

# A-PTM605-C (Pre-Trip Module)

2008 - 2023 Chevy Express/Savanna



## Introduction

The A-PTM605-C controls exterior lights for Pre-Trip Inspection. Lamp Test mode cycles lights ON and OFF so the user can verify all exterior lights are working. PTM will also provide separate outputs for Left Turn Lamps, Right Turn Lamps, and Brake Lamps.

## 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 antennas or inverters next to the module. Finally, avoid high voltage spikes in vehicle wiring by always using diode clamped relays when installing upfitter circuits.

## PTM Module

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

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

1. Locate the vehicle 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 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 black connector from the Data Link Harness in the former location of the vehicle's OBDII connector.

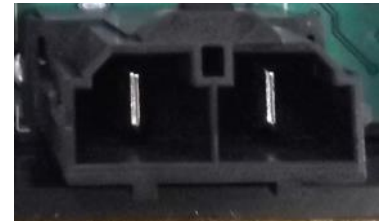


### 2w Minifit Sr

BLACK - Connect to clean metal contact near OBDII ground.

RED - Connect to direct 12V battery source.

### 2w Minifit Sr



### **PTM 16w Minifit Jr (Red Jumpers)**

Connect S-H30EX red wire connector into 16-pin connector.  
WARNING DO NOT USE BLACK WIRE JUMPER VERSION!



**16 Pin Connector**

### **4W SABRE Outputs for Rear Lights**

PTM will provide Outputs for Left Rear Turn Lamp, Right Rear Turn Lamp and Brake. Each Output is Rated at 10 amp.



**4 Pin Sabre Connector**

### **Brake Lamps Output**

Cut the OEM High Center Brake Lights, attach Relay #1 Blue wire going to the lights and attach the Purple wire going to the BCM. This output is rated at 10A .

### **Right Turn Lamp Output**

Attach Relay #2 Yellow wire to a Left turn light. This output is rated at 10A .

### **Left Turn Lamp Output**

Attach Relay #3 Green wire to a Right turn light. This output is rated at 10A.

### **8w Minifit Jr.**

- Pin #1 - Dark Green/Black wire to momentary Ground input to enable PTI mode (Input 1)
- Pin #2 - Tan/Black (Input 2 (Ground))
- Pin #3 - Grey/Black (Input 3 (Ground))
- Pin #4 - Orange/Black (Input 4 (Ground))
- Pin #5 - Red/White wire to momentary +12V input to enable PTI mode (Input 5).
- Pin #6 - Dark Blue/White (Input 6 (+12V))
- Pin #7 - Violet/White (Input 7 (+12V))
- Pin #8 - Brown/White (Input 8 (+12V))



**8 Pin MiniFit Connector**

## Post Installation System Operation Test

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

1. Place the ignition in the Run position and verify that LEDs 1 - 4 turn On indicating Bluetooth was successfully renamed.
2. Cycle the ignition Off and On and verify that LED's 1 - 4 turn Off when the ignition is in the Run position.
3. Place transmission in Park, apply parking brake and start the engine.
4. Turn on left turn signal, verify 4W SABRE (Green) provides +12V when turn indicator is on.
5. Turn on right turn signal, verify 4W SABRE (Yellow) provides +12V when turn indicator is on.
6. Turn on Hazards, verify both 4W SABRE wires (Green and Yellow) provides +12V when on.
7. Momentarily apply a ground signal to 4w minifit jr pin #1 (green/white) to enable Pre-Trip mode. Or momentarily apply a +12V signal to 4w minifit jr pin #3 (red/white) to enable Pre-Trip mode.
8. When Pre-Trip is engaged the module will cycle the exterior lights. **Note:** This will cycle for about 5 mins and shut off automatically.
9. Release parking brake and confirm Pre-Trip is disabled.
10. Apply parking brake and repeat step 5 to confirm that Pre-Trip mode can once again be enabled.

If the A-PTM605-C fails any of the above tests, check harnesses and review instructions, or check diagnostics below. If necessary, call InterMotive Technical Support at (530) 823-1048.

## Diagnostics

Diagnostic mode is entered by pressing the red button switch. There are 4 pages of diagnostics and each page is determined by the number of flashes of the Status LED. The module provides diagnostic LEDs which illuminate according to the following table below.

To exit this mode, press the red button one more time after opening the 4th page of diagnostics.

STATUS LED	Page 1	Page 2	Page 3	Page 4
LED_1	Brake	PB	PTM Mode	BT Connected
LED_2	Left TS	VSS<2	n/a	n/a
LED_3	Right TS	TR=Park	Active High Trigger	n/a
LED_4	Reverse	n/a	Active Low Trigger	n/a

## Leave in Vehicle A-PTM605-C (Pre-Trip Module) 2008 - 2023 Chevy Express/Savanna



### System Operation

The Pre-Trip Inspection Module cycles the exterior lights in order to assist the customer to verify all lights are working.

Lamp Test mode may be initiated by either a momentary ground or a momentary power input.

### Lamp Test Mode:

To enter Lamp Test Mode all conditions must be met.

- Transmission in Park
- Apply Parking Brake
- Vehicle speed zero.
- Momentarily ground the Green/White wire or apply 12v to the Red/White wire.

To exit Lamp Test Mode any condition may be applied:

- Momentarily ground the Green/White wire or apply 12v to the Red/White wire.
- Release Parking Brake,
- Place Transmission out of Park.

Module Part # S-M1550-33

Connect to --- BLUE --- Connect to OEM  
Brake Lamps

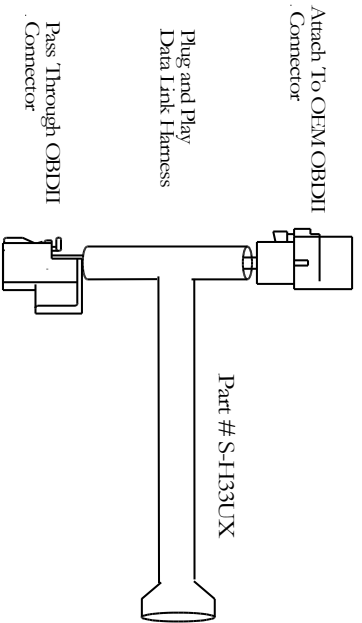


VIOLET --- Connect to OEM  
Brake Signal

Part # S-H117BX

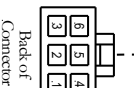
(Left Turn Signal) --- YELLOW --- 2  
(Right Turn Signal) --- GREEN --- 3

N/C 4

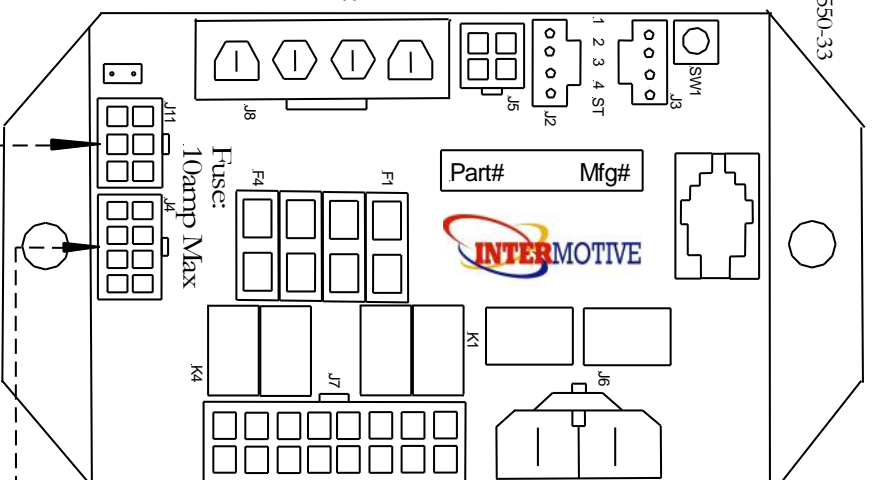


Part # S-H133UX

(CAN1 SW) ORANGE --- 1  
(CAN1 High) YELLOW --- 2  
(CAN2 Low) BROWN --- 5  
(CAN2 High) N/C --- 4



Back of Connector



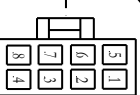
Part # S-H118AX

1 --- (Ground)

2 --- (Power)

Part # S-H30EX

Part # S-H119AX



Part # S-H196DX

- 1 DK/GREEN/BL ACK
- 2 TRN/BLACK/WH ACK
- 3 GRN/Y/BL ACK
- 4 GRN/GE/BL ACK
- 5 RED/WHITE
- 6 DK BLUE/WHITE
- 7 VIOLET/WHITE
- 8 BROWN/WHITE
- 1 PIN ENABLE - INPRT1 (ACTIVE/LOW)
- 2 INPRT2 (ACTIVE/LOW)
- 3 INPRT3 (ACTIVE/LOW)
- 4 INPRT4 (ACTIVE/LOW)
- 5 PIN ENABLE - INPRT5 (ACTIVE/HIGH)
- 6 INPRT6 (ACTIVE/HIGH)
- 7 INPRT7 (ACTIVE/HIGH)
- 8 INPRT8 (ACTIVE/HIGH)

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