

## INSTALL INSTRUCTIONS

Part #s 42797, 42797-PC, 42797-B,  
42798, 42798-PC, 42798-B, 42799,  
42799-PC, 42799-B

Monster-Ram® Air Intake  
2007-18 Dodge/Ram 6.7L



**Note:** Individual components vary based on year.

**Note:**  
Does Not Fit  
Cab and Chassis



**Note:**  
Dipstick Relocation  
Bracket Only Used  
With Heater Coil



Dipstick relocation bracket is needed when using  
the Banks High-Flow heater and Billet Plate.

**Important!**  
Do Not Remove  
Lower Nut



If installing with the Banks High-Flow heater and Billet Plate, the lower locking nut must not be removed from the heater coil. Take care when installing OEM heater wire ring terminal, it must be sandwiched between lower and upper nut.

The threaded terminal is insulated, if the OEM heater wire touches other metal components, an open short will occur.

# RECOMMENDED TOOLS

**Metal panel popper tool**  
**Telescoping magnet**  
**Rubber mallet**

**Torque wrench**  
**Socket wrench**  
**Socket wrench extensions**  
**Wobble sockets or universal joint adapter**  
**8mm socket**  
**10mm socket**  
**11mm deep wall socket**  
**13mm deep wall socket**

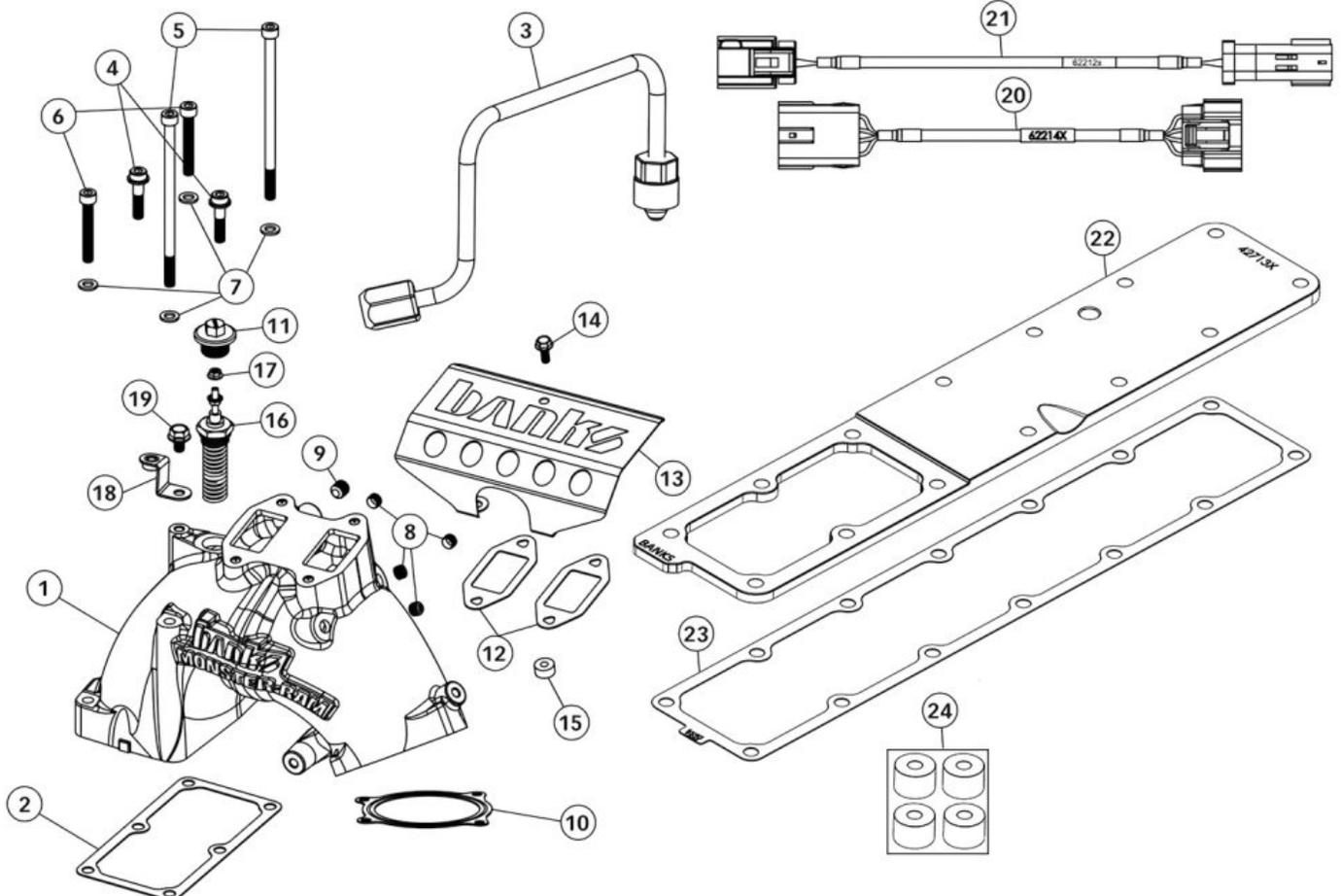
**8mm open end wrench**  
**10mm open end wrench**  
**13mm open end wrench**  
**17mm open end wrench**  
**19mm open end wrench**  
**1" or 26mm open end wrench**  
**19mm crow's foot**

**T-30 Torx bit**

**Aero Tac LV, 3M Super 77 or other spray adhesive**

Item	Description	2007-2012 Part #	2013-2018 Part #	Qty.
1	Monster-Ram Intake Manifold		42781	1
2	Gasket, Intake Manifold		93063	1
3	Fuel Line, #1 Injector		43209	1
4	Flanged Socket Head Cap Screw M8-1.25 x 35mm		91559	2
5	Socket Head Cap Screw, M8-1.25 x 150mm		91560	2
6	Socket Head Cap Screw, M8-1.25 x 50mm		91561	2
7	Washer, M8		91697	4
8	Plug 1/8 NPT		13251	4
9	Plug, M12-1.25 12mm		92351	1
10	Gasket, Throttle Body		93004	1
11	Plug, M22		13277	1
12	Gasket, EGR		93006	2
13	Heat Shield, EGR Valve		53400	1

14	Bolt M6-1.00		91762	1
15	Spacer, EGR Valve Heat Shield		24332	1
16	Heater Element		62213	1
17	Flange Nut, M5		91585	1
18	Bracket, Dipstick		72305	1
19	Flanged Hex Bolt, M8-1.25		91584	1
20	Harness Extension - EGR Valve		62214	1
21	Harness Extension - Thermocouple	62212 (2007.5-2012)	62212 x2 (2013-2018)	
22	High Flow Billet Heater Plate		42713	1
23	Gasket, Heater Plate		93062	1
24	Fuel Rail Spacers		42713-05	4



# OEM Harness & Sensor Removal



## 1. Disconnect Batteries

Place a rag around each of the negative battery cable ends; this will prevent them from touching the battery again and arcing during the install as you work.



## 2. Remove Engine Cover

Remove engine beauty cover. Use an 8mm deep socket to remove the four bolts holding the cover down.



## 3. Remove Dipstick

The dipstick needs to be removed for the cover to come off.



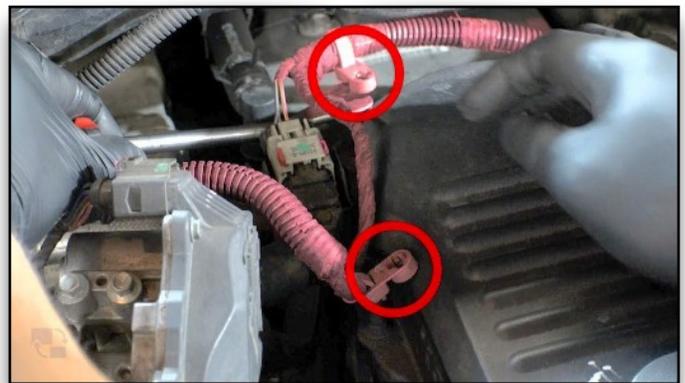
## 4. Remove Engine cover, Reinsert Dipstick



## 5. Remove Cable Tie Downs

Use a panel popper tool or pliers

**Note:** The 2 bolts with studs extending up past the head are to be located on the left rear of the cover.



## 6. Remove Cable Tie Downs



### 7. Remove Engine Cover Bolts

There are 8 bolts holding on the cover. A wobble extension and placing the socket on the bolts first helps.



### 8. Remove Oil Fill Cap



### 9. Place Rag Over Filler Neck



### 10. Remove Bolts Holding Crossover Bracket

This bracket will not be reused.



### 11. Remove Rag, Set Down Cover



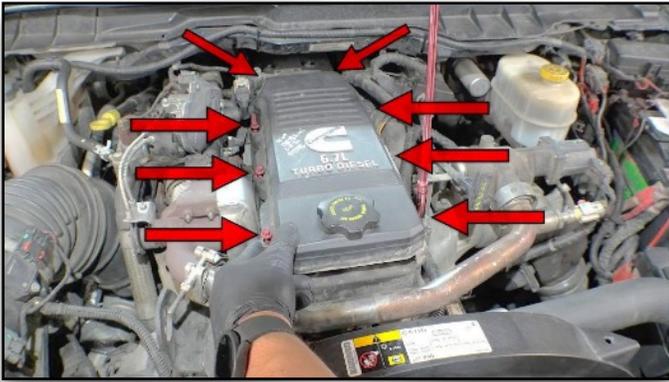
### 12. Install Oil Filler Cap



### 13. Remove Bolt Under Center of EGR Crossover Tube



### 14. Remove and Dispose EGR Tube P-Clamp

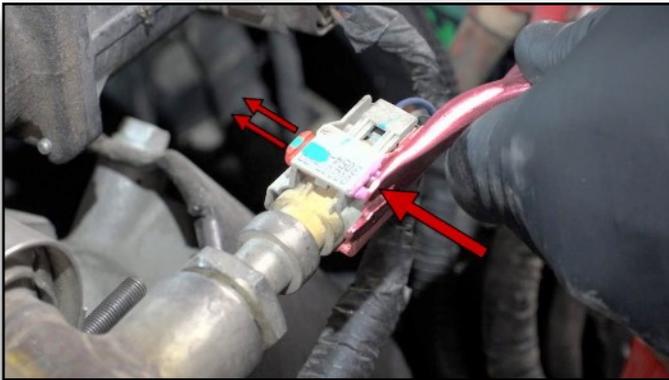


**15. Reinstall 8 Engine Cover Bolts – Studs in Rear Passenger Side**



**18. Remove EGR Valve Plug**

Press the locking tab, press the plug forward to release tension, then pull back to remove.



**16. Unlock Temp Sensor Plug From EGR Crossover**

Use a flat-blade screwdriver or pry tool to push the slide-lock



**19. Remove EGR harness cable tie**



**17. Remove Temp Sensor by Pinching It**

Unclip this wire clip for extra clearance.

## EGR Tube Removal



### 20. Loosen EGR Clamp Driver's Side

Use a small flat blade to release the clip.



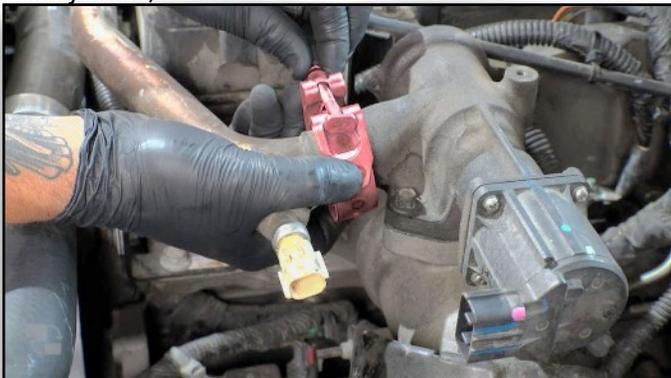
### 21. Flip EGR Clamp Upside Down

Do not remove the clamp yet.



### 22. Loosen EGR Clamp Passenger Side

Do not remove this clamp yet (A gasket will slip out and fall if you do)



### 23. Release Driver side EGR Clamp

Keep a hand under the clamp in case the gasket comes loose.



### 24. Release Clamp and Remove Gasket

Catch the gasket and put it aside for later, this will be used again.



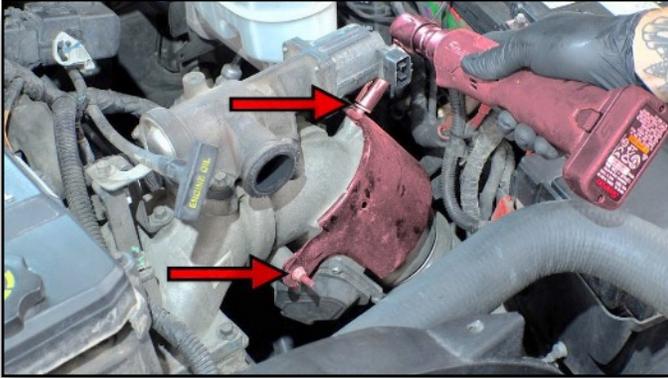
### 25. Release Passenger Side EGR Clamp

Apply pressure to keep the gasket in place and keep your hand under the passenger side clamp to prevent the flat EGR gasket from falling into the engine bay.



### 26. Catch EGR Gasket From Falling

## Intake Elbow Removal



**27. Remove Throttle Heat Shield**



**28. Cut Dipstick Tube Zip Ties**

Free up the thick 12V wire for the grid heater.



**29. Remove 12V Harness P-Clamp**



**30. Remove Heater cable from Terminal**

Relocate the wire out of the way once the free.

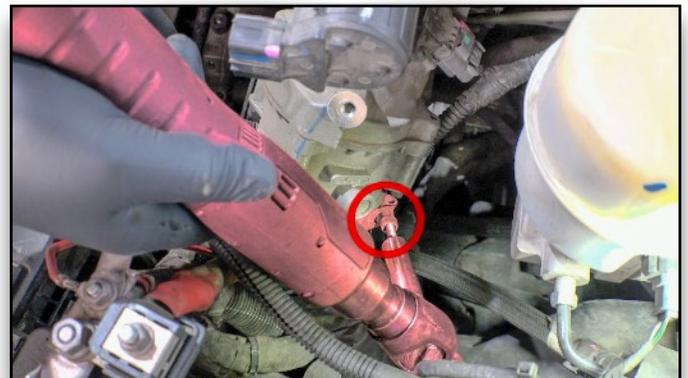


**31. Remove Dipstick Tube Bracket**



**32. Bend Tube Up Slightly**

The Monster-Ram is slightly taller than the factory Intake Elbow; you'll fine-tune this bend after the Monster-Ram is installed.



**33. Loosen Boost Tube Clamp**

This does not have to be fully removed, just release tension on the hose



### 34. Pry Boost Tube Hose Off Throttle Body

The hose may feel stuck or glued to the throttle body; carefully walk a panel popper tool around the tube to loosen its grip on the throttle body. This will make removal later on easier.



### 35. Remove Cable Tie Back of Elbow & Unplug MAP sensor



### 36. Remove Forward PCV Hose



### 37. Remove 6 Bolts on Elbow

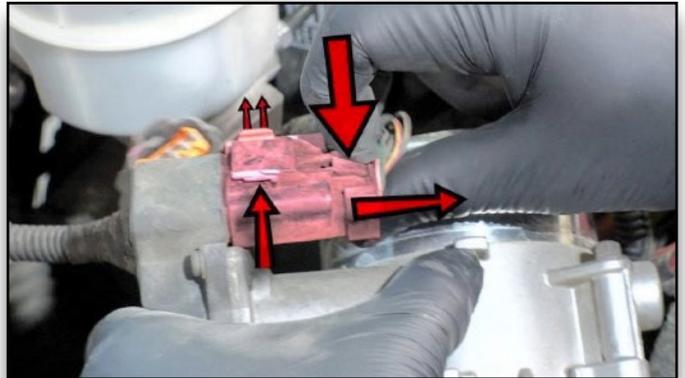


### 38. Lean Elbow Toward You & Dislodge Boost Tube



### 39. Remove Throttle Control Plug

Now that the elbow has been leaned forward, you can easily reach this plug.



Slide tab over and depress the end to remove the plug.



### 40. Place Rag & Clamp Over Boost Tube

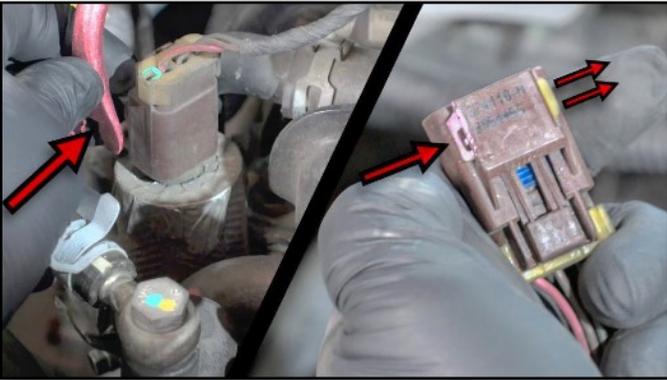
# Factory Heater Plate Removal



41. Locate First Passenger Side Plug



Depress button to release clip



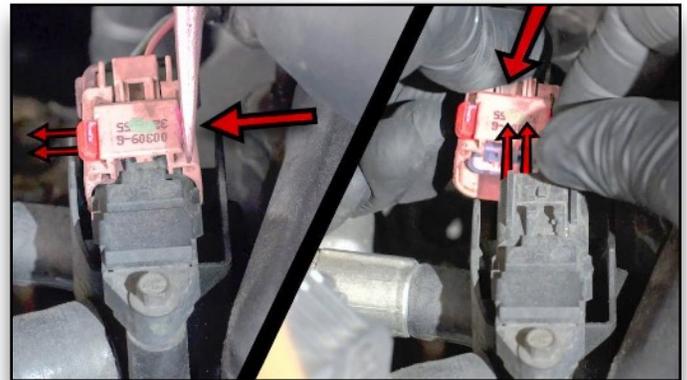
41a. Slide the pink locking tab over, then pull to release



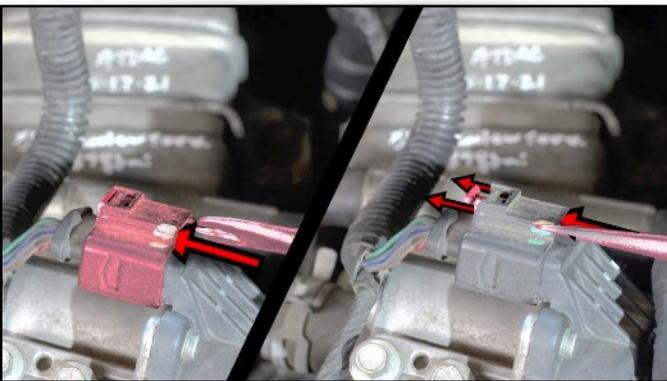
43. Locate Third Passenger Side Plug



42. Locate Second Passenger Side Plug



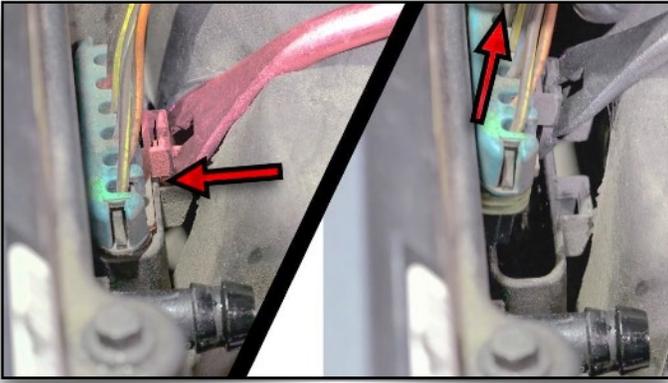
43a. Disconnect Third Passenger Side Plug



Slide Lock In



44. Locate Flat Blue Driver Side Plug

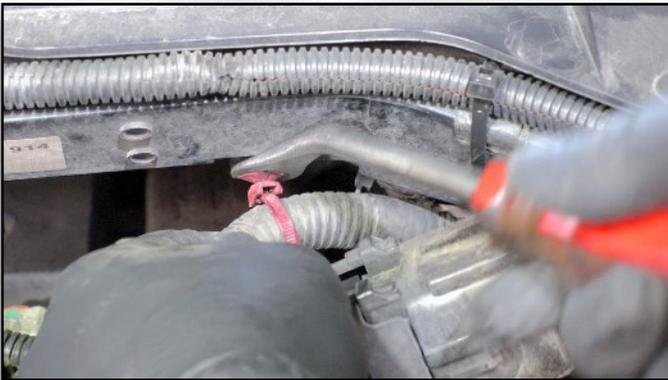


44a. Press in the clip with a flat tool, & pull up.



45. Disconnect Large Driver Side Engine Harness

Depress clip and fully rotate the white lock, then pull to disengage. May need some force due to dust, grime, etc.



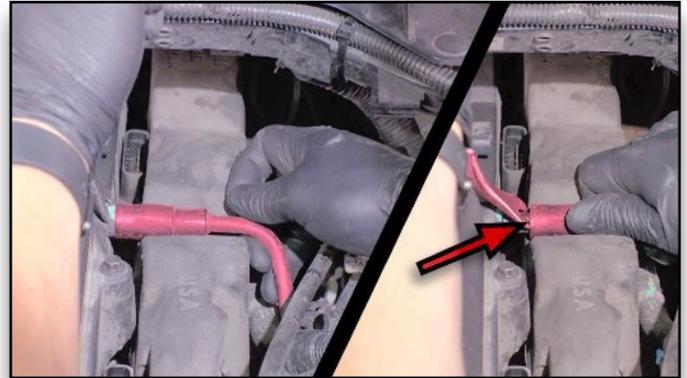
Release cable tie



46. Remove Rear Driver Side Plug



47. Remove Rear Driver Side Flat Blue Plug



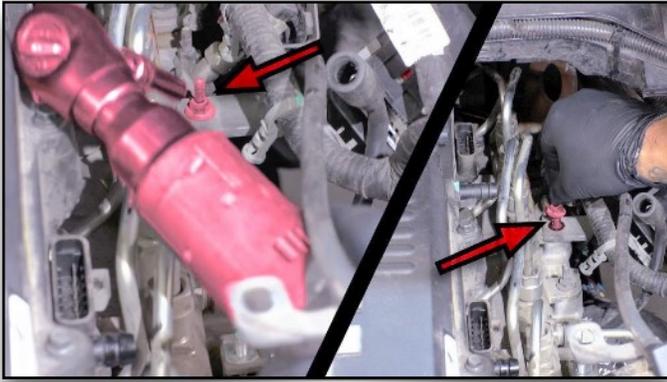
48. Remove Rear PCV Hose



49. Remove Rubber Isolator



50. Remove Cable Ties from Driver Side Studs



**51. Remove Dipstick Tube Stud**



**52. Bungee Cord Dipstick Tube**



**53. Remove Manifold Temp Sensor Plug**

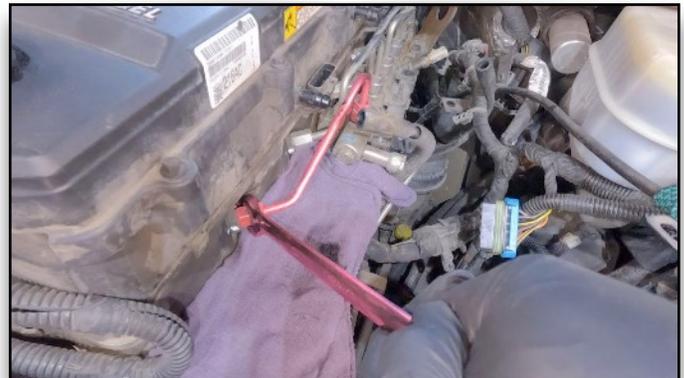


**54. Place Rag Over Intake**



**55. Paint Marker Line Across Threaded Insert & Cylinder head**

This will allow you to see if the threaded inserts into the head start to turn when loosening the fuel lines. You do not want the insert to spin loose, as this will cause a fuel leak.



**56. Remove Fuel Lines**

If the inserts in the head start to move, use an open ended wrench to hold them in place.



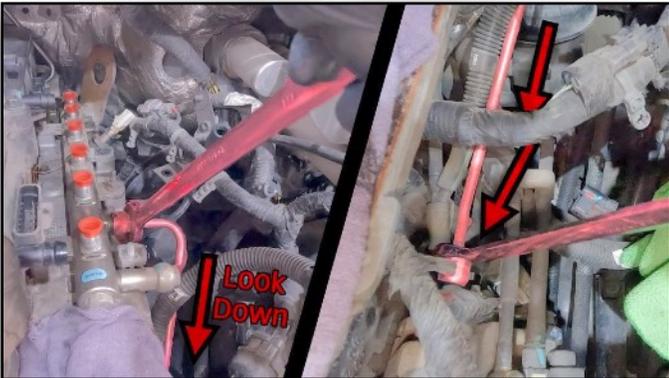
**57. Install Dust Covers**

Insert the covers, open end facing out. The caps should fit (inside) each blocked port.



### 58. Loosen #6 Fuel Line, Rotate Out of Way

Do not fully remove the rear fuel rail. It is difficult to reach and only needs to be moved out of the way as shown.



### 59. Loosen High Pressure Fuel Feed Line

Both the upper and lower ends



### 59a. Swivel Back High Pressure Fuel Feed Line



### 60. Remove Banjo Bolt

Take care not to lose the washer between the fuel rail & banjo bolt.



### 61. Remove Fuel Rail Bolts



### 61a. Place Rag At Rear of Fuel Rail

There will still be fuel in the rail, and it'll leak out in the next step if you don't do this.



### 62. Bungee Fuel Rail

Be sure that rag stays at the rear of the fuel rail, it will leak when you tilt it back.



**63. Remove Factory Grid Heater**



**64. Clean Manifold Surface**

Take care not to scratch the surface, and vacuum out any debris that fall into the manifold.  
A rag with some solvent can clean up the finer material.



**65. Spray Adhesive to Gasket  
(Banks Side)**



Side that says Banks, should be the side with the adhesive. Let it sit for about 3 min for the glue to tack up.



**66. Align Gasket & Stick On**

Line up all of the bolt holes, and stick the gasket to the flat side of the billet plate.



**67. Transfer Temp Sensor to Banks Plate**

Take care when removing the sensor and give it a clean with some scotch brite.

Don't over-tighten the sensor into the billet plate as the aluminum is softer than the steel threads on the sensor. It will bottom out so you'll know when to stop.

# Installation of Monster-Ram



**68. Remove EGR Valve & Throttle**



**69. Remove Throttle Body**

The throttle will be stuck onto the gasket, so use a rubber mallet to help tap it free from the elbow.



**70. Remove & Transfer MAP Sensor**



**71. Remove & Transfer Elbow Stud**



**72. Clean EGR Gasket Surface**

Take care not to nick the surface. Do the same for the throttle body gasket mating surface.



**73. Place New EGR Gasket On Monster-Ram**



**74. Fasten EGR Bolts**

Apply a small amount of medium strength thread locker.



**75. Align Throttle Body Gasket**



**76. Fasten Throttle Body to Monster-Ram**



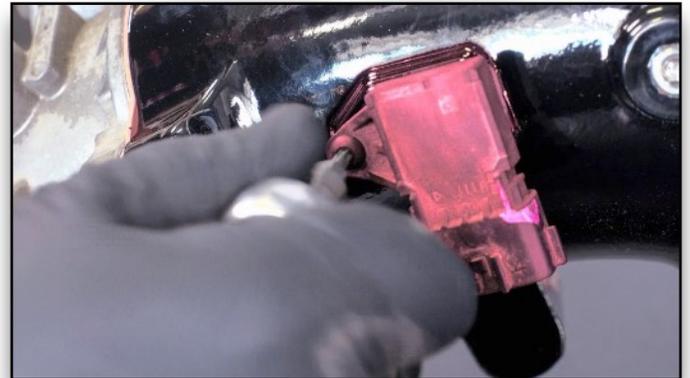
**78. Install Rear Thermocouple Plug**

**IMPORTANT NOTICE:**

The 1/8" NPT ports shall only be used for installing sensors for measuring air temperature, pressure, or flow.

Sensors installed to these ports shall have a fitting of 1/8" NPT and shall not be connected to the vehicle's electronic control units. In addition, factory sensors that come equipped on the vehicle shall not be disconnected and shall not be relocated to the ports.

The ports, when not used, shall be closed off with the supplied plugs.



**79. Install MAP Sensor**

Now is a good time to clean the sensor with some MAF/MAP cleaner spray.



**80. Spray Gasket With Adhesive**



**77. Install Sensor Plugs**

Inspect the threaded holes, and be sure there is no powder coat in the holes.



**81. Place Washers On Hex Cap Crews. Apple Some Blue Thread-locker As You Install Them**



**82. Hold Billet Plate In Place w/ Stock Bolt**



**83. Place Fuel Rail Standoffs**



**84. Release Bungee Cord. Place Fuel Rail & Studs in Place**



**85. Install Banjo Bolt & Washer**



**86. Tighten Fuel Rail**



**Torque Bolts to 18-20 ft/lbs**



**87. Tighten Fuel Lines to 30 ft/lbs**



**88. Tighten Fuel Supply Line Banjo Bolt Hand Tight.  
Tighten Fuel Feed Line to 30ft/lb**



**89. Connect Temp Sensor Extension Harness**  
Be sure to lock the plug once connected.



**90. Remove Middle Right Stud For Dipstick Tube**



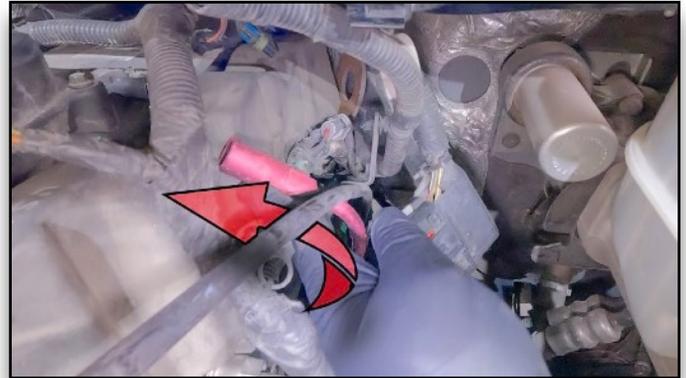
**Slide Dipstick Bracket Over & Reinstall Stud**



**91. Push Engine Harness Cable Ties Back  
Onto Studs**



**92. Put Rubber Isolator Back Into Place**



**93. Run Rear RCV Hose Under Dipstick Tube**



**94. Connect Rear PCV Hose Back To Valve Cover**



**95. Connect Rear Flat Blue Injector Plug**



**96. Connect Rear White Plug**

Be sure to slide the pink lock back into position.



**98. Push Cable Ties Onto Studs**

Use the supplied extension to reconnect the EGR pipe and tube sensor.



**97. Route Engine Harness Under Dipstick & Around Valve Cover**



**99. Reconnect Engine Harness Connector**



**97a. Plug In 3 Remaining Plugs**



NOT YET. YOU'LL CONNECT IT LATER

**100. Do Not Connect Front Blue Injector Plug Yet**



**101. Remove Rag From Boost Tube, Put Clamp Back On**



**102. Insert Monster-Ram Into Boost Tube**



**Use Hex Key Extension to Tighten Bolt**



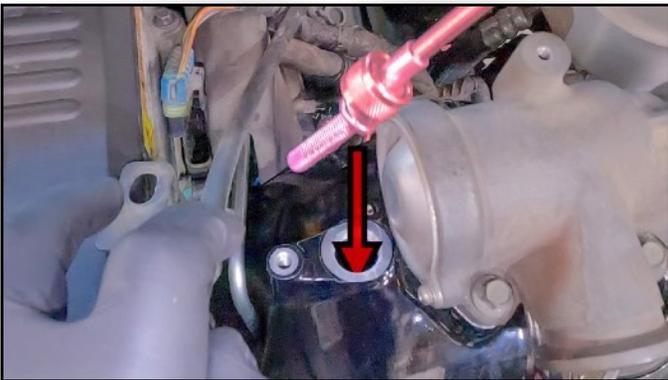
**103. Put Long Bolt Into Front Corner by Hand**

This will help hold the Monster-Ram in place. Then do the same for the long bolt on the backside. Followed by the two smaller bolts.



**Tighten All Bolts to 18-20 ft/lbs**

Start with the bolt that's inside the Monster-Ram, then work in a cross pattern to torque to spec.



**104. Use Telescoping Magnet to Start Bolts in the Middle of the Monster-Ram**

This is useful for the small bolt in the middle where it is hard to reach., and **mandatory** for the one that goes through the top coil heater hole. Be sure to use Medium strength thread locker.



**105. Apple Sealant To Heater Coil**

Start with the bolt that's inside the Monster-Ram, then work in a cross pattern to torque to spec.

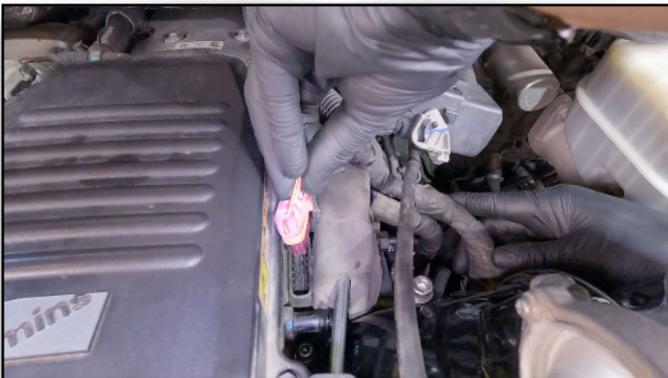


### 106. Tighten Coil Heater By Hand

Should be right, but don't over do it.

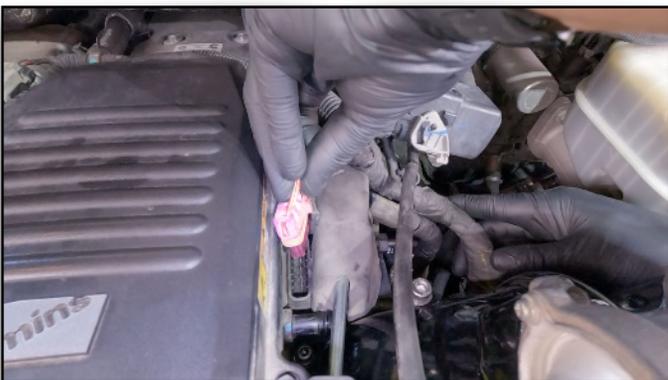


### 107. Install Dipstick Tube Bracket



### 108. Now Install Forward Flat Blue Injector Plug

Be sure it clicks.



### 109. Connect Forward PCV Hose to Valve Cover

This is a tight fit, but doable. Wiggle the rubber hose on the nipple a quarter inch, then use a pry tool as a lever to help slide it on.



### 110. Plug In MAP Sensor (Rear of Monster-Ram)

Secure the slide lock back into position.



### 111. Plug In Throttle Plug



### 112. Tighten Boost Tubes Clamp



### 113. Remove & Discard 12V Heater Cable P-Clamp



**114. Apply Red Thread Locker to Coil Heater**



Remove nut from the coil heater, apply a drop of red thread locker, then spin the nut back 2 or 3 threads from the bottom of the stud.



Bend 12V Cable around as shown over the stud.



12V cable should be sandwiched in-between both nuts, away from metal contact.



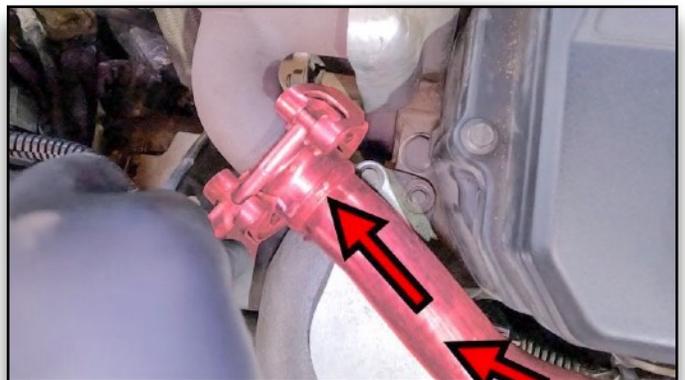
**115. Tighten 12V Heater Nut**

Be sure to use a wrench to hold the lower nut when tightening the top nut.

Failure to do this can cause the stud to break off, or cause the nuts to walk potentially touching the body of the truck.



**116. Flat Washer Goes on Passenger Side of EGR Tube**



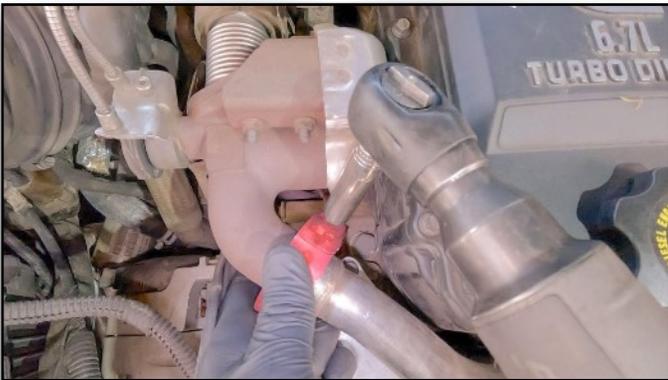
**117. Put Clamp Over Union & Hand Tighten**



**118. Conical Gasket Goes On Driver Side of EGR Tube**



**119. Tighten Driver Side Clamp**



**120. Tighten Passenger Side Clamp**

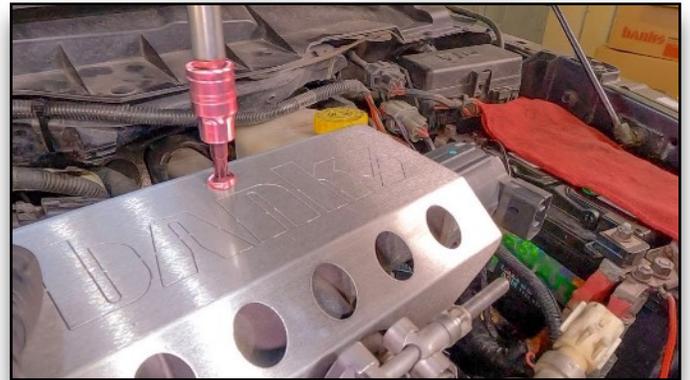


**121. Loosen Front Bolts on EGR Cover**



**123. Place Rear Heat-shield Spacer & Screw**

Use a drop of thread locker on the screw to prevent it from vibrating out.



**124. Tighten Torx Head Screw**



**125. Install Throttle Heat Shield Bolt & Nuts**



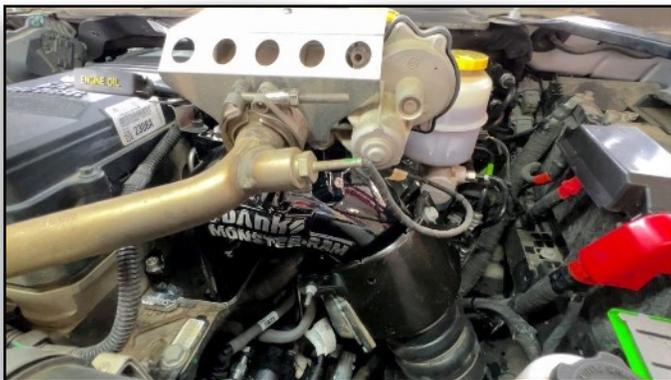
**126. Connect EGR Temp Sensor**



**127. Connect EGR Extension & Harness**



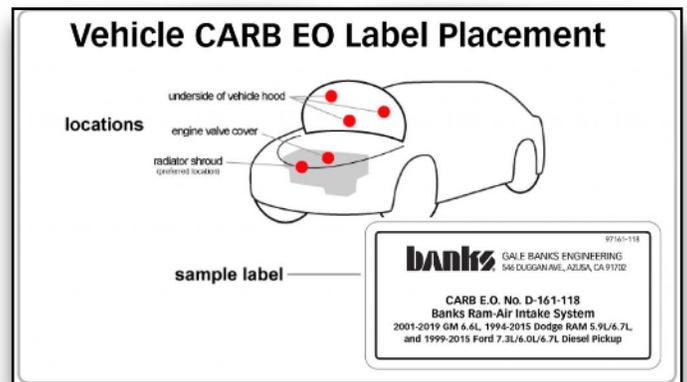
**128. Reconnect Batteries**



**129. First Start May Take 1-2 Min  
Of Engine Turnover**

This is normal. The fuel system, rail, and lines need to re-pressurize.

**Install Complete**



### **CARB EO Label**

For smog check purposes, affix the CARB E.O. Label on a visible location under the hood. Banks recommends using the radiator shroud location.