

# Exhaust Brake Solenoid Mounting Upgrade Kit Installation Instructions

**NOTE:** USE THESE INSTRUCTIONS ONLY IF YOU ARE INSTALLING THE SOLENOID MOUNTING KIT AS AN UPGRADE TO AN EXISTING APPLICATION. IF THIS IS A NEW INSTALLATION, FOLLOW THE INSTRUCTIONS IN THE INSTALLATION MANUAL INCLUDED WITH YOUR KIT. FOR ADDITIONAL INFORMATION ON THE EXHAUST BRAKE ASSEMBLY, SEE THE INSTALLATION MANUAL FOR YOUR MODEL OF EXHAUST BRAKE.

## Overview

This kit contains the parts required to install the Solenoid Mounting Upgrade Kit for the exhaust brake for Dodge Ram trucks purchased prior to July 1, 1998. This kit includes vibration isolator grommets to minimize sound transfer to the vehicle cab. Properly installed, this kit will reduce the solenoid activation noise experienced by passengers.

## Parts List

The following parts are included in the kit:

Description	Qty.
Mounting plate	1
Isolator grommet	4
Well nut	4
Hex head screw, M6 x 1 x 40 mm	4
Flat washer	4
Lock washer, M6	4
Machine screw, 8-32 x 3/8"	2
Lock washer, #8	2

## Installation

### A. Removing Existing Components

1. Locate the existing solenoid valve assembly in the vehicle engine compartment. The solenoid valve assembly should be mounted to the vehicle plenum on the upper right (passenger) side.
2. Remove the existing solenoid mounting plate from the vehicle's plenum by removing the two M6 x 20 mm screws holding the plate to the plenum. You do not need to remove the hose fittings attached to the solenoid valve, but support the solenoid valve assembly to prevent stress on the hose connections.



TAKE CARE NOT TO DAMAGE THE PNEUMATIC CONNECTIONS TO THE SOLENOID VALVE.

3. Disassemble the old solenoid mounting plate from the solenoid valve assembly. Discard the old mounting plate and attaching screws.

### B. Installing the New Mounting Plate Assembly

1. Assemble the four isolator grommets into the solenoid mounting plate. Temporarily attach the mounting plate to the vehicle plenum, using the M6 x 40 mm screws included in the kit in the **top** holes of the mounting plate.
2. Using a pencil or centerpunch, mark the center location of the holes in the bottom grommets on the plenum. Remove the mounting plate from the plenum.

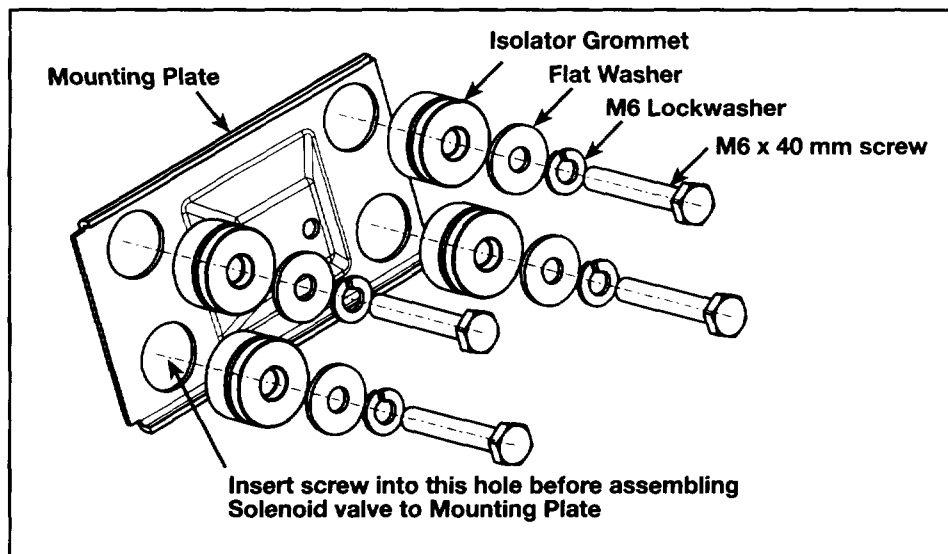


FIG. 1

3. Inspect the marked locations to determine whether there is sufficient clearance to drill a 1/2" diameter hole at each location. If there is not sufficient clearance, use the mounting plate to find a location with sufficient clearance for four 1/2" holes to mount the bracket, and mark the hole locations on the plenum.
4. Use a #27 drill to make pilot holes at the marked hole locations, then drill the holes to 1/2". Insert well nuts as required in the 1/2" holes. If you are using the two 1/2" holes from the previous installation, you may use the existing well nuts.
5. Note the orientation of the mounting plate. The distance from the end of the plate to the raised area in the center of the plate is greater on one side than the other. The side with the greater distance is the left side of the plate when the raised portion is facing toward you (when installed, this side points toward the passenger side of the vehicle). Holding the plate in this orientation, insert one M6 x 40 mm screw, washer, and lockwasher into the isolator grommet in the lower left corner of the plate. See Figure 1 for correct orientation of these attaching parts.

**NOTE:** THIS BOLT MUST BE INSERTED BEFORE ATTACHING THE SOLENOID, SINCE THERE WILL NOT BE SUFFICIENT CLEARANCE TO INSERT THE BOLT AFTER THE SOLENOID ASSEMBLY IS MOUNTED TO THE PLATE.

6. Attach the new Mounting plate to the Solenoid valve assembly using the #8-32 screws and lockwashers in the kit.

**NOTE:** BE SURE TO INSTALL THE SOLENOID VALVE ASSEMBLY IN ITS ORIGINAL ORIENTATION.

7. Attach the mounting plate/solenoid assembly to the vehicle plenum using the M6 x 40 mm screws, washers, and lockwashers. Tighten the mounting screws securely. See Figure 1 for correct orientation of the attaching parts.
11. Installation is now complete. Perform the Final Test procedures below.

### C. Final Test

1. Check to ensure that electrical and vacuum hose connections are sound and that all bolts and screws are tight.
2. Start the vehicle and turn on the exhaust brake dashboard switch.
3. Observe the actuator on the exhaust brake assembly to ensure that it is operating normally (the exhaust brake assembly is attached to the turbocharger). If the exhaust brake does not operate normally, recheck all connections and retest. If the problem persists, check the entire installation as detailed in the Installation Manual for your model of exhaust brake.

Cummins Engine Company, Inc.  
Box 3005  
Columbus, IN 47202-3005  
U.S.A.

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