# **HS-MOTORSPORTS**.com



# HIGH FLOW INTAKE MANIFOLD Ram 6.7L Cummins INSTALLATION INSTRUCTIONS

#### TROUBLESHOOTING:

Note: You will have a check engine light and/or other problems unless using this product with a compatible ECM calibration. Contact your tuning supplier to learn whether or not aftermarket intake manifolds are supported by them.

Please read and understand all installation instructions before proceeding with the installation

If you have any questions during the installation of this product, please email H&S Motorsports support at tech@hs-motorsports.com

#### **TABLE OF CONTENTS**

PARTS LIST	PG. 2
INSTALLATION	PG. 3
WARRANTY & DISCLAIMER	PG. 11

#### **PARTS LIST**



- One HSM High Flow Intake Manifold
- One 4" to 3" Reducing Coupler
- One 4" Clamp
- One 3" Clamp
- One EGR Crossover Plug
- One OEM Intake Manifold Gasket
- One OEM Intake Manifold Bolt
- One HSM Dipstick Bracket
- One Dipstick Bracket Hardware



#### **INSTALLATION**

PICTURES AND INSTRUCTIONS WERE TAKEN FROM A 2010 DODGE. THE 2007.5 - 2009 DODGE INSTALLATION MAY DIFFER SLIGHTLY.

#### STEP 1



If necessary, remove plastic engine cover (4 10mm head bolts), one EGR valve (4 10mm head bolts), and one EGR crossover tube to gain access to 0EM intake horn





## STEP 2



Unplug the MAP sensor - located on the back side of the intake manifold. Unplug the EGR throttle butterfly harness - located on the bottom of the intake manifold (usually has a red locking tab).



Detach any wire harnesses that are clipped or bolted to the intake manifold. There is usually a 10mm bolt holding one on the back side of the intake manifold.









Using a flathead screwdriver, gently pry breather hose from valve cover and disconnect.





STEP 5



Loosen factory clamp connecting OEM intake manifold to intercooler piping.





Remove single 10mm dipstick bracket bolt and remove 6 10mm intake manifold bolts.









Remove intake horn. Sometimes it helps to twist the intake horn to break it free from the factory coupler.



# STEP 8



Remove the factory rubber coupling that connected the intercooler pipe to the OEM intake horn. Some models have a permanent connection that must be cut off. If you have a permanent connection, please remove the intercooler pipe from the vehicle to cut the clamp off. If you have a serviceable connection, please remove the rubber coupling now.



Slide supplied 4" clamp and reducing coupler onto the H&S Motorsports high flow intake manifold. Slide clamp onto coupler and tighten.

**NOTE:** Make sure to clean any foreign debris from the inside of the HSM intake horn before proceeding.







If factory charge piping was removed in step 8, reinstall now.





Slide supplied 3" clamp onto the OEM intercooler pipe to connect to the HSM High Flow Intake Horn.

#### **STEP 12**



Remove MAP sensor from factory intake manifold and install in HSM intake manifold.







Clean old gasket material off of head surface. Install new OEM gasket on head surface, sticky side down. Apply a small amount of grease to top side of gasket (helps prevent gasket from breaking if intake manifold must be removed again).





#### **STEP 14**



Install H&S Motorsports intake manifold. Slide bottom of the intake manifold onto the OEM intercooler pipe. Loosely bolt the intake manifold to the head using 1 long bolt removed and 1 bolt provided in this kit.



## **STEP 15**



Tighten coupler between high flow intake manifold and OEM intercooler pipe. Make sure connections are clean and free of oil.



Install 3 short previously removed factory bolts on intake manifold and tighten all 5 intake manifold bolts. Torque bolts to 20 ft-lbs.



**STEP 17** 



Reconnect valve cover breather and MAP sensor.



**STEP 18** 



Remove 2 8mm head bolts on the valve cover.





Install supplied dip stick bracket using factory bolts, and tighten.



### **STEP 20**



Using supplied hardware, bolt dipstick to previously installed bracket and tighten. Make sure any wire harnesses left disconnected are routed free of moving parts. Your tuning device should take care of any engine lights related to these harnesses being unplugged. If you get lights, please contact your tuning provider.



# **STEP 21**



If you removed the EGR valve and crossover pipe in step 1, please plug the crossover pipe using the supplied aluminum plug and OEM v-band clamp.



# **Installation complete!**

#### **WARRANTY & DISCLAIMER**

All High Flow Intake Manifolds are considered high performance racing parts, and are intended and developed for non-streetlegal, off-highway, closed course racing use ONLY!

Installation of this product on a non-sanctioned race vehicle, on ANY road, public or private, is STRICTLY PROHIBITED in the United States and Canada. This product may cause the vehicle it is installed on to exceed federal emissions limits, and therefore cannot be installed on any vehicle that has been certified or registered for highway use. Removing your emissions equipment, including but not limited to, exhaust gas recirculation (EGR), catalytic converter, or Diesel Particulate Filter (DPF), is against federal regulations set forth by the EPA, when not used for closed-course sanctioned racing. H & S Motorsports, LLC strongly recommends that all emissions equipment be left in place at all times on any vehicle that has been registered or certified for highway use. By purchasing or installing this high performance product, you release H & S Motorsports, LLC of any and all liabilities, and assume all responsibility for making sure your vehicle is compliant with all local, state, and federal emissions regulations. By installing this product you agree to these terms and conditions, and also acknowledge that installing a high performance product on your vehicle may void your manufactures warranty. By installing this product, you assume all risks and liabilities, including but not limited to, loss of vehicle warranty, fines, and/or civil penalties. By installing this product, you assume all associated risks and liabilities, and in no way will hold H & S Motorsports, LLC liable for any unlawful use, misuse, or consequential damages.





# **H & S Motorsports, LLC**

4160 South River Road St. George, UT 84790

WWW.HS-MOTORSPORTS.COM