



**BAVARIAN AUTOSPORT**

# Cold Air Intake Installation Instructions

**NOTE:** Throughout the instructions the term AFM is used. It refers to the Air Flow Meter which is located between the engine and the factory airbox.

**NOTE:** Before attempting this install make sure you fully read and understand these instructions. Also, ensure that the install is performed on a car that has had the opportunity to cool off after driving. Failure to do so could result in burns from touching hot engine components.

**NOTE ON FILTER MAINTENANCE:** The filter on your new intake is washable and will last for many years if cleaned periodically. The best way to clean the filter is to remove it and service it with a filter cleaning kit. These kits are available from Bavarian Autosport and require that you wash the filter and oil it after it has had the opportunity to dry. **DO NOT OVER-OIL THE FILTER. BE SPARING WITH THE OIL AS EXCESSIVE OILING CAN LEAD TO DAMAGE TO THE AFM.**

**M3** PART NUMBER:  
99 on 54-10461

**PROCEDURE:**

1. Remove the 4 plastic clips that hold the airbox inlet scoop in place. This is best achieved by pulling up on the center pin with pliers and then removing the entire fastener (Figure 1).



Figure 1

2. Lift the airbox scoop out of the car. Also be sure to remove the piece of ductwork that connected the airbox to the scoop (Figure 2).



Figure 2

3. On the airbox inlet there is a wire leading to the AFM sensor. Disconnect the wire by depressing its fixing tabs and pulling apart (Figure 3). This should come off easily so if you find yourself pulling hard, chances are that the fixing tabs are not depressed. On the side of the airbox lid are two metal clips, loosen them by placing a flat-headed screwdriver between the clip and lid and twisting. This clip will come off with very little force. Fully loosen the hose clamp that goes between the inlet pipe and the airbox lid. Once this is done, pull the inlet pipe away from the airbox lid. At this time, you may lift the entire airbox lid and filter out of the car.



Figure 3

**BAVARIAN**<sup>®</sup>  
autosport

275 Constitution Avenue, Portsmouth, NH 03801

• 603.427.2002

Call Toll Free: **1.800.535.2002**

• Fax 800.507.2002

• [www.bavauto.com](http://www.bavauto.com)

4. Disconnect the 2 wires that lead to the xenon light ballast (this is located between the airbox and driver's side fender). Make sure to depress the plastic fixing tabs on these connectors before pulling (*Figure 4*). Once these connectors are off, remove the black plastic cover that is over the xenon light ballast. This is snapped in place so be aware of this when pulling the cover off.



Figure 4

5. Using a 10mm socket wrench, loosen the 2 bolts that hold the airbox to the body of the car and the single nut that secures the xenon light ballast. Once this is done, lift the airbox out of the car. It may require a little bit of rocking back and forth to free it from its fixings (*Figure 5*).



Figure 5

6. Where the airbox mounted to, under the xenon ballast (on the rubber grommet on the airbox), there is a short metal tube that acts as a spacer. Slide this spacer out of the grommet and place it between the ballast and body (*Figure 6*). Re-install one of the bolts removed in Step 5 to hold the xenon ballast in place (loosened in Step 5). Once the ballast is secured, re-install the cover and re-connect the 2 cables (removed in Step 4).

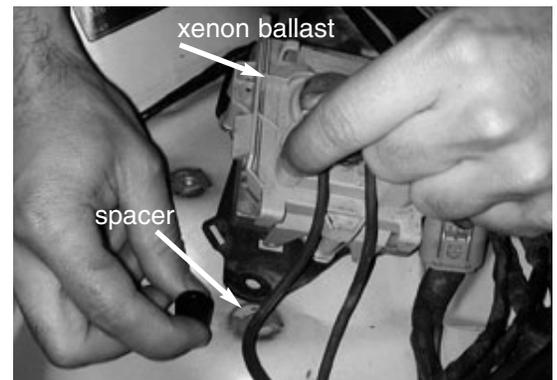


Figure 6

7. Loosen the 90° elbow that goes between the airbox and intake plenum. Remove the elbow (*Figure 7*).

**NOTE:** There is a rubber ring that might come out when you remove this elbow. Make sure that this rubber ring stays on the intake plenum.



Figure 7

8. Using the included tamper resistant torx tip (you can hold it by inserting it into an 8mm socket), remove the 2 screws that hold the AFM sensor to the airbox lid. Be careful with this sensor, it is quite fragile once removed from the airbox (*Figure 8*).



Figure 8

9. Using the included screws, install the AFM sensor into the intake velocity horn. Use the included rubber bracket washers ensuring that the rubber side of the washer is against the AFM sensor (*Figure 9*).



Figure 9

10. Slide the included air filter over the intake side of the velocity horn and tighten its hose clamp (*Figure 10*).

**NOTE:** The filter is shipped pre-oiled and does not require any oil.

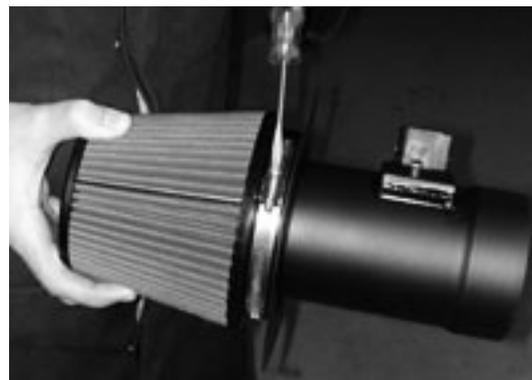


Figure 10

11. Install the elbow removed in Step 7 on the velocity horn (*Figure 11*). This may be a tight fit and its installation can be eased by warming the end of the elbow in some hot water. Be sure to tighten the hose clamp around the elbow.

**NOTE:** The orientation of the AFM sensor is at approximately the 2 o'clock position (assuming the elbow is laying flat on a table).



Figure 11

- 12.** Fit the intake assembly into the carbon fiber filter housing. Using the included v-band clamp, connect the 2 pieces of the assembly together. **DO NOT FULLY TIGHTEN!** Tighten the clamp to the point where the assembly stays together but can still rotate (*Figure 12*).

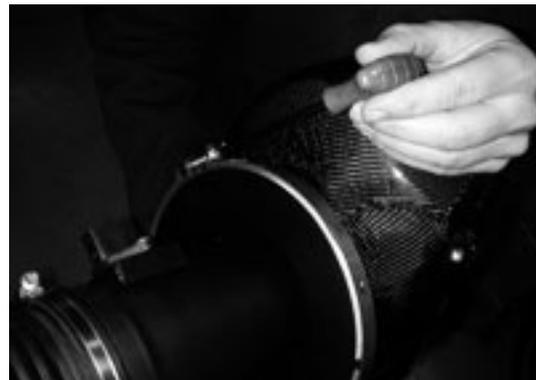


Figure 12

- 13.** Install the entire intake assembly. This is best done by sliding the 90° intake elbow **PAST** the inlet on the intake plenum. This action will give the assembly the room it requires to clear the front of the car and drop into position. Once the assembly has dropped into position (making sure the lower inlet pipe lines up with the factory duct from the driver's side brake duct), you may then fit the intake elbow to the intake plenum. **DO NOT TIGHTEN THE CLAMP YET** (*Figure 13*).

Note: There are 2 small alignment marks for the elbow. Once installed these marks will **NOT** line up as it is necessary to have the elbow installed a little counter-clockwise of its original position.

- 14.** (OPTIONAL) Included in the kit is some foam tape. You may place this tape between the body and the carbon intake to keep it from rattling. Make sure that the surface you stick the tape to is clean and free of any oils or dirt.

- 15.** Re-connect the AFM wire removed in Step 3.

- 16.** Using a sharp knife, cut the factory kidney grill ducts in the 3 places shown (*Figure 14*). Be sure to leave a tab in the center section. See close up of cut sections (*Figures 15 & 16*).



Figure 13

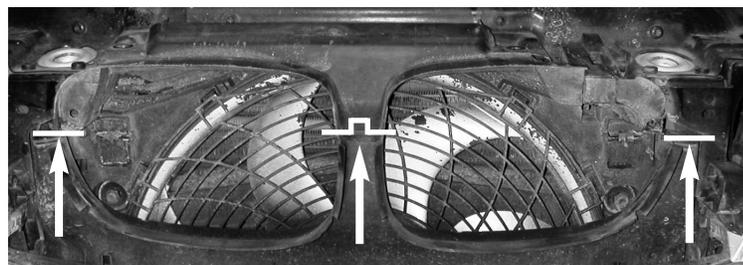


Figure 14



Figure 15



Figure 16

17. There is a small triangular shaped plastic tab left behind once the center grille is removed. Using a sharp knife, cut this tab off (*Figure 17*).



Figure 17

18. Install the carbon fiber inlet scoop to the front of the car making sure that the tab cut in step 16 slides into the groove on the scoop. Fix the assembly together using the included bolts, washers and nuts. Make sure that the carbon is resting right against the metal radiator support and that the washers have their rubber side against the carbon (*Figure 18*). **DO NOT FULLY TIGHTEN THE BOLTS AT THIS TIME.**

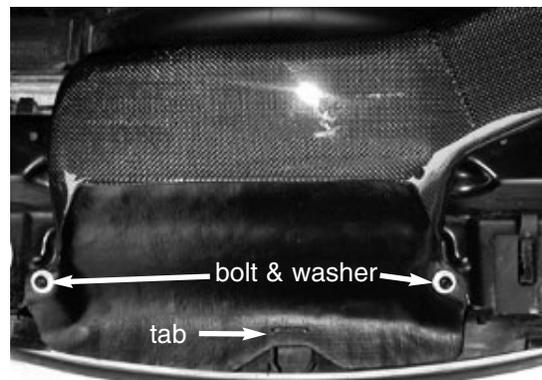


Figure 18

19. Install the last 2 bolts that join the intake scoop to the air filter housing. Once again make sure that the washers have their rubber sides against the carbon. Be sure to put a small amount of foam tape between the carbon pieces before joining them (*Figure 19*).

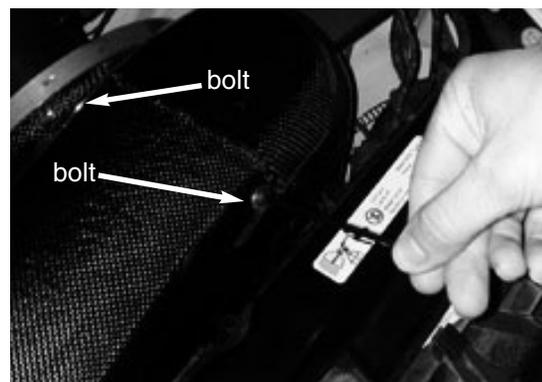


Figure 19

20. Make sure that the entire system is well fitted, ensuring that it is not forced or stressed anywhere. Once this is done, tighten:
- The bolts that connect the 2 carbon pieces.
  - The bolts that connect the front scoop to the radiator support.
  - The hose clamp between the intake elbow and intake plenum.
  - The large v-band clamp between the filter housing and intake velocity horn.
21. Start the car and let it idle for 5-10 minutes. During this time **DO NOT ACCELERATE THE ENGINE AT ALL**. This will allow the computer a chance to re-calibrate itself to the increased airflow offered by the intake. The install is now complete. Be sure to double check the tightness of all connections, bolts, and clamps before driving the vehicle.