

Installation

MANUAL
ELECTRICAL ONLY

PACBRAKE[®]
ENGINE & EXHAUST BRAKES



PRXB For HINO Trucks

EXHAUST BRAKE

PRXB Application:

Hino Trucks with J05D-TA Engine and Aisin Automatic Transmission

Hino Trucks With Aisin Transmission Addendum

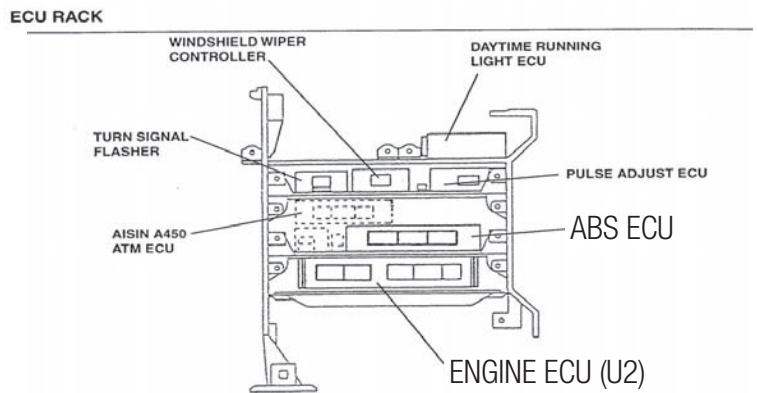
Hino trucks equipped with Aisin Automatic transmissions require an additional electronic control module installed to deactivate the exhaust brake when the torque converter is not in lock up. When installed correctly the control module will turn off the exhaust brake at 30 MPH, 50 KM/HR.

NOTE: This manual covers the electrical installation procedure. For the exhaust brake and air compressor installation procedure follow the additional manual supplied with the exhaust brake kit.

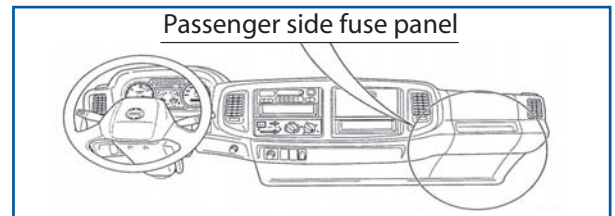
Electrical Installation

Note: Disconnect the batteries before removing the connectors from the ECU.

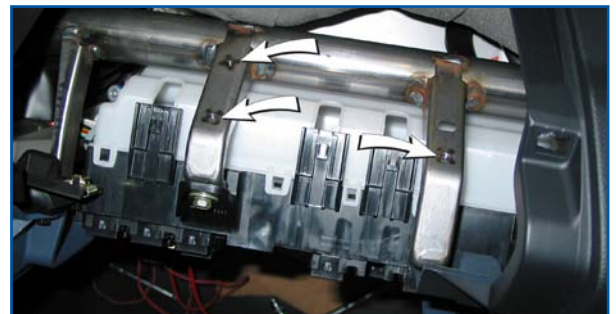
Locate the wiring schematic on **Page 6** and the ECU rack drawing (**RIGHT**):



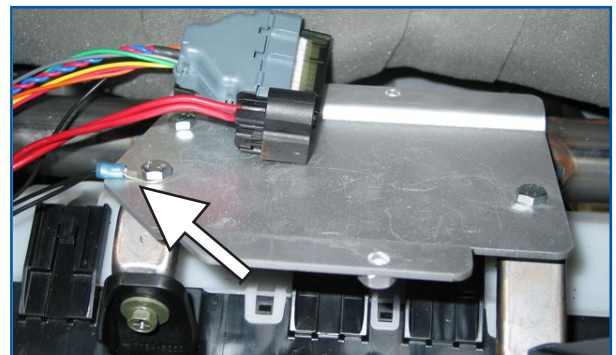
- 1 Remove the fuse panel cover on the passengers side of the dash.



- 2 Above the fuse panel, locate the three threaded holes in the fuse panel support bracket.



- 3 Using the 3 capscrews provided, secure the control unit mounting bracket to the fuse panel support bracket. Locate the BLACK ground wire of the Pacbrake main electrical harness, install the BLACK wire with eye terminal under the head of one of the capscrews.



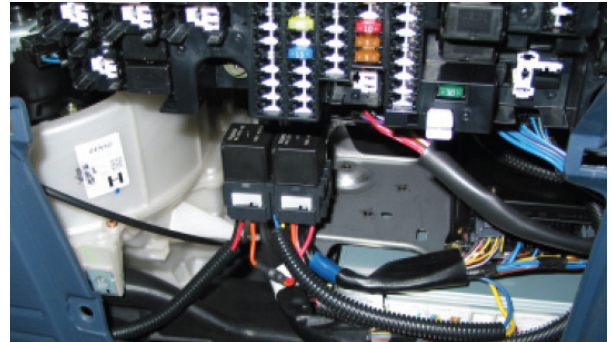
- 4** Using the 2 capscrews provided secure the control unit to the mounting bracket as shown. Install the two electrical harness connectors into the control box.



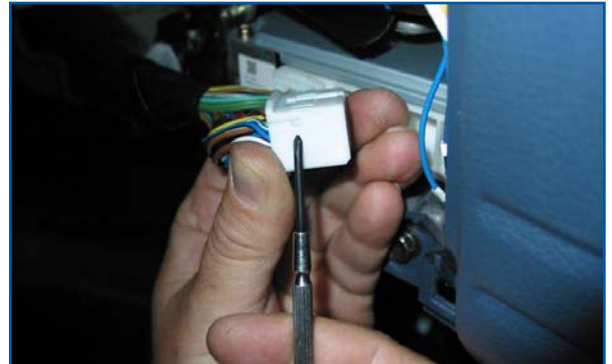
- 5** Feed the 2 RED 14 gage wires into the engine compartment through the firewall grommet in the upper passengers side of the firewall. Using the loom and tie-straps provided secure the wiring harness and apply electrical tape to the grommet to provide a seal.



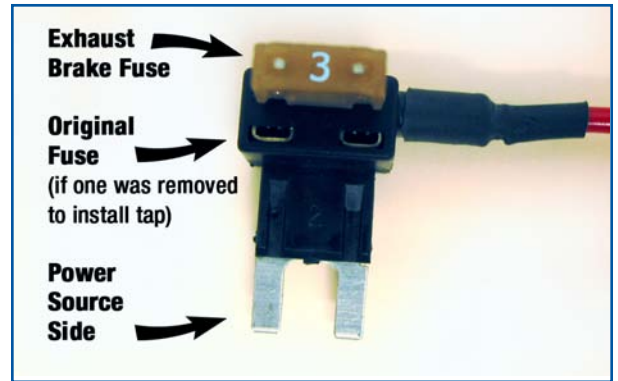
- 6** Mount the relay receptacles to one of the ECU mounting bracket capscrews. A replacement capscrew is provided. All vehicles require two relays, one for throttle control and the other is for ABS (Anti-lock Brake System).



- 7** At the engine ECU, locate the connector shown in the electrical schematic. Remove the connector from the ECU. The connector locking device needs to be released before the Pacbrake terminals can be installed. Insert a small screwdriver into the square hole that exists in each side of the connector. Push against the tab and repeat on the opposite side. The terminal locking device should raise by 1 to 2mm but is not removable. This will allow the terminals to be installed. Insert the GREEN Pacbrake wire into port B15, the BLACK wire into Port B24 and the BLUE wire into port B2. Once all three Pacbrake wires are installed, push the locking device down to lock the terminals in place. An audible click should be heard to ensure the locking device is locked. Install the connector back into the ECU.



- 8** At the fuse panel, locate the air dryer fuse location. It should be an ignition source and available to accept the fuse tap provided. The fuse tap must be installed in a certain manner for the fuse to protect the system. Using a test light, determine which terminal in the fuse panel is the ignition power input. The fuse tap terminal opposite the wiring harness side must be installed into the power source terminal for the fuse to be effective. If no empty ignition power locations are available in the fuse panel, choose an existing ignition circuit. Remove the existing fuse and install the fuse tap. **Install the original fuse in the lower position of the fuse tap.**

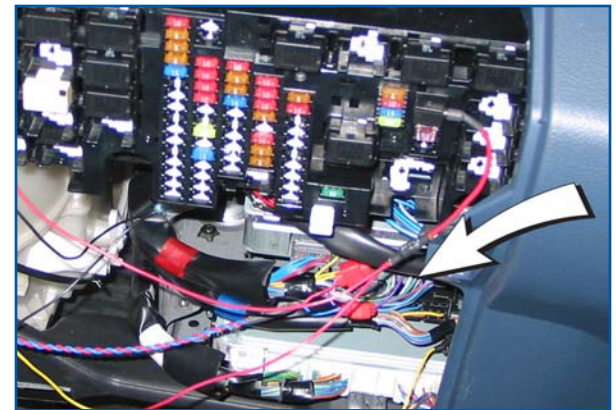


- 9** The ABS ECU has a Pacbrake disable circuit to turn the exhaust brake off in the event of wheel lock-up and, therefore, must be connected to the ABS ECU. Locate the ABS ECU in the ECU rack. Remove the 15 pin connector from the ABS ECU, pull the VIOLET lock tab out allowing the terminal on the YELLOW wire to be installed in port 12 of the connector. Then push the VIOLET lock tab in to secure the terminal. Install the connector back into the ABS ECU.



Consult the electrical schematic on Page 6 for the ABS connector numbering sequence.

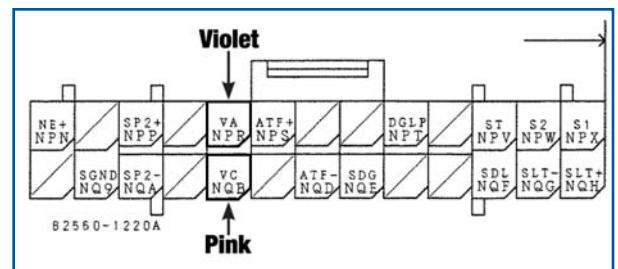
- 10** Route the VIOLET and RED twisted pair of wires to the transmission connector. (As shown by the arrows)



- 11** Connect the VIOLET wire of the twisted pair to the VIOLET wire of the transmission connector. This connection must be soldered, and covered with the heat shrink provided.

Connect the RED wire of the twisted pair to the PINK wire of the transmission connector. This connection must be soldered, and covered with the heat shrink provided.

Secure the wires with the tie straps provided.



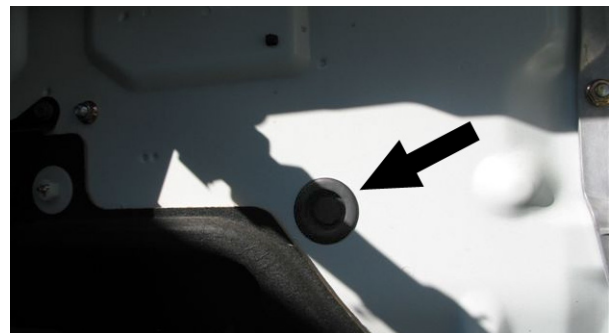
Dash Switch Installation

- 12** Provided in the dash are spare cavities for the exhaust brake's dash switch. Choose a location that is convenient for the driver to access and remove the blank plate. Route the leg of the harness with the BROWN and GREEN wires behind the dash and feed them to the switch opening. Connect the wires to the switch as shown in the wiring schematic on **Page 6** and insert the switch into the dash. Provided is a decal to identify the switch. Peel the paper off the back of the decal and apply either above or below the switch. Secure the harness with the tie-straps provided.



- 13** Feed the two remaining GRAY and GREEN wires through the firewall grommet under the floormat, near the accelerator pedal. These will connect to the air compressor installed in the next step. Seal the grommet to provide a water tight seal.

Secure wires with the straps provided.



- 14** Route the GRAY, GREEN and the 2 RED 14 gage wires of the Pacbrake harness to the compressor assembly. The longer RED wire goes to the batteries on the drivers side. Connect the GRAY wire to the pressure switch, the GREEN wire to the solenoid and the short RED to the compressor. The terminals are filled with dielectric compound to prevent corrosion. Cover the connectors with electrical tape. Using the loom and tie-straps provided protect and secure the harness.



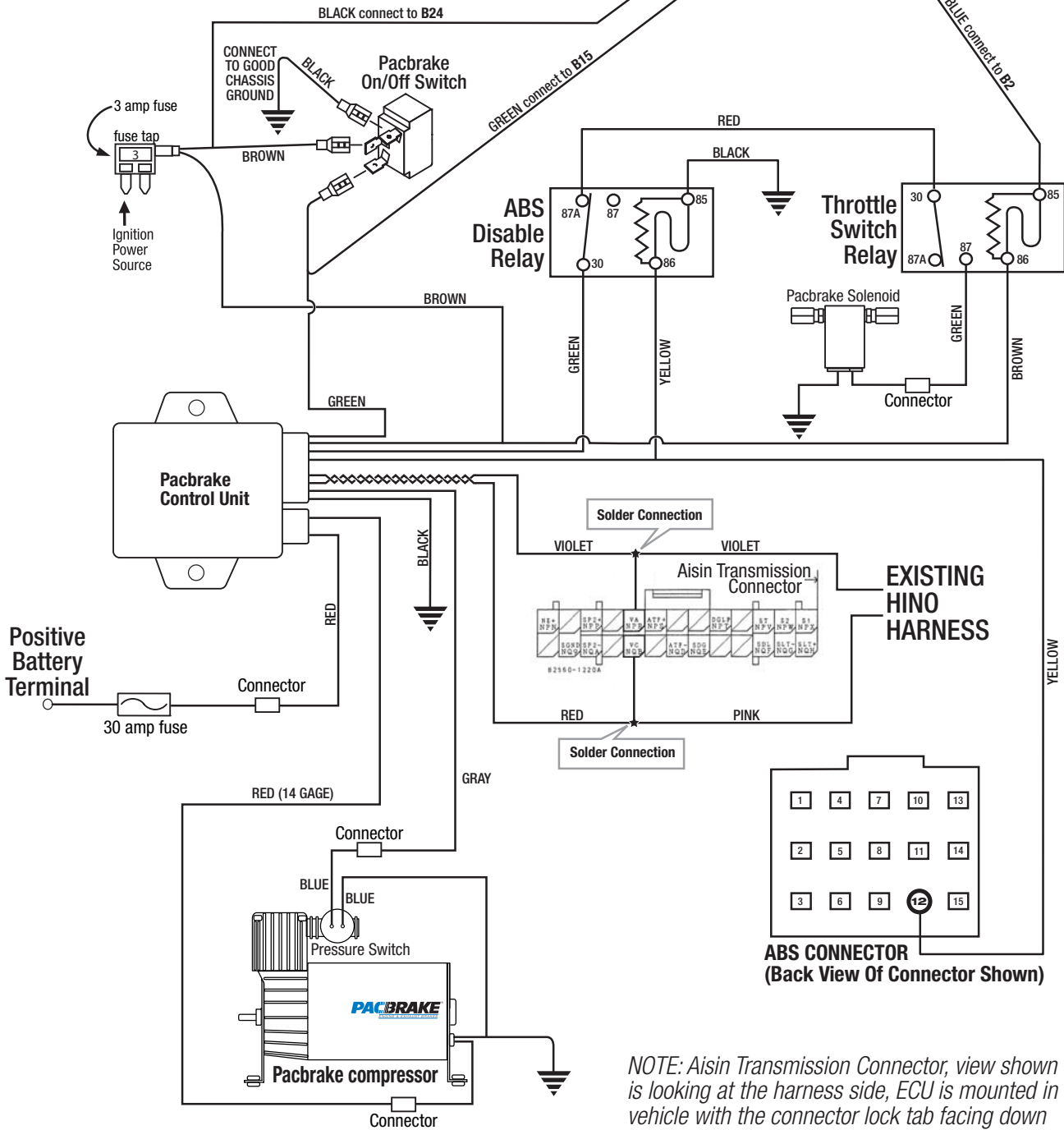
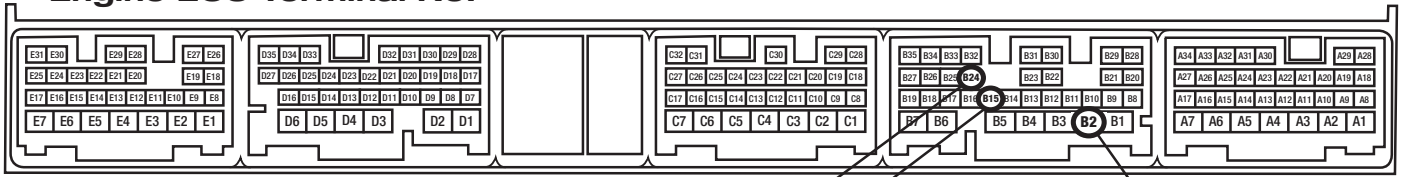
- 15** Route the remaining 14 gage RED wire from the firewall boot to the battery box on the drivers side. Supplied in the kit is an inline 30 amp fuse. Connect the inline fuse to the RED wire. The terminal is filled with dielectric compound to prevent corrosion. Cover the connector with electrical tape. Connect the eye terminal to the positive battery lead with the eye terminal placed under the larger terminal. Torque nut to 10.6 +/- 2.2 lbs.ft. Cover the entire RED wire with loom and secure with tie-straps provided.

Reconnect the batteries.

Refer to the main installation manual for compressor and exhaust brake installation instructions.



Engine ECU Terminal No.



NOTE: Aisin Transmission Connector, view shown is looking at the harness side, ECU is mounted in vehicle with the connector lock tab facing down

NOTE: Relays MUST be Diode Protected