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MR Technology Step down process:

- 1- Calibration Method for Air Intake Tracts for Internal Combustion Engines. 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 SP1837
Will not fit Xenon equipped vehicles
 2009-11 Mitsubishi Ralliart 2.0L turbo
 4cyl.

cold air intake equipped with
MR Tech and Air Fusion

- 1- Driver side primary air intake
- 1- Secondary air intake
- 1- 2 3/4" Injen/AMSOIL tuned nano-fiber **dry** filter (#1010)
- 1 Heat resistant three bend silicone intake (#3169)
- 2- Power Bands .312/.040 (#4003)
- 2- m6 vibra-mounts (#6020)
- 2- m6 flange nuts (#6002)
- 2- m4x 10mm hex head bolt (#6047)
- 2- fender washers (#6010)
- 1- Upper oil-cooler bracket (#20097)
- 1- Lower oil-cooler bracket (#20099)
- 1- Relocating relay bracket (#20098)
- 1- sensor harness zip tie (#8001)
- 1- 8 page instruction

Note: All parts and accessories now sold on-line at :
"injenonline.com"

Injen is the first and only intake manufacturer that tunes and controls air/fuel ratios, short/long term fuel trim levels using the MR step down process, Air Fusion and built-in air intake horns.

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 244 Pioneer Place Pomona, CA 91768 USA
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.

Note: The installation of this cold air intake does require mechanical skills. Removal of the front bumper requires loosening and removing several plastic plugs and screws that may be difficult.

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



Figure 1



Figure 2

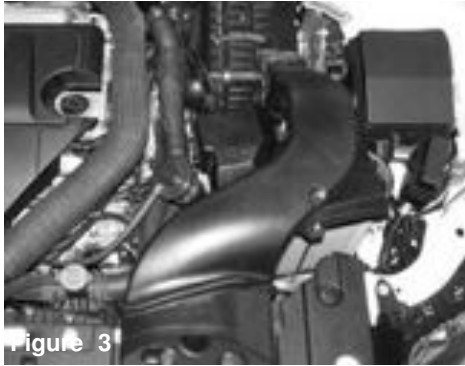


Figure 3
Stock engine compartment.

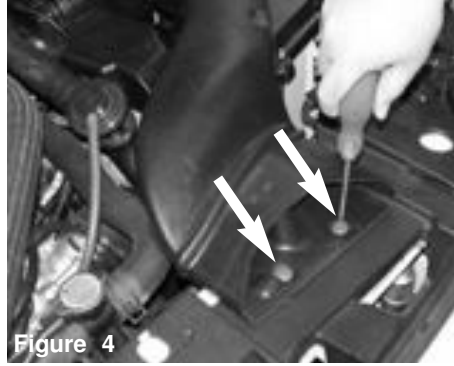


Figure 4
Remove both plastic clips holding the front air scoop in place. Once you have removed all clips, continue to pull the scoop forward away from the air box and out of the engine compartment.



Figure 5
Once you have removed the two plastic clips, continue to remove the front air scoop.

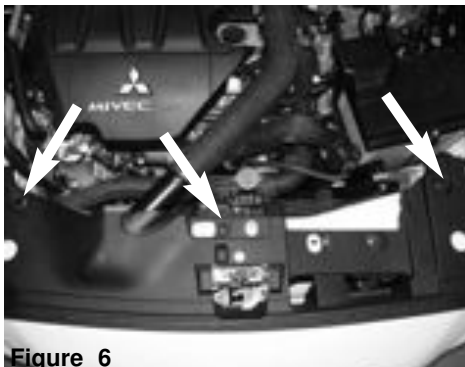


Figure 6
A screwdriver is used to pop all three plastic clips prior to pulling them out.

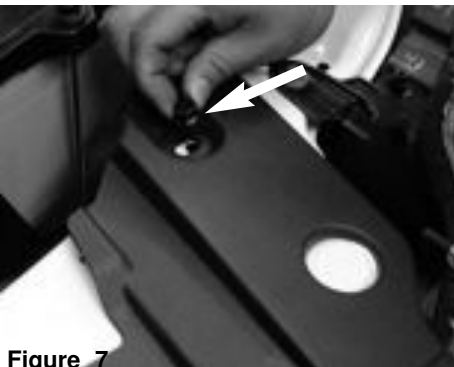


Figure 7
The first plastic clip is removed on the driver side radiator support.



Figure 8
Once all three plastic clips have been removed, continue to pull the shroud from the engine compartment.

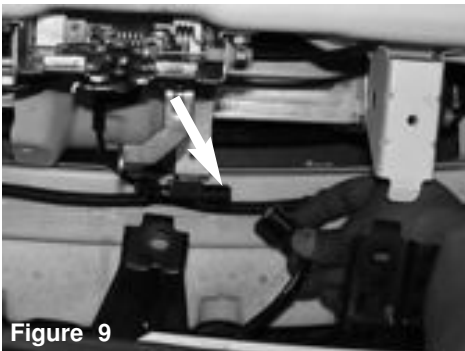


Figure 9
The electrical harness clip is disconnected from the harness located in front of the hoop latch.

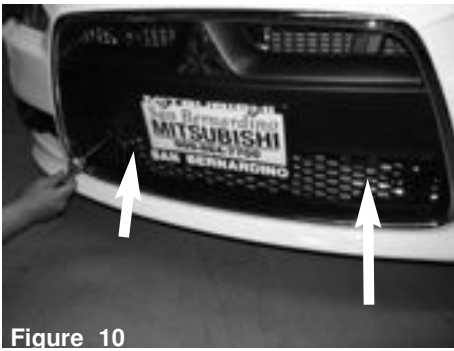


Figure 10
The first of the two 10mm bolts are removed behind the grill. You'll find two 10mm bolts, one on the passenger side and the other on the drivers side.

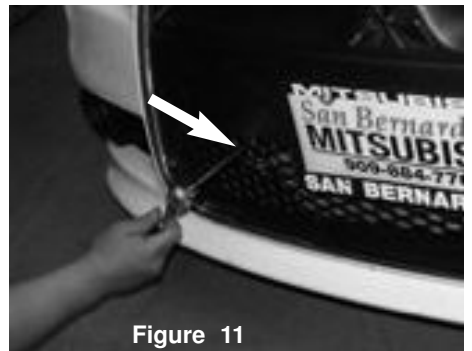


Figure 11
The second 10mm bolt is now loosened and removed.



Figure 12
Continue to removed the 10mm screws in the wheel well of the passenger side and driver side bumper. The passenger side 10mm screw is removed in the picture above.
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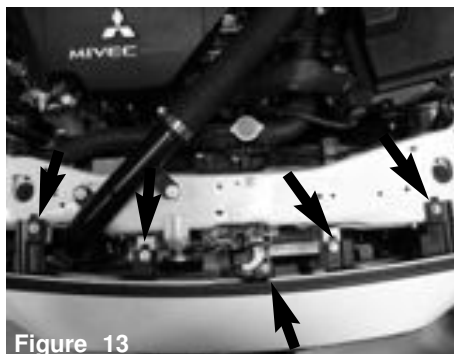


Figure 13
Loosen and remove all 5 10mm bolts located directly above the bumper.

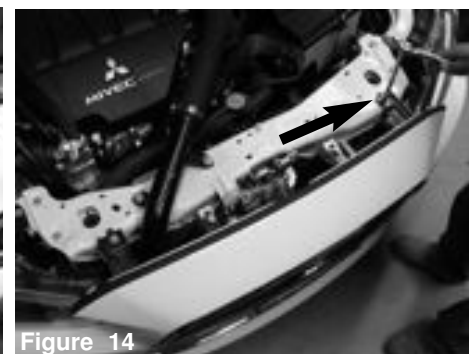


Figure 14
The first 10mm bolt is loosened and removed. There are an additional 5-10mm bolts and 4 clips underneath the bumper that need to be removed prior to pulling the bumper off.



Figure 15

Once you have removed all clips and bolts from the top and bottom bumper, continue to pull the bumper away from the front end of the car.

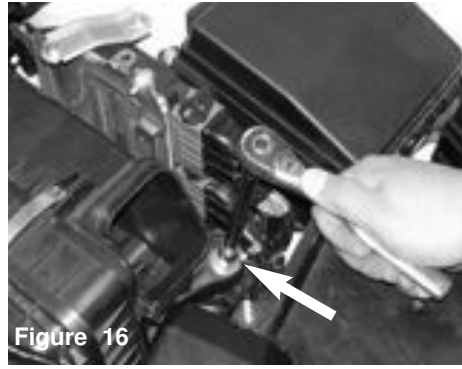


Figure 16

Loosen and remove the 10mm bolt that holds the air box in place.



Figure 17

The electrical harness clip is removed from the boost solenoid as shown above.

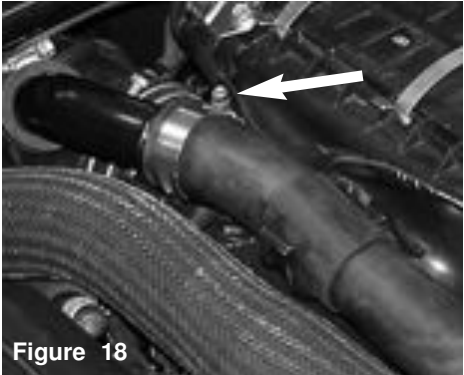


Figure 18

The blow off return line clamp is loosened prior to removing the air box. The hose is now pulled off the hard pipe show above.



Figure 19

The air box clamp is loosened and disconnected.

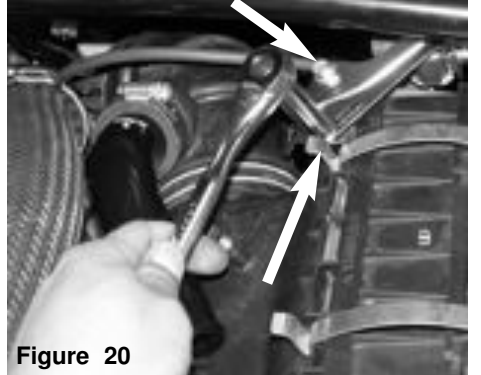


Figure 20

The two bolts on the boost solenoid bracket are loosened and removed from the air box.

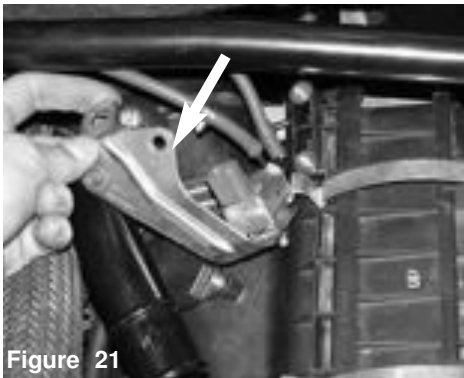


Figure 21

The bracket is pulled off the air box cleaner top.



Figure 22

The air box cleaner is ready to be pulled from the engine compartment.

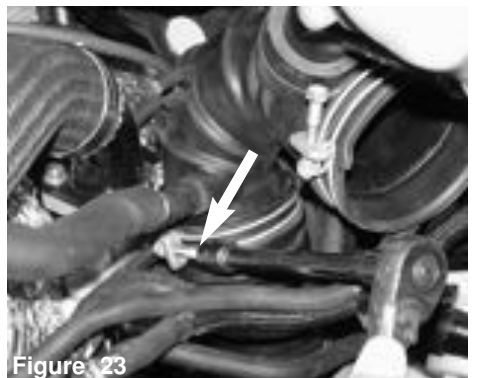


Figure 23

The air duct clamp is loosened connected on the turbo inlet.

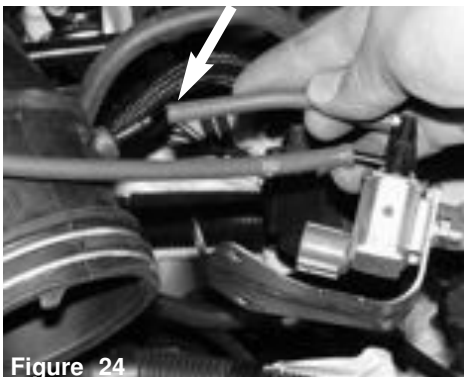


Figure 24

The short vacuum hose on the boost solenoid is disconnected from the air intake duct.



Figure 25

Once you have removed the air intake duct from the turbo inlet, the crank case line will need to be disconnected.

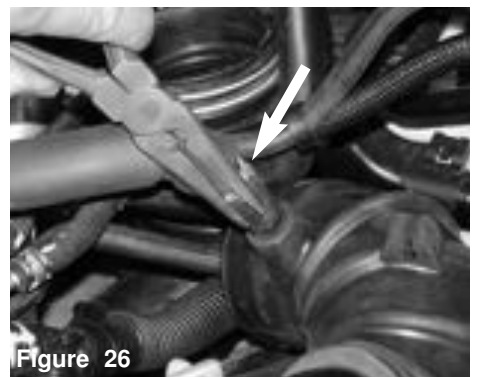


Figure 26

The tension clamp on the air intake duct is depressed and moved.

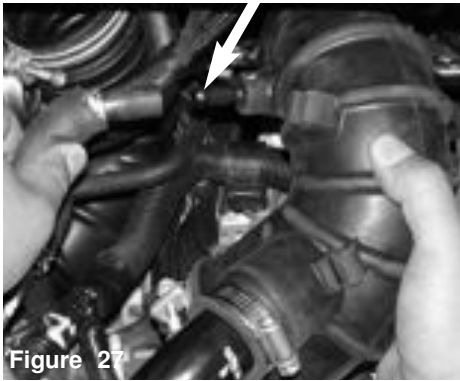


Figure 27

Once you have removed the tension clamp from the intake vacuum port, continue to pull the CC hose from the air intake port.



Figure 28

The air intake duct is now ready to be pulled out of the engine compartment.

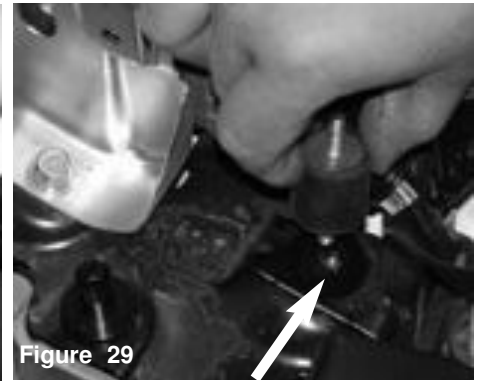


Figure 29

The new vibra-mount is aligned to the pre-tapped hole removed earlier from the air box cleaner.

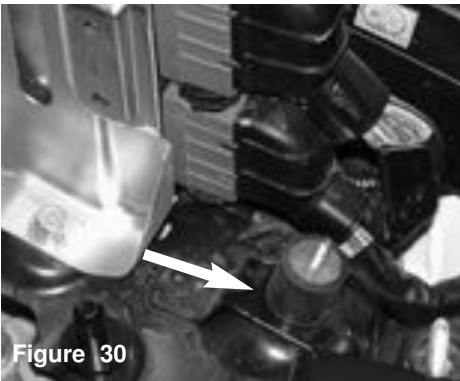


Figure 30

The vibra-mount is installed.

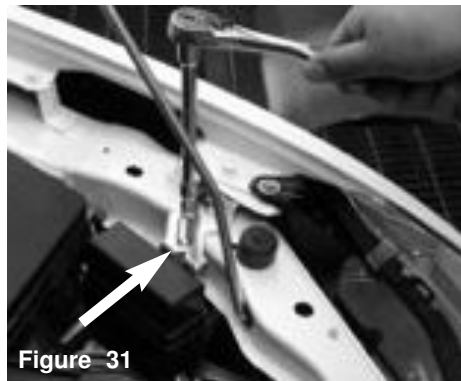


Figure 31

The 10mm bolt holding the fuse box bracket is loosened.



Figure 32

Once you have loosened and removed the 10mm bolt, continue to pull the fuse box and bracket.

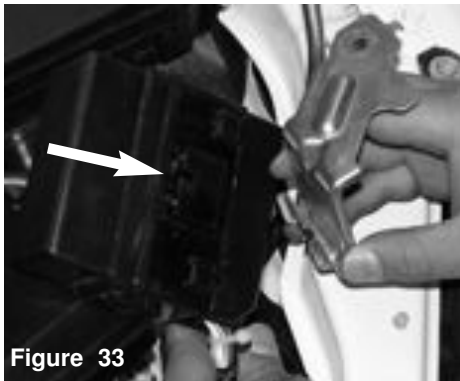


Figure 33

Remove the bracket from fuse box as shown above.

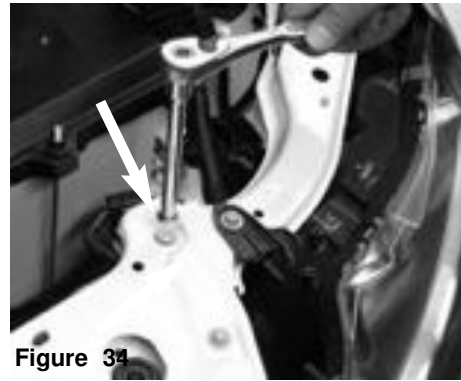


Figure 34

The 10mm bolt is removed from the driver side crossmember. This is where the new fuse box bracket will be located.



Figure 35

The new fuse box bracket is aligned to the pre-tapped hole on top of the crossmember.

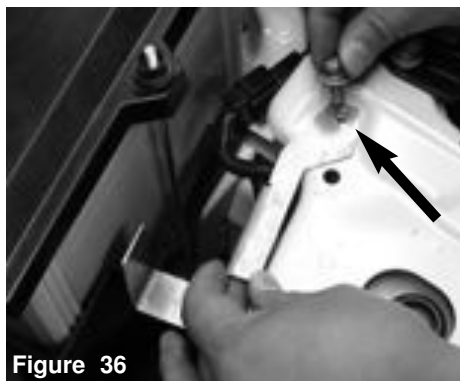


Figure 36

The stock 10mm bolt is used to secure the new fuse box bracket.

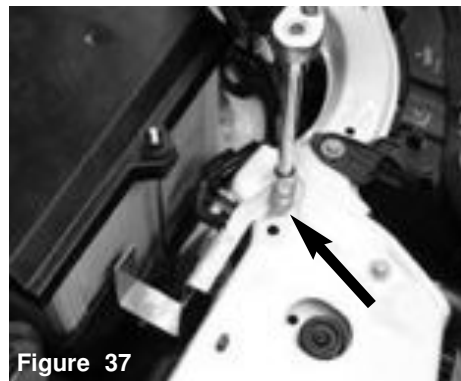


Figure 37

The fuse box bracket is positioned and the 10mm bolt is tightened.

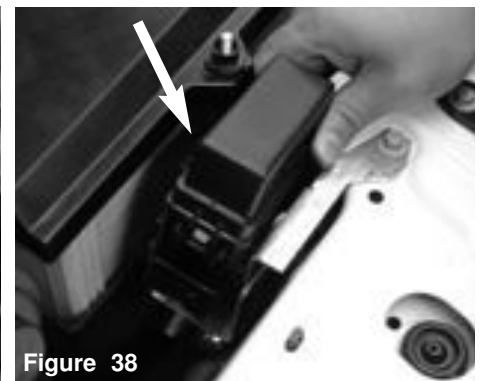


Figure 38

The fuse box is lowered into the bracket, the saddle located on back of the box is pressed over the bracket leg.



Figure 39
The fuse box and bracket is now installed.

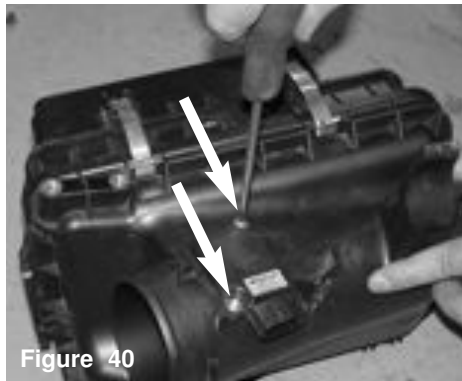


Figure 40
The two mass air flow sensor screws are loosened and removed from the sensor housing.

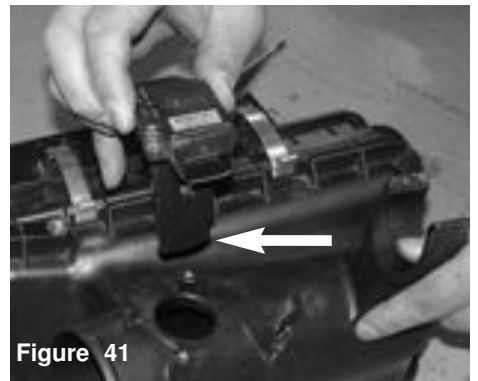


Figure 41
Once you have removed the screws, continue to pull the air sensor out of the housing.

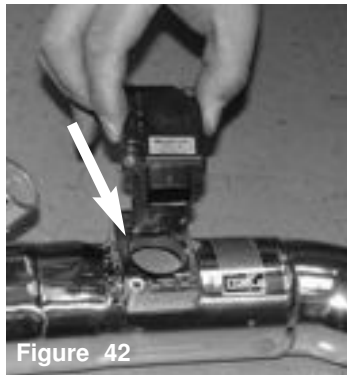


Figure 42
Lubricate the O-ring on the sensor with lite-oil and gently press the sensor into the machined adapter.

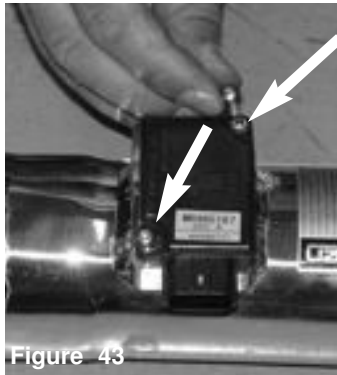


Figure 43
The m4 bolts in the kit are used to fasten the mass air flow sensor to the machined adapter.

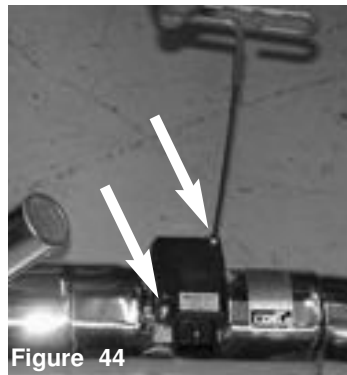


Figure 44
An allen wrench is used to fasten the m4 bolts over the machined adapter.

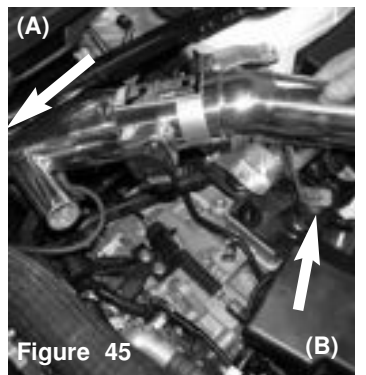


Figure 45
The intake is now lowered into the engine compartment. The top end is aligned to the turbo inlet (A) and the intake bracket is aligned to the vibra-mount stud (B).

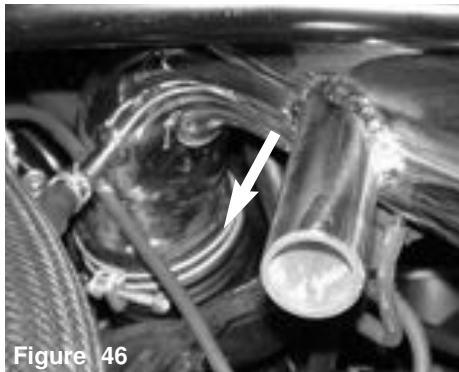


Figure 46
The top end of the intake is pressed into the turbo inlet.



Figure 47
The intake bracket is aligned to the vibra-mount stud.

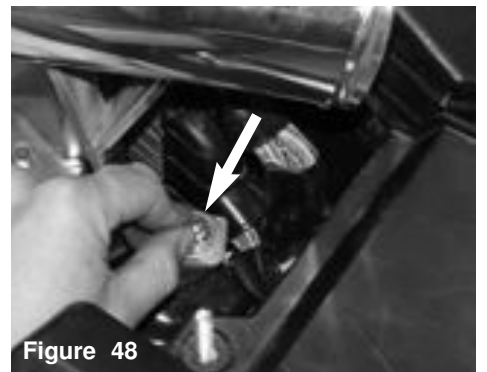


Figure 48
The washer and m6 flange nut is used to fasten the intake bracket to the vibra-mount stud.



Figure 49
The flange nut is tightened on the vibra-mount stud.



Figure 50
The boost solenoid stud is aligned to the intake bracket as shown above.



Figure 51
The stock m6 flange nut is used to fasten the boost solenoid to the intake bracket.

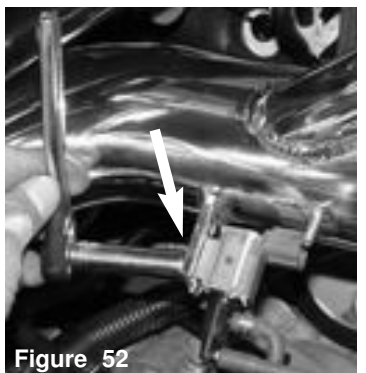


Figure 52
A 10mm socket is used to tighten the m6 flange nut.

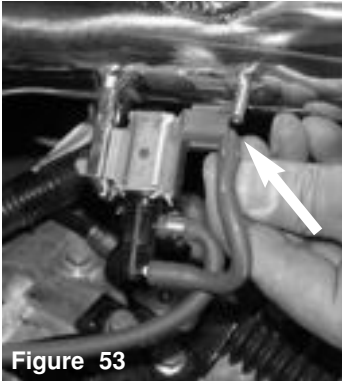


Figure 53

The short vacuum line on the boost solenoid is pressed over the 5mm intake vacuum port.

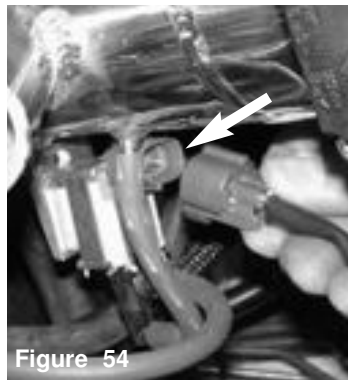


Figure 54

The electrical harness clip is pressed over the boost solenoid female harness connector.



Figure 55

The electrical harness is now installed.

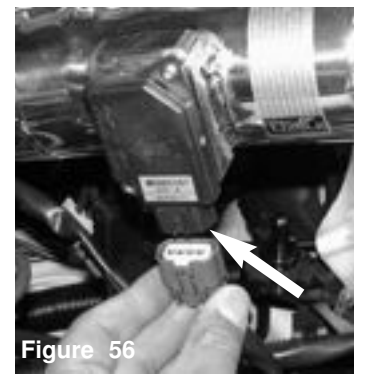


Figure 56

Connect the electrical harness to the mass air flow sensor. Push harness until you hear them snap in place.



Figure 57

The blow-off valve return line clamp is loosened. Once you have loosened the clamp, continue to pull return line off the hard pipe connected to the air duct.



Figure 58

Rotate the bent end hose 90 degree counter clockwise to the driver side, do not tighten the clamp at this point.

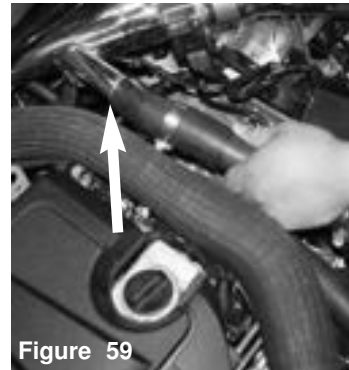


Figure 59

The BOV return line is now rotated and facing in the correct direction.

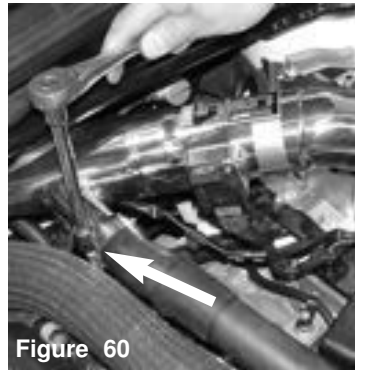


Figure 60

Once you have adjusted the return line to the large intake port, continue to tighten the hose clamp.

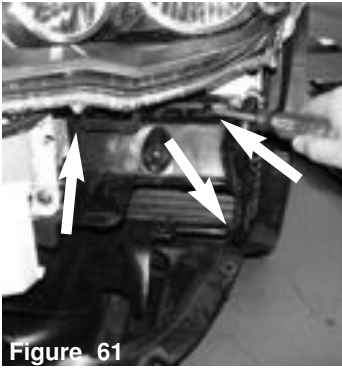


Figure 61

Remove three plastic clips, one on each side of the splash guard and one in front.

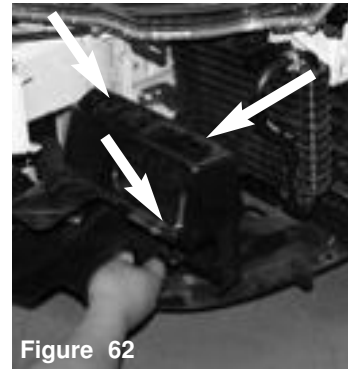


Figure 62

.All three plastic clips have been removed and the splash guard is now removed.

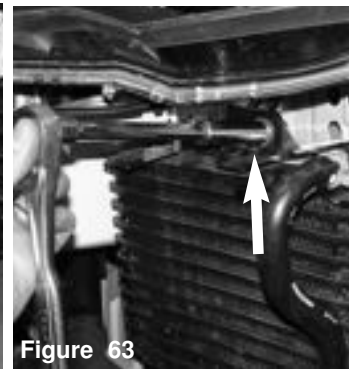


Figure 63

the first 12mm bolt is removed from the front of the oil cooler.

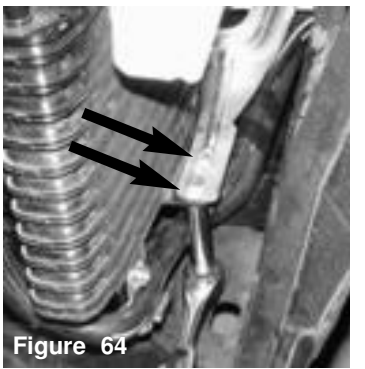


Figure 64

Two additional 12mm bolts are removed from the back side of the oil cooler.

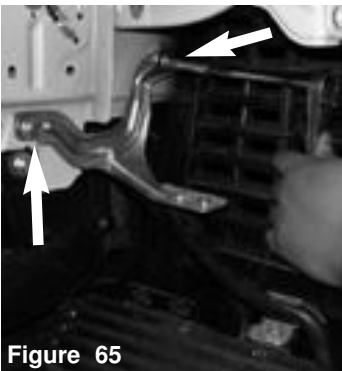


Figure 65

Loosen and removed two 12mm bolts located on the frame as shown above.

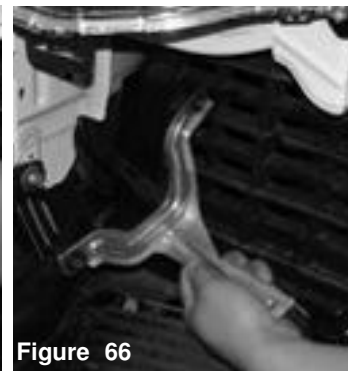


Figure 66

Once you have loosened and removed both 12mm bolts, continue to pull the bracket of the frame.

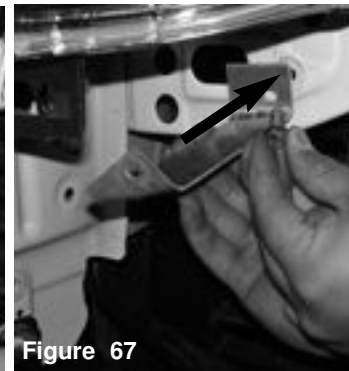


Figure 67

Place the new upper bracket on the frame crossmember where the oil cooler was located. Use the stock 12mm bolt to fasten the new bracket.

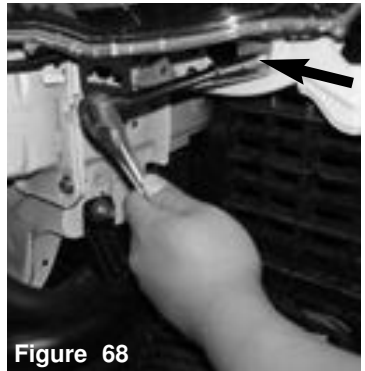


Figure 68

Once you have adjusted the bracket in its new location, continue to tighten the bolt.



Figure 69

Installing the lower bracket: Loosen and remove the 12mm bolt located on the lower frame that secures the inter-cooling piping



Figure 70

Align the lower bracket in place and use one of the 12mm bolts to secure the bracket in place.



Figure 71

A 12mm socket is used to fasten the bolt in place.

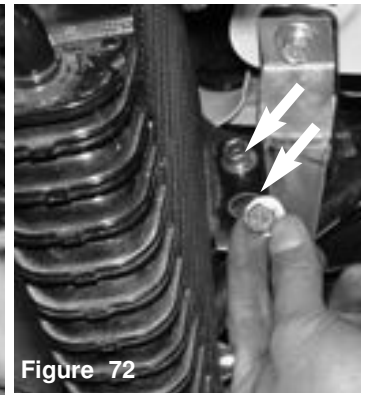


Figure 72

Raise the oil cooler in place and rest the lower oil cooler brace over the lower bracket. Use the stock 12mm bolts to hold the oil cooler in place.

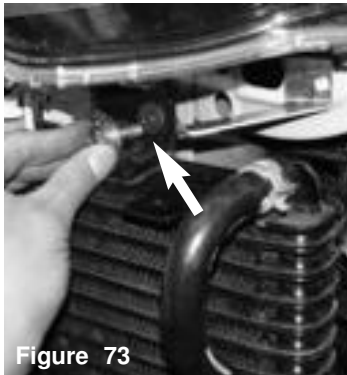


Figure 73

Lean the upper oil cooler brace against the upper bracket. Use the stock 12mm bolt to fasten the oil cooler in place.



Figure 74

Use a 12mm socket to tighten the 10mm bolt as shown above.

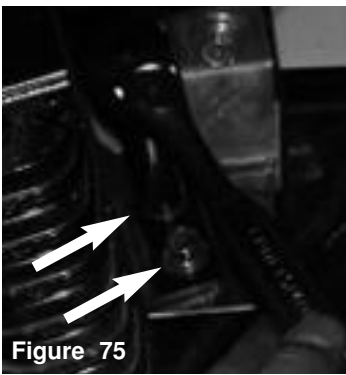


Figure 75

Use the 12mm socket to tighten the two lower bolts.

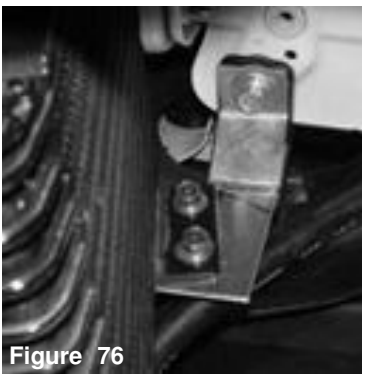


Figure 76

The oil cooler is now installed.



Figure 77

The return line clamp wings are rotated upward to avoid puncturing the plastic intercooler pipe.

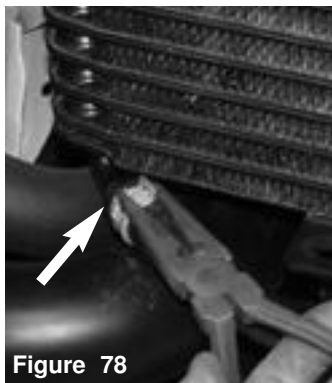


Figure 78

The tension clamp is loosened and rotated up as shown above.



Figure 79

The vibra-mount is aligned to the cross member brace behind the oil cooler.

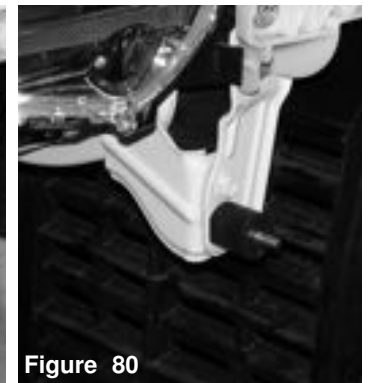


Figure 80

The secondary vibra-mount is now installed behind the oil cooler.



Figure 81

The three bend silicone hose intake is lowered into the front bumper area.

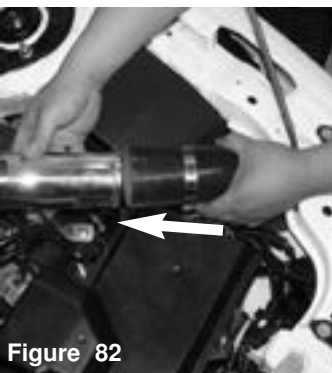


Figure 82

The upper silicone hose is aligned and pressed over the primary intake.

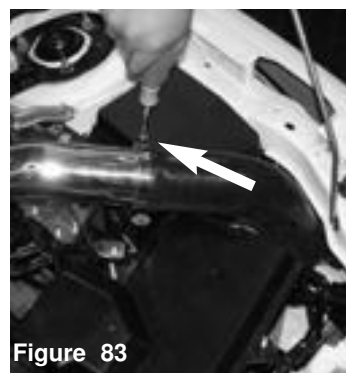


Figure 83

Align the entire intake system for best fit, then continue to tighten the hose clamp.

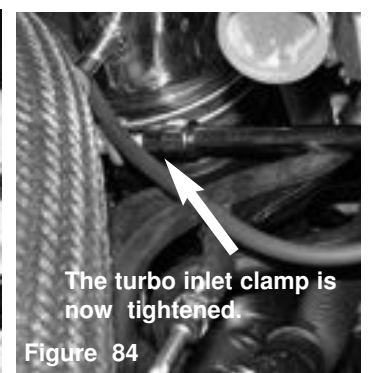


Figure 84

The turbo inlet clamp is now tightened.

The turbo inlet hose clamp is now tightened.



Figure 85

The secondary intake is aligned to the silicone hose intake while aligning the intake bracket to the vibra-mount stud, place a clamp over the silicone hose.



Figure 86

The intake bracket is aligned to the vibra-mount stud.



Figure 87

The fender washer is placed over the vibra-mount stud and the flange nut is hand tightened over the stud.



Figure 88

The 10mm flange nut is tightened with a socket and ratchet.



Figure 89

The clamp on the silicone intake hose is now tightened.

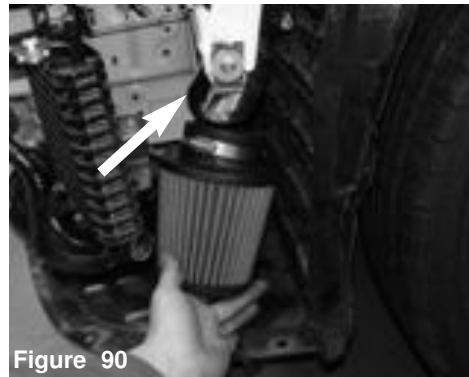


Figure 90

The filter is aligned to the secondary intake, the filter is pressed over the intake end until it comes to rest up against the filter stops.

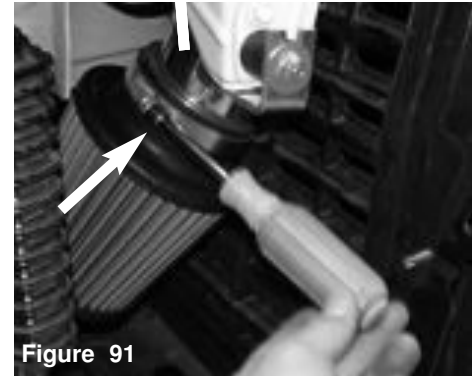


Figure 91

Once the filter comes to rest against the intake end, continue to tighten the filter clamp.



Figure 92

Place the bumper back to its original position and use all bolts and plastic clips and bolts removed earlier prior to installing the intake. Replace the front shroud over the crossmember, the air scoop will not be used with this installation.



Figure 93

Align the intakes for best possible fit. Once you have aligned and made sure that the length of the intakes are free from any moving parts, continue to tighten all nuts, bolts and clamps. **The upper intercooling pipes, SES1837ICP is now sold separately.**



Figure 94

Congratulations! You have just completed the installation of the best cold air intake consisting of the patented MR Technology and now patent pending Air Fusion. Periodically, check the fitment of the intake for possible shifting that may occur over time or driving conditions.

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.