PACBRAKE®

Installation MANUAL

C44090

HP325 PACBRAKE COMPRESSOR CONVERSION

APPLICATIONS:

DODGE 2003 - 2007 5.9L CUMMINS

Compressor Replacement Instructions for C14030, C14045, C44030, C44045, C44049 & C44052 with Air Tank

KIT CONTENTS

Make sure all the items shown in the photo are provided in your kit before starting the installation

KIT CONTENTS

A Compressor Bracket (1)
B Compressor Assembly (1)
C Bracket - Quick Connect (1)
D Fitting 1/4" NPT Close Nipple (1)
E Fitting Bulk Head 1/4" NPT x 1/4" Hose (1)
F Quick Connect Coupling (1)
G Screw - Self Tapping (2)
H #10 Flat Washer (8)
I 10/32" x 1" Screw (4)
J 10/32" Nyloc Nut (4)
K M8 x 1.25 30mm Capscrew (1)
L Flat Washer M8 (1)
M 1/8" NPT Brass Plug (1)
N Spacer Aluminium M8 (1)
O 1/8" NPT 90° Swivel Fitting (1)

AIRLINE ASSEMBLY

I Blue Nylon Airline (1)
II Remote Inlet Air Filter & Fitting (1)
III Inlet Replacement Filter (3)
IV Black Nylon Airline (1)
V Tie Straps (6)

REQUIRED TOOLS

- 10mm, 17mm, 3/8" & 9/16"open end or box wrenches
- Torque Wrench
- 6 mm Allen Wrench
- Ratchet with 17mm deep well socket and 10mm shallow socket
- Heavy Duty Drill
- 5/16" socket on Drill Driver
- Pipe Thread Sealant
- Razor Blade
- Safety Glasses
- Spray Bottle with Dish Soap/Water
- Screw Driver (Phillips)

Prior to installation, please read the entire manual to ensure you can complete the installation once started.

IMPORTANT: This kit is designed to replace the 275C Viair compressor with a 1/2 gallon air tank provided in Pacbrake exhaust brake kits. Installing a larger air tank will make the compressor work beyond it's duty cycle. Consult Pacbrake at 800.663.0096.

BEFORE STARTING:
Ensure the application information is correct for the make, model and year of the vehicle you are installing it on.

This kit is for vehicles that had an engine mounted 275C Viair compressor with an air tank.

REMOVAL

1 Remove the factory capscrew holding the oil dip stick tube to the air intake horn. This bolt will not be reused. A new fastener, washer and spacer is supplied in the kit and will be installed in step 5.

Remove the existing airlines at the compressor and solenoid valve.

2 Disconnect the weather-pac electrical connectors to the compressor. Remove the three capscrews that hold down the compressor. Retain the spacers under the compressor bracket as they will be reused.

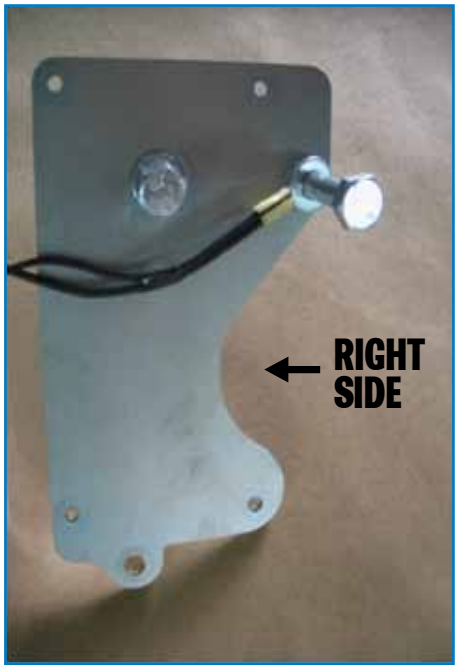
Remove the compressor assembly from the engine.

AIR COMPRESSOR SUB-ASSEMBLY:

3 Locate the poly bag containing the air compressor mounting bracket, fasteners and mounting hardware.

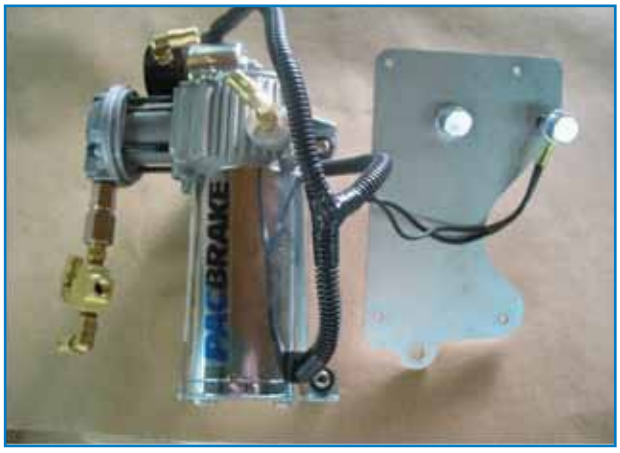
Place one M10 flat washer on each of the two M10 capscrews. Insert one capscrew into the ring terminal (air compressor/solenoid ground) of the air compressor electrical harness.

4 Install the two capscrews into the bracket assembly as shown. Make note of the mounting bracket cut out, as it MUST be to the right side.



5 Using the four 10/32 x1” machine screws, eight #10 flat washers and four Nyloc nuts LOOSLEY attach the compressor to the bracket as shown, Compressor head must face the opposite side from the cut out on the bracket, machine screw must be installed as shown in the photo for STEP 6 (threaded ends pointing upwards).

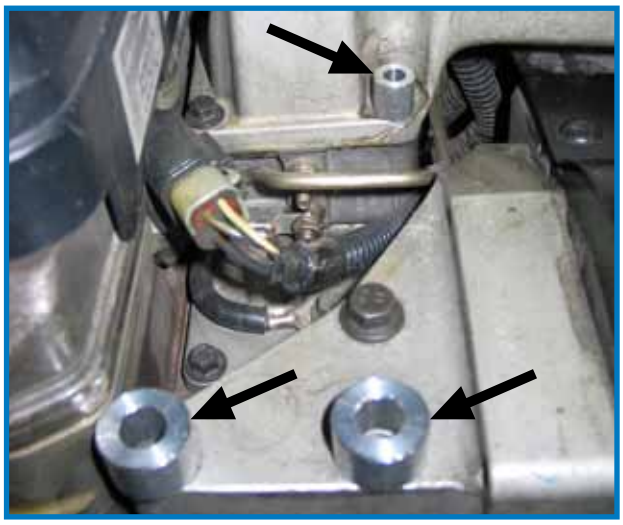
Ensure the leg of the Pacbrake harness is between the air compressor and the mounting bracket.



6 Tighten the four mounting screws and nuts until the washers first contact the isolator and then tighten TWO additional turns. Do not over tighten.

7 Position the correct length spacers in the locations shown in the photo (with arrows). All installations require the small O.D. spacer on the air intake horn.

NOTE: An engine <u>with</u> the forward capscrews is shown in the photo



8 Install the compressor assembly over the 3 spacers. Obtain the best clearance of the compressor to coolant hose and compressor to intake horn as possible. Torque the 2 large capscrews (*shown with the arrow, under the compressor*) to approximately 32ft-lbs, (43 N•m). Torque the allen head capscrew to 18 ft-lbs (24 N•m). Place the spacer provided over top of the mounting hole for the oil dip stick. Using the longer M8-1.25x30mm bolt, spacer and flat washer, secure the dip stick tube to the intake horn, torque to 15ft-lbs, (20 N•m). Install the pressure switch using thread sealant, into the open port on the compressor assembly as show in the photo.

CAUTION: This kit includes "push to connect" airline fittings. They require the end of the airline to be round, square and cleanly cut to ensure the internal seal will not leak. The airline must only be cut with a sharp razor knife or hose cutter

NOTE: The blind threaded port on the compressor head facing the front of the vehicle remains open.

8
Cont...

NOTE: Some previous compressor assembly revisions had the pressure switch mounted in the compressor head, in this case remove the pressure switch from the existing assembly and install in to the open port on the new assembly using thread sealant as show in the photo (STEP 8). Otherwise the pressure switch is installed in the top of the air tank and can remain there, if this is the case, install the supplied 1/8" NPT 90 degree push to connect fitting in the open port of the compressor, this will be connected in STEP 11.

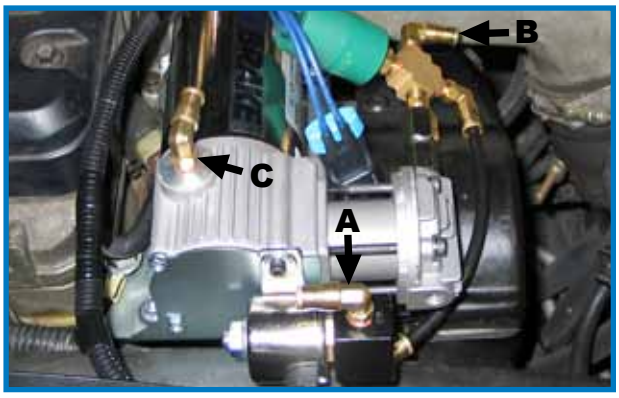
9

Connect the female connector to the male connector at the compressor.

10

Connect the airline that is routed to the exhaust brake to the open fitting on the solenoid (labeled "A"). Connect the airline running to the air tank to either of the open fittings on the compressor head (labeled "B").

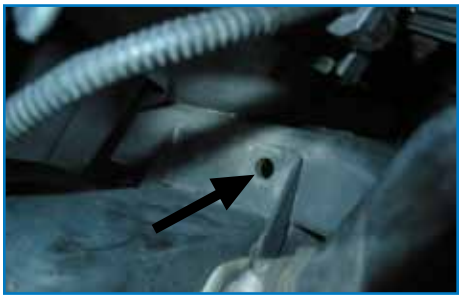
NOTE: The fitting on the top the compressor body (labeled "C") is for the breather line that will be installed in step 12.



11

Consult with the customer for a preferred location for the quick connect airline coupler. Route the supplied airline to this location and connect to the coupler. Connect the other end to the remaining fitting at the compressor head.

12 Located behind the driver side head light (looking down) you will find a hole in the cross member, shown by an arrow in the photo. Attach the Blue Nylon Airline to the filter housing and clip the filter into this hole. Route the line back up to the compressor and attach to the fitting on top of the compressor (marked “C” in STEP 10).



13 Secure all wires and airlines away from moving parts and heat sources. Turn the ignition on and allow the compressor to fill the air tank until it shuts off. Using a spray bottle of soap and water, check all connections for leaks.