

AIR RAID®

INTAKE SYSTEMS

#400-109 INSTALLATION INSTRUCTIONS

1997-2003 4.6-5.4 Engines (16 valve) * Black Tube

Thank you for purchasing the Airaid Intake System. Please read the instruction manual carefully before proceeding with the installation. Contact Airaid @ (800) 498-6951 8:00 AM - 5:00 PM MST Weekdays for questions regarding fit or instructions that are not clear to you. Your Airaid Intake System was carefully inspected and packaged. Check that no parts are missing, or were damaged during shipping. If any parts are missing, contact Airaid. The air filter element is protected from direct exposure to water and debris; care should be taken not to drive through deep water. WATER INGESTION IS THE DRIVERS RESPONSIBILITY! The air filter is reusable and should be cleaned using the Airaid Filter Tune-Up Kit periodically.

Thank you for selecting Airaid.



Packing List:

700-420	FILTER 3.5" X 9"	(1)	
KIT109TAC	3.5" X 15" TUBE	(1)	
KIT109A	BRACKET M.A.F.	(1)	
KIT109H35	3.5"x3.5" HUMP HOSE	(1)	
KIT109H300	3.5"x3.0" HUMP HOSE	(1)	
KIT109H18	5/8" X 18" HOSE	(1)	
KIT109H9816	3/4" X 12" L- HOSE	(1)	
KIT109HP	HARDWARE PACK	(1)	
	INSTRUCTION SHEET		x1
KIT109B	M.A.F. BACKING PLATE		x1
KITSNP22M4	BLACK PLASTIC CLAMP		x2
KITSNP19M4	BLACK PLASTIC CLAMP		x2
KITGRMT04	7/16" RUBBER GROMMET		x1
KITHS60	3.5" S.S. HOSE CLAMP		x3
KITHS52	3.0" S.S. HOSE CLAMP		x1

Packing List Cont'd:

KIT25C87HCSS	1/4" X 20 X 7/8" HEX BOLTS	x6
KIT25CNNES	1/4" X 20 NYLOCK NUTS	x6
KIT09FWZ019	1/4" WASHERS	x4
KIT109GAS	Gasket M.A.F.	x1

Tools Required for this Installation:

Ratchet wrench
10mm & 11mm socket
7/16" deep socket
7/16" wrench
5/16 socket or nut driver
6" socket extension
Flat blade screwdriver
Pliers & shop knife

Installation Instructions. Read Me!

I DISCONNECT NEGATIVE (-) BATTERY CABLE.

II REMOVE BEAUTY COVER

- a) Remove the three 10mm bolts securing it.

III Remove air intake assembly.

- a) Loosen clamp at the T.B.(Throttle Body) with a 5/16" socket.
- b) Loosen clamp at the Air Filter housing outlet.
- c) Remove crankcase breather hose from air cleaner assembly and valve cover..
- d) 5.4 Engine only. Disconnect the I.C.S. (Idle Control Solenoid) hose. It will reconnect to the Airaid tube.
- e) Disconnect the A.I.T. (Air Intake Temp) wire from the sensor in the air tube.
- f) Lift air tube off engine and place on work bench.
- g) Remove the A.I.T. sensor from tube. Carefully pry it out and save for reuse in the Airaid tube.

IV Remove Air Cleaner Assembly.

- a) Unplug M.A.F.(Mass Air Flow) meter harness from the engine harness.
- b) Lift the air cleaner assembly out of the engine compartment. It is "pull to release" fit.
- c) Remove and set aside the grommets for the air cleaner mount.

V Disassemble Air Box.

- a) Remove wire loom first then slide back grommet on M.A.F. sensor wires.
- b) Locate notch on air cleaner flat side and pry the flat side out. Reach in and unplug the MAF harness.
- c) Remove (be careful) the MAF from the flat lid. 4x10mm nuts.
- d) **THE M.A.F. SENSOR IS LOCATED INSIDE THIS AIRBOX. See figure #1**

VI Assemble M.A.F./Filter Adapter.

- a) Mount MAF to supplied MAF bracket/filter adapter. Use 4 nuts and bolts provided.
- b) Plug the MAF harness into the MAF. Slide the rubber weather seal back down to the connector.

VII Install M.A.F./Filter Adapter.

- a) Mount to the original air cleaner location. Use supplied backing plate and 2 bolts with two nuts and 4 washers.
***Leave loose for final adjustment.**
- b) Plug MAF harness back into the engine harness.

VIII Install Airaid Tube

- a) Install Hump hoses. The 3.5"X3" reducer hose mounts to the Throttle body with the supplied 3" hose clamp.
The 3.5"X3.5" hump hose goes on the MAF sensor. Tighten clamps on the throttle body and MAF meter.
- b) Install the supplied 7/16" rubber grommet in the matching hole on the Airaid tube. Then insert the saved AIT sensor into the grommet.
- b) Slip the Airaid tube into the hump hose ends. Align for best fit and tighten the remaining hose clamps.
Tighten the MAF/filter adapter bracket at this time.
- c) Reconnect the AIT sensor wire.

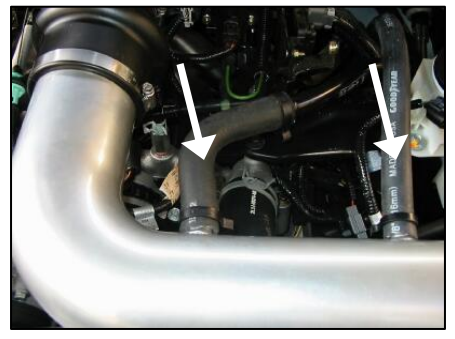
IX Install Hoses.

- a) Install the supplied 5/8"X18" hose to connect the valve cover breather fitting on valve cover to the Airaid tube. Utilize two of the #19 supplied plastic Speed clamps to secure the hose at both ends.
- b) Install the supplied 3/4" hose to the ICS controller and secure using two of the #22 Speed clamps provided.
*** 4.6 engines.** Install from Airaid tube to the I.C.S. suppressor and secure with supplied clamps.
Reposition the 90* suppressor to provide clearance for the hose.
*** 5.4 engines** measure and cut off as needed. Connect to existing plastic tube. Some repositioning is needed. See photos.

1X Finishing Up.

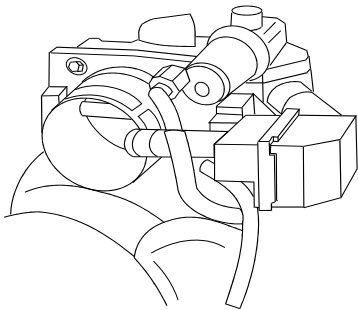
- a) Install the supplied cone filter.
- b) Replace the beauty cover. Reconnect battery.
- c) Double check your work. **Check that no foreign objects are in the intake path.** Enjoy!



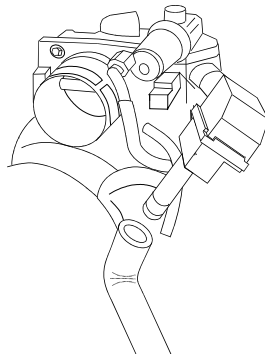




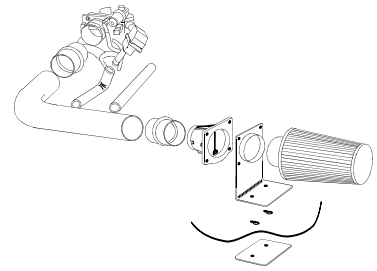
*** Both 4.6 & 5.4 I.S.C. hoses shown for examples**



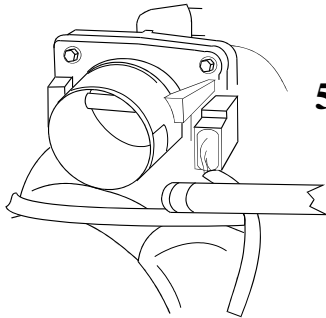
4.6L "Stock"



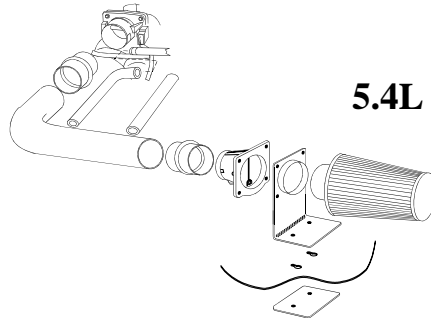
4.6L "Modified" w/ New Hose



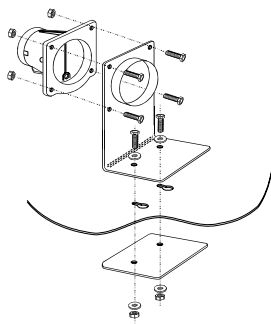
4.6L "Complete"



5.4L "Stock"



5.4L "Complete"



*** This is Figure# 1
This M.A.F. Meter
pictured is located
inside your original
air box.**

M.A.F. (Mass Air Flow Meter)

