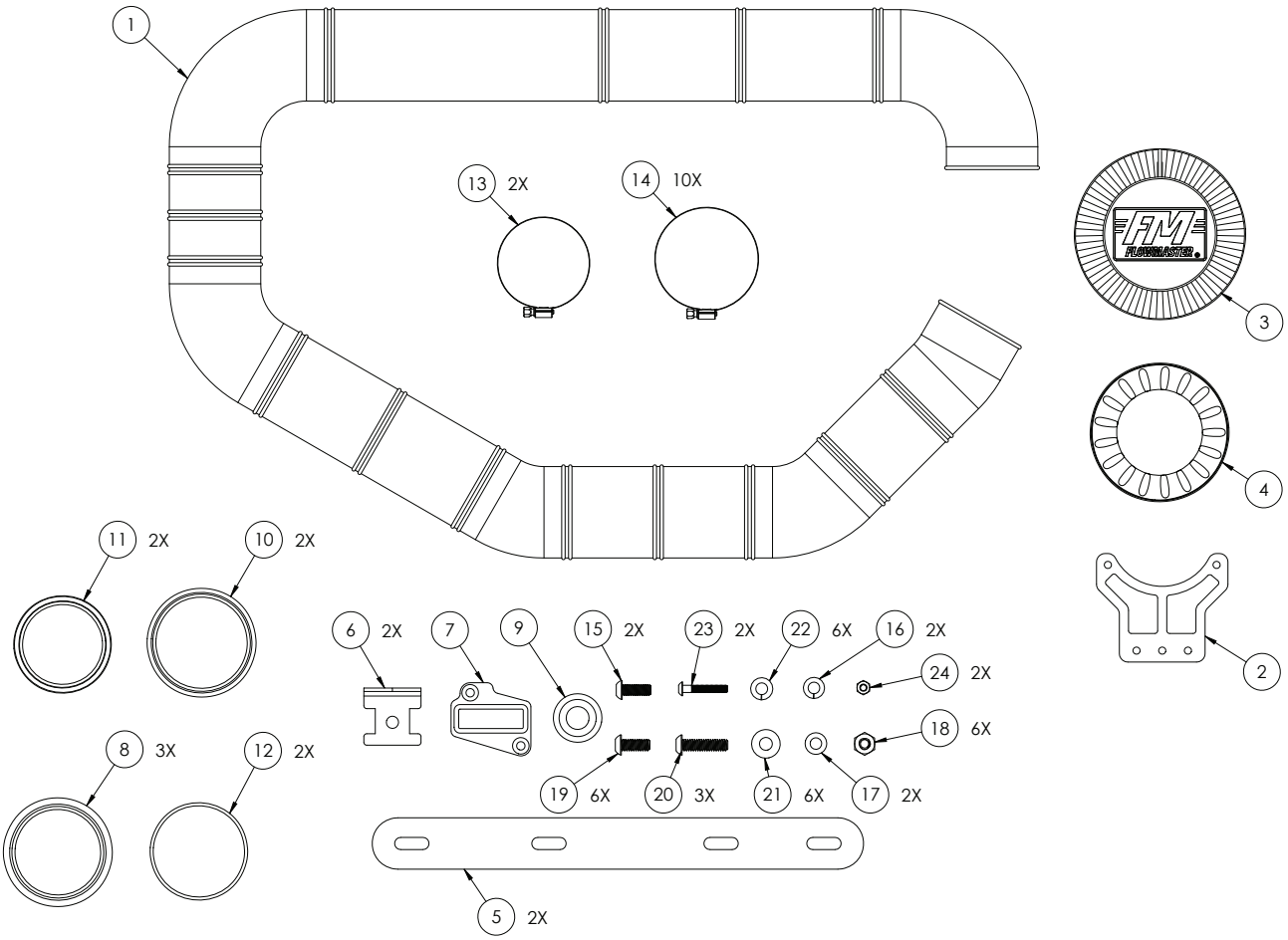
Installation Instructions

615400

UNIVERSAL 4" AIR INTAKE SYSTEM

Not a direct fit, fabrication required.



ITM #	PART #	DESCRIPTION	QTY.
1	AF2076	Molded Intake Tube, Uni. 4"	1
2	AF5088	Bracket 1, Univ. Intake Kit	1
3	AF1002	7½" High, 6" Dia. Flnge Air Filter	1
4	AF6002	4" Air Filter Adapter	1
5	AF5089	Bracket 2, Univ. Intake Kit	2
6	AF5091	Bracket 3, Univ. Intake Kit	2
7	AF7006	MAF Adapter	1
8	AF4009	4" x 3¾"ID x 2.5"L Hmp Rbr Cplr	3
9	AF4008	1.06"OD x ½"ID x 7⁄16" Rbr Gmmt	1
10	AF4051	4" x 4"ID x 2½" Hmp Rbr Coupler	2
11	AF4062	4" x 3½"ID x 3"L Strt Rbr Coupler	2
12	AF4050	4" x 4"ID x 2½"L Strt Rbr Coupler	2

ITEM	PART #	DESCRIPTION	QTY.
13	MC350H	#56 Hose Clamp 3-1⁄16"-4"	2
14	MC400H	#64 Hose Clamp 3-9⁄16"-4½"	10
15	HW244	M6x1x16MM BTNHD Screw	2
16	HW318	M6 Split Lock Washer	2
17	HW319	M6 Flat Washer	2
18	HW115	¼"-20 Hex Nut	6
19	HW245	¼"-20x⅝" Btnhd Screw	6
20	HW257	¼"-20x1" BHC Screw	3
21	HW320	¼" Flat Washer	6
22	HW322	¼" Split Lock Washer	6
23	HW277	M4-0.7x25MM BH Hex Screw	2
24	HW128	M4x0.7 Nylon Insert Locknut	2

OVERVIEW:

1. Please take a moment to read and understand these instructions before installing your Flowmaster performance intake system.

NOTE: Inventory all parts before starting installation process and call our tech line to report any missing parts. This will help avoid potentially stranding your vehicle until any missing replacement parts arrive.

WARNING:
Avoid serious burns! Allow vehicle time to cool completely before handling any stock engine parts.

PREPARE VEHICLE, BUILD AIR INTAKE KIT:

NOTES: Some applications may require coupler sizes not supplied with this kit. They should be purchased separately. (ex: oversized/aftermarket throttle body, non-standard sized MAF housing, etc.)

2. We have provided a **molded intake tube (1)** with multiple lengths in its configuration. This should provide enough tubing to fit most applications, you will just have to plan its route.

3. Identify throttle body in your vehicle, this will be the starting point for your universal air intake kit. Verify sizing then select appropriate coupler for it (very likely 3¾-4").

4. Decide where you would like your air filter to go. In this example, we have decided to position filter in corner behind passenger headlight where it will have an optimal amount of airflow.

5. Organize your route by laying out necessary pieces. This will help determine if you need any additional pieces as well as arrange any sensor components.

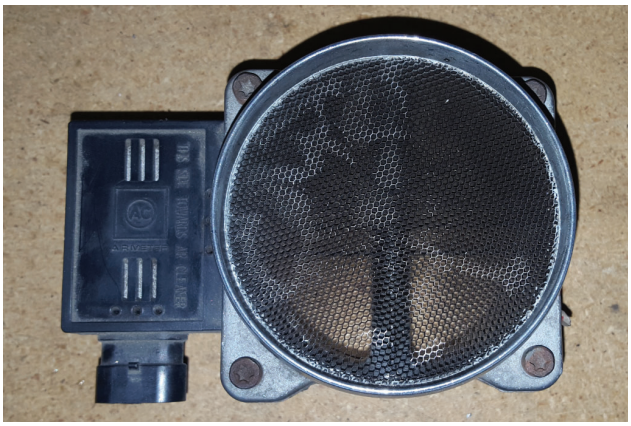
6. Construct your route from throttle body to air filter location. Each tube connects using a coupler and two clamps as shown. Remember to integrate MAF sensor and Intake Air Temperature (IAT) sensor as well.

MASS AIRFLOW DEVICES:

Air flow sensors measure airflow and mass so the ECU can calculate exact ratio of air mass to fuel mass necessary for proper combustion in the cylinder. The sensor within your vehicle will most likely be a variant of the following MAF Sensor styles.

NOTE: Speed density programming does not use a MAF sensor of any kind.

INLINE STYLE MASS AIRFLOW SENSOR:



1. This style MAF is housed and will have to be integrated into your tubing assembly. Start by uninstalling housing from vehicle.

2. Pay careful attention to how your MAF housing is oriented for air flow. There may be an indicator arrow for this.

CAUTION: Be very careful to orient housing correctly, otherwise your vehicle **WILL NOT RUN**.

3. Install housing into intake assembly. For most effective reading, center it between straight tubes.

NOTE: This style will likely need a transition coupler. Several sizes are included (4-3½", 4-3¾")

BLADE STYLE MAF SENSOR:

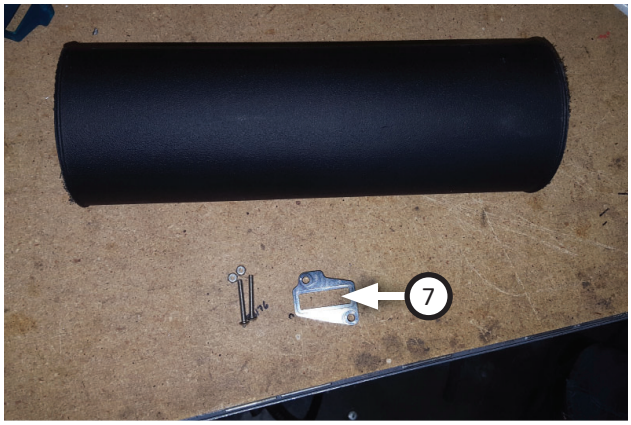
1. The blade style MAF sensor has become industry standard; utilized by almost all current makes and models. To fit this style on your universal air intake kit requires the following steps.

NOTES:

Some applications (with blade style MAF) may require adjustment in tuning to accomodate the MAF area.

Index how factory MAF sensor is oriented in your vehicle. It is important to know so you can properly transfer it into your new intake kit.

For most accurate readings, mount sensor in center of 6" straight tube. **DO NOT** locate it directly after a sharp bend/corner which will affect airflow.



2. Gather **MAF adapter (7)** and select tube in which you are going to install MAF sensor.

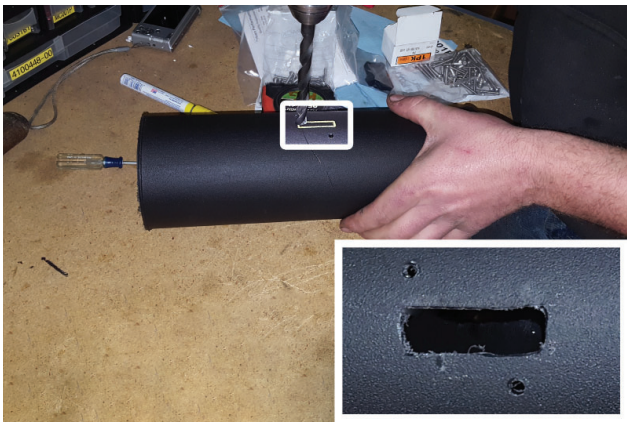
3. Place MAF adapter onto tube and center it. Make sure slot aligns with center line of tube. Adapter should sit perfectly flat.

4. Mark mounting hole through MAF adapter onto tube.

NOTE: Be careful not to oversize or the fastener heads could slip through.

5. Drill holes marked in tube to appropriate size to fit fasteners.

6. Insert **screws (x2) (23)** (from inside out) through tube and MAF adapter. Outline center slot in adapter onto tube as shown.



7. Disassemble parts from tube then drill marked slot for MAF Sensor. You can oversize your drill up to an ⅛" so your MAF Sensor slides in and out easily. Deburr and smooth drilled edges.

8. Apply RTV to MAF adapter and install it onto tube using (x2 ea) screws to locate it properly. Use locknuts (24) to secure adapter in place then wait for RTV to set (**approximately 1 hour**).

NOTE: Index how factory MAF sensor is oriented in your vehicle. It is important to know so you can properly transfer it into your new intake kit.

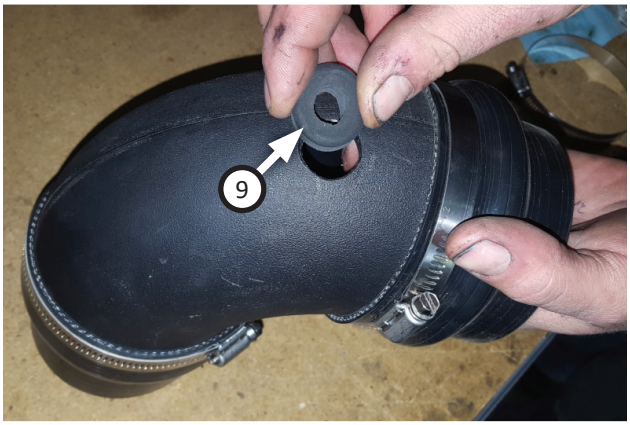
9. Remove factory MAF sensor from vehicle, making sure to retain its seal.

10. Install MAF sensor onto MAF adapter using **locknuts (x2) (24)**.

AIR INTAKE SENSOR (IF APPLICABLE):

1. Remove IAT sensor from your vehicle, then use sensor to mark and drill an appropriate sized hole in your new intake system.

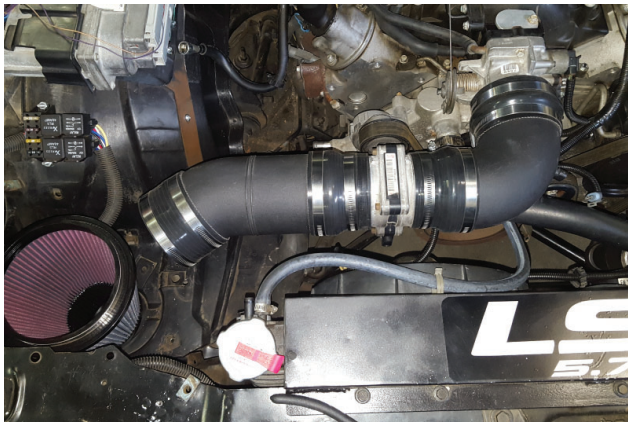
NOTE: Locate sensor similar to stock system placement.



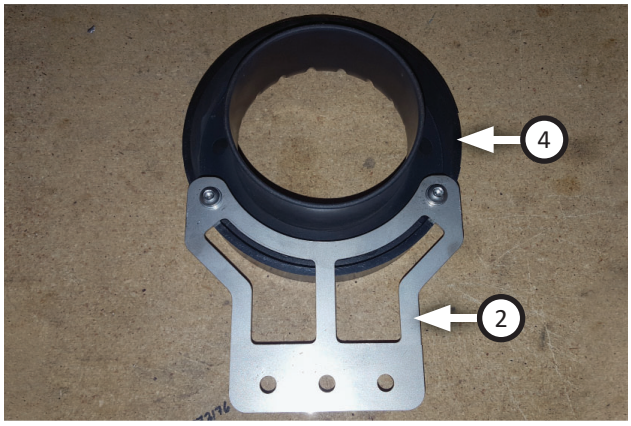
2. Deburr hole then install **grommet (9)**.

3. Install IAT sensor (removed step 1) in through grommet and tube. Use soapy water to ease insertion if necessary.

INSTALL UNIVERSAL AIR INTAKE KIT:

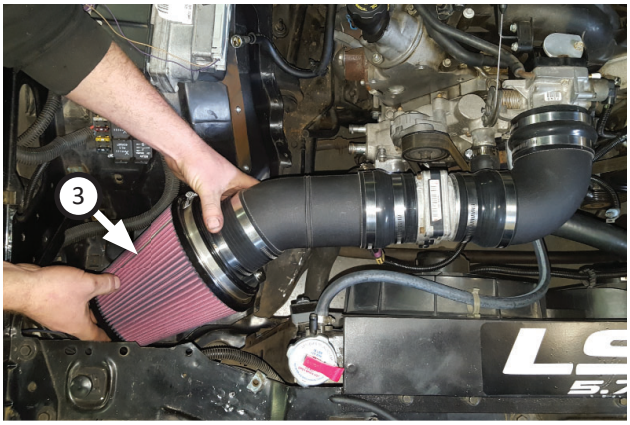


1. Install air intake kit onto throttle body, routed over to air filter location.



2. Install **bracket 1 (2)** onto **air filter adapter (4)** using (x2 ea.) **screws (15)**, **flat washers (17)** and **split lock washers (16)**.

3. Install air filter adapter onto air intake assembly.

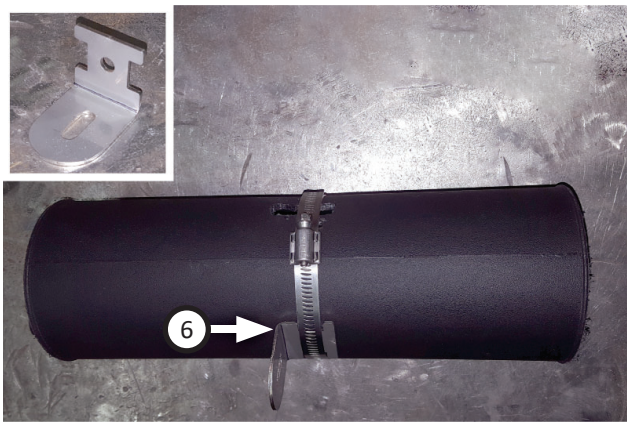


4. Install **air filter (3)** onto adapter and position it how you would like it to sit.

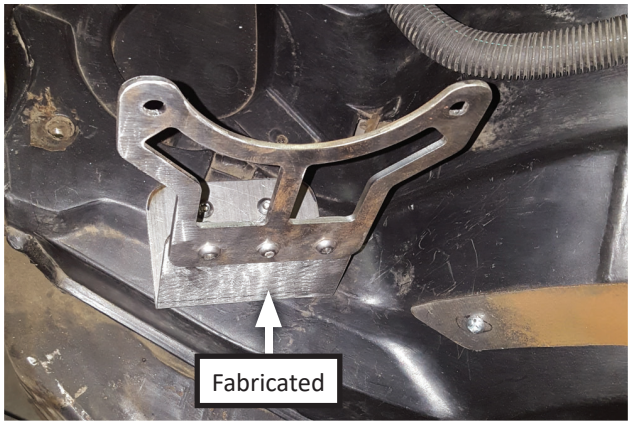
BRACKETS:

1. Once you have routed and set your air intake system, use brackets to secure it in place.

Bracket 2 (5): These straight brackets are intended to be bent or cut to multiple sizes so they can serve as mounts or anchor points.



Bracket 3 (6): These brackets are intended to work as mounts that can fit within clamps so you can secure tubing at the most convenient location. They can also work as 90 degree angle mounts.



Fabricate Brackets: To suit your own purposes better, you may also choose to fabricate your own bracket.

2. You may also choose to create your own full airbox. If so, we have provided a template of the air filter adapter for a pattern.

3. Once you have completed your build and secured it properly, connect all sensors and verify that it is mounted solidly.

Congratulations, the installation of your Universal Performance Air Intake System is now complete!

FILTER MAINTENANCE:

We recommend that you clean and oil your air filter at 25,000 mile intervals using Flowmaster's **Filter Refresh Kit (PN 615001)**. See our website or your Flowmaster distributor for details.

FLOWMASTER INC.
THE PERFORMANCE TECHNOLOGY COMPANY