

Equipped with AEM<sup>®</sup> *Dryflow*™ *Filter* No Oil Required!

# INSTALLATION INSTRUCTIONS PART NUMBER: 21-478

2011-2014	SUBARU	WRX STI	H4-2.5L Turbo	
2008-2010	SUBARU	WRX STI	H4-2.5L Turbo	C.A.R.B. E.O. # D-670-6
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## **PARTS LIST**

	Description	Qty.	Part Number
Α	Air Filter Assy 2.75 X 9" Dry Ele.	1	21-2029DK
В	Inlet Pipe	1	2-478
С	Heat Shield	1	20-478
D	Hose, Silicone 2.75x3" Blk.	1	5-275
Е	Edge Trim, 13"	1	8-4013
F	Edge Trim, 15.5"	1	8-4155
G	Mount, Rubber 1" X 6mm	1	1228599
Н	Zip Tie, 8" Tree Push-Mnt.	1	1-127
I	Rubber Edge Trim 11.5"	1	102466
J	Bolt, Btn. Hd. M4-0.7 X 6mm	2	1-2051
K	Bolt, Hex/Flange M6-1 X 20	1	1-2038
L	Washer, 6mm Soft Mount	1	08160
М	Nut, M6 Hex Serrated	2	444.460.04
N	1/2" Bnd. Hose Clamp, 2.31-3.25"	2	9444
0	1/2" Bnd. Hose Clamp, 2.56"-3.50"	1	9448



Read and understand these instructions <u>BEFORE</u> 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

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

## 2. Removal of stock system



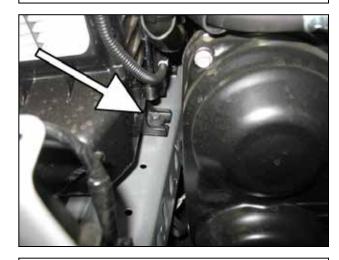
a. Remove the two plastic clips and the factory fresh air inlet duct.



c. Remove the two nuts securing the factory air box. Save these nuts for later use.



b. Loosen the nut securing the factory air box mounting bracket, but **DO NOT** remove the nut.



d. Remove the bolt securing the bottom of the factory air box.



e. Unplug the MAF sensor wire harness.



g. Loosen the hose clamp securing the factory air box inlet to the compressor inlet tube.



i. Remove the remaining half of the factory air box.



f. Remove the MAF sensor from the air box by removing the two screws. Set the MAF sensor aside in a safe area for later use.



h. Unclip the air box clips and remove the rear half of the factory air box assembly.



j. Remove the headlight access cover by twisting it counter clockwise. Save the cover for later use.

## 3. Installation of AEM® intake system.

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



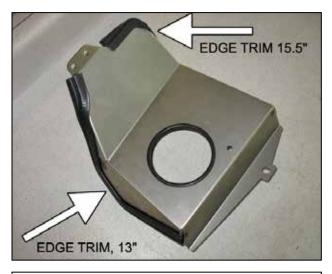
b. Install the rubber edge trim on the heat shield as shown.



d. Install a M6 rubber mount onto the heat shield, secure with supplied M6 nut.



f. Insert the AEM® intake pipe through the heat shield's inlet hole.



c. Install the edge trim on the heat shield as shown.



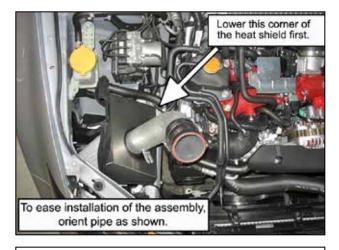
e. Insert the MAF sensor into the AEM® intake pipe with the supplied M4 screws.



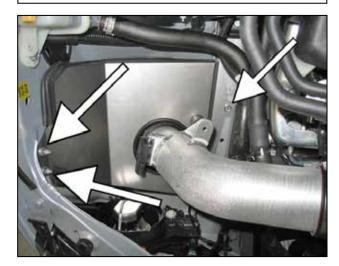
g. Slide the air filter and #48 hose clamp onto the end of the intake pipe. Slide the air filter onto the intake pipe until the pipe hits the pipe stop.



h. Orient the hose clamp as shown in the picture, then tighten.



j. Carefully maneuver the AEM® intake pipe assembly into position. Ensure the slotted bracket on the intake pipe is seated on the rubber mount stud.



I. Secure the heat shield with the supplied M6 bolt and two factory M6 nuts removed in step 2c. Tighten all 3 fasteners.



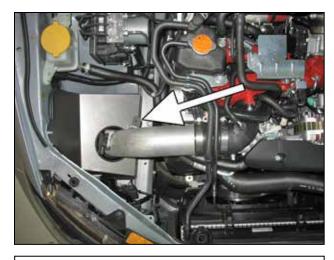
i. Install the silicone coupler and two #44 hose clamps onto the intake pipe. Orient the hose clamps as shown but do not completely tighten.



k. Slide the silicone coupler onto the compressor inlet pipe. Orient the hose clamps on the compressor inlet as shown and tighten securely.



m. Secure the inlet pipe to the rubber mount with the supplied fender washer and M6 nut, but do not completely tighten.



n. Align the intake pipe so it is centered within the heat shield's inlet hole. Tighten the M6 nut to secure the rubber mount assembly.



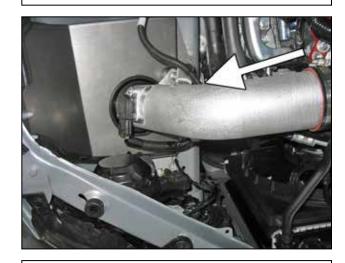
p. Replace the headlight access cover that was removed in step 2j.



Factory air box system installed



o. Hold the intake pipe in position and tighten the final hose clamp on the silicone coupler.



q. Route the MAF sensor wiring harness under the intake pipe and then secure to the MAF sensor. Secure the MAF sensor wiring to the intake pipe's bracket with the tree-mount zip tie.



AEM® intake system installed

#### 4. 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 mount (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 negative battery terminal and start engine. Let the vehicle idle for 3 minutes. Perform a final inspection before driving the vehicle.

#### 5. CARB Sticker Placement

a. The C.A.R.B. exemption sticker, (attached), must be visible under the hood so that an emissions inspector can see it when the vehicle is required to be tested for emissions. California requires testing every two years, other state may vary.

#### 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. To clean, purchase our Synthetic air filter cleaner, part number 99-0624 and follow the easy instructions.
- b. Use window cleaner to clean your powder coated AEM® intake tube.

NOTE: DO NOT USE aluminum polish on powder coated AEM® intake tubes.