

SUBJECT

**OPTIONAL
Pacbrake Air Tank**

PART NUMBER

C11941

APPLICATION

**Dodge Trucks
2003 and Newer**

equipped with a Pacbrake Exhaust Brake



Please check that your kit contains all the parts shown.

This optional air tank kit is designed to speed up the activation of the exhaust brake, and provide an air source for limited accessory use. The current design is an air on demand system with no reservoir, and requires the compressor to charge the system before the exhaust brake will fully activate.

With the air tank as the reservoir the exhaust brake will activate much quicker.

It is very important the system does not have any air leaks, use thread sealant on all fittings when installing. Air leaks will reduce the life of the compressor.

Installation Procedure

Please check the Pacbrake model prior to installing the air tank. Pacbrake's PRXB (pressure regulated exhaust brake) requires the stock pressure switch be replaced with C11946 when an air tank is added, fixed orifice brakes use the stock pressure switch.

Mounting and Plumbing the Tank

- 1 Choose a location to mount the tank close to the exhaust brake, such as on the frame behind the right front wheel.
- 2 Drill 2 holes in the frame $\frac{5}{16}$ " diameter on a $3 \frac{1}{4}$ " center.
- 3 Install the $\frac{1}{4}$ " NPT plug or drain valve in the bottom of the tank using thread sealant.
- 4 Install the $\frac{1}{4}$ " NPT air line fitting into the top of the tank using thread sealant.
- 5 Install the $\frac{1}{4}$ " teflon air line into the fitting and route the line to the air compressor.
- 6 Using the two $\frac{5}{16}$ " bolts, washers and nuts, mount the tank.



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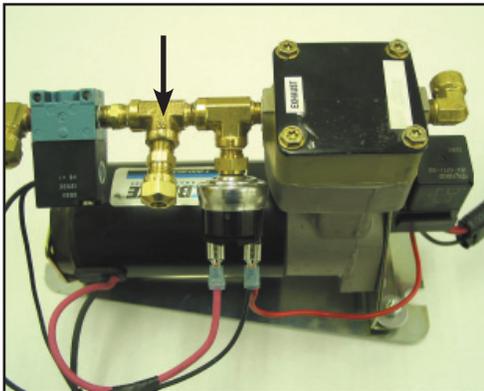
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Plumbing at the Air Compressor (early kits)

Note: Early production exhaust brake kits do not have a provision to accept the teflon line from the air tank. A "Tee" fitting is supplied and the following instructions must be followed.

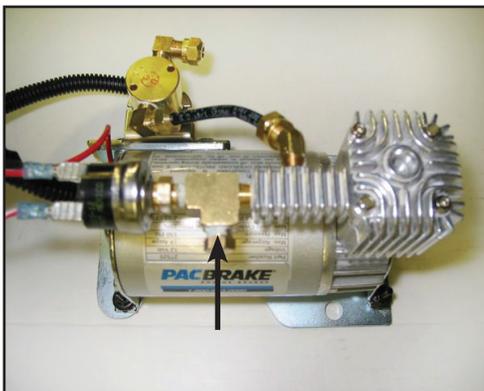
- 1 Remove the teflon air line at the compressor, it is not necessary to remove the fitting from the solenoid.
- 2 Remove the solenoid from the compressor, it maybe necessary to cut the wires.
- 3 Install the "Tee" fitting supplied into the existing fitting at the compressor using thread sealant.
- 4 Reinstall the solenoid on the "Tee" fitting, the port marked #1 goes towards the compressor, use thread sealant. Reconnect wires if cut earlier using heat shrink terminals supplied.
- 5 Reinstall the teflon air line to the solenoid.
- 6 Using thread sealant, install the fitting supplied into the "Tee" at the compressor and connect the teflon air line from the tank.



Plumbing at the Air Compressor (current kits)

Current production compressors are fitted with a 1/8" NPT plug between the compressor head and the solenoid valve.

- 1 Remove the plug and install the 1/8" NPT to teflon fitting supplied into this location using thread sealant.
- 2 Connect the teflon air line from the tank.



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Electrical

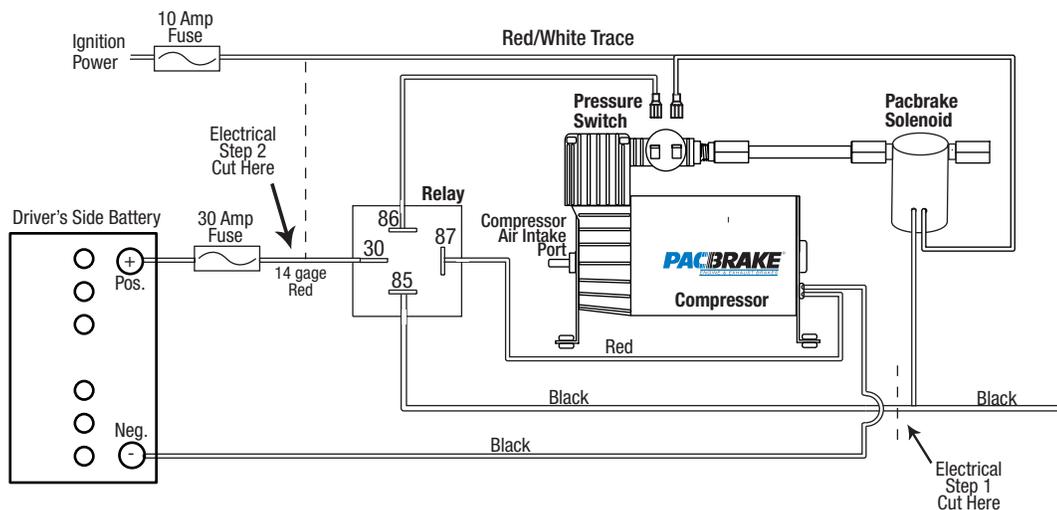
- 1 At the compressor relay, locate the Black wire connected to pin 85. Cut this wire as far from the relay receptacle as possible, then connect the relay side of the wire to a good chassis ground. Apply electrical tape to the solenoid side of the black wire to protect it.
- 2 At the compressor relay, open the conduit to locate the 16 gage Red with White trace wire spliced into the Red 14 gage wire connected to terminal 30 of the relay receptacle. Cut the Red with White trace wire, do not cut the Red 14 gage, cover the splice with electrical tape and secure in the conduit. Extend the Red with White wire to be connected to an ignition power source.

2003 Model Year Vehicles

Locate the 14 pin connector on the passengers side firewall, pin 13 will be a dark blue wire which should be a 12 volt positive ignition power source.

2004 Model Year Vehicles

Locate the two 24 pin connectors on the driver's side of the firewall. One connector is gray and the other is black. In the black connector pin B4 will be a PINK wire with GRAY tracer. This wire should be 12 volts positive ignition power source. Check this circuit with a test light for ignition power prior to attaching the "T" tap. Do not separate the connector as a fault code will be logged in the ECM. If you need to separate the 14 pin connector, disconnect both battery leads. This will prevent the logging of a fault code in the ECM. using the Blue "T" tap supplied, attach it to the blue wire or ignition power source, then connect to the fuse harness.



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Testing The System

- 1** Start the vehicle and allow to idle.
- 2** Turn the exhaust brake on/off switch to ON.
- 3** The compressor should start pumping air to fill the reservoir. Once the air pressure in the reservoir reaches 50 PSI the exhaust brake cylinder should start to extend.
- 4** Allow the compressor to build maximum pressure of 105 PSI, the pressure switch will then turn the compressor off.
- 5** Turn the ignition off. Test all fittings for air leaks with soapy water, repair air leaks if necessary.

Important

- 1** Using the ty-straps provided, ensure all hoses are secured away from sharp objects or heat sources which could cause damage.
- 2** Air leaks in this system will cause the tank to lose pressure. Loss in reservoir pressure will make the exhaust brake inoperative until the compressor refills the system. Air leaks causing loss in reservoir pressure will put unnecessary strain on the compressor.
- 3** The compressor used in this application has a 20% duty cycle, this means for every 5 minutes operated it must be off for 20 minutes. This compressor has thermal protection, this means if it gets too hot it will shut itself off to prevent failure. Once it cools enough it will operate again.