

SUBJECT

**OPTIONAL - ECM By-Pass
Mechanical Wiring**

PART NUMBER

C20135

APPLICATION

**2004½ & Newer Dodge
Manual Transmission**

The engines ECM has a built in delay for exhaust brake application. This mechanical kit was developed to reduce the delay and speed up the application time of the exhaust brake. Pacbrake also offers an optional air tank kit (C11941) to speed up the application of the exhaust brake as early production kits did not include an air tank.

INSTALLATION PROCEDURE

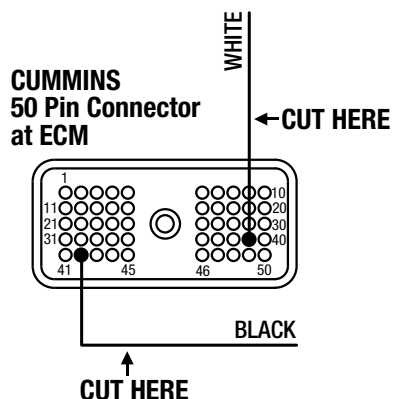
NOTE: When this mechanical wiring system is installed on manual transmission vehicles a cruise by-pass relay must be installed (supplied in kit). This is to prevent the cruise control from being activated when the exhaust brake switch is in the ON position.

Throttle Switch Installation:

1. Remove the nut shown in the photo, install the Pacbrake throttle switch on the stud with the switch arm behind the accelerator lever, install and tighten the nut. The switch bracket is two pieces and will slide to accommodate power adjustable pedals, it is a good idea to adjust the switch and tighten all the adjustment screws prior to final installation of the switch.
2. Check the position of the micro switch by applying pressure to the accelerator pedal, the switch should click within the first 1/4" of accelerator pedal travel, if not, loosen the two adjustment screws and readjust the switch.

Electrical Installation:

1. Locate the BLACK and WHITE wires of the Pacbrake harness with special pins that connect into the engine ECM. If the exhaust brake was previously installed, cut these two wires 6" from the ECM (located on the driver's side of the block), apply electrical tape to the wire ends connected to the ECM. The BLACK wire needs to be routed into the cab, as this wire needs to be connected to the throttle switch in step 2. The WHITE wire originates at the Pacbrake dash switch, route this wire to the throttle switch as it needs to be connected to the throttle switch in step 3.
2. At the throttle switch, connect the BLACK wire to the terminal marked "N.O." using the push on connector provided.



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- At the throttle switch, cut the WHITE wire to length, the dash switch end is to be connected to the "common" terminal at the throttle switch WITH the piece of WHITE wire cut off as a jumper, Crimp the two ends of WHITE wires into the terminal provided, then connect to the "common" terminal of the throttle switch.
- Cruise disable relay installation, this is required to prevent the exhaust brake from being applied when the cruise control is accelerating the vehicle.
 - At the brake lamp switch, locate the factory 6 pin connector. 2004 and newer vehicles pin 3 the wire will be a violet with white tracer.
 - Cut this wire in a convenient location and attach the two blue extension wires supplied with heat shrinkable butt connectors.
 - Route the two blue extension wires to the relay provided and connect either one of the two blue wires to terminals #30 and #87a.
 - Cut the white jumper wire from the throttle switch to length and connect it to terminal #85 of the relay.
 - Connect the fuse harness provided to terminal #86 of the relay. 2004 vehicles have two 24 pin connectors on the driver's side of the firewall. In the black connector, locate pin B4, it will be a pink wire with gray trace. Check it with a voltmeter to ensure it is 12 volts positive and an ignition power source prior to attaching the blue "T" tap provided. Do not separate the connector as it will log a fault code with the engine ECM.

