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HEMI Bolt and Spacer Kit

1041660

**2009-2026 HEMI Exhaust Manifold
Fastener Kit**

*See Vehicle Fitment table for model fitment details

Vehicle Fitment

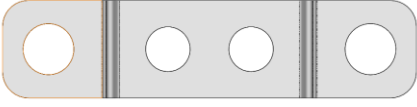

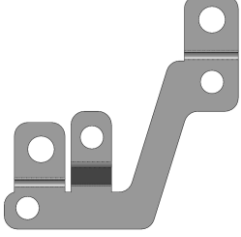
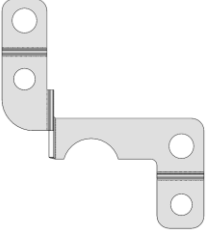
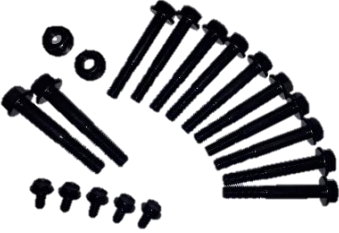

Vehicle Model	App. Year	Full Kit
Ram 1500 5.7L (DS "Classic" Only*)	2009-2024	1041660
Ram 1500 5.7L (DT Body Only)	2019-2024	1041660
Ram 2500 5.7L	2009-2018	1041660
Ram 3500 5.7L	2013-2025	1041660
Ram 3500 5.7L Cab and Chassis	2011-2015	1041660
Dodge Durango 5.7L	2011-2026	1041660
Jeep Grand Cherokee 5.7L	2011-2023	1041660
Jeep Wagoneer 5.7L	2022-2023	1041660

*DS models labeled as "Classic" from 2019 model year onward

Table of Contents

Vehicle Fitment	2
Table of Contents.....	2
Kit Contents	3
Introduction	3
Heat Shield Replacement	4
Ram Pick-Up Trucks	4
Passenger Side Removal	4
Passenger Side Installation	6
Driver Side Removal	9
Driver Side Installation	11
Dodge Durango & Jeep Grand Cherokee	15
OEM Exhaust Manifold Removal	15
Passenger Side Removal	16
Passenger Side Installation	17
Driver Side Removal	20
Driver Side Installation	22
Tech Tip.....	25

Kit Contents

1041661	1041662	1041663
		
Short Bracket Qty: 2	Long Bracket Qty: 2	Driver Side Bracket Qty: 1
1041664	1451469	1403009
		
Passenger Side Bracket Qty: 1	Fastener Kit Qty: 2	Spacers Qty: 20

Introduction

BD's bolt and spacer kit for the 5.7L and 6.4L Hemi Ram pick-up trucks, Dodge Durango, and Jeep Grand Cherokee replaces the problematic OEM manifold fasteners. BD's kit features longer bolts, as well as spacers to reduce thermal stress on the manifold fasteners, preventing them from breaking. The brackets included in the BD kit relocates the heat shield mounting location to the manifold itself, further reducing thermal stress. This kit includes all the required hardware for manifold installation.

Heat Shield Replacement

If replacement OEM heatshields are desired, the following MOPAR® part numbers are used depending on the model:

Vehicle Model	App. Year	Passenger Heat Shield Part No.	Drivers Heat Shield Part No.
Ram 1500 5.7L (DS "Classic" Only)	2009-2024	4893964AC	4893964AC
Ram 1500 5.7L (DT Body Only)	2019-2024	53032968AF	53032968AF
Ram 2500 5.7L	2009-2018	4893964AC	4893964AC
Ram 3500 5.7L	2013-2018	4893964AC	4893964AC
Ram 3500 5.7L Cab and Chassis	2011-2015	4893964AC	4893964AC
Dodge Durango 5.7L	2011-2017	4893964AC	4893964AC
Jeep Grand Cherokee 5.7L	2011-2017	4893964AC	4893964AC
Dodge Durango 5.7L	2018-2026	53032968AF	53032968AF
Jeep Grand Cherokee 5.7L	2018-2021	53032968AF	53032968AF
Jeep Grand Cherokee 5.7L	2022-2023	68480064AA	68480064AA
Jeep Wagoneer 5.7L	2022-2023	53032968AF	53032968AF

Ram Pick-Up Trucks

Disconnect vehicle battery before starting for safety.

Passenger Side Removal

Remove the wheel and fender liner



Apply penetrating fluid on all exhaust pipe retaining bolts, heat shield mounting nuts and studs



Remove the 2 flange bolts from the manifold to collector flange



To gain more space for removal of the manifold, disconnect the mid-pipe exhaust hanger as shown



Remove the 4 nuts holding the heat shield on

Carefully remove the heat shield, it will be reused



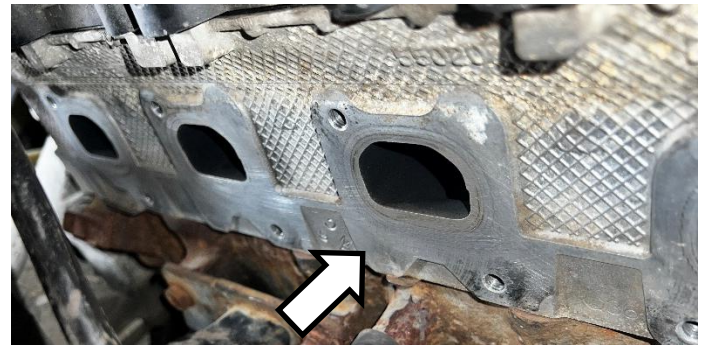
Remove the manifold bolts

Carefully remove the manifold and gasket



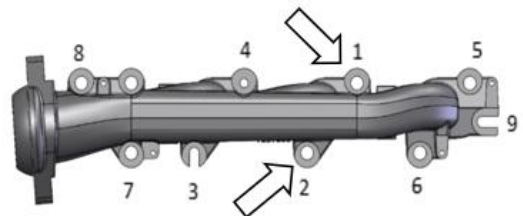
Passenger Side Installation

Ensure all gasket mating surfaces are clean and free of any debris



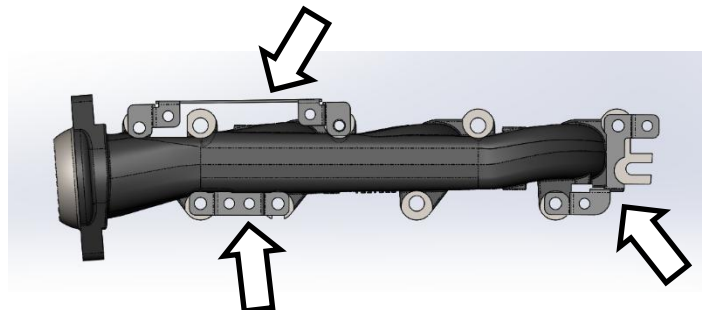
Set the manifold into position, with the corresponding gasket

Install the two bolts and spacers as shown to hold it in place



Install the remaining bolts and spacers along with the heat shield brackets as shown

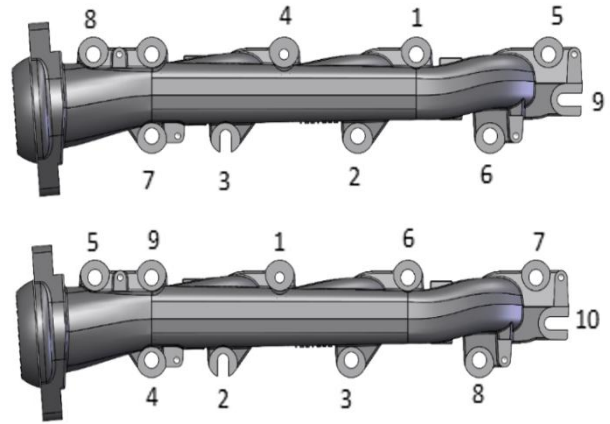
Note: the order of installation is bracket, followed by spacer, and then bolt.



Using the sequence shown, tighten the bolts as shown

Torque to **25 N-m (18 ft-lb)**

Note: Early production has 9 bolts (Top), and late production has 10 bolts (Bottom)



Using the provided M6 bolts, install the OEM heat shield using the new mounting locations on the brackets

Torque to **10 N-m (89 in-lb)**

Note for DT only: Heat shield trimming required. See step below



If installing on **DS “Classic”**, skip this step

Trimming of heat shield is required for clearance of hard lines. Contact may occur between shield and line near the bottom of manifold, towards the front of the vehicle

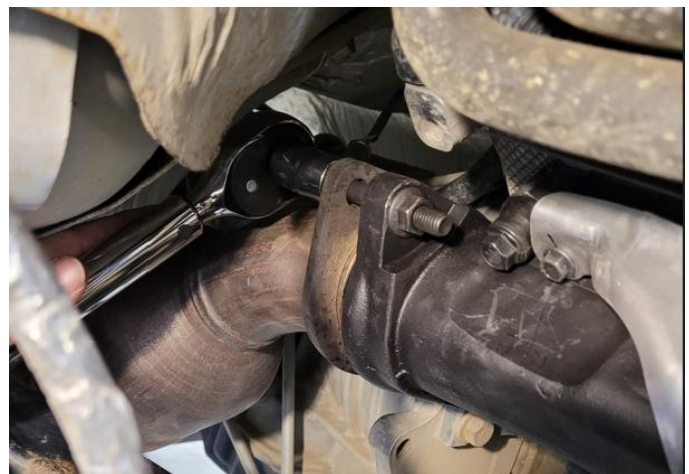
Trim off ~1/2” as shown and inspect for clearance as indicated by the arrow



Install the new supplied 3/8”-16x2.50 exhaust pipe retaining bolts and 3/8”-16 nuts

Torque to **32 N-m (24 ft-lb)**

Note: to avoid damaging the exhaust flange do not overtighten the flange bolts. See the tech tip below for exhaust leak solutions



Driver Side Removal

Remove the wheel and fender liner

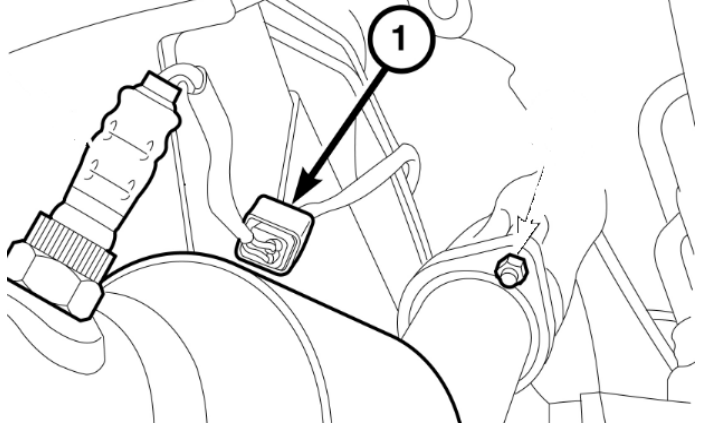


Disconnecting the steering shaft linkage may help with ease of install

Mark the steering shaft position as shown before removing the bolt



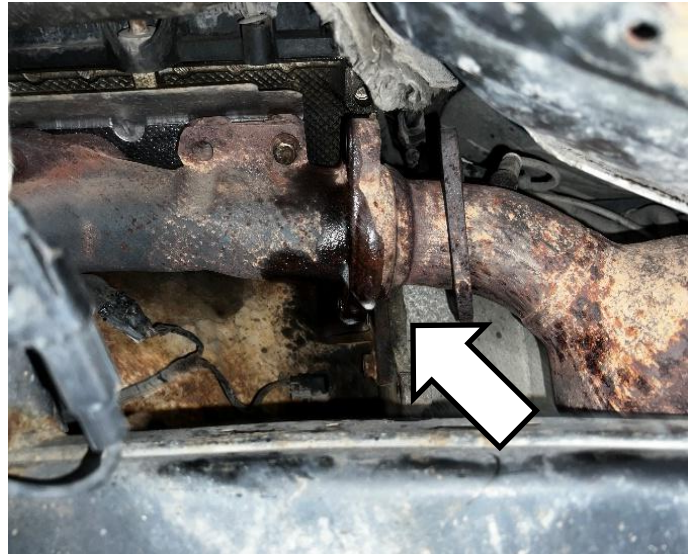
Note: On “New Body Style” RAM 1500 DT trucks, disconnecting the oxygen sensor electrical connector can help move wiring out of the way



Apply penetrating fluid on all exhaust pipe retaining bolts, heat shield mounting nuts and studs



Remove the 2 flange bolts from the manifold to collector flange



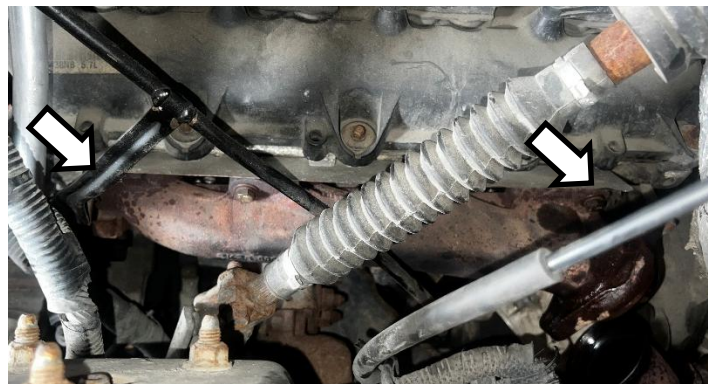
Remove the 4 nuts holding the heat shield on, carefully remove it as it will be reused

Note: One of the nuts will secure the dipstick



Remove the manifold bolts

Carefully remove the manifold and gasket



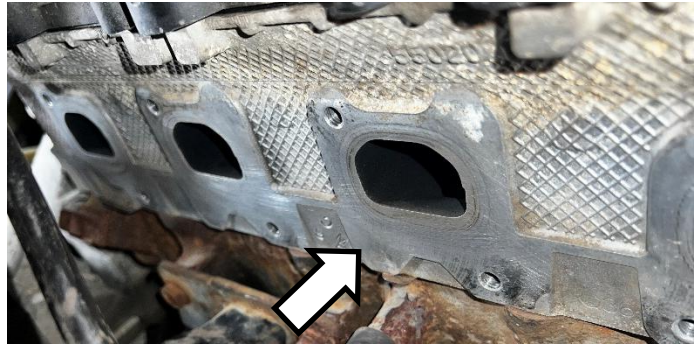
Check the mating surfaces of the manifold and block for flatness using a straight edge

Note: Should be flat within .008"



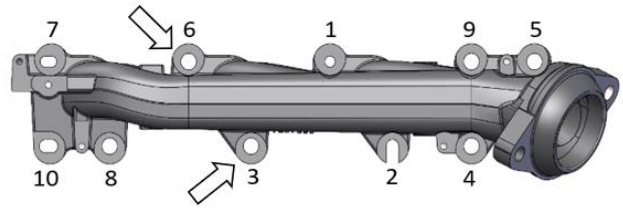
Driver Side Installation

Ensure all gasket mating surfaces are clean and free of any debris



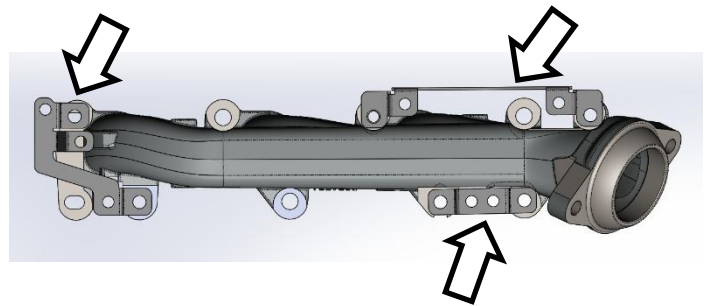
Set the manifold into position, with the corresponding gasket

Install the two bolts and spacers as shown to hold it in place



Install the remaining bolts and spacers along with the heat shield brackets as shown

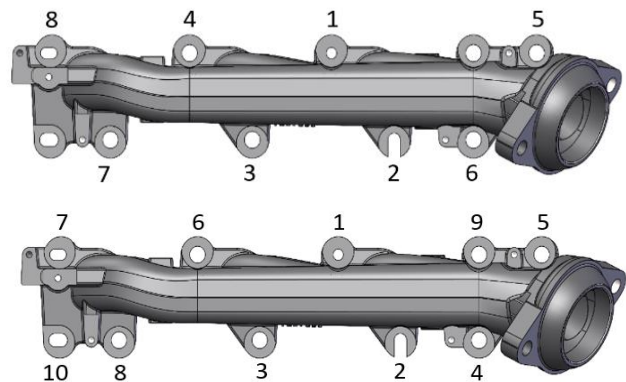
Note: the order of installation is bracket, followed by spacer, and then bolt.



Using the sequence shown, tighten the bolts as shown

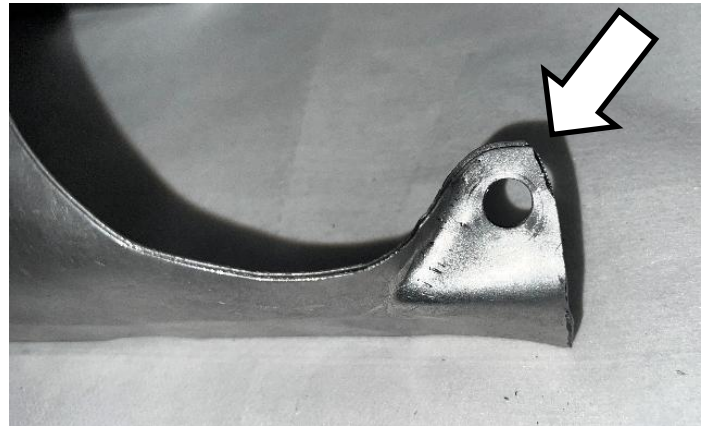
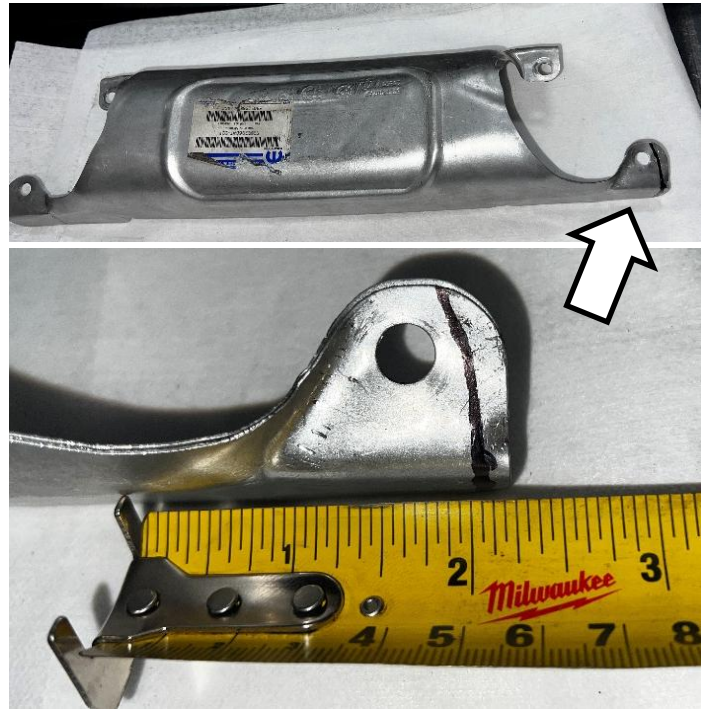
Torque to **25 N-m (18 ft-lb)**

Note: Early production has 8 bolts (Top), and late production has 10 bolts (Bottom)



Trimming of the driver side heat shield is required for clearance of hard lines. Contact may occur between the shield and line near the top of the manifold, towards the front of the vehicle

Trim off ~1/4" as shown



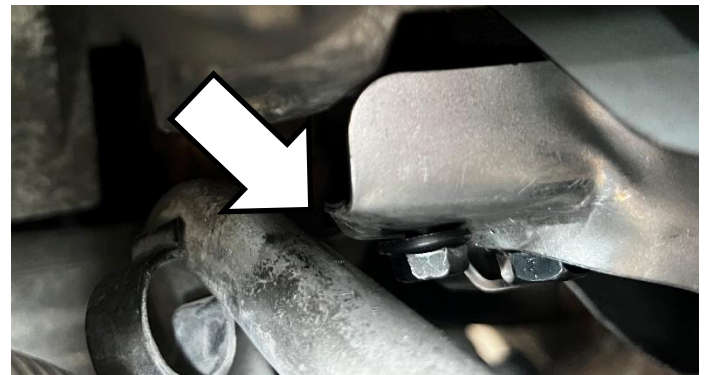
Using the provided M6 bolts, install the OEM heat shield using the new mounting locations on the brackets

Torque to **10 N-m (89 in-lb)**



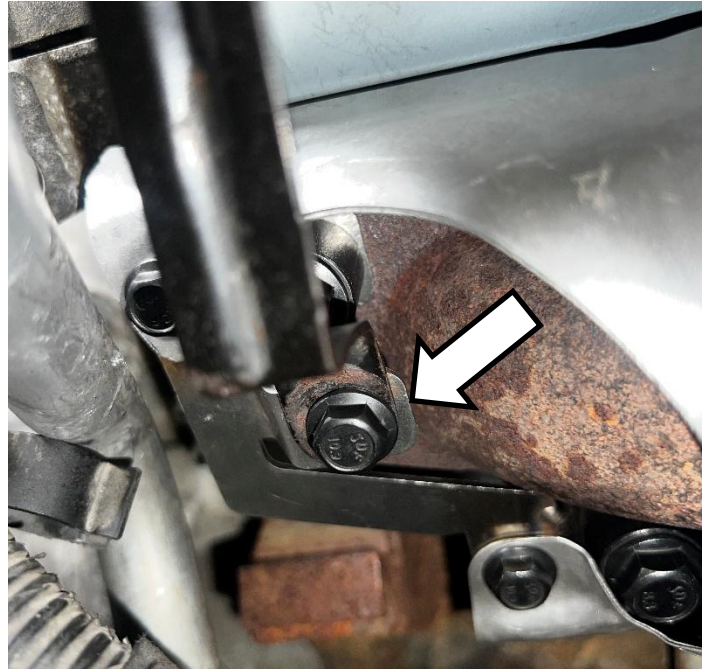
Check for heat shield clearance indicated by the arrow

Note: Ensure the heat shield is not rubbing the AC line



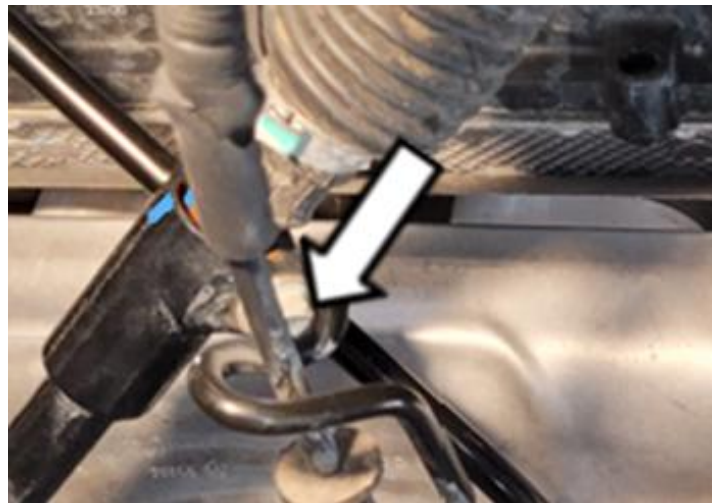
Install the dipstick support bracket onto the new mounting location using the supplied M6 bolt

Torque to **10 N-m (89 in-lb)**



If steering shaft was disconnected, align the previously created marking and insert the upper steering shaft into lower and tighten the bolt

Torque to **50 N-m (37 ft-lb)**



Check oil dipstick-for clearance against the hard lines after it was relocated

If the dipstick is touching, gently push on it to adjust the mounting bracket



Install the new supplied 3/8"-16x2.50 exhaust pipe retaining bolts and 3/8"-16 nuts

Torque to **32 N-m (24 ft-lb)**

Note: to avoid damaging the exhaust flange do not overtighten the flange bolts. See the tech tip below for exhaust leak solutions



Install the mid-pipe back into the exhaust hanger



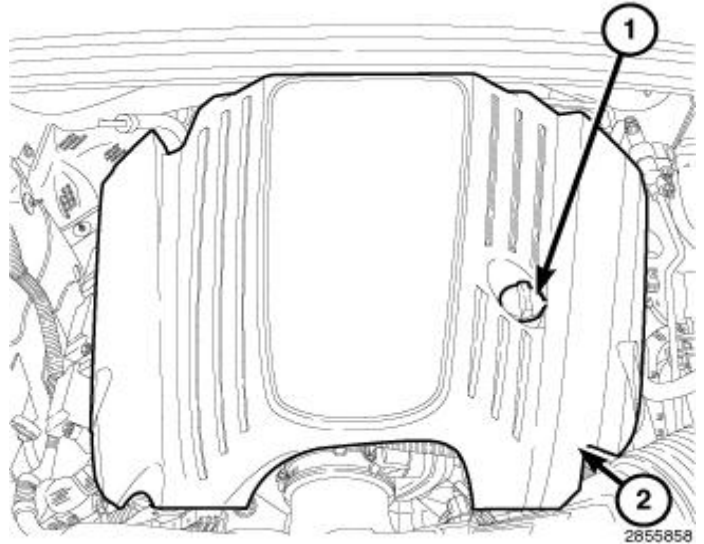
Connect the battery.
Start the engine and check for leaks
Install the inner fender liners
Install wheels

Dodge Durango & Jeep Grand Cherokee

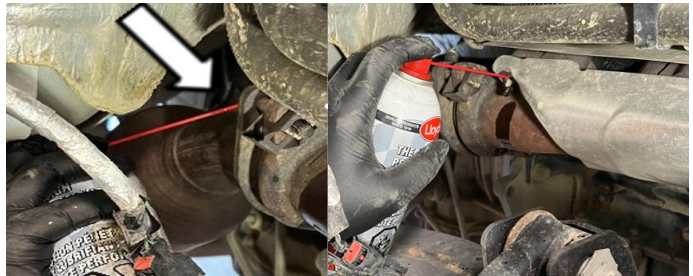
OEM Exhaust Manifold Removal

Disconnect the vehicle battery before installation for safety.

Remove the oil fill cap (1) and engine cover (2)

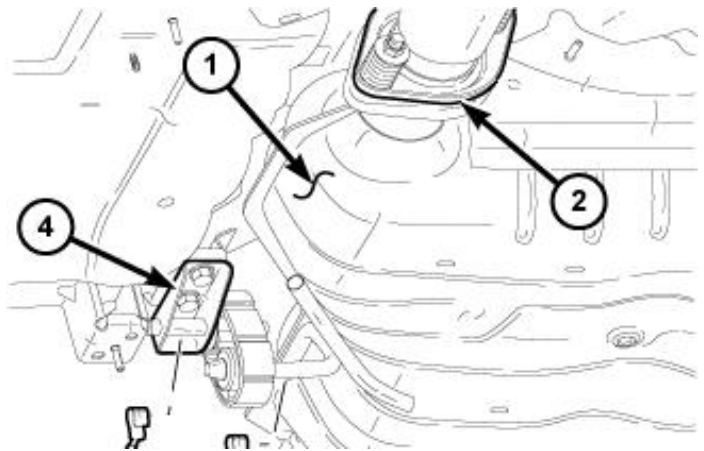


Apply penetrating fluid on all exhaust pipe retaining, heat shield mounting bolts, and studs



Remove the four spring nuts from the studs (2) connecting the resonator to the catalytic converters

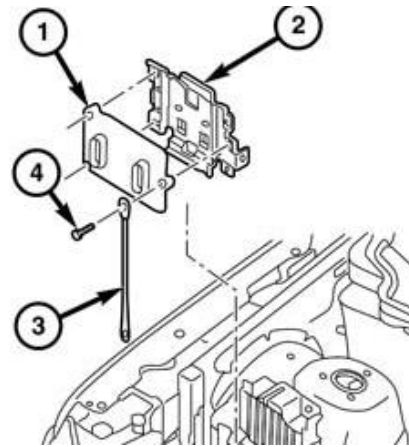
Support the resonator, and remove the two resonator support bolts (4) on each side



Passenger Side Removal

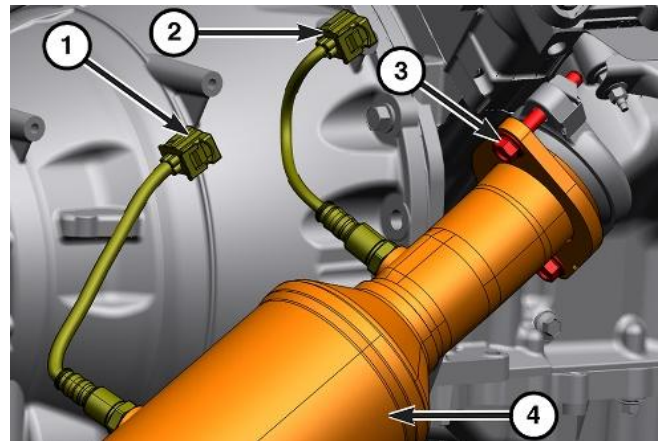
Unplug the two large connectors at the PCM attached to the power distribution box

Remove the three PCM bolts (4).
Remove the PCM (1), PCM bracket (2) and move aside the PCM ground wire (3)



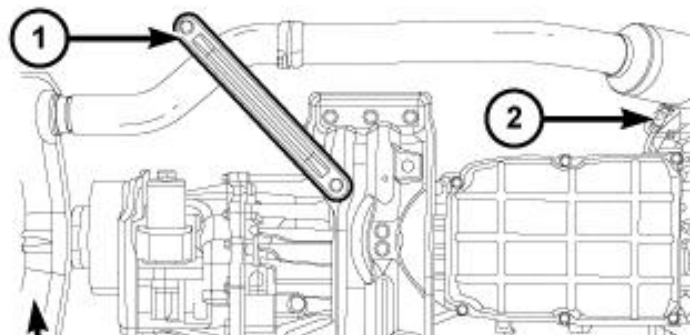
Disconnect the O2 sensors from the catalytic converter (1 & 2)

Remove the two flange bolts (3) from the manifold to collector flange on each side



While supporting the catalytic converter, remove the two passenger side transmission cross member reinforcement bolts, and bracket (1)

Remove the catalytic converter from the vehicle



Remove the four heat shield nuts (1)

Carefully remove the heat shield. It will be reused



Remove the exhaust manifold bolts

Carefully remove the manifold and gasket



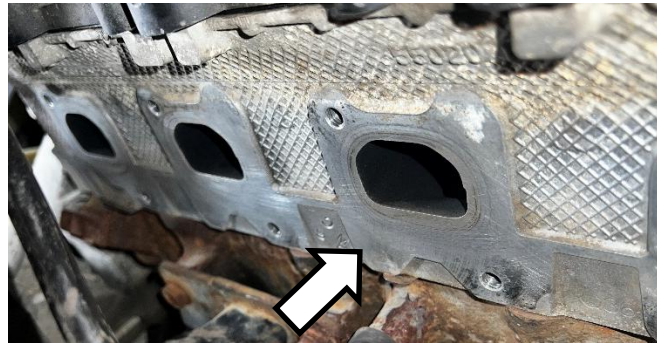
Check the mating surfaces of the manifold and block for flatness using a straight edge

Note: Should be flat within .008"



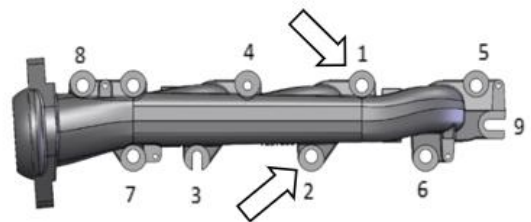
Passenger Side Installation

Ensure all gasket mating surfaces are clean and free of any debris



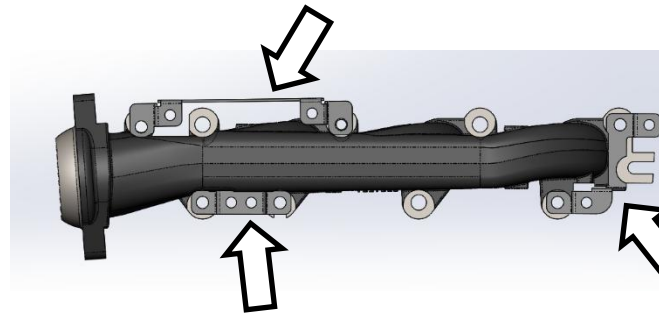
Set the exhaust manifold into position, with the corresponding gasket

Install the two bolts and spacers as shown to hold it in place

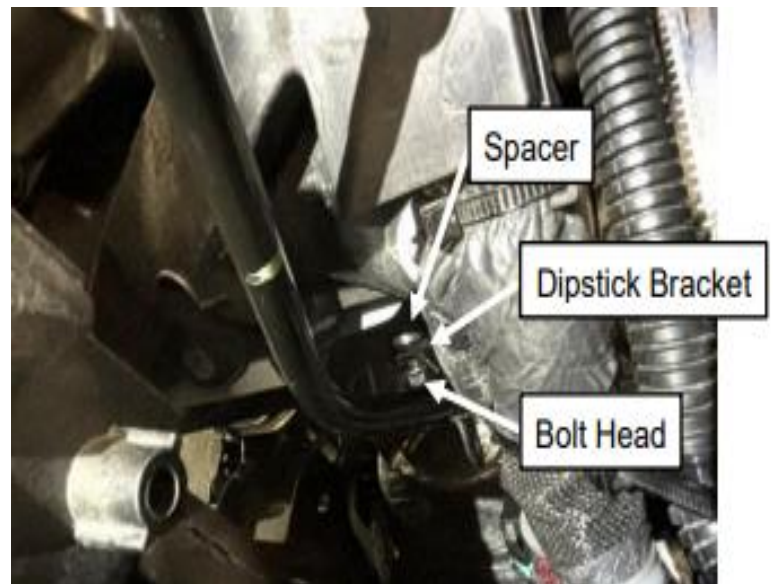


Install the remaining bolts and spacers along with the heat shield brackets as shown

Note: the order of installation is bracket, followed by spacer, and then bolt.



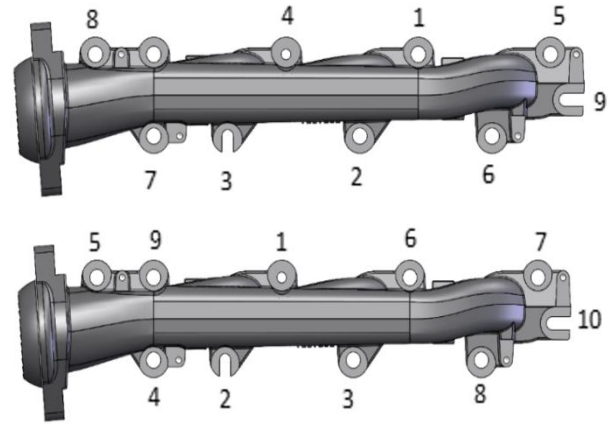
The dipstick bracket should be placed between the bolt head and spacer, at the position indicated.



Using the sequence shown, tighten the bolts as shown

Torque to **25 N-m (18 ft-lb)**

Note: Early production has 9 bolts (Top), and late production has 10 bolts (Bottom)



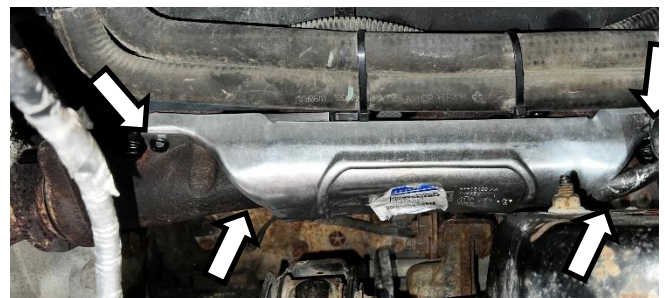
Trimming of the heat shield is required for clearance of the dipstick bracket

Make a relief cut ~7/8" from the edge as shown. Bend the heat shield upward to the left of the cut, and following the curve of the heat shield cut the protruding tab



Using the provided M6 bolts, install the OEM heat shield on the new mounting locations on the brackets

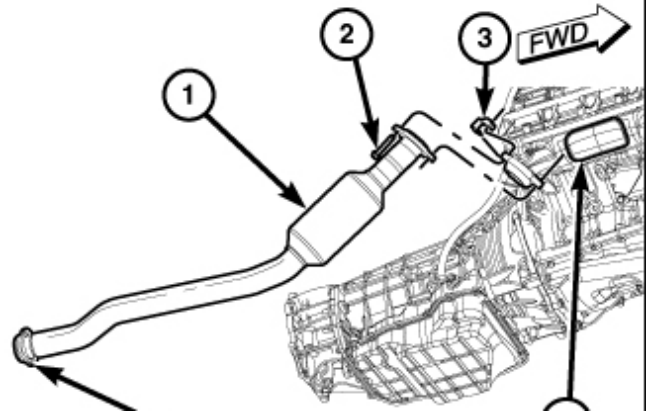
Torque to **10 N-m (89 in-lb)**



Align the catalytic converter with the manifold, and install the passenger side transmission crossmember reinforcement bracket and bolts

Torque to **48 N-m (35 ft-lb)**

Connect the O2 sensors



Install the new supplied 3/8"-16x2.50 exhaust pipe retaining bolts and 3/8"-16 nuts into the flange

Torque to **32 N-m (24 ft-lb)**

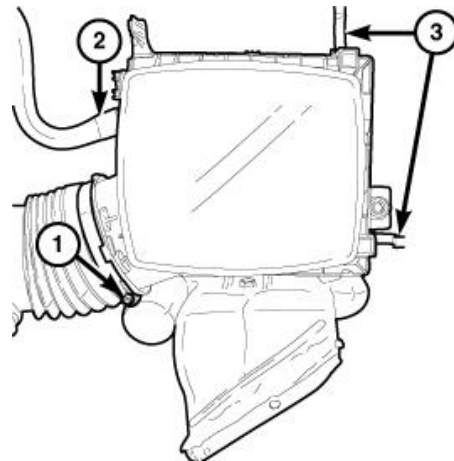
Note: to avoid damaging the exhaust flange do not overtighten the flange bolts. See the tech tip below for exhaust leak solutions



Install the PCM Bracket, PCM, PCM ground, and connectors.
Torque PCM bolts to **9 N-m (6 ft-lbs)**.

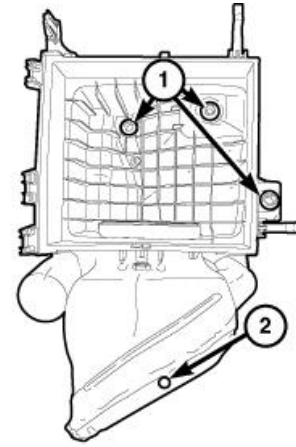
Driver Side Removal

Remove the air filter housing cover by disconnecting the clean air hose (1), auxiliary air hose (2) and undoing the two clips (3)



Remove the air filter, and the hood seal push pin retainer on the air duct (2)

Remove the air filter housing by lifting it upwards off the studs (1)



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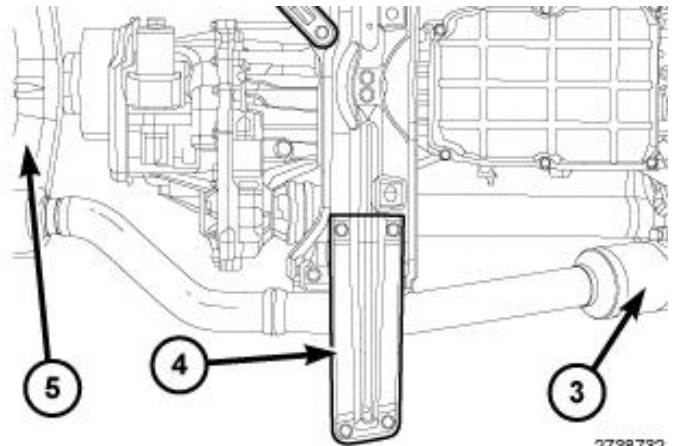
Remove the four heat shield nuts (1)

Carefully remove the heat shield. It will be reused



While supporting the catalytic converter, remove the four driver side transmission cross member reinforcement bolts, and bracket (4)

Remove the catalytic converter from the vehicle



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Remove the exhaust manifold bolts

Carefully remove the manifold and gasket



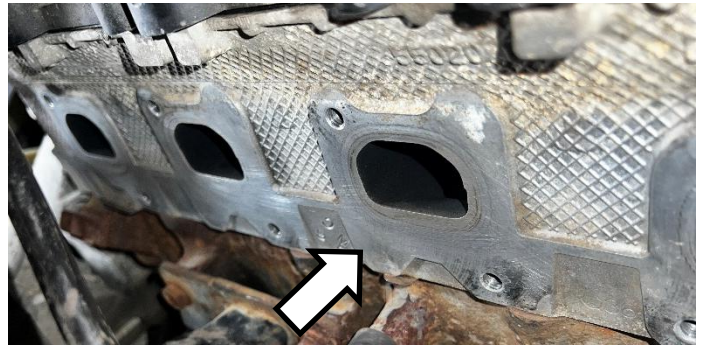
Check the mating surfaces of the manifold and block for flatness using a straight edge

Note: Should be flat within .008"



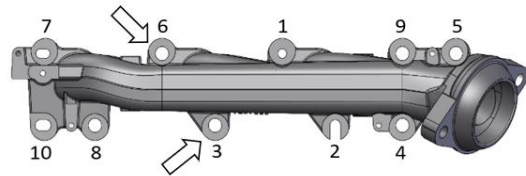
Driver Side Installation

Ensure all gasket mating surfaces are clean and free of any debris



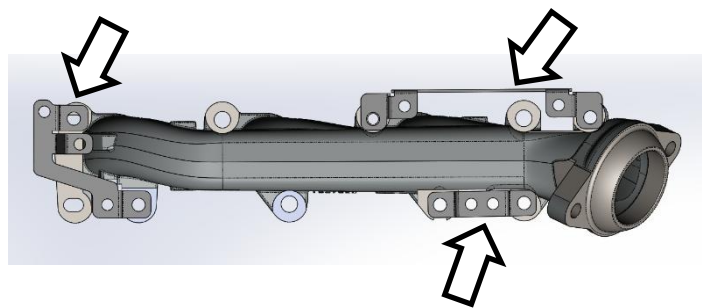
Set the exhaust manifold into position, with the corresponding gasket

Install the two bolts and spacers as shown to hold it in place



Install the remaining bolts and spacers along with the heat shield brackets as shown

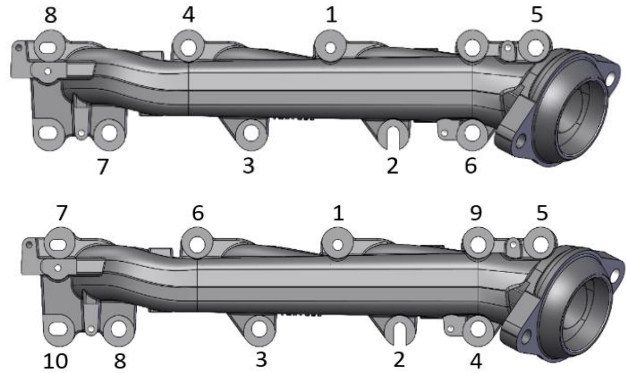
Note: the order of installation is bracket, followed by spacer, and then bolt.



Using the sequence shown, tighten the bolts as shown

Torque to **25 N-m (18 ft-lb)**

Note: Early production has 8 bolts (Top), and late production has 10 bolts (Bottom)



Using the provided M6 bolts, install the OEM heat shield on the new mounting locations on the brackets

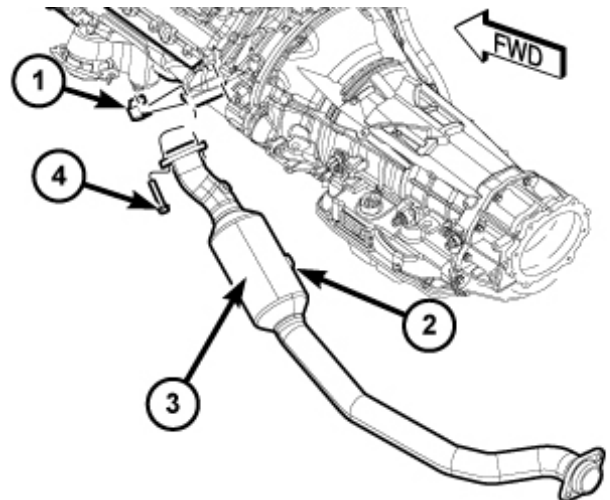
Torque to **10 N-m (89 in-lb)**



Align the catalytic converter with the manifold, and install the passenger side transmission crossmember reinforcement bracket and bolts

Torque to **48 N-m (35 ft-lb)**

Connect the O2 sensors



Install the new supplied 3/8"-16x2.50 exhaust pipe retaining bolts and 3/8"-16 nuts into the flange

Torque to **32 N-m (24 ft-lb)**

Note: to avoid damaging the exhaust flange do not overtighten the flange bolts. See the tech tip below for exhaust leak solutions



Install the air filter housing, filter, clear air hose and auxiliary air hose.
Connect the catalytic converters to the resonator, and torque spring nuts to **37 N-m
(27 ft-lbs)**

Install the resonator supports, and torque bolts to **20 N-m (15 ft-lb)**

Install the engine cover and oil fill cap

Connect the battery, then start the engine and check for leaks

Tech Tip

Due to heat cycling of the exhaust, the exhaust flange at the manifold joint may become warped and cause a leak.

To check for exhaust leaks, spray soapy water on **COLD** exhaust components and check for bubbling around joints.



Exhaust leaks can be remedied by:

- Allowing the engine to reach operating temperature, and torquing the bolts while the joint is hot.
- Disconnecting the joint, heating the exhaust flange, and refitting the joint.

If exhaust leaks persist, inspect the components for visible damage or take your vehicle to an exhaust shop.