

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

# INSTALLATION INSTRUCTIONS PART NUMBER: 21-8126DS (Plastic Intake Tube)

2011-2014 Ford F150 V6 3.5L ECOBOOST C.A.R.B. E.O. D-670-19

Intake systems for vehicles listed are 50 state legal. See AEMIntakes.com for CARB status on each part for a specific vehicle.

## **PARTS LIST**

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
Α	21-2288DK	AIR FILTER; TAPERED FLG 5 X 8" DSL OVAL DRYFLOW	1
В	5-1068	INSERT, DIESEL A/F ASSY 5" TAPERED	1
С	8-181	ADAPTER, HITACHI MAF WITH O-RING GROOVE	1
D	8-182	O-RING, SIZE 223 BUNA 50	1
Е	784642	GROMMET; 1.05" OD, .5"ID, .1875" GROOVE	1
F	35-80321	FILTER MINDER, 20"	1
G	1-1016	BOLT; HEX/FLANGE M6-1 X 30	5
Н	32-3089	BRACKET; 21-8125, AIR BOX	1
I	1-2105	BOLT; SOCKET M47 X 8MM	4
J	1-2051	BOLT; BTN HD M4-0.7 X 6MM	2
K	1-2034	BOLT; HEX M8-1.25 X 20MM	1
L	8-186	MOUNT, PLASTIC AIRBOX	2
М	1-3018	WASHER, M6 x 12MM OD ZINC	6
N	1-2065	BOLT; HEX M6-1 X 12MM	8
0	103-BLO-8020N	1/2" BNDHOSE CLAMP,4.00"-5.00"	1
Р	9-0439	INLET TUBE; FORD F150 3.5L V6 ECOBOOST	1
Q	5-300	hose; silicone 3.00 x 3" blk	1
R	5-400	hose; silicone 4.00 x 3" blk	1
S	8-172	VENT; BRASS BARB 3/8" x 1/4" NPT	2
Т	5-3030	HOSE; 5/32"ID X 30"L	1
U	9-0414	RESERVOIR; COOLANT, FORD F-150 5.0L,2011, 21-8125	1
V	9-0417	AIR BOX; LOWER, 21-8125, FORD F150 5.0L	1
W	9-0416	AIR BOX; UPPER, 21-8125, FORD F150 5.0L	1
Х	8-4006	EDGE TRIM, 6"	1
Υ	8-4008	EDGE TRIM, 8"	1
Z	9444	HOSE CLAMP, 2.31-3.25"	2
AA	8-152	ELBOW,PLASTIC 5/32" 90 DEGREE	1
AB	9464	1/2" BNDHOSE CLAMP,3.15"-4.00"	2
AC	5-1028	HOSE; 3/8"ID X 28"L	1
AD	1-2038	BOLT; HEX/FLANGE M6-1 X 20	1
AE	8-208	ADAPTER, FORD IAT WITH O-RING GROOVE	1
AF	784631	GROMMET,1/8"	1



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.

## 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. This intake system includes a replacement windshield washer system.
- f. Do not discard stock components after removal of the factory system.

## 2. Removal of stock system



a. Remove the clip securing the shield to the headlight.



c. Remove the shield.



b. Remove two clips securing the shield to the radiator mount.



d. On vehicles equipped with a mass air sensor, release the red locking tab and then disconnect the mass air sensor electrical connection. On vehicles equipped with a tempature sensor, disconnect the electrical connection and then unhook the wiring harness from the stud.



e. Loosen the clamp at the throttle body.



f. Loosen the top clamp on the intake tube.



g. Disconnect the clips holding the air box together.



h. Remove the stock intake tube and air box lid.



i. Remove the Intake air temp sensor using a 4mm socket to remove the stud holding the sensor. For vehicles using a MAF sensor move on to step J.



j. Remove the MAF sensor and set it aside for future use.



k. Remove the three bolts securing the left headlight.



m. Drain 1.5-2 gal of coolant from the drain at the lower right corner of the radiator. Use the supplied 3/8" hose to route the coolant into a clean container to be added back into the system. Remove the hose when done draining, and keep it to be used later.



o. Remove spring clamp from the coolant reservoir.



I. Remove the coolant cap.



n. Remove the two bolts securing the stock lower air box.



p. Remove spring clamp from the radiator overflow.



q. Remove the hose from the reservoir, and disconnect the other hose from the radiator.



r. Lift the stock coolant reservoir and air box.



s. Remove the clip from the lower coolant hose fitting.



t. Disconnect the coolant hose and remove the stock coolant reservoir and lower air box.



u. Reinstall the clip on the coolant hose fitting.



v. Remove six clips and remove the rubber inner fender liner.

## 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. Cut out the provided template and line it up on the inner fender liner as shown.



c. Trim the inner fender liner as shown.



d. Reinstall the inner fender liner.



e. Install the bracket (H) using the two M6 bolts (N) on the AEM lower air box (V).



f. Install the provided bulb seal (Y) on the u-shaped hole of the AEM lower air box (V).



g. Install two barb mounts (L) into the stock rubber air box grommets as shown.



h. Install the AEM lower air box (V) and secure it to the barb mounts with two M6 bolts (N) and washers (M) provided.



i. Make sure that the side inlet scoop is protruding through the inner fender liner as shown.



j. Secure the AEM lower air box bracket (H) to the fender support with the provided M8 bolt (K).



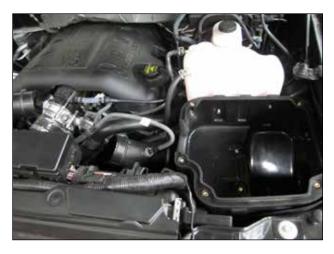
k. Install two brass barbs (S) into the AEM coolant reservoir (U) using thread sealant to seal the threads.



I. Connect the lower coolant hose by pressing it in place until it clicks in.



m. Install the AEM reservoir (U) and secure it to the AEM lower air box using the four M6 bolts (N) and washers (M) provided.



n. Connect the OEM coolant hose to the barb on the front of the coolant reservoir and secure it with the OEM clamp. Install the supplied 3/8" hose (AC) between the radiator and the barbed fitting toward the back of the coolant reservoir and secure it with the OEM clamps.



o. Install the O-ring (D) into the AEM MAF or IAT pad (C) or (AE) as shown.



p. Install the AEM MAF or IAT pad onto the inlet tube (P) and secure it with four M4 bolts (I).



q. Install the filter grommet (B) by stretching it over the end of the inlet tube (P).



r. Drill a ¼" diameter hole in the filter cap at one of the dimple locations, be sure to remove any plastic shavings from the inside of the filter.



s. Install the supplied 1/8" grommet (AF), barb (AA), and hose (T).



t. Install the filter (R) and #80 clamp (O) onto the filter grommet as shown.



u. For Trucks using a MAF sensor Install the OEM sensor with the supplied M4 bolts (J). Trucks using an intake Air Temp Sensor move to step v.



v. For Trucks using a IAT sensor install the OEM sensor with the supplied M6 Bolt (AD).



w. Install coupler (R) and the two hose clamps (AB) onto the driver's side turbo inlet tube.



x. Install coupler (Q) and the two hose clamps (Z) onto the passenger side turbo intet tube.



y. Install the pipe assembly as shown and tighten the clamps.



z. Plug in the MAF or IAT sensor.



aa. Install the filter minder grommet (E) in the AEM air box lid (W).



bb. Install the bulb seal (X) and (Y) around the U-shaped opening on the AEM air box.



cc. Feed the filter minder hose (T) up through the grommet in the upper air box and place it on top of the lower air box.



dd. Plug the filter minder hose onto the filter minder(F) and press it into the grommet on the upper air box. Secure the upper air box with the five supplied M6 bolts(G).



ee. Refill the coolant drained in step 2m and check for leaks, then secure the cap.



ff. Plug in the three connectors from the headlight assembly and reinstall the headlight. Secure it with the three bolts removed in step 2k.



gg. Make a final check for fitment and adjust as necessary. Once the vehicle has warmed up, check for any coolant leaks.

#### 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, 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 states 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.

For technical inquiries
e-mail us at
sales@aemintakes.com
or
call us at
800.992.3000

Intake systems for vehicles listed are 50 state legal. See AEMIntakes.com for CARB status on each part for a specific vehicle.

### **AEM Air Intake System Warranty Policy**

AEM® warrants that its intake systems will last for the life of your vehicle. AEM will not honor this warranty due to mechanical damage (i.e. improper installation or fitment), damage from misuse, accidents or flying debris. AEM will not warrant its powder coating if the finish has been cleaned with a hydrocarbon-based solvent. The powder coating should only be cleaned with a mild soap and water solution. Proof of purchase of both the vehicle and AEM intake system is required for redemption of a warranty claim.

This warranty is limited to the repair or replacement of the AEM part. In no event shall this warranty exceed the original purchase price of the AEM part nor shall AEM be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product. Warranty claims to AEM must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is nontransferable. Improper use or installation, use for racing, accident, abuse, unauthorized repairs or alterations voids this warranty. AEM disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by AEM. Warranty returns will only be accepted by AEM when accompanied by a valid Return Merchandise Authorization (RMA) number. Credit for defective products will be issued pending inspection. Product must be received by AEM within 30 days of the date RMA is issued.

If you have a warranty issue, please call (800) 992-3000 and our customer service department will assist you. A proof of purchase is required for all AEM warranty claims.

14