



## Part number SP1110

1999-05 BMW E46

323i/325i/328i

2.5L L6

Short Ram Intake System

- 1- 5" Injen dry filter (#1045)
- 1- 3-3/4" adaptor (#6049)
- 1- Heatshield (#11058)
- 1- Cover (#11059)
- 1- 3-1/8"x3-3/4" step hose (#3044)
- 1- Power Bands #056 (#4005)
- 1- Power Bands #064 (#4006)
- 8- M6 button head screw (#6083)
- 1- M6 vibra-mount (#6020)
- 1- M6 flange nuts (#6002)
- 1- M6 washers (#6010)
- 1- Vinyl trim @ 10"L (#6023)
- 1- Grommet (#8031)
- 1- 2 Page instructions

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



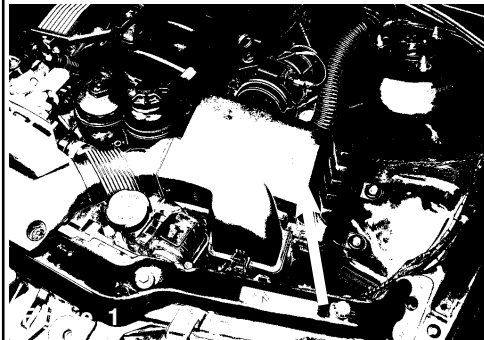
**Congratulations! You have just purchased the best engineered, dyno-proven cold air intake system available. Please check the contents of this box immediately.**

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.

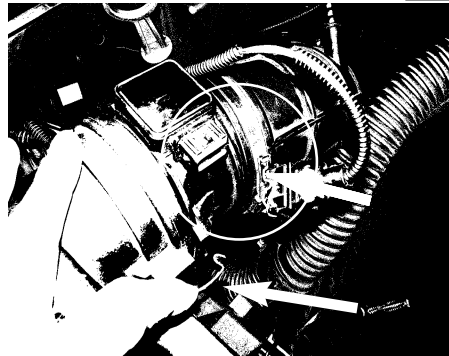
**Note: This intake system was Dyno-tested with an Injen filter and Injen parts. The use of any other filter or part will void the warranty.**

**M.R. 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!"**

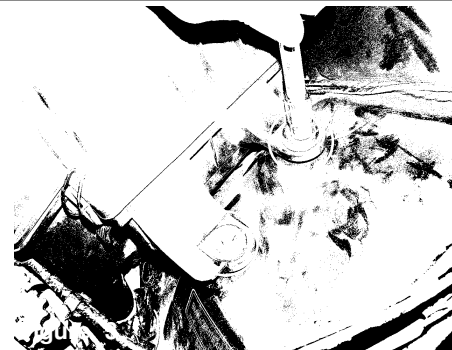
**Warning: Manufactures attempting to duplicate Injen's patented process will now face legal action.**  
 MR Technology Step down process:  
 1- Calibration Method for Air Intake Tracts for Internal Combustion Engines. Covered under Patent# 7,359,795  
 2- Calibration Device for Air Intake Tracts for Internal Combustion Engines. Published and patent pending  
 3- Calibration Method and Device for Air Intake Tracts having Air Fusion Inserts. Published and patent pending



Complete stock air box.



Disconnect MAF sensor harness. Un-clip the air box from the MAF sensor. Pull back MAF sensor from the air box.



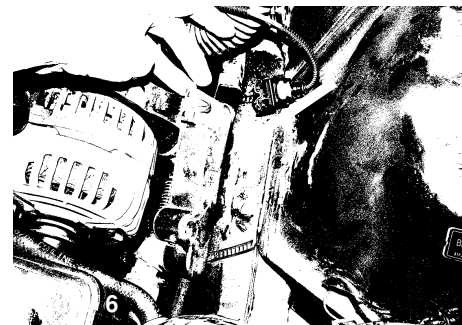
Loosen the 2-10mm bolts holding in the air box.



Figure 4: Pull back the snorkel scoop from the air box.



Figure 5: Carefully lift up and pull out the air box.



Remove the rubber isolator from the vehicle frame near the alternator



Figure 7: A) install m6 vibramount to the threaded insert on frame from step 5. B) Secure and tighten the vibramount.

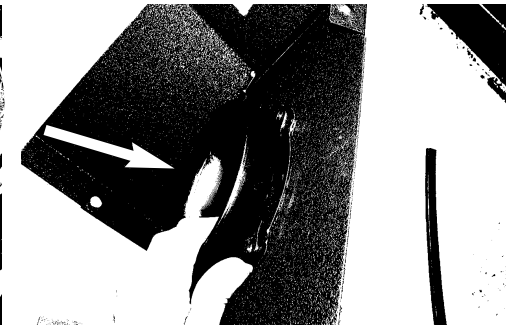
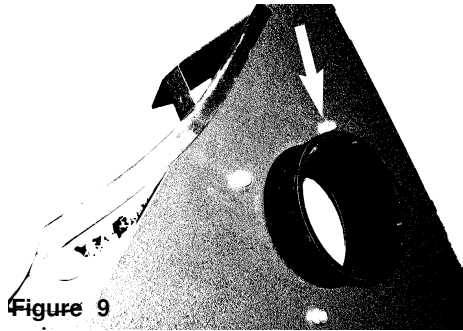
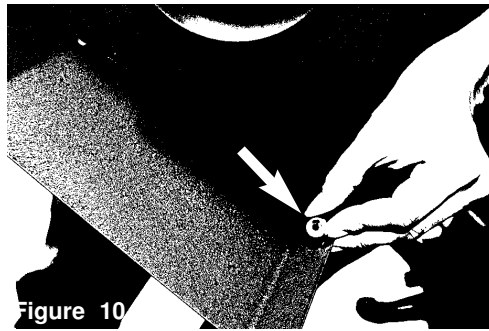


Figure 8: Install the Velocity stack adaptor to the inside of the heat-shield.



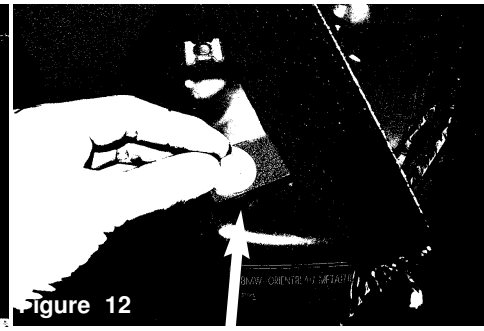
**Figure 9**  
Secure the Velocity stack adaptor using provided m6 allen screws.  
Install the vinyl trim to the edge of the heatshield.



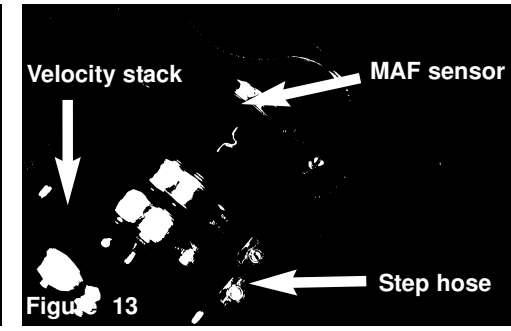
**Figure 10**  
Place the supplied grommet into the hole on the bottom of the heatshield



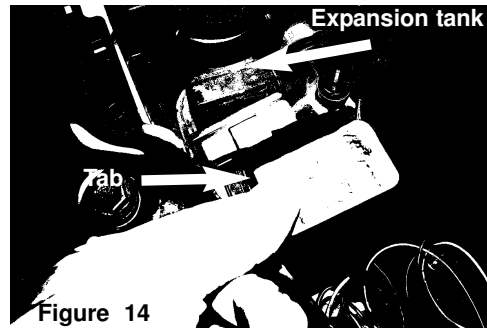
**Figure 11**  
Place the heatshield into the engine bay. Place the grommet onto the threaded stud located on the frame rail near the shock tower



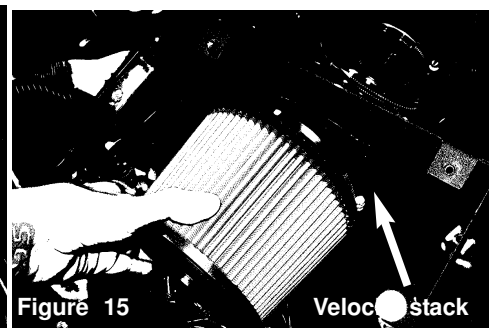
**Figure 12**  
Place the heatshield bracket onto the vibramount located on the driverside shock tower from figure 9. Place a M6 nut and washer and secure the heatshield to the frame.



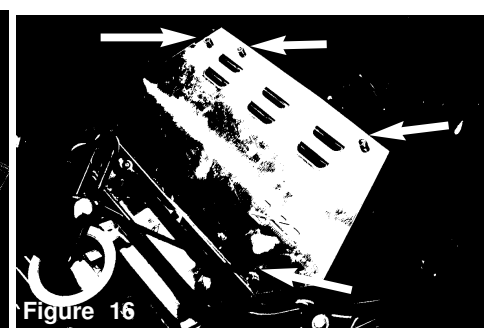
**Figure 13**  
Place the 3.50"-3.75" step hose, #56 and #64 clamp and place the 3.75" hose end on the velocity stack. Now place the MAF sensor into the 3.50" hose end and then secure all clamps



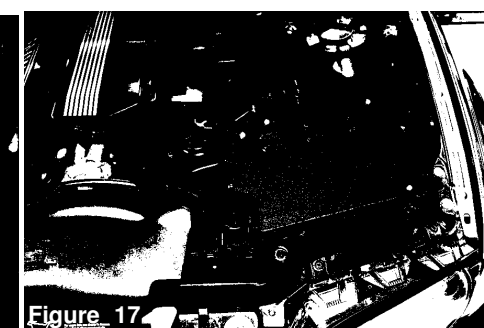
**Figure 14**  
Depending on chassis and engine type, you may require to remove the tab on the coolant expansion tank. Firmly slide tab to the right and it will detach from the expansion tank. This tab might interfere with the heatshield cover.



**Figure 15**  
Place the supplied filter onto the velocity stack



**Figure 16**  
Place the four M6 allen screws onto the heatshield cover and secure the cover to the heatshield with a allen driver



**Figure 17**  
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.
- 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.