

HIGH FLOW COLD AIR INTAKE SYSTEM INSTALLATION INSTRUCTIONS

D760-0320, D760-0320A

1992-95 325i, is 1995 M3 (3.0L)

Parts List:

| I | Intake Tube | I | Silicone Hose |
|---|---------------------------|---|------------------------|
| I | Air Flow Meter Bracket | I | Hose Clamp (#36z) |
| I | Air Filter | 2 | Hose Clamps (#48z) |
| I | Air Filter Bracket | 4 | 6mm x 18mm Washers |
| I | Nut Insert Tool Kit / 6mm | 2 | 6mm Nuts |
| 4 | 6mm x 16mm Bolts | I | Mini Hose Clamp (#12z) |
| 2 | 6mm Wave Washers | 2 | Tie Straps |
| 1 | Retaining Clip | 1 | CARB E.O. Label |

NOTES:

- Some mechanical skill is required to install this kit. If you feel that you do not have the requisite skill or tools (see below), please arrange for a qualified repair facility to perform the installation. We <u>strongly recommend</u> that you read these instructions completely before installing this kit so that you're familiar with all procedures, warnings, and precautions before the actual installation.
- This kit is designed for use with US specification headlights. <u>The intake pipe will not fit in</u> <u>vehicles modified with European headlights.</u>

If you encounter any difficulties during installation, or if these instructions are not clear to you, please call Dinan Engineering's Technical Support Staff @ (408) 779-8584.

Tools & Materials Required:

10mm socket Medium Flat Screwdriver (or 8mm socket) Die Grinder w/fiberglass grinding disc Center-Punch Small, Round File Light Hammer Electric or Pneumatic Drill I/8" Drill Bit 3/8" Drill Bit 1/2" Wrench

Removing the Factory BMW Air Box:

- I. Locate the two 10mm nuts securing the airbox to the mounting bracket on the front left fender. Remove these nuts.
- 2. Toward the rear of the air box, below and to the left of the airflow meter, please find the 'throttle pre-heat thermostat'. This thermostat can be identified by the two coolant hoses leading to it. Remove the single, 10mm bolt securing the thermostat to the rear of the air box. With the bolt removed, carefully pull the thermostat from the air box and gently set it aside. Do not remove any of the coolant hoses!
- 3. Locate the clip securing the inlet snorkel to the front of the chassis near the left front headlight assembly. Remove this clip and detach the inlet snorkel from both the front of the car and the air box.
- 4. Locate the two spring clips securing the airbox to the airflow meter. Carefully remove these two clips. Do not remove the rubber boot on the other end of the airflow meter. You will not be removing the airflow meter.
- 5. The air box should no longer be connected to any other parts and can now be carefully removed from the engine compartment and set aside.

Installing the Air Filter and Bracket:

- 6. Locate the Air Filter Bracket and Hardware included with your Kit. The Air Filter is to be mounted in the triangular space at the front of the left side wheel well. First you must relocate the horn which is mounted to the frame rail on earlier models. On later models, the inboard horn is mounted to a C-shaped bracket.
- 7. Disconnect the wiring harness from the horn and remove horn. Remove the C-shaped bracket where applicable.
- 8. Use a die grinder with a fiberglass disc to cut off the horn mounting tab that is mounted to the top side of the frame rail. Cut off tab from the two base pieces. <u>Be very careful</u> not to cut any wires!
- 9. Sand off any sharp edges and cover any bare metal using some touch-up paint.

Relocating Horn:

- 10. Feel for the screw that goes through the lower half of the aluminum bumper to hold the fog light. It is to the far left-side of the car. Remove this screw.
- 11. Reconnect the wiring harness to the horn.

12. Mount the horn to the bumper using the fog light screw. Position the horn so it is clear of the area where the filter will be mounted. Carefully slide the air filter down into the space you have created. This is a snug fit.

Mounting Filter Bracket:

- 13. Set the air filter bracket over the air filter. It will be mounted using two 6x10mm bolts, two 6mm nut insert fasteners, and one retaining clip. The two bolts and nut inserts will use both the single hole on the far outside end of the air filter bracket, and the rearmost hole (i.e., closest to the passenger compartment) on the engine side of the bracket. The two remaining engine side holes (i.e., closest to the front of the car) will not be used for this installation. Instead, a retaining clip has been included with this kit and will be located between these two unused holes.
- 14. Position the bracket for the best fit, then use a scribe to mark the two mounting holes you're going to be using onto the sheet-metal surfaces beneath. Be sure to hold the Air filter bracket still while marking these holes.
- 15. Remove the air filter and bracket from the car.
- 16. Use a center punch and hammer to carefully mark the center of both of the holes scribed in step 15. Be sure that they are well centered!
- 17. Use the 1/8" drill bit to start each of the two holes. Be careful not to drill through anything under the wheel well panel.
- 18. Finish drilling out each hole using a 3/8" drill bit or Unibit.
- 19. Carefully deburr the two holes using a small round file.
- 20. Use the Nut Insert Installation Tool (included) to install the nut inserts. The tool consists of a hex tool, a 6x30mm bolt, and an internal tooth lockwasher.

Nut Insert Installation (refer to figure included with installation tool):

- a. Place the 30mm long bolt through the hex tool.
- b. Slip on the lockwasher.
- c. Thread on one nut insert with the large end against the lockwasher. Finger tighten the nut insert.
- d. Push the small end of the nut insert into one of the 3/8" holes you drilled until it is inserted up to the lip on its sleeve.
- e. Tighten the bolt while holding the hex tool with a wrench. Tighten firmly.
- f. Remove the bolt and repeat the process for the next hole.

- 21. After installing the two nut inserts, locate the black, spring-steel retaining clip included with your kit. Look closely at this clip. You will notice that the gap on one side is larger than on the other. The larger gap is designed to fit snugly over the car's unibody. The smaller gap will fit snugly over the edge of the air filter bracket.
- 22. Install this retaining clip by carefully sliding it over the edge of the air filter bracket, between the two unused mounting holes. Be sure to install this clip with the larger gap in the inside of the bracket (toward the air filter) as the air filter bracket is designed to fit on the outside of the unibody flange.
- 23. After placing the air filter in its desired position, place the air filter bracket over the filter (the neck of the filter should be protruding from the hole in the bracket). With the bracket in position, slide the side of the bracket with retaining clip attached over the edge of the sheet-metal unibody directly beneath. The open side of the clip should fit snugly over the car's sheet-metal.
- 24. Carefully adjust the air filter bracket so that the two mounting holes are lined up with the two nut inserts. Finish mounting the bracket using the two 6x10mm bolts and 6mm wave washers supplied. Do not over-tighten these bolts or use any loctite on the bolt threads!
- 25. Place a rag over the air filter inlet to prevent dirt and foreign objects from entering the filter.

Installing Airflow Meter Bracket:

- 26. Please locate the vehicle's charcoal canister located directly below the airflow meter. The charcoal canister is mounted to a bracket on the side of the front left shock tower. Please loosen, but do not remove, the two nuts that secure the charcoal canister assembly to the chassis (approx. 1/8" is sufficient). With these nuts loosened, slide the L-shaped air flow meter bracket in place between the mounting bracket and the charcoal canister assembly. You should find that the two slotted holes in the airflow meter bracket match the two exposed studs connecting the charcoal canister to the chassis.
- 27. The horizontal length of the bracket should be right next to the airflow meter and actually fit between the flanges on either side of the airflow meter. While holding the upper portion of the bracket in this position, align the lower portion of the airflow meter bracket with the edge of the charcoal canister mounting bracket so that their edges are parallel. Please note that the airflow meter bracket does not need to pushed all the way back toward the passenger compartment. It is more important that the edges of both brackets are parallel so that the upper half of the airflow meter bracket is horizontal.
- 28. With the airflow meter bracket in its final position, re-tighten the two nuts, securing both the charcoal canister and the airflow meter bracket to the chassis. At this point, the upper portion of the airflow meter bracket should not be attached to the air flow meter.

Installing the Intake Tube:

- 29. Remove the rag covering the top of the air filter. Please place the large, #48z hose clamp supplied with the air filter around the 'mouth' of the air filter.
- 30. Locate the Silicone Hose and the #36z hose clamp from the kit. Slip the reduced end of the hose onto the Airflow Meter and tighten it down with the clamp.
- 31. Slip the remaining #48z hose clamp onto the large end of the silicone hose.
- 32. Carefully insert the outlet of the intake tube (the end with the fitting) into the silicone hose attached to the airflow meter. Adjust the rotation of the tube so that its inlet is parallel with the opening in the air filter and the fitting is pointing vertically downward.
- 33. Tighten the surrounding hose clamp until snug.
- 34. Gently guide the inlet of the tube into the opening in the air filter.
- 35. Tighten the surrounding hose clamp until snug.
- 36. Carefully slide the smaller #12 hose clamp over the fitting underneath the tube.
- 37. While holding the clamp in place, carefully pull the thermostat around, extending the coolant hoses, and rotate the thermostat so that the brass end is pointing upward.
- 38. Gently insert the thermostat into the fitting underneath the tube.
- **39**. Tighten the surrounding hose clamp until snug. The thermostat should be held securely in the fitting.
- 40. Gently locate the airflow meter so that the airflow meter bracket fits between the flanges on either end of the airflow meter and is aligned vertically as well.
- 41. Using the two large zip-ties included, secure both ends of the airflow meter bracket against the airflow meter. Each zip-tie should be located against one of the flanges at either end of the airflow meter. After pulling each zip-tie tight, trim away the excess length. Rotate the business end of each zip-tie so that it is under the airflow meter and hidden from view.
- 42. If the car was equipped with cruise control, reattach the actuator to the original airbox mounting tabs using the remaining 6x16mm bolts, 6mm fender washers, and nuts.

You are now done installing this kit. Enjoy!

Note:

• We recommend replacing the air filter every 15,000 miles. The Dinan part number is D403-0350.