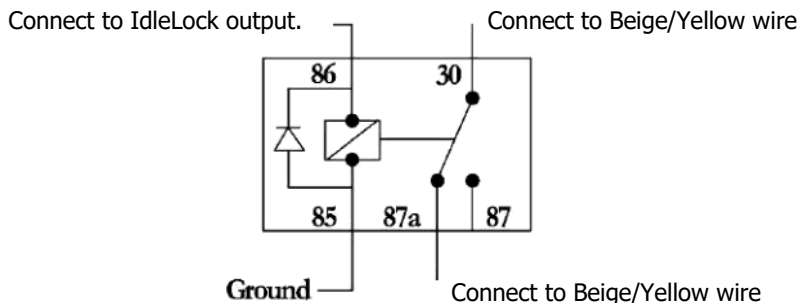
- Pin #2 weapon Rack Out, Purple wire on 4 pin PIM connector
- Pin #4 weapon Rack In, Blue wire on 4 pin PIM connector

### Trunk Release Disable Output

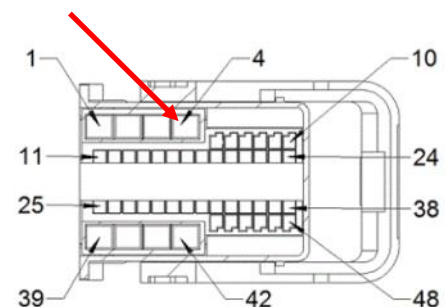
A discrete 12 volt output rated at 1/2A is intended to drive relay coils or other low current loads. This can be used to open a relay that interrupts the trunk release wire. Thus the trunk can not be opened when in Idle Lock is active.

### 12-Pin White Connector

- Pin #2 IdleLock Output, Brown wire on 12 pin PIM connector if configured. 12V when IdleLock is active. To disable the trunk, the Beige/Yellow wire pin 4 from the white BCM connector C6/F must be interrupted with a relay which is driven by the IdleLock output. Locate and cut the wire.



Wire Insertion Side:



BCM connector C6/F

## IdleLock Post Installation Instructions

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

1. With the engine running and key fob in vehicle, verify the shifter is not locked in Park.
2. Place transmission in Park, step away from the vehicle with the Key Fob in hand and close the driver door. Wait 10 seconds and confirm the Idle Lock output (Brown wire pin 2) is +12 Volts.
3. Place the Key Fob on the roof of the vehicle.
4. Open the driver door, get in the driver seat, and confirm the shifter is locked in Park.
5. Grab the key fob on top of the roof, place it in your pocket. At this point the shifter will be unlocked. Confirm by shifting out of Park.

## IdleLock Operating Instructions :

### Auto Enable

Preconditions: Transmission in PARK and the Engine running.

- Every time the door is closed, PIM760 will check the location of the key fob. If the fob is present, nothing will happen. If the fob is NOT present, PIM760 will lock the shifter.
- If the door is left open, PIM760 will check the key fob location every 10 seconds. Once PIM760 determines the key fob has left, PIM760 will lock the shifter.

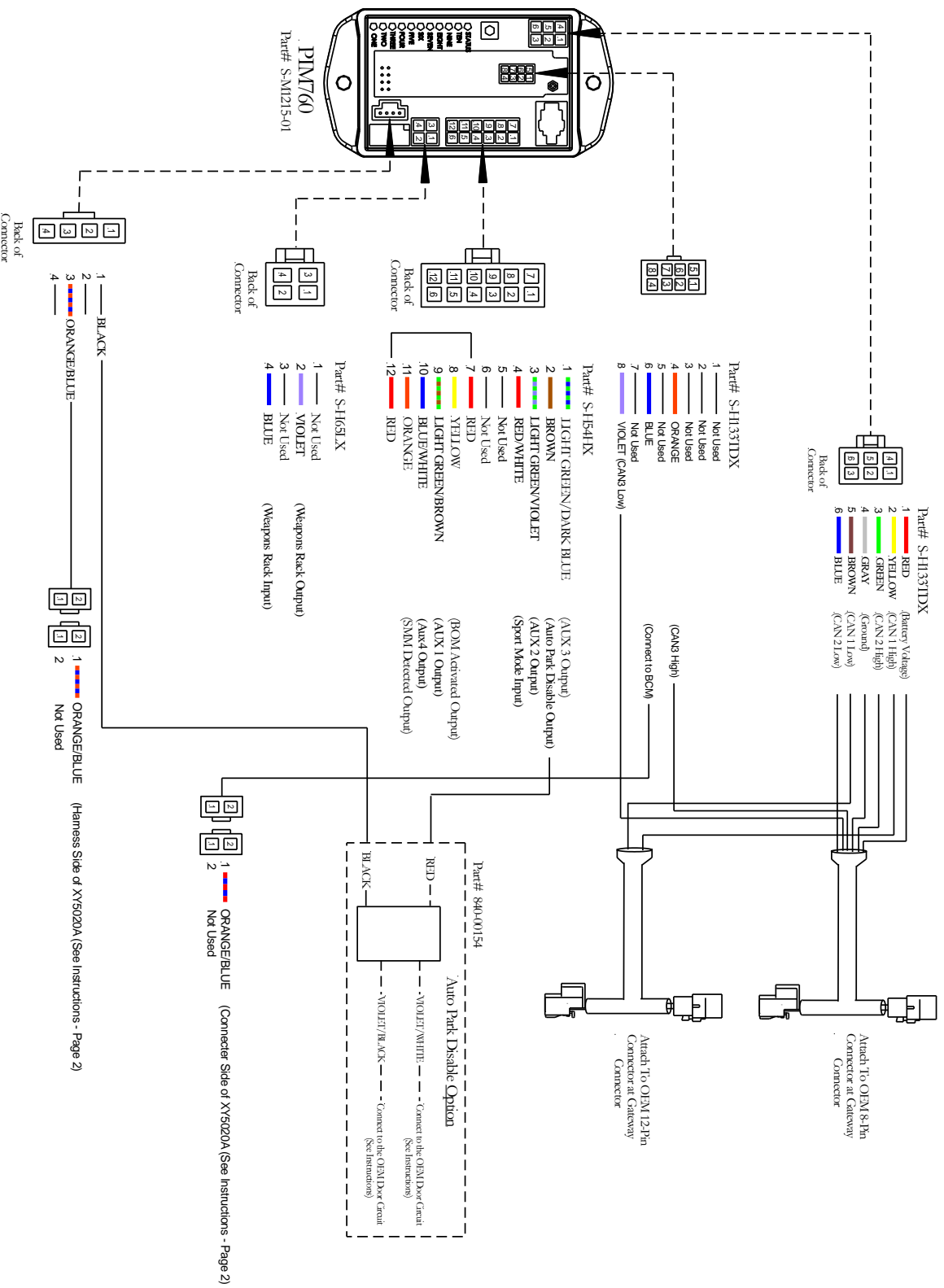
**Note:** PIM760 will stop checking once the key fob has left.

### Auto Disable

Preconditions: Transmission in PARK and the Engine running.

- Anytime the door is open, PIM760 will check the key fob location every second. Once PIM760 determines the key fob is present, PIM760 will unlock the shifter.
- Note:** PIM760 will stop checking once key fob is present.
- If the service brake is pressed, PIM760 will check the key fob for its location and if the key fob is present then PIM760 will unlock the shifter.
  - If the seatbelt is buckled, PIM760 will check the key fob for its location and if the key fob is present then PIM760 will unlock the shifter.

**For any questions or issues regarding the PIM Module, please contact Intermotive at 1-800-969-6080**



**Submit product registration at [www.intermotive.net](http://www.intermotive.net)**

If the PIM 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