



C44088

DODGE 2003-2007 BRACKET RETROFIT KIT FOR VEHICLES WITH ENGINE MOUNTED AIR COMPRESSOR

## KIT CONTENTS



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

## **KIT CONTENTS**

- A Gasket (1)
- B Airline, Nylon Black (114")
- C Spacer (1)
- D Loctite (1)
- E 1/8" NPT 90° Fitting (5)
- F Compressor Bracket, Front (1)
- G Compressor Bracket, Back (1)
- H %" Terminal Ring (1)
- I 1/8" NPT Nipple (1)
- J 1/8" NPT Cross Fitting (1)
- K Compressor Bracket, Lower (1)
- L #10 Flat Washer (8)
- M 1" 10-32 Machine Screw (4)
- N 10-32 Nyloc Nut (4)
- O M8x100 Bolt (1)
- P M8 Flat Washer (1)
- Q Rubber Grommet (4)
- R Sleave (4)

## **REQUIRED TOOLS**

- 7/16 & 9/16 open end wrenches
- 3mm Allen Wrench
- 8mm Nut Driver
- 10mm Socket with ratchet
- Safety Glasses
- Spray Bottle with Dish Soap/Water

Please read the entire installation manual prior to starting the installation to ensure you can complete the installation once started.

IMPORTANT: This kit is designed to replace the engine mounted air compressor mounting bracket used on 2003-2007 Dodge ram trucks.

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

NOTE: To disconnect an airline from a push to connect fitting, push and hold the airline in to the fitting, now hold the outer ring of the fitting in while pulling out on the airline.

#### PACBRAKE AIR COMPRESSOR BRACKET REPLACEMENT PROCEDURE

THIS IS A PRODUCT IMPROVEMENT, NOT A CAMPAIGN.

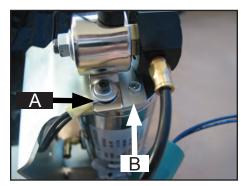
IMPORTANT: These kits include push-to-connect airline fittings. They require the end of the airline to be cut cleanly and square to ensure the internal seal will not leak air. The airline must only be cut with a sharp knife or hose cutter. Using scissors or wire cutters will distort the airline causing the connection to leak air past the O-ring seal. Thread sealant or Teflon tape must be applied to all the fitting threads installed throughout the installation to prevent air leaks

Disconnect the air lines and electrical connectors attached to the compressor assembly. Using a 13mm open end wrench loosen the capscrew attaching the oil dip stick tube to the air intake horn, do not discard the spacer, bolt or washer, as they will be reused. Remove the airline on the bottom of the compressor, that is attached to the air inlet filter. Using a 17mm open end wrench loosen the 3 hex bolts attaching the assembly to the motor. Remove the compressor. Do not discard the 3 spacers, under the compressor. These will be reused.



Working on a clean surface, place the compressor assembly with the solenoid pointing up. Disconnect the airline from the fitting, remove the 2 airline fittings from the solenoid using a 7/16 open-end wrench. Remove the 2 Allen head capscrews that attaches the solenoid to the compressor assembly (marked "A) using an 3mm Allen wrench. Remove the 2 hex head screws (marked "B") using an 8mm nut driver or #2 Phillips screw driver.

DO NOT DISCARD ANY FASTENERS OR WASHERS.





**3** Turn the assembly over and remove the 4 hex head screws securing the bracket to the air compressor.

DO NOT DISCARD ANY FASTENERS



4 Remove the compressor from the bracket. Then remove the three M10 x 1.5 x 100mm capscrews and washers from the bracket, saving the for use with the replacement bracket. Remove any gasket material left on the air compressor surface.

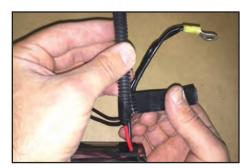
**NOTE:** Only 2 capscrews and washers will be reused.



Remove the brass fitting from the check valve as shown, leaving only the check valve.



Remove the electrical tape holding the wires within the loom, to allow enough wire length for the solenoid to be mounted to the head end or the compressor as shown







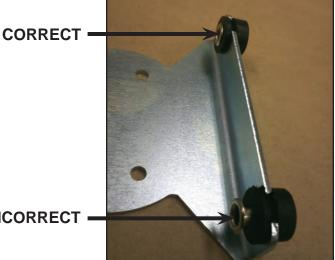
7 Cut off the ring terminal, as close as possible. Strip the ends of both black wires and install and crimp the new larger diameter ring terminal.





8 Obtain the two brackets, four rubber gromets and sleeves. Install the rubber gromets as shown in the photo (with the longer side away from the bracket). Now, insert the the metal sleeves into the gromets and seat them fully, as shown in the photo. Repeat for the other bracket.





INCORRECT -

Using the supplied Loctite 242, apply one drop to each of the 2 hex head and Allen screws removed in step 2.
Place the supplied gasket and front compressor bracket on the compressor, as shown, with the rubber gromets under the compressor body. Loosely install the two 2 hex head screws.





10 Install the solenoid as shown, using the Allen screws and washers. Tighten the two Allen and hex head screws.



Turn the compressor over. Using the supplied Loctite 242, apply one drop to each of the four hex head screws removed in step 3. Loosely install with the rear compressor bracket with the rubber gromets under the compressor body.

Do not tighten fully at this time.

**NOTE:** Complete steps 9 through 12 within 5 minutes or the Loctite will start to set.



12 Place the compressor on a flat surface to align the rear bracket, tighten the four hex head screws.



13 Install the 1/8" NPT nipple into the supplied 1/8" NPT four way cross, install this assembly in to the check valve.





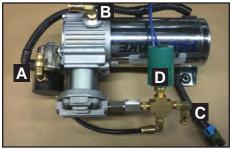


- 14 Install the 90° fittings into the four way cross as shown in photos. (Option A or B)
  - "A" goes to the exhaust brake cylinder.
  - "B" goes to the Air intake filter.
  - "C" goes to the air tank.
  - "D" goes to the quick connect fitting assembly, (option A)
  - "D" is where the air pressure switch is installed, (option B)

**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 (marked `D`, option B). 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 to the quick connect fitting (option A).



**OPTION A** 



**OPTION B** 



## AIR COMPRESSOR SUB-ASSEMBLY

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.

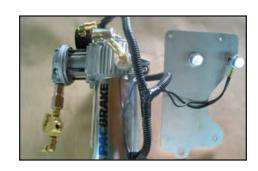


16 Install the two capscrews into the bracket assembly as shown. Make note of the mounting bracket cut out, as it MUST be to the right side.



17 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 18 (threaded ends pointing upwards).

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

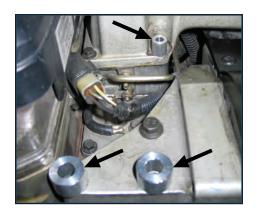


18 Tighten the four mounting screws and nuts until the washers first contact the isolator and then tighten TWO additional turns. Do not over tighten.



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



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.

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



