



Equipped with AEM® *Dryflow™ Filter*

No Oil Required!

INSTALLATION INSTRUCTIONS

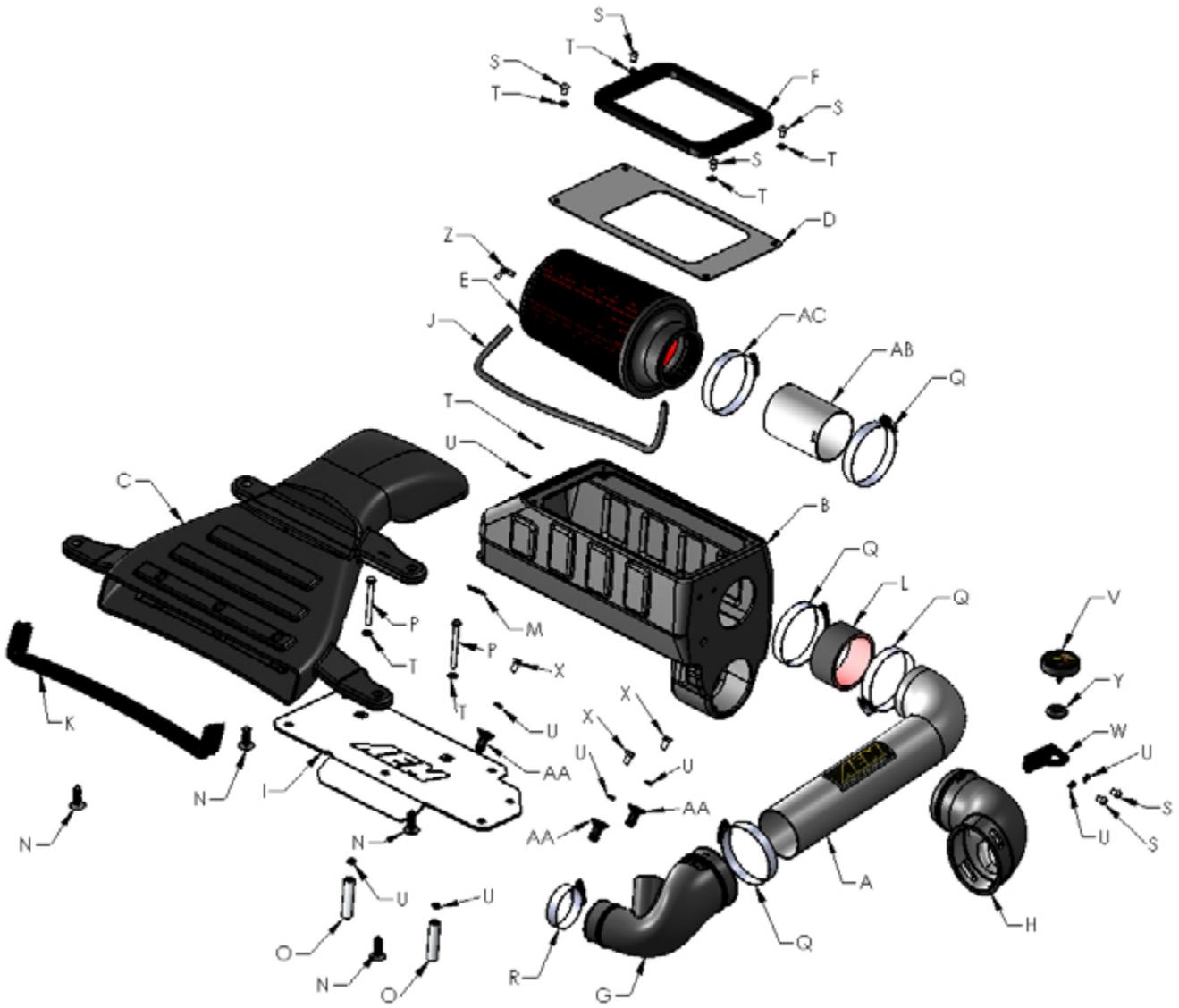
PART NUMBER: 21-719

2007-2010 MINI Cooper S L4-1.6L W/O MAF SENSOR SEE NOTE*

PARTS LIST

| | Description | Qty. | Part Number |
|----|---|------|-------------|
| A | Tube, Intake, Mini Cooper S | 1 | 2-1454 |
| B | Air Box Intake, Mini Cooper S, No MAF Sensor | 1 | 9-4035 |
| C | Cold Air Hood Scoop, Mini Cooper S | 1 | 9-0397-1 |
| D | Heat Shield, Lid, Air Box | 1 | 20-8517 |
| E | AEM® Dryflow™ Air Filter | 1 | 21-2027D-HK |
| F | Gasket, Window, Hi-Temp Silicone Foam | 1 | 5-1060-1 |
| G | Coupler, Elbow, Turbo Inlet | 1 | 5-1061 |
| H | Coupler, Elbow, Air Box Lower | 1 | 5-1058 |
| I | Heat Shield, Turbo | 1 | 20-8524 |
| J | Hose, 5/32" I.D. X 18"L | 1 | 5-3018 |
| K | Gasket, EPDM Bulb Seal 16" L | 1 | 8-4016 |
| L | Hose; 2-3/4" I.D. X 1-1/2" L Reinforced | 1 | 08179 |
| M | Washer, Flat, M6 X 1.0" O.D. | 1 | 08160 |
| N | Rivet, Push-in, Nylon, Ribbed Shank, .281 Hole | 4 | 8-174 |
| O | Spacer, Alum 0.500" OD X 0.250" ID X 2.125"L | 2 | 7-252 |
| P | Bolt; Hex M6-1 X 65mm | 2 | 1-2095 |
| Q | Hose Clamp, #44, 2.31-3.25" | 4 | 9444 |
| R | Hose Clamp, #28, 1.75" | 1 | 9428 |
| S | Bolt; Button Head M6-1.0 X 10mm | 6 | 1-112 |
| T | Washer, M6 X 12mm OD Zinc | 7 | 1-3018 |
| U | Washer, Split, M6 X 12mm OD Zinc | 8 | 1-3025 |
| V | AEM® Filter Minder™, 10" H2O | 1 | 35-80311 |
| W | Bracket, Support Filter Minder | 1 | 32-3017 |
| X | Bolt, Hex M6-1 X 12mm | 3 | 1-2065 |
| Y | Grommet, 1/2" I.D., AEM Filter Minder Mntg. | 1 | 784634 |
| Z | Elbow, Plastic, 5/32" I.D. 90-Degree | 1 | 8-152 |
| AA | Mount, Plastic Air Box | 3 | 8-186 |
| AB | Tube, Intake, Extension, Mini Cooper S, No MAF Sensor | 1 | 2-1497 |
| AC | Hose Clamp, #48, 2.56"-3.50" | 1 | 9448 |

Kit Illustration



Read and understand these instructions **BEFORE** attempting to install this product. Failure to follow installation instructions and not using the provided hardware may damage the intake tube, throttle body and engine.

The AEM® intake system is a performance product that can be used safely during mild weather conditions. During harsh and inclement weather conditions, you must return your vehicle to stock OEM air box and intake tract configuration. Failure to follow these instructions will void your warranty.

1. Preparing Vehicle

- Make sure vehicle is parked on level surface.
- Set parking brake.
- If engine has run in the past two hours, let it cool down.
- Disconnect negative battery terminal.
- Do not discard stock components after removal of the factory system.

2. Removal of stock system



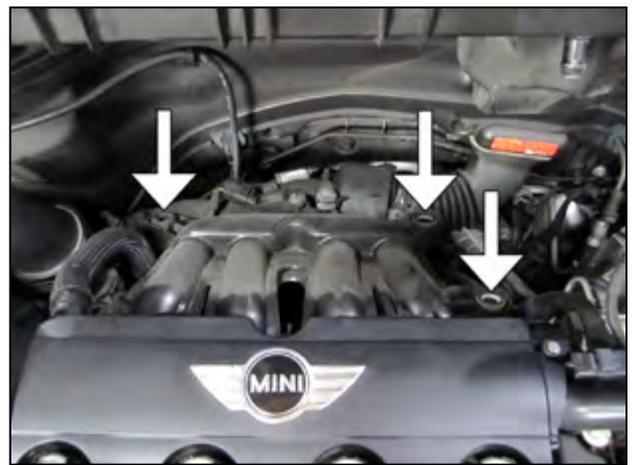
a. Loosen the hose clamp connecting the intake tube to the stock air box.



b. Loosen the hose clamp connecting the intake tube to the turbo inlet. Disconnect the PCV hose to completely remove the intake tube.



c. Remove the lower Torx screw and plastic grommet insert at the passenger side foot of the stock air box using a T20 Torx bit. Retain the Torx screw for future use.



e. Pull up on the stock air box assembly carefully until it pops free from the 3 rubber mounting grommets on the intake manifold. Make sure all 3 rubber grommets stay in the intake manifold.



f. Unclip the plastic vacuum line from the lower intake elbow.



g. To completely remove the air box assembly, disconnect the air box inlet elbow (left) from the stock intake tube (right) by squeezing on the intake tube and pulling it free from the 4 locking slots in the intake elbow.

3. Installation of AEM® Cold Air Intake System

a. When installing the intake system, do not completely tighten the hose clamps or mounting hardware until instructed to do so.



b. Install the 3 black plastic airbox mounts (AA) onto the bottom of the air box (B) as shown using 3 of the M6 hex bolts (X) and 3 of the split washers (U) inside the air box. Fully tighten the 3 bolts and washers inside the air box.

c. Install the mounting grommet (Y) into the AEM® Filter Minder support bracket (W) as shown.



d. Mount the filter minder support bracket onto the brass inserts on the side of the air box using 2 of the M6 buttonhead bolts (S) and 2 of the split washers (U). Fully tighten the bolts with a 4mm allen wrench.

e. Mount the AEM® Filter Minder™ gauge (V) into the grommet of the support bracket and orient as shown. Use glass cleaner or a silicone lubricant to ease installation into the grommet. If necessary, reset the gauge needle so it points to the green section of the indicator.



f. Install the short reinforced hose (L) half-way onto the end of the intake tube extension (AB) and secure it with a #44 hose clamp (Q).



g. Insert the intake tube extension into the side of the airbox and loosely install another #44 hose clamp (Q) onto the tube inside the box.



i. Install the small elbow fitting (Z) into the small hole in the cap of your AEM® Dryflow™ Air Filter (E) as shown.



j. Install the 5/32" hose (J) over the elbow fitting as shown.



k. Install the filter assembly into the airbox with #48 hose clamp (AC) on the end. Push the #44 hose clamp already on the intake tube against the inside of the airbox and fully tighten it to seat the tube.



l. Mount the Dryflow™ Air Filter onto the intake tube and fully tighten the hose clamp.



l. Push the 5/32" hose attached to the air filter through the 3/8" hole on the side of the air box and connect it to the port on the AEM® Filter Minder™ gauge as shown. Trim the hose as needed.



n. Install the large flat washer (M) onto the bolt under the foot mount to level the air box when installing the assembly onto the engine. Due to part variation, this may not be needed in some vehicles.



p. Tighten the Torx bolt into the intake manifold. Do not over tighten.



m. Install the OEM Torx bolt with one flat washer (T) and one split washer (U) into the airbox mounting foot as shown.



o. While holding the flat washer and Torx bolt in place, install the airbox assembly onto the 3 stock rubber grommets on the intake manifold. Thread the Torx bolt into the manifold by hand.



s. Install the oval end of the lower airbox inlet coupler (H) over the outlet of the stock plastic intake tube. Fully seat the intake tube until the 4 plastic lock tabs fit into the slots in rubber coupler.



r. Insert the round end of the elbow coupler (H) into the lower inlet hole in the air box. Make sure it is fully seated.



x. Remove the waxed paper backing from the silicone foam window gasket (F) by pinching the gasket on its sides, then peeling up the edge of exposed paper. **DO NOT USE A KNIFE TO REMOVE THE PAPER BACKING.**



y. Place the air box heat shield lid (D) on a table with the part number stamp facing DOWN. Apply the adhesive side of the silicone foam gasket on the heat shield, aligning it with the window cutout. Press down on the gasket to ensure adhesion.
NOTE: The adhesive must set for 24 hours for best results.



z. Mount the heat shield lid assembly onto the air box using 4 M6 buttonhead bolts (S) and 4 flat washers (T). Tighten using a 4mm Allen wrench. Start all 4 bolts before fully tightening.



aa. Loosely install the turbo elbow coupler (G) onto the turbocharger inlet using the #28 hose clamp (R) provided. Fully seat the PCV connector into the bypass port of the coupler. Use glass cleaner to ease installation if necessary.



ab. Loosely install the intake tube (A) into the turbo coupler (G) and then into the short hose (L) on the air box using 2 #44 hose clamps (Q). Adjust the tube until it is straight alongside the engine and then fully tighten all 3 hose clamps.



ac. Assemble the 2 M6 x 65mm hex bolts (P), 2 flat washers (T), 2 split washers (U), and 2 aluminum spacers (O) so the hex bolts slide through the turbo heat shield (I) holes and into the aluminum spacers as shown. Assemble the parts so that the flat washers mount on top of the heat shield and the split washers are sandwiched by the heat shield and aluminum spacers.



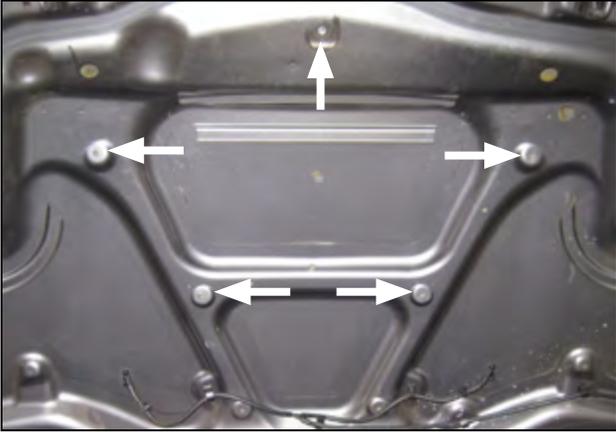
ad. Mount the 2 long hex bolts of the turbo heat shield assembly into the 2 M6 mounting bosses at the edge of the cylinder head as shown. If you are installing an additional aftermarket valve cover heat shield to these two bosses, then do not install the split washers between the AEM® turbo heat shield and the aluminum spacers in the previous step.



ae. Fully tighten the 2 hex bolts. Pull up on the AEM® turbo heat shield (I) to ensure there is slight air gap between it and the stock turbo heat shield wrap. **NOTE: The AEM® aluminum heat shield is required to protect your AEM® Cold Air Hood Scoop from excess heat.**

4. Installation of the AEM® Cold Air Hood Scoop

a. When installing the intake system, do not completely tighten the hose clamps or mounting hardware until instructed to do so.



b. Using a Phillips screwdriver, remove the 4 plastic screws retaining the insulation pad under the vehicle's hood and remove the pad. In most vehicles, also remove the single screw (top) retaining the external hood scoop bezel. Close the hood.



d. Place the hood scoop bezel face down onto a clean cloth or towel to prevent scratching. Remove the 4 small Phillips screws retaining the air restrictor grille. Remove the grille.



c. Carefully pull up at the rear center of the factory hood scoop bezel using small fingertips and a soft cloth until it pops free from the hood. Carefully pull up on the remaining mounting tabs to remove the bezel.



e. Re-install the now fully open hood scoop bezel onto the vehicle hood by hand. DO NOT use a mallet to force the tabs in.



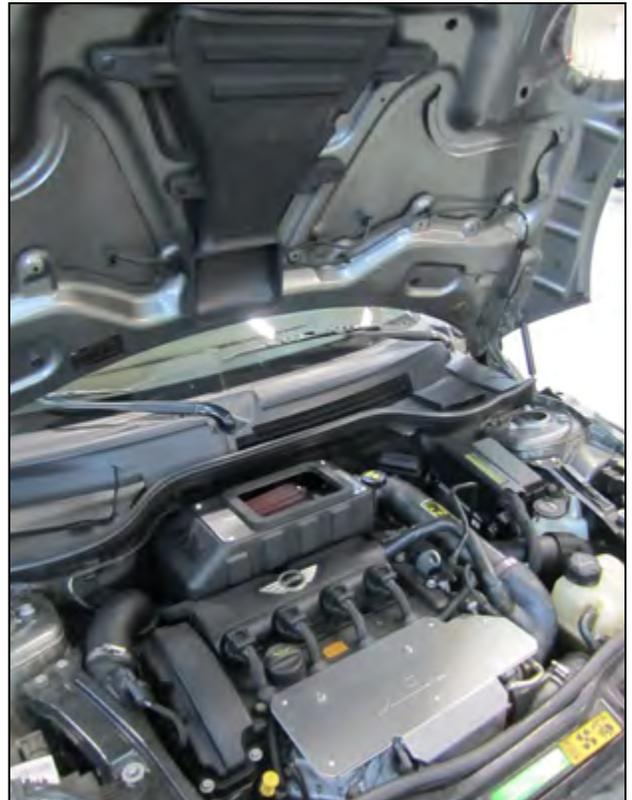
f. Install the rubber edge bulb trim (K) onto the lower lip and sides of the cold air hood scoop inlet (C). Cut the inner clamping edge of the trim and overlap it at the sharp bends if needed. Ensure the edge trim is even on both sides of the inlet and use the heel of your hand or a light rubber mallet to fully seat it.



h. In some vehicles, you may need to unclip the windshield washer hose under the hood to prevent the hose from being pinched. Re-route the hose around the back of the new hood scoop and then re-clip the hose.



g. Open the vehicle's hood. Mount the AEM® cold air hood scoop onto the underside of the hood by inserting the plastic push rivets (N) through the mounting brackets and into the 4 insulator pad mounting holes by hand. Ensure the 4 push rivets are fully seated. Make sure the rubber edge bulb trim at the inlet fully seals along the cutout in the underside of the vehicle hood.



AEM® Cold Air Intake installed

5. Reassemble Vehicle

- a. Position the inlet pipes for the best fitment. Be sure that the pipes or any other components do not contact any part of the vehicle. Tighten the rubber mounts (if applicable), all bolts, and hose clamps.
- b. Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
- c. Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
- d. Reconnect the negative battery terminal and start the engine. Let the vehicle idle for 3 minutes. Perform a final inspection before driving the vehicle.

6. Service and Maintenance

- a. AEM® Induction Systems requires cleaning the intake system's air filter element every 100,000 miles. When used in dusty or off-road environments, our filters will require cleaning more often. We recommend that you visually inspect your filter once every 25,000 miles to determine if the screen is still visible. When the screen is no longer visible some place on the filter element, it is time to clean it. If your intake is equipped with an AEM Filter Minder Gauge: When the needle on the gauge points to the red zone, it is time to clean your filter. To clean, purchase our AEM® Synthetic Air Filter Cleaner, part number 1-1000 and follow the easy instructions.
- b. Use a damp cloth or window cleaner to clean your powder coated AEM® intake tube. **NOTE: DO NOT USE aluminum polish on powder coated AEM® intake tubes.**