

PowerFlow Box Update: New design with twist lock filter.



PowerFlow Box Update: InjenTechnology has re-designed and is releasing our new and improved stream-lined PowerFlow Box to provide you with new cutting edge technology and a user friendly, easier installation and removal for filter maintenance. Please see below for Twist lock installation. Please refer to original installation instructions for PowerFlow box installation. Thank you for choosing injen technology.



Figure 1

New Power flow box assembly. Twist lock filter and PowerFlow box. Box can be rotated to be either driver side or Passenger side fitment.



Figure 2

Install the provided Twist lock filter into the PowerFlow box.



Figure 3

Once the filter is seated correctly and flat, rotate the filter 1/4" turn in either direction left or right and secure. Filter has built in lock.



Figure 4

Filter is now secured in the PowerFlow air box.



Figure 5

Above is the Driver side orientation.



Figure 6

Above is the Passenger side orientation.

NOTE: Verify your filter before any cleaning maintenance! Blue media filter: Dry Air Filter, no oil required. (SuperNano Web Dry filters require no oil, these can be cleaned using a vacuum or light compressed air. Please do not clean using water or injen restore kit.) Red media filter: Factory Oiled Air Filter. (Oiled cotton gauze filters require oil, please use injen restore kit. This filter can use water or cleaning solution for maintenance.) **Please visit injen.com for filter cleaning instructions.**



Warning: Manufactures attempting to duplicate Injen's patented process will now face legal action.

MR Technology Step down process:

- 1- Calibration Method for Air Intake Tracts for Internal Combustion Engines. Covered under Patent# 7,359,795
- 2- Calibration Device for Air Intake Tracts for Internal Combustion Engines. Published and patent pending
- 3- Calibration Method and Device for Air Intake Tracts having Air Fusion Published and patent pending

- Part number SP6080**
2003-09 Mazda RX8 Rotary 1.3L
 1- 1 pc. cold air intake equipped with **MR Tech and Air Fusion**
- 1- Twist Lock Dry Air Filter 3.75" (#1109)
 - 1- **PowerFlow Box kit** **A(#15143)**
 - 2- **Small Injen Windows** **B(#15139)**
 - 4- **Lock Washers** **C(#6109)**
 - 1- Front mounting panel (#11045)
 - 1- passenger side panel (#11046)
 - 1- driver side panel (#11047)
 - 1- 3 1/4" x 3 1/2" T/B step hose (#3140)
 - 2- Power Bands .412/.056 (#4005)
 - 2-M4 x 10mm button head (#6047)
 - 2-M6X10mm button head screws (#6073)
 - 2-M6 socket cap screws (#6056)
 - 2-5mm vacuum cap (#8004)
 - 1-8mm vacuum cap (#8005)
 - 1-zip tie (#8001)
 - 1-7 page instruction

16 Congratulations! You have just purchased the best engineered, dyno-proven cold air intake system available.
Please check the contents of this box immediately.
 Report any defective or missing parts to the Authorized Injen Technology dealer you purchased this product from.
 Before installing any parts of this system, please read the instructions thoroughly. If you have any questions regarding installation please contact the dealer you purchased this product from.
 Installation DOES require some mechanical skills. A qualified mechanic is always recommended.
 *Do not attempt to install the intake system while the engine is hot. The installation may require removal of radiator fluid line that may be hot.
 Injen Technology offers a limited lifetime warranty to the original purchaser against defects in materials and workmanship. Warranty claims must be handled through the dealer from which the item was purchased.
 Injen Technology 285 Pioneer Place Pomona, CA 91768 USA
Please check the contents of this box immediately.
Note: This intake system was Dyno-tested with an Injen filter and Injen parts. The use of any other filter or part will void the warranty and CARB exemption number.
 Parts and accessories are available on line at "Injenonline.com"

Note: The C.A.R.B Exempt sticker must be attached under the hood in a manner such that it is easily viewed by an emissions inspector when the vehicle is required to be tested for emissions.

Note: Injen strongly recommends that this system be installed by a professional mechanic.

MR Technology, "The World's First Tuned air Intake System!"

Factory safe air/fuel ratio's for Optimum performance Patent# 7,359,795

Now equipped with "Air Fusion" Patent pending

"At Injen Technology, we didn't copy the step down process, we invented it!"



Figure 3
Stock box shown in this picture

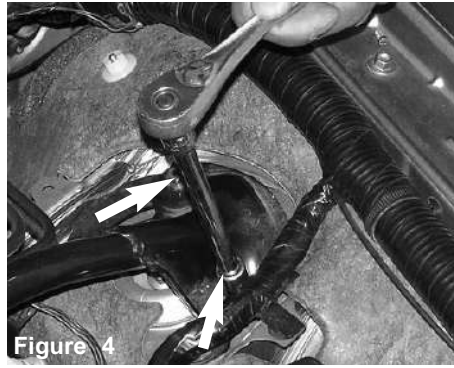


Figure 4
OPTIONAL: Loosen and remove the two 12mm nuts located on the each strut tower mount. Once you have removed all four 12mm nuts, continue to removed the strut tower bar.



Figure 5
All four 12mm nuts have been removed and the strut tower bar is now pulled out.



Figure 6
pull up on the stand offs located in front of the engine cover. A slight tug up will be required to pull the stand offs out of the stock grommet.



Figure 7
Depress the tab on the green electrical clip and pull the clip from the vacuum switching valve. **Note:** on automatic transmissions, skip step and go to figure 8.

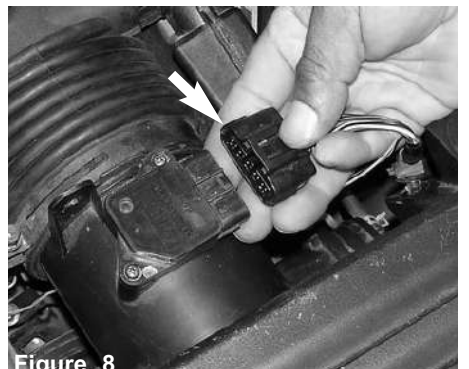


Figure 8
Disconnect the electrical sensor harness from the mass air flow sensor.

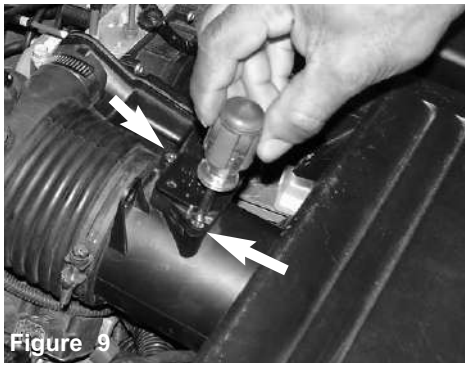


Figure 9
Unscrew and remove the two screws that fastens the mass air flow sensor to the sensor housing.



Figure 10
Once both screws have been removed, continue to pull the mass air flow sensor from the sensor housing.

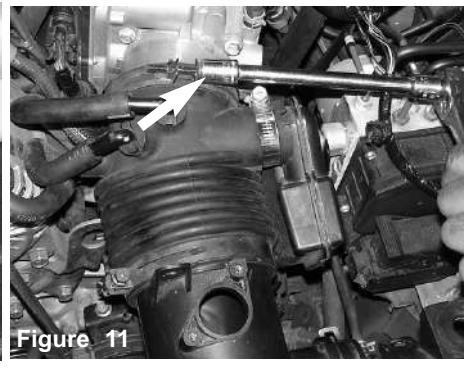


Figure 11
Loosen the clamp on the throttle body air hose as shown above.

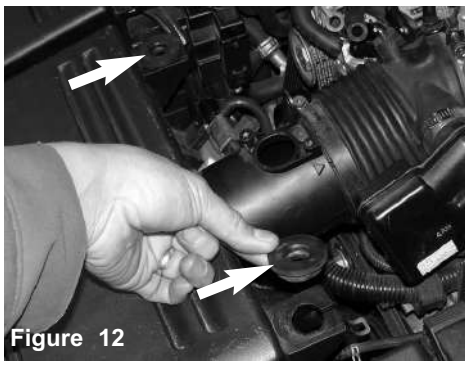


Figure 12
Remove the stock grommets from the air box cleaner. To be used later in the instructions.

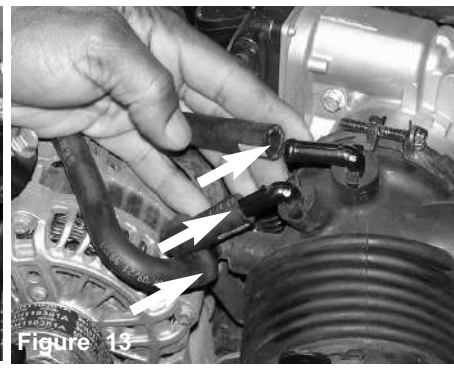


Figure 13
All three vacuum lines are disconnected from the air intake duct connected to the throttle body. **Note:** Some models only have two vacuum lines.

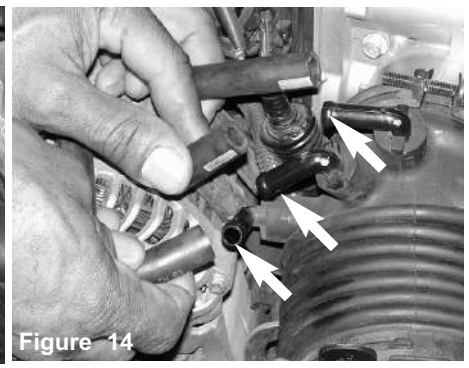


Figure 14
All three vacuum lines have been disconnected from the air intake duct.

Intake manifold port

air box cleaner removed

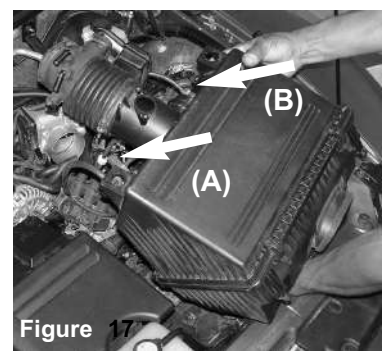
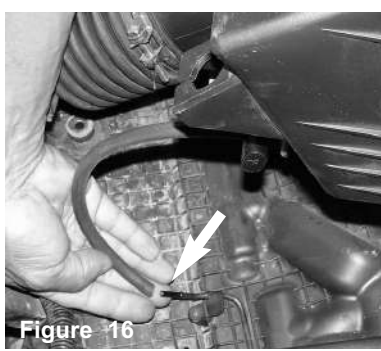
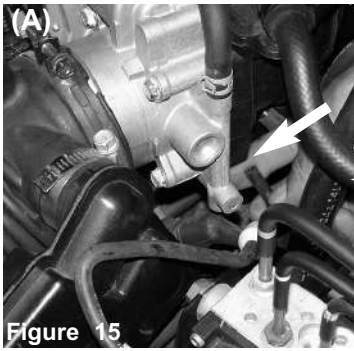


Figure 15

Figure 16

Figure 17

The vacuum line leading from the air box canister to the intake manifold port is removed (A). The vacuum cap supplied is used to cap off manifold port (B). Note: The canister will be removed for this application. For automatic transmissions go to figure 17.

The vacuum line leading from the air box vacuum switching valve is disconnected from the hard line found under the air box. A 5mm vacuum cap is used to cap the hard line

Once lines and clamp are removed, pull entire air box out of the engine compartment. The vacuum switching valve (A) is removed and the canister (B) is removed

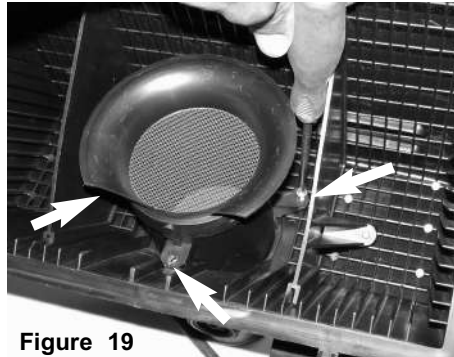


Figure 18

Figure 19

Figure 20

Unclasp the metal clamps on the lower air box cleaner. Once you have removed the clamps, continue to pull the upper air box from the lower air box.

Once the top box has been removed, continue to loosen and remove all three screws securing the air horn to the lower air box.

Once all three screws have been removed, continue to remove the air horn from the air box.

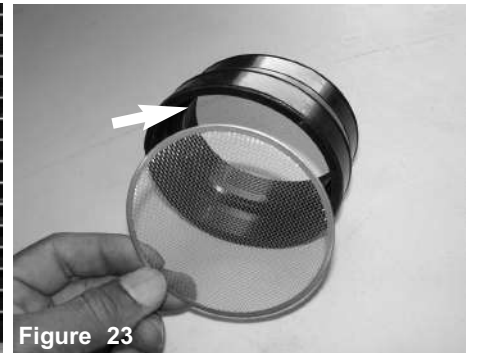
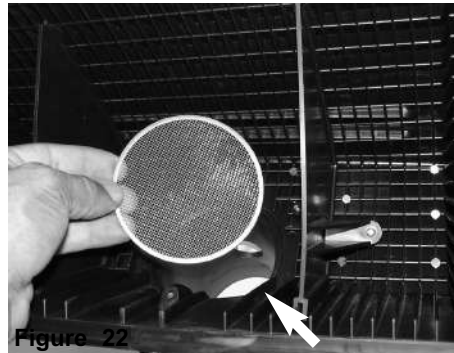


Figure 21

Figure 22

Figure 23

Here is the air horn and three screws that have been removed from the lower air box cleaner.

Remove the 3 3/4" OD metal screen from the lower air box as shown above.

Insert the metal screen into the 3133 step hose until it sits flush in the inner stop.

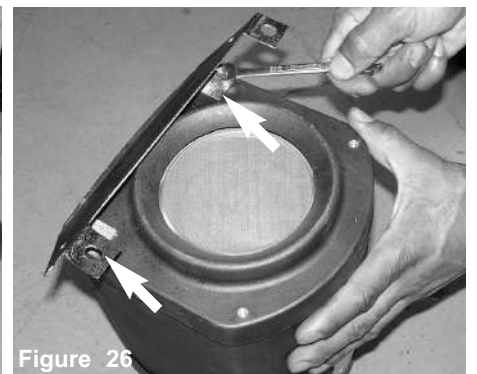
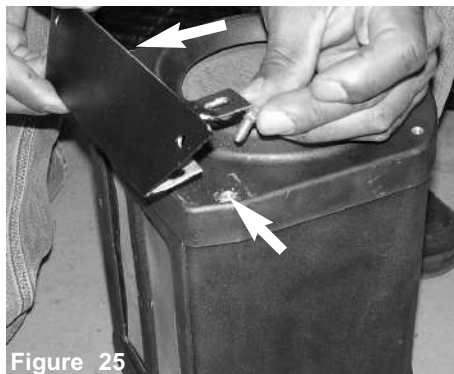


Figure 24

Figure 25

Figure 26

The metal screen is firmly pressed up against the velocity stack stops.

Align the legs on the mounting panel to the bolt pattern located on the upper front box.

Use a ratchet and socket to tighten the bolts on the front mounting bracket to the power box.



Figure 27

The front mounting plate is now installed.



Figure 28

The assembled step hose and stock air straightener is now aligned over the power box inlet.

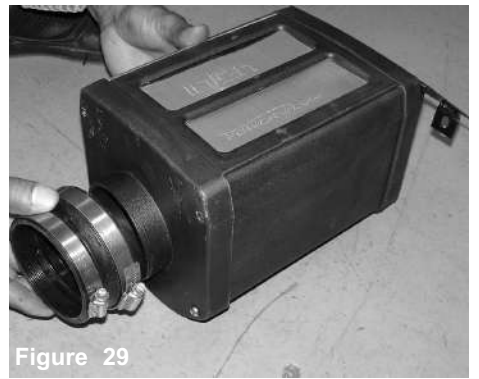


Figure 29

Another view of the step hose and power bands aligned to the power box inlet.



Figure 30

The step hose is now installed.

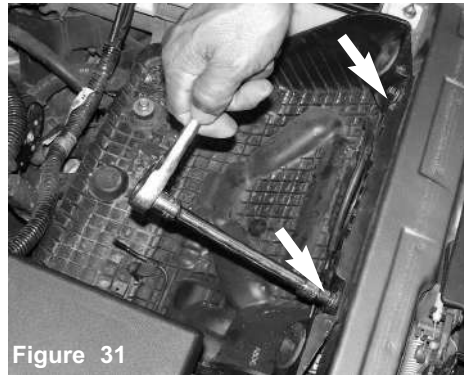


Figure 31

The lower air box nuts are loosened and removed in order to place the new power box. The first nut is now removed.

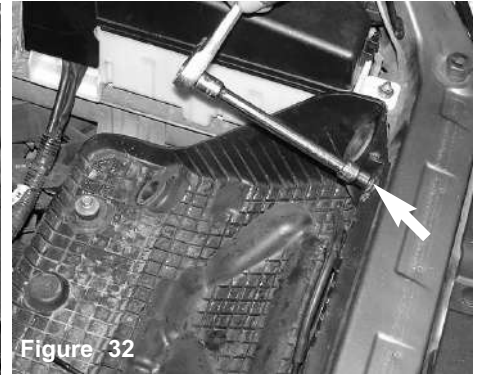


Figure 32

The second nut is now removed.



Figure 33

Press the 3140 step hose over the throttle body, use two power bands. Tighten the clamp on the throttle body side.



Figure 34

Insert the calibrated intake tube into the step hose located on the power box as shown above.

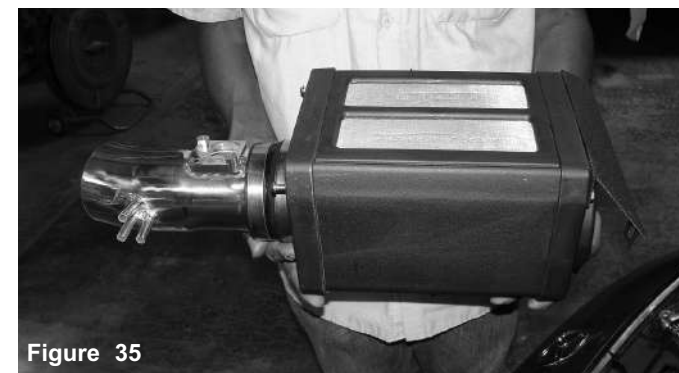


Figure 35

The assembled air intake and power box is ready to be installed.



Figure 36

The assembled power box is lowered into the engine compartment and the intake is pressed into the throttle body step hose.

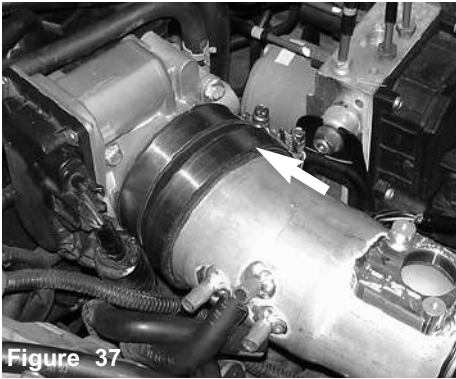


Figure 37
The intake is inserted into the throttle body step hose.

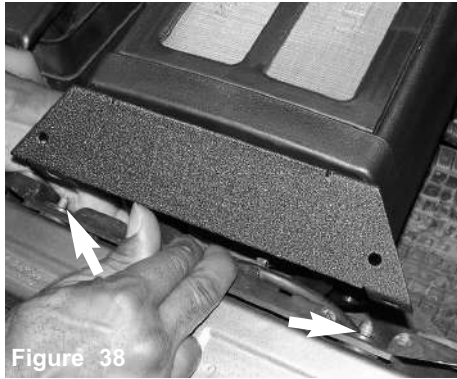


Figure 38
The front mounting panel tabs are aligned to the studs as shown above.

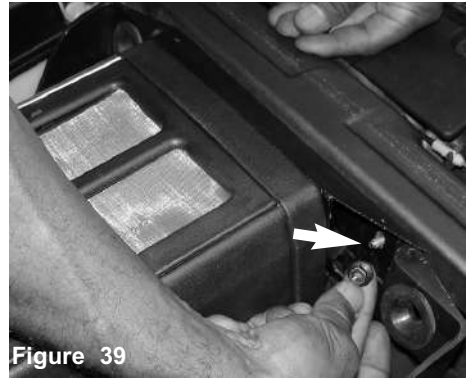


Figure 39
The stock nuts are used to fasten the mounting panel to the crossmember radiator support.



Figure 40
Use a ratchet and socket to tighten the nut on the passenger side front mounting panel.



Figure 41
The driver side nut is used to fasten the front mounting panel.



Figure 42
The power box step hose clamps are now semi-tightened.

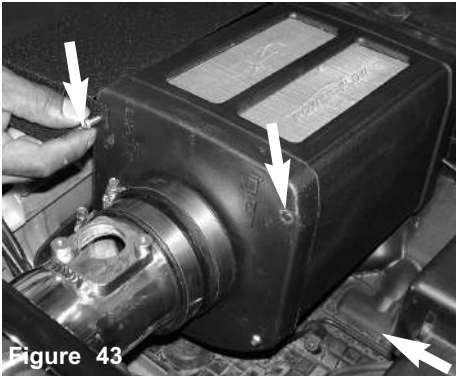


Figure 43
The upper two m6 x 20mm bolt is removed from the power box. This is where the driver side panel will be attached to



Figure 44
The driver side air panel is aligned to the base of the power box and front mounting panel. The same m6 x 20mm bolt is used to attach the air panel.

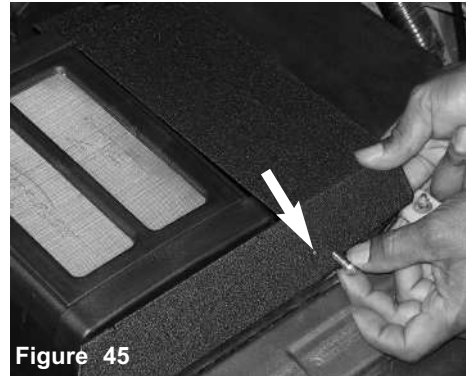


Figure 45
The m6 x 12mm bolt is used to fasten the front mounting panel and driver side air panel.

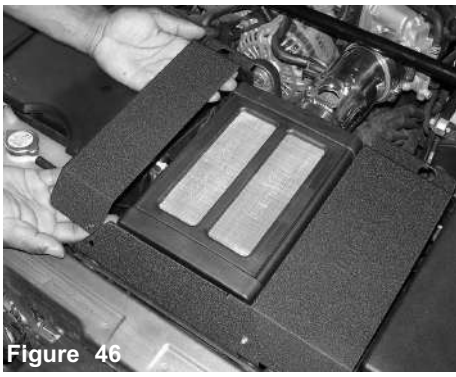


Figure 46
The passenger side air panel is now aligned to the power box.

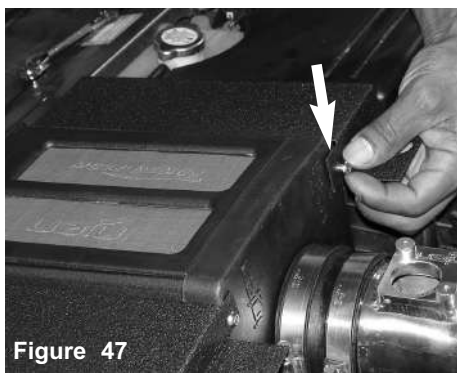


Figure 47
The same m6 x 20mm bolt removed earlier is used to secure the passenger side air panel.

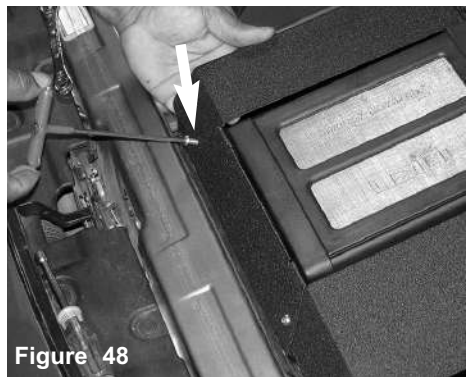


Figure 48
the remaining m6 x 12mm bolt is used to fasten the passenger air panel to the front mounting panel.

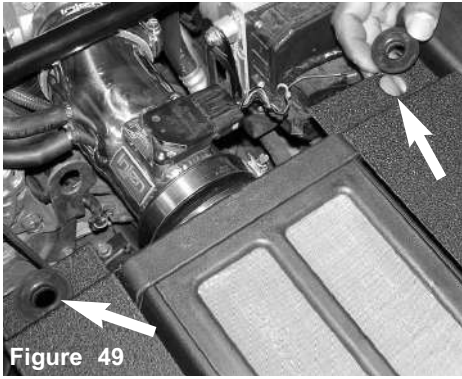


Figure 49

The stock grommet are removed from the stock air box and inserted into the pre-drilled holes on the top air panels.

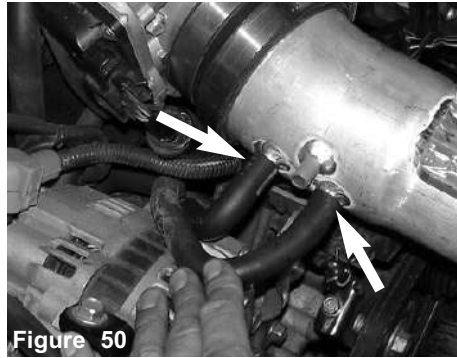


Figure 50

The two lower vacuums lines are pressed over the lower intake ports as shown above.

NOTE: Some models may only have 2 vacuum lines. The supplied 8mm vacuum cap will be used to cap off the extra port on the intake tube.

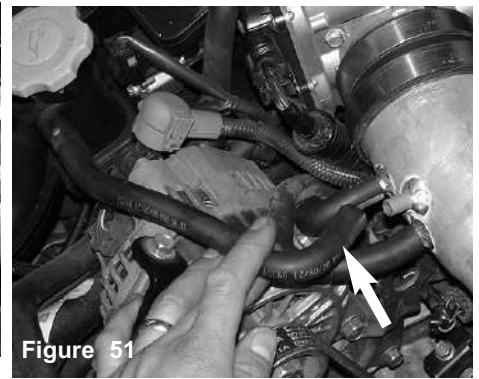


Figure 51

The upper vacuum hose is aligned to the upper intake port. **NOTE: Some models may only have 2 vacuum lines. The supplied 8mm vacuum cap will be used to cap off the extra port on the intake tube.**

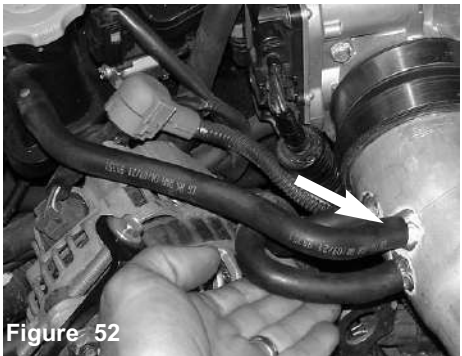


Figure 52

The upper vacuum hose is installed on the upper intake port. **NOTE: Some models may only have 2 vacuum lines. The supplied 8mm vacuum cap will be used to cap off the extra port on the intake tube.**



Figure 53

The mass air flow sensor is now lowered into the calibrated intake tube. Use a dab of oil on the sensor O-ring to prevent the O-ring from tearing or kinking as the sensor is inserted into the machined adapter.

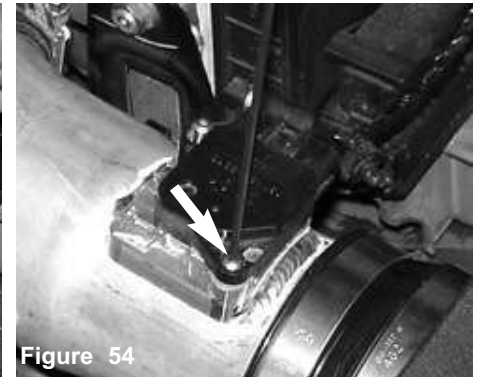


Figure 54

The m4 x 10mm hex bolts are used to secure the first tab on the mass air flow sensor.



Figure 55

The second tab on the mass air flow sensor is secured with the m4 x 10mm bolt.

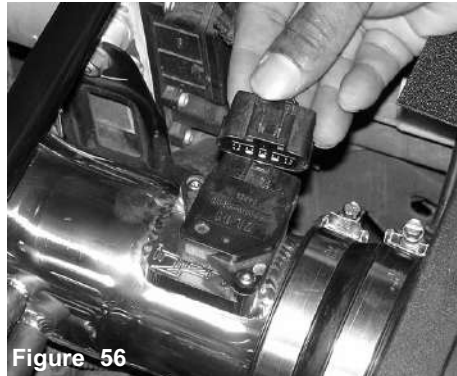


Figure 56

The electrical sensor harness is pressed over the mass air flow sensor.

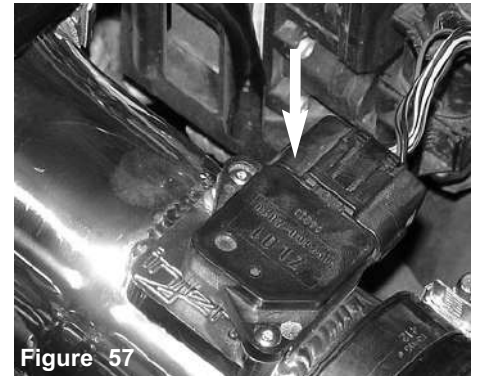


Figure 57

Press the electrical harness on the mass air flow sensor until it snaps together.

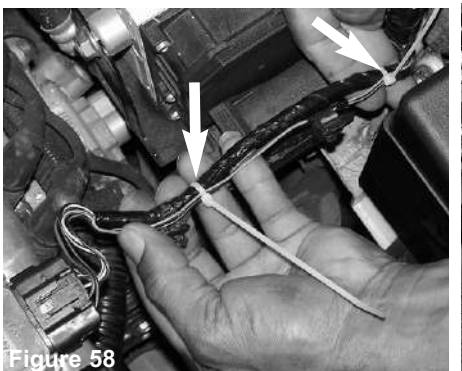


Figure 58

The zip ties are used to secure the harness lines and the green sensor clip removed from the vacuum switching valve which is no longer used.

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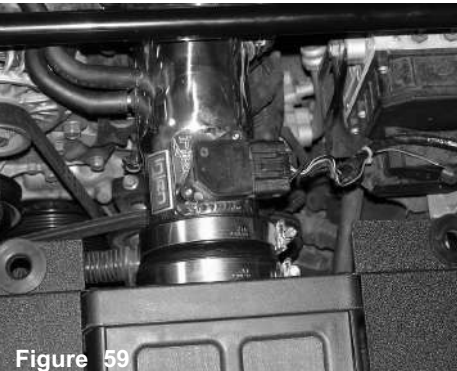


Figure 59

The mass air flow sensor and grommet are all installed.

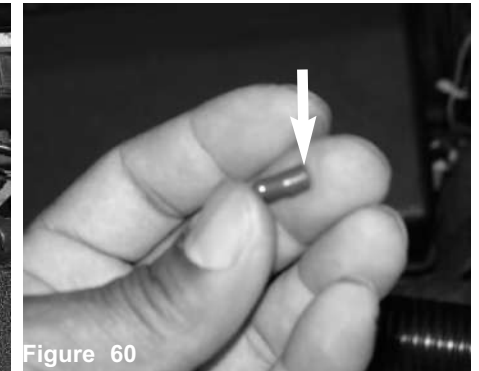


Figure 60

The 5mm vacuum cap is used to cap off the intake manifold port.

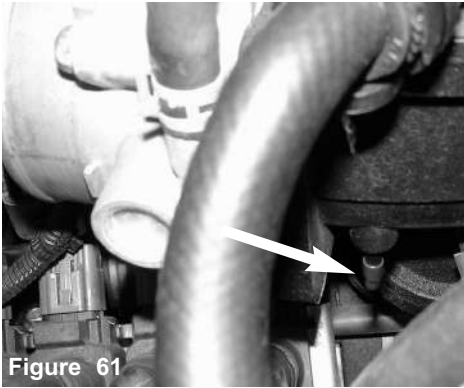


Figure 61

The intake manifold port is capped off with the vacuum cap provided. Another reminder to make sure that vacuum caps have been

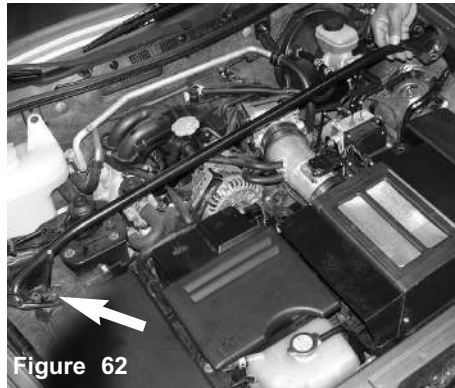


Figure 62

The strut tower bar is replaced to stock position.



Figure 63

Use a socket and ratchet to fasten the flange nuts over the strut tower bar.



Figure 64

Lower the engine cover over the engine and align cover stand-offs to the grommet.



Figure 65

The cover stand-offs is now pressed into the grommet.



Figure 66

Align the entire intake for best possible fit. Once you have aligned and made sure that the length of the intake is free from any moving parts, continue to tighten all nuts, bolts and clamps.



Figure 67

Congratulations! You have just completed the installation of this intake system. Periodically, check the alignment of the intake, normal wear and tear can cause nuts and bolts to come loose. Failure to check the alignment and adjust the intake can cause damage that will void the warranty.

1. Upon completion of the installation, reconnect the negative battery terminal before you start the engine.
2. Align the entire intake system for the best possible fit. Once the intake has been properly fitted continue to tighten all nuts, bolts and clamps.
3. Periodically, recheck the alignment of the intake system and make sure there is proper clearance around and along the length of the intake. Failure to follow proper maintenance procedures may cause damage to the intake and will void the warranty.
4. Start the engine and listen carefully for any odd noises, rattles and/or air leaks prior to taking it for a test drive. If any problems arise go back and check the vacuum lines, hoses and clamps that maybe causing leaks or rattles and correct the problem.
5. Check the filter for excessive dirt build up. Clean or replace the filter with an original Injen filter (can be bought on-line at "injenonline.com"). Congratulations! You have just completed the installation of the best intake system sold on the market. Enjoy the added power and performance of your new intake system.