



BULLY DOG
#1 IN PERFORMANCE

INSTALLATION MANUAL

RAPID FLOW

Cold Air Intake



Applications

Ford 5.4L F150 '09-'10

Rapid Flow Part Number

51200



POWER



FUEL ECONOMY



TROUBLESHOOTING:

Technical support is available by calling 1-940-783-9915.

Tech support by phone is available Monday-Friday 8am-5pm Mountain Standard Time.

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INTRODUCTION

This instruction set outlines the description and installation of the Rapid Flow cold air intake for the Ford 5.4L F 150 '09-'10. Installation of this intake takes about 20 minutes and requires only basic tools. This installation can be easily completed using basic tools, mechanical experience is not required.

For additional question or product information visit our website www.bullydog.com or call Bully Dog technical support.

Parts Included and Tools Needed:

This section displays the parts included in the package and the tools needed to properly install the system.

Parts Included

Rapid Flow Lid
Air Filter Tube with MAF mount
Stage 2 Intake Tube
High Flow Air Filter
(2) Silicone Coupler
(4) band clamp
(2) Stainless black oxide MAF screws
Air filter Band clamp
Special Torx bit
Product Information Packet

TOOLS NEEDED

Flat head screw driver
Phillips screw driver
Bit driver
13mm socket and wrench



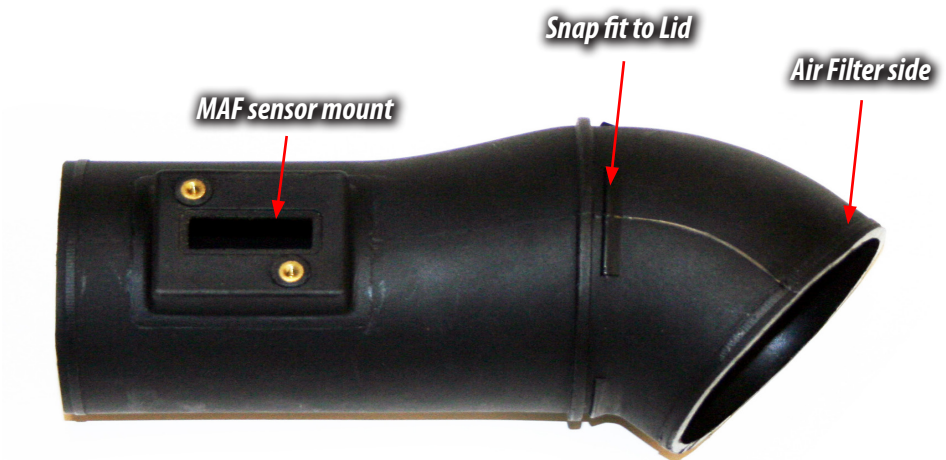
Parts Description:

This section describes each part and any special features of each part that need to be noted to assist with installation. All parts will be referred to during installation by the names used in this section.

The Lid: This simple to install lid replaces the stock lid and conceals and protects the high flow air filter that comes with the kit. It also has an extra air flow port to provide more cold air from the front of the vehicle for a slight charge effect.



Air Intake Tube with MAF mount: This tube comes with a precisely manufactured Mass Air Flow sensor mount with inset screw mounts. The tube also has a unique interference snap fit feature that will tightly secure the intake tube to the Lid.



Stage 2 Intake Tube: The Stage 2 Intake tube installs between the MAF sensor intake tube and the stock tube that leads to the vehicle throttle body.

MAF sensor tube side

Throttle body side



Silicon tubing (long and short): High quality four ply silicon tubing.

Long (MAF tube - stage 2 tube)

Short (Stage 2 tube - throttle body tube)



Band Clamps: Connect and hold all tubing in place.



Stainless black oxide screws: The two Phillips style stainless black oxide screws included with the kit are used to secure the MAF sensor to the air intake tube.



Air filter and clamp: The air filter included is an ISO 5011 certified eight layer oil filter. The air filter is secured onto the end of the air intake tube using the filter clamp and a flat head screw driver.



Special Torx bit: This bit is included for convenience the Mass Air Flow sensor is attached to the stock intake tube using this special style of torx screw. If this bit is lost it can be ordered.

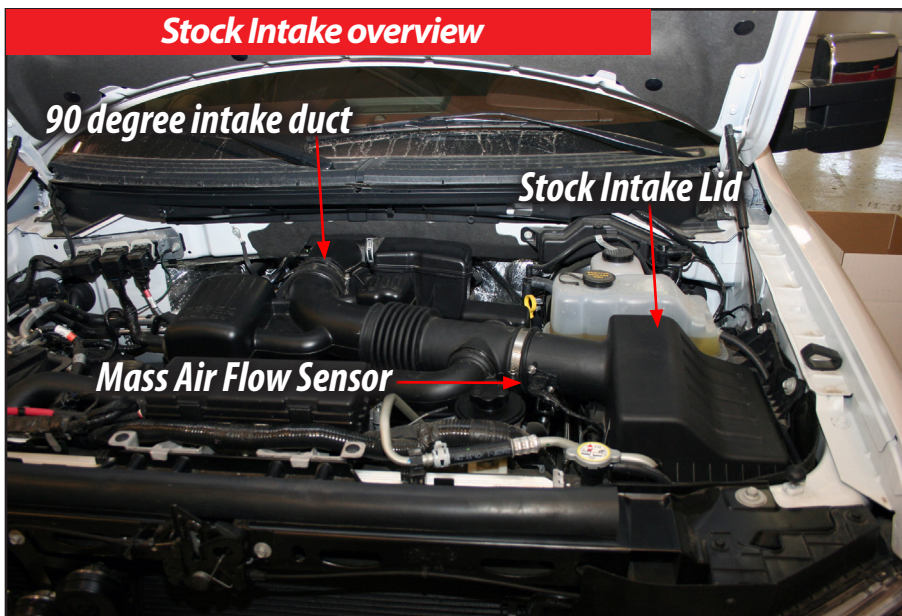


Installation Overview:

Installation is very simple, it is separated into three parts: Removing the Stock Intake, Preparing the Rapid Flow intake for installation, and Installing the Rapid Flow intake system. The complete installation of the Rapid Flow intake system should total about 20 minutes. The assembly diagram below shows how the parts of the intake fit together in sequence.



Stock intake Overview Diagram: The stock intake can be seen in the picture below. Notice the important parts of the stock air intake that are labeled in the diagram below. These items are referred to throughout these instructions.



Removing the stock intake:

1. Unplug the Mass Air Flow sensor: to do so properly first pull the red tab located on the bottom side of the sensor outward to release the locking mechanism. Disconnect the sensor plug and harness from the mounted sensor. Move the harness out of the way, so that the intake can be removed without damaging the sensor harness.



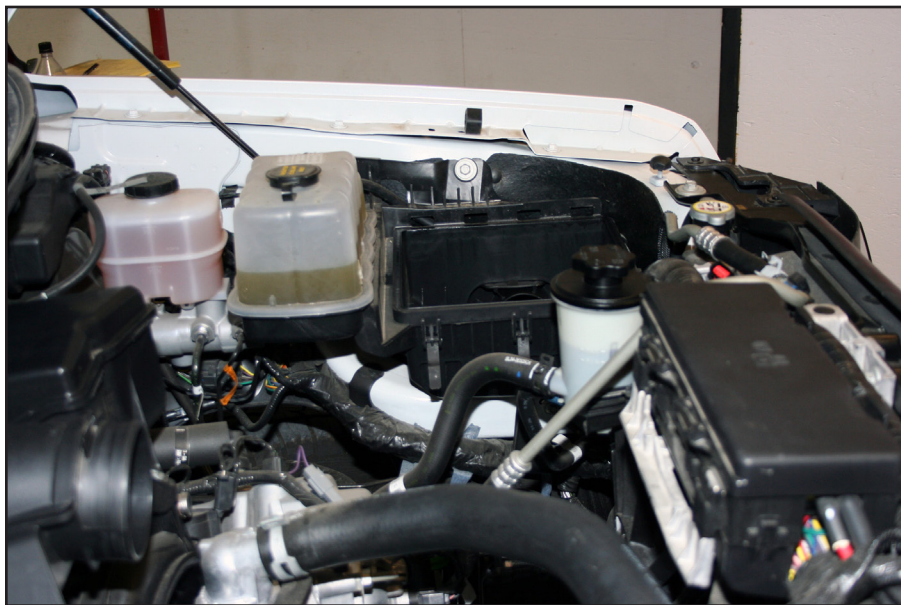
2. Unlatch the stock intake lid from the intake base in preparation to remove the intake.



3. Using a flat head screw driver loosen the stock band clamp that connects the stock intake tube to the 90 degree intake duct. Disconnect the tubes and then remove the stock intake assembly in one whole piece leaving the lid and tubing connected. Also remove the stock air filter from the bottom part of the stock air intake enclosure.



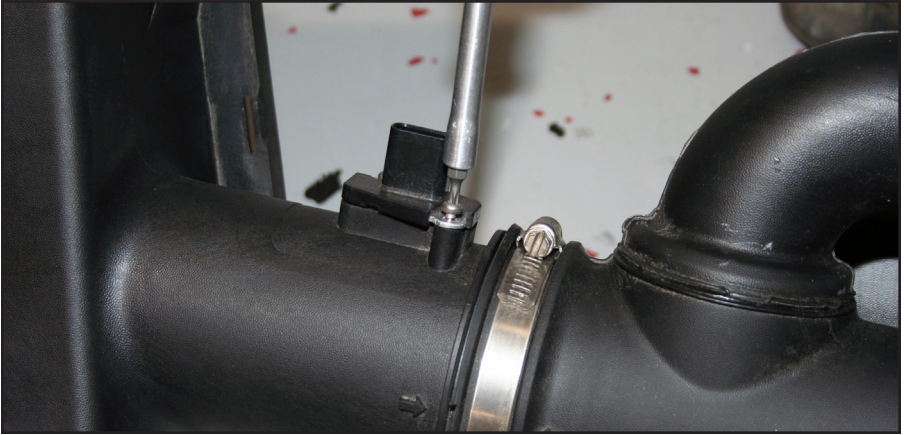
The picture below depicts the engine bay with intake removed from passenger side view.



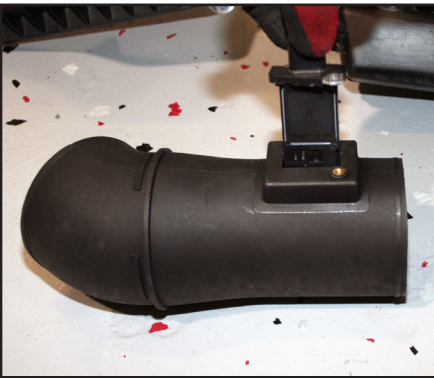
Preparing the intake for installation:

The steps in this section will prepare the intake for installation, this section includes steps that are easier to complete with the intake outside of the vehicle.

1. Remove the stock Mass Air Flow sensor from the stock intake using the special torx bit included with the intake kit and a bit driver. The OEM screws can be screwed back into the stock intake so they are not lost.



2. Install the MAF sensor into the MAF sensor intake tube. Secure the MAF sensor using the stainless black oxide screws provided with the kit and a Phillips head screw driver.

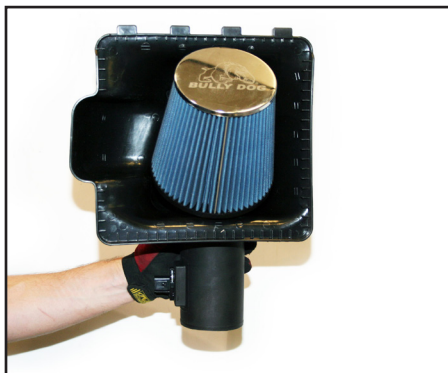


3. Fit the intake tube with the MAF into the Rapid Flow intake lid and snap it into place. To secure the tube to the lid push the two items together until the tube snaps into place, which can be noted by the “pop,” that is made when the interference snap locks in place. The tube should easily rotate once the interference snaps lock in place.

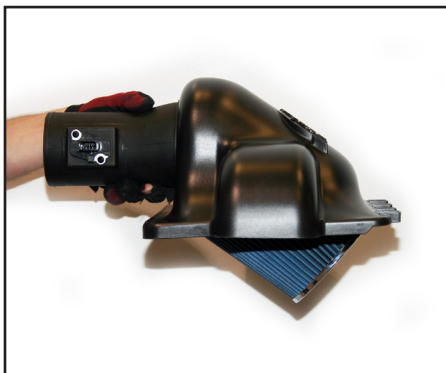


4. With the tube secure in the lid now install the air filter onto the part of the tube that is inside of the lid. Secure the filter using the supplied band clamp, tighten the clamp until the filter cannot be easily pulled off by hand.

Bottom View



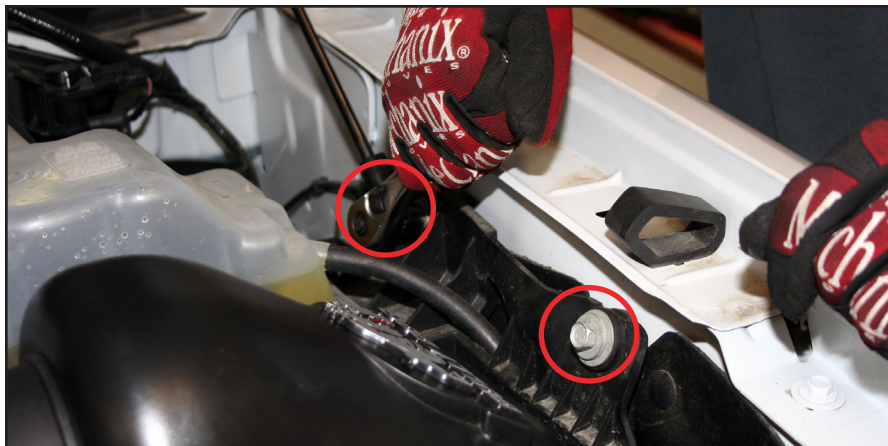
Side View



Pre-installation Tip:

To make installation of the intake tubing easier install make the following adjustments prior to installing the stage 2 tube. Installing the lid assembly prior to this adjustment will not affect the outcome.

1. Use a 13mm socket to loosen the two mounting bolts that hold the intake base in place. Do not remove them, only loosen them enough to adjust the intake base.



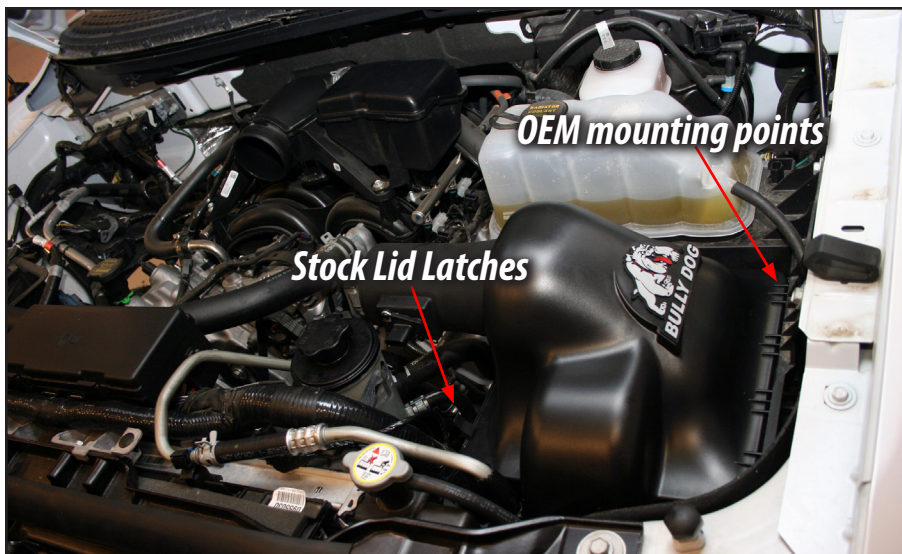
2. Push the intake base back towards the driver seat as far as it will go and then retighten the 13mm bolts. This will help create a little more clearance for the installation of the stage 2 intake tube.



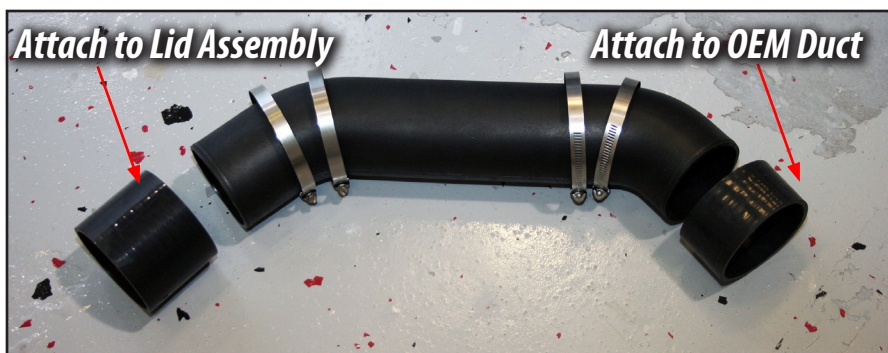
Installing the Rapid Flow intake:

With the lid assembly put together the intake system can now be installed.

1. Place the lid assembly onto the top of the stock intake base. The lid will install onto the base exactly as the stock lid does, utilizing the same mounting spots and the stock latches.



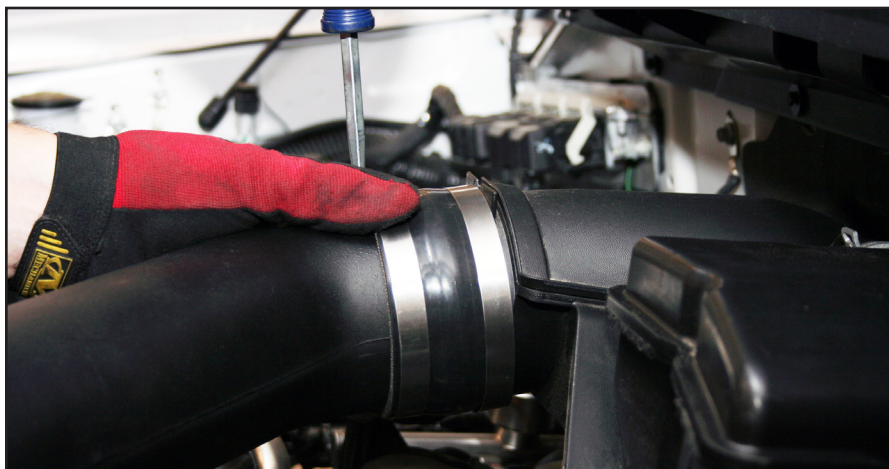
2. Prepare the stage 2 tube by sliding the band clamps onto the tube and then slide the silicone tubes onto the correct end of the stage 2 tube. See the diagram below or the diagram at the beginning of this instruction set to view the correct orientation.



3. Put the stage 2 tube into place and prepare to tighten the band clamps.



4. When tightening the stage 2 intake tube concentrate on the OEM side before tightening the lid assembly side. Snug the stage 2 tube all the way up to the OEM intake duct so that plastic touches plastic or just a small gap. Work the short silicone tube up over the OEM intake duct so that the silicone covers both tubes and then use the band clamps to secure the connection.



5. Secure the long silicone tube onto MAF intake tube using the band clamp.



6. If the stage 2 tube/long silicone coupler runs close to the power steering reservoir as it will on some vehicles adjust accordingly by pressing the tube away from the power steering reservoir and tightening the final band clamp over the stage 2 tube simultaneously.



7. The final step of the Rapid Flow Cold Air Intake is to plug the mass air flow harness plug back into the mass air flow sensor. Be sure to lock the MAF sensor plug in place with the lock mechanism on the underside of the plug.



Optional, post-installation process to increase cold air flow:

Want to maximize the cold air potential of this intake to truly maximize horsepower and fuel economy. Follow these easy steps to open up the cold air flow into the extra cool air intake duct on the Rapid Flow lid. This will provide the full effect of our design.

WARNING: PERFORMING THESE STEPS WILL IN GENERAL LEAD TO INTRODUCING MORE DEBRIS AND POTENTIALLY MORE MOISTURE INTO THE ENGINE BAY.

1. Locate and remove the shroud on the drivers side front of the vehicle.



2. Locate the shroud located on the inside of the engine bay just behind the drivers side head light. Remove only the plastic rivets located on the radiator side of this shroud and then fold the shroud back as seen in the photos below.



Filter Maintenance:

The intake system should be cleaned at least once every three months; in dusty climates the filter should be cleaned more often. Use a Prefilter to extend time between cleaning. Cleaning the intake is a two part process, the first part of the process involves the physical cleaning of the filter with soap and water and the second part involves oiling the filter. To properly clean the filter, a Bully Dog cleaning kit should be used. Cleaning kits are available at any Bully Dog dealer.

PART 1, CLEANING THE FILTER:

1. Remove filter from filter housing. Clean the filter housing if necessary.
2. Begin the cleaning process by ridding the filter of any dirt by lightly tapping it. Then brush away any loose particles with a soft-bristle brush. This step can usually be avoided with the use of a prefilter.
3. Spray cleaner generously over entire filter and let soak for 10 minutes.
4. Thoroughly rinse the filter with regular tap water (avoid high-pressure hoses). Flush from the inside out or clean side to the dirty side to prevent dirt from entering the filter.
5. Let the filter air dry before oiling, do not use any method to speed up the drying process. Using a blow dryer or compressed air can cause the filter to disfigure which would then allow particles to pass through the filter.



PART 2, OILING THE FILTER:

1. Apply a small amount of oil to the soft bristle brush and spread the oil over the filter. Be sure to apply a small amount of force so not to damage the filter element.
2. Continue applying oil to the filter using a soft bristle brush until the entire filter is covered in an even amount of oil, just enough to give the filter a solid blue color. Apply enough oil to make the filter a solid and uniform blue, but do not go beyond that.
3. Allow oil to sit for 20 minutes. Re-oil any dry spots that appear. Do not oil filter excessively. Excessive oiling can cause damage to intake sensors.

Bully Dog PreFilter

The time between scheduled filter maintenance can be extended. Using a PreFilter will prevent all large debris from getting into the ribs of the filter. When using the prefilter only fine dust particles make it through the prefilter and onto the exterior of the filter. Thus when using a prefilter, scheduled cleaning is much easier and filter life is even positively effected.



AIR FILTER PREFILTER

- Extend Time Between Cleanings
- Hydrophobic Material Repels Water
- Protects Cone Filter from Large Debris
- Maintains Filter Airflow Between Cleanings

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