



Equipped with AEM® Dryflow™ Filter  
No Oil Required!

# INSTALLATION INSTRUCTIONS

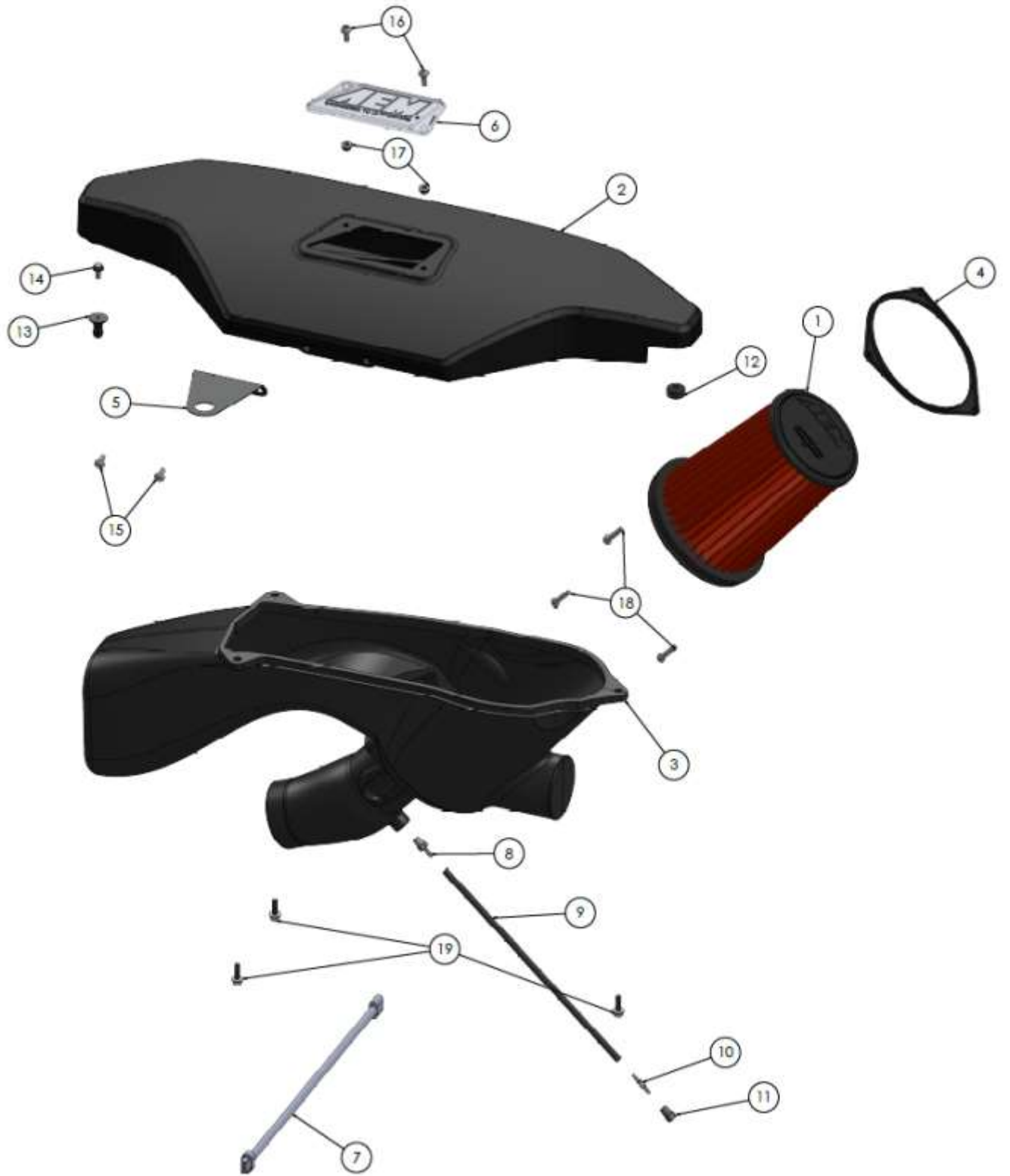
## PART NUMBER

### 21-785DS

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2012-2015	BMW	328i	2.0T
2012-2015	BMW	320i	2.0T

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	21-1015DK	ELEMENT PARTS KIT; 21-1015DK	1
2	9-0449	AIRBOX; 2012 BMW 320/328, UPPER	1
3	9-0450	AIRBOX; 2012 BMW 320/328, LOWER	1
4	7-349	RING; AXIAL FILTER RETAINER; 3 HOLE, STAMP STEEL	1
5	7-345	PLATE; 4.1" X 3.8" X .05", MLD STL, TB/PC	1
6	8-211	PLATE; AEM LOGO, CLEAR, 6.2" X 2.4" X .25"	1
7	8-198	EXTENSION HARNESS; 4-WIRE BOSCH MAFS; 15"L	1
8	087016	HOSE MENDER; 1/8" BARBED NPT	1
9	08147	HOSE; 4MM ID X 12" L	1
10	8-103	CONNECTOR,PLASTIC 1/8" STRAIGHT	1
11	08178	PLUG, 1/8 NPT, PLASTIC, BLACK	1
12	784638	GROMMET; 7/8"OD, 3/8"ID, 7/16"THK, 3/16"GAP	1
13	8-186-1	MOUNT, PLASTIC AIRBOX, NYLON	1
14	22224	BOLT; M6X1.00X12 HEX; FLG, GRADE 10.9, GEO	1
15	07794	BOLT; M6 X 1.00" 12MM BUTTONHEAD, SS	2
16	07730	BOLT; M6 X 1.00 X 16MM , BUTTONHEAD, SS	2
17	444.460.04	NUT; M6 HEX SERRATED	2
18	07729	BOLT; M6-1.00 X 25MM BUTTONHEAD, SS	3
19	1-2038	BOLT; HEX/FLANGE M6-1 X 20	3



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 the 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.
- f. Open the air intake kit package and make sure all parts are included.

Tools Needed:	Optional:
6mm, 7mm Nut Driver	Small Torque Wrench
10mm Open Wrench	Socket Extension
10mm, 7mm Socket & Ratchet	
4mm Hex Key	
T20 TORX Driver	

## 2. Removal of stock system



a. Pull the hood release cable from the [3] clips on the stock air box.



b. Disconnect the Mass Air Flow (MAF) sensor harness by depressing the little tab on the connector and pulling.



c. Pull the vacuum line off of the nipple on the back of the stock air box. (Skip this step for vehicles not equipped with this vacuum line.)



d. Use a 6mm nut driver to loosen the hose clamp near the MAF sensor.



e. Pull the stock air box from the vehicle. Do not discard any factory components.



f. Use a 7mm nut driver to loosen the hose clamp securing the stock inlet pipe. Remove the inlet pipe.



g. Remove the [2] T20 TORX screws and pull the MAF sensor from the stock air box. You will reuse these screws in the following step.

### 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.



a. Install the MAF sensor onto the AEM air box using the factory screws. Also, install the 1/8" NPT barbed fitting. (Do not over-tighten.)



b. For vehicles not equipped with the vacuum line (Refer to step 2c), install the supplied 1/8" NPT plug. (Do not over-tighten.)



c. Place the steel retaining ring over the AEM filter as shown.



d. Place the filter and ring into the AEM air box. Align the threaded holes in the ring to the holes in the air box. Secure filter with the [3] M6 x 25mm button-head bolts.



e. Connect the supplied MAF harness extension. Also, connect the 5/32" vacuum line to the barbed fitting. Then, insert the 1/8" hose connector to the other end of the vacuum line.



f. Route the MAF extension harness around the air box as shown. Reconnect the harness and the vacuum line (if equipped).



g. Place the air box into the vehicle. Make sure the inlet scoop and inlet hose are seated properly onto the air box.



h. Use a 7mm socket with extension and ratchet to tighten the inlet pipe hose clamp.



i. Use the [2] M6 x 16mm button head bolts and flanged nuts to install the clear AEM badge. Use the [2] M6 x 12mm button head bolts to install the mounting bracket.



j. Insert the grommet into the hole (left) and use the M6 x 12mm hex flanged bolt to secure the plastic stud mount (right).



k. It may be helpful to remove the forward center grommet from the vehicle (refer to following step) and install it onto the mounting bracket prior to installing the AEM air box lid into the vehicle.



l. Place the air box lid into the vehicle. Make sure the lid fully seats in all [3] of the grommets (locations circled above). Then, use a 10mm open end wrench to secure the lid to the air box with the [3] M6 x 20mm hex flanged bolts.





STOCK INTAKE INSTALLED



AEM INTAKE INSTALLED

#### 4. Reassemble Vehicle

- a. Position all kit components for best fitment. Ensure that no components contact any unintended part of the vehicle.
- b. Check for proper hood clearance. Re-adjust components if necessary and re-tighten them.
- c. Inspect the engine bay for any loose tools and ensure 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. 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 1-1000 and follow the easy instructions.
- b. Use window cleaner to clean your powder coated AEM<sup>®</sup> intake tube.

**NOTE: DO NOT USE aluminum polish on powder coated AEM<sup>®</sup> intake tubes.**