

with Installation Instructions

# Owner's Manual

## Banks Ram-Air® Intake System

**2015-2016 Chevrolet 6.6L (LML) Duramax  
Turbo-Diesel Pickups**

THIS MANUAL IS FOR USE WITH KIT 42250 & 42250-D

Gale Banks Engineering  
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Customer Support: (888) 839-5600  
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**bankspower.com**



# General Installation Practices

Dear Customer,

If you have any questions concerning the installation of your Banks Ram-Air System, please call our Technical Service Hotline at (888) 839-2700 between 7:00 am and 4:00 pm (PT). If you have any questions relating to shipping or billing, please contact our Customer Service Department at (888) 839-5600.

Thank you.

1. For ease of installation of your Banks Ram-air intake system, familiarize yourself with the procedure by reading the entire manual before starting work.
2. The exploded view of the Ram-Air assembly (pages 4-5) provides only general guidance. Refer to each step and section diagram in this manual for proper instruction.
3. Throughout this manual, the left side of the vehicle refers to the driver's side, and the right-side to the passenger's side.
4. Disconnect the ground cable from the battery before beginning work. If there are two batteries, disconnect both.
5. Route and tie wires and hoses a minimum of 6 inches away from exhaust heat, moving parts and sharp edges. Clearance of 8 inches or more is recommended where possible.
6. During installation, keep the work area clean. If foreign debris is transferred to any Banks system component, clean it thoroughly before installing.

7. When raising the vehicle, support it on properly weight-rated safety stands, ramps or a commercial hoist. Follow the manufacturer's safety precautions. Take care to balance the vehicle to prevent it from slipping or falling. When using ramps, be sure the front wheels are centered squarely on the topsides; put the transmission in park; set the parking brake; and place blocks behind the rear wheels.

**⚠ CAUTION:** Do not use floor jacks to support the vehicle while working under it. Do not raise the vehicle onto concrete blocks, masonry or any other item not intended specifically for this use.

**NOTICE:** The Banks Oiled Ram-Air Filter comes pre-oiled and no oiling is necessary for initial installation. Service the filter as specified in the Ram-Air Filter Cleaning Instructions Section of this manual.

**⚠ WARNING!** Vehicles that come with a Vehicle Emissions Control Information (VECI) label affixed to the Original Equipment Manufacturer's (OEM) air intake system airbox must replace the VECI label when installing a Banks Ram-Air® Intake System. A missing VECI label will prevent the vehicle from passing a smog inspection. A replacement VECI label can be obtained from the dealership. Replacement VECI labels must be in a location that is readily visible, on a painted surface in the engine bay, and shall not be affixed to any equipment that is easily detached from the vehicle.

**Tools Required:**

- 1/4" or 3/8" drive ratchets with metric sockets
- Standard and Phillips head screwdrivers
- Clean shop towels or rags
- 5/16" nut driver

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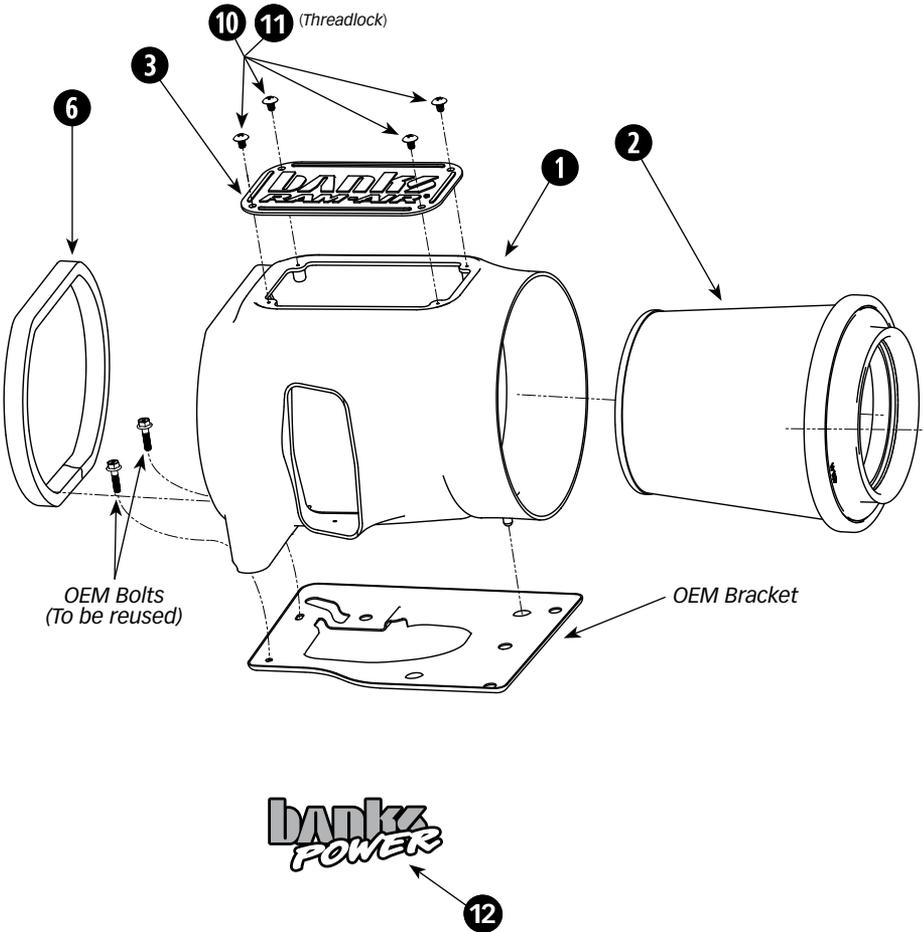
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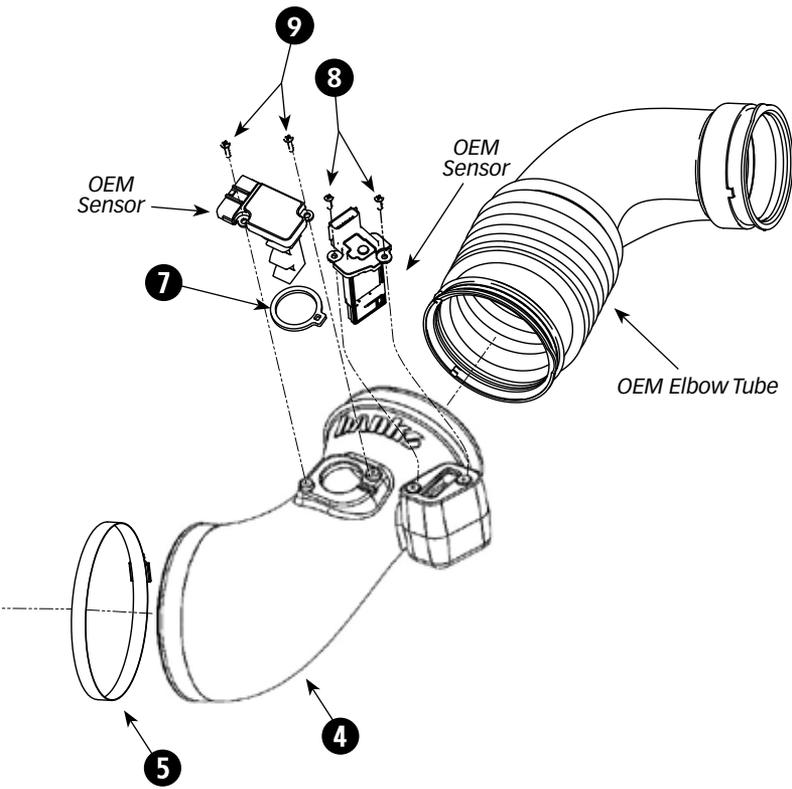
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# Section 1

## General Assembly





Item	Description	Part#	Qty
1	Housing	41854	1
2	Air Filter Element	42141/ 42141-D	1
3	Clear Window	41790	1
4	Intake Tube	42253	1
5	Hose Clamp, #104	92904	1
6	Foam Seal	93120	30"
7	Gasket, MAF Sensor	93072	1
8	Phillips Screw, M4 x 8mm Long	91918	2
9	Phillips Screw, M4 x 16mm Long	91924	2
10	Phillips Screw, 1/4"-20x3/8"	91128	4
11	Threadlocker, Blue	90001	1
12	Urocal, Banks Power, Small	96009	2

## Section 2

### RAM-AIR INSTALLATION

You are about to install the **Banks Ram-Air® Intake System**. Read and follow all steps before working on the vehicle. Some components from the stock air intake system will remain in service. Take care when removing stock air intake components to not damage them.

Use the Bill of Materials Chart and the General Assembly Drawing to reference component nomenclature and location. Use caution when working in the engine compartment. Make sure the engine has been OFF for several hours and cool. Disconnect the battery ground cables from each battery (if so equipped). Secure the cables so that they do not come in contact with the battery posts during the installation.

**1.** Remove the black water channel piece that sits on top the right side fender. See **Figure 1**

**2.** Remove the fender side bolt of the bracing bar and loosen the radiator support side bolt ½ turn (access by using 10 mm open-end wrench under plastic cover). Move the bracing bar out of the way by rotating it toward the radiator. See **Figure 2**.

**3.** Disconnect the three OEM sensors and move the harness out of the way.

**NOTICE:** For the two sensors attached to the airbox, pull out the tab first then pinch the connector and pull away from the sensor. See **Figure 3**.

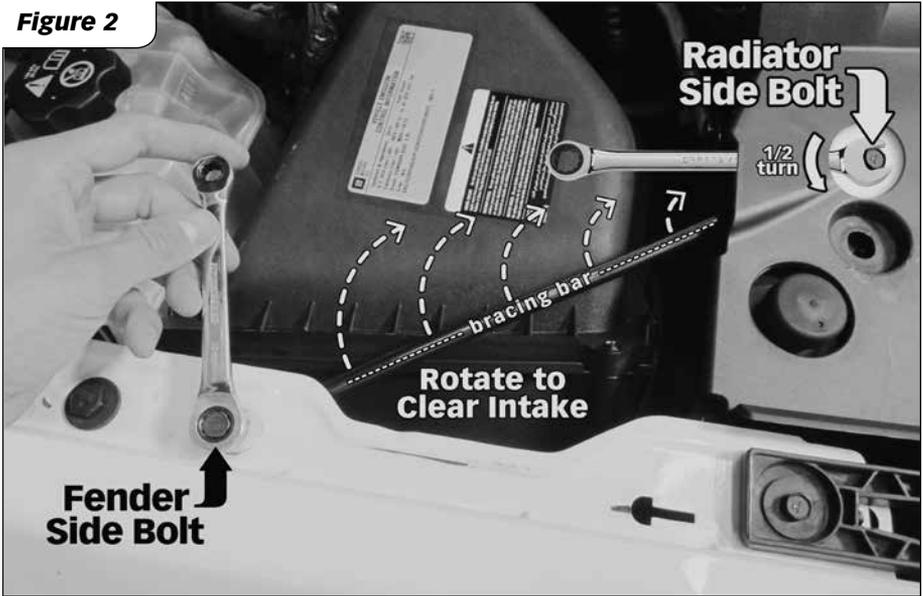
**4.** Loosen the two hose clamps on the OEM elbow tube and completely remove the tube from the vehicle. See **Figure 4**.

**5.** Remove the OEM airbox by pulling up on the outlet side of the box to release the two peg retainers then sliding the airbox an inch to the driver side to free the last slotted retainer. See **Figure 5**.

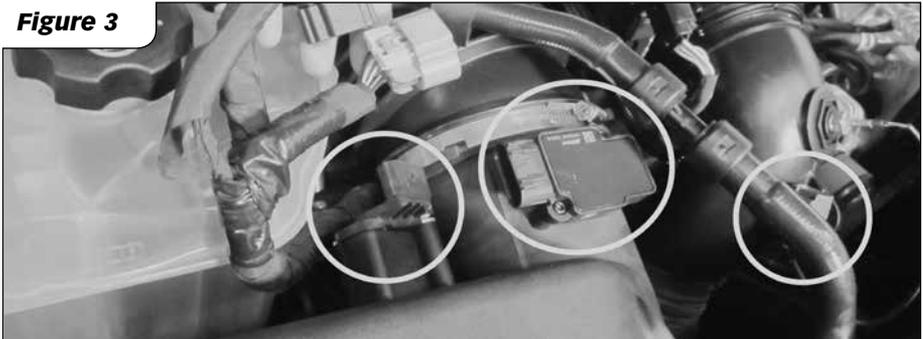
**Figure 1**



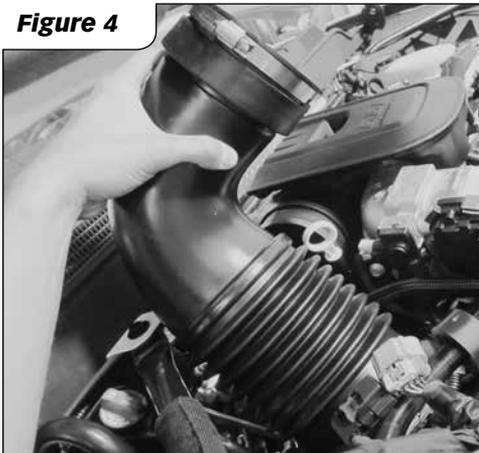
**Figure 2**



**Figure 3**



**Figure 4**



**Figure 5**



**6. *OPTIONAL:*** In dry weather conditions, remove the two upper plastic fasteners holding the headlight plastic liner (**Figure 6a**) and fold down the liner and tuck below the airbox mounting bracket (**Figure 6b**). The Banks intake system pulls cold and dense air from the front of the vehicle and benefits from this modification for optimum performance.

**⚠ CAUTION:** *Using this option Banks Power is not responsible for any water ingestion damage due to wet weather operation!*

**7.** Use the provide Torx 20 bit to remove the two OEM sensors from the OEM airbox. See **Figure 7**.

**8.** Install the Banks MAF Gasket onto the OEM Sensor as show in **Figure 8**.

**9.** Use the supplied Philips head screws to install the OEM sensors onto the Banks Tube. The longer 5/8" length screws are used for the larger sensor and the shorter 1/2" length screws are used on the rectangular sensor. See **Figure 9**.

**NOTICE:** The slot style sensor arrow will be facing the wrong direction. This sensor is only used for temperature and the direction will not affect its accuracy.

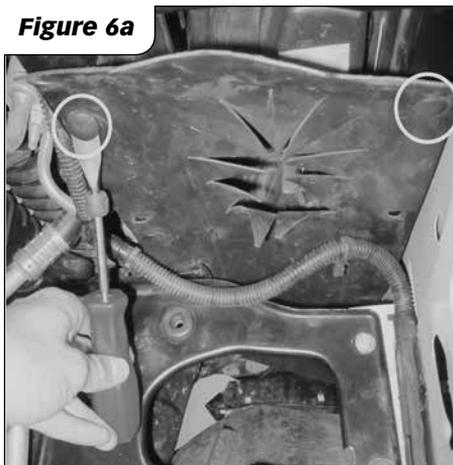
**10.** Install the foam seal strip on the inlet of the Banks Housing as shown in **Figure 10**. If overlapping of the ends occurs, trim the excess length from the foam strip. Firmly press the adhesive onto the housing.

**11.** Insert the larger hose clamp onto the Banks Filter cuff. Do not tighten this hose clamp at this step. See **Figure 11**.

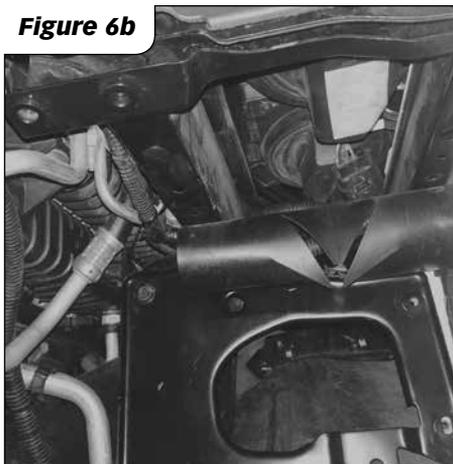
**12.** Insert the Filter and Hose Clamp assembly into the Banks Housing. See **Figure 12**.

**13.** Remove the two OEM bolts holding the airbox mounting bracket on the fender side of the engine bay. See **Figure 13**.

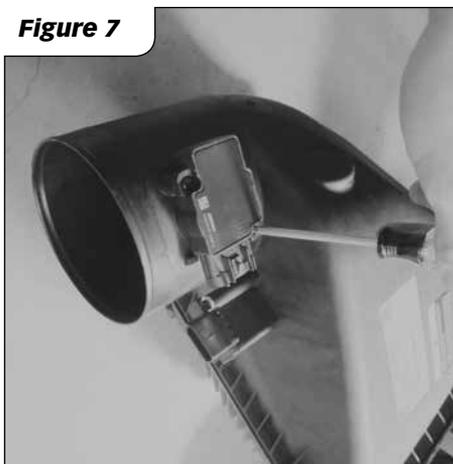
**Figure 6a**



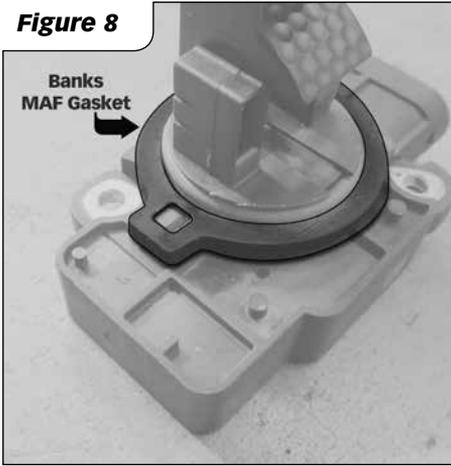
**Figure 6b**



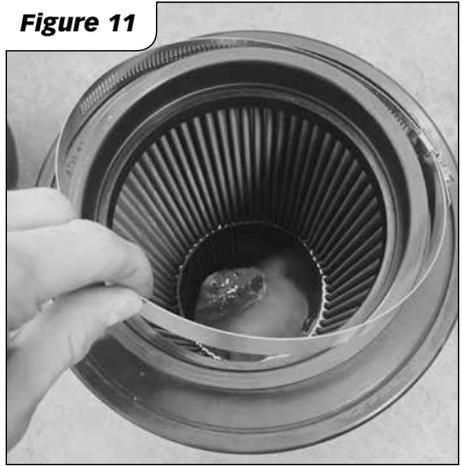
**Figure 7**



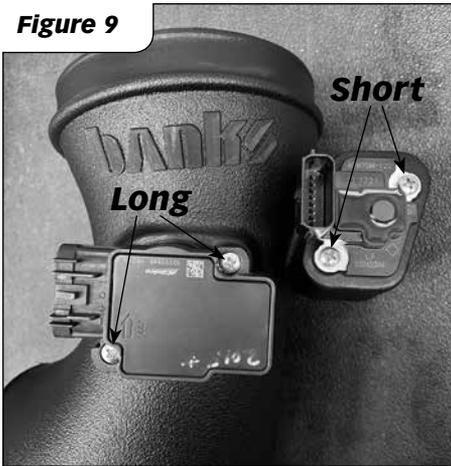
**Figure 8**



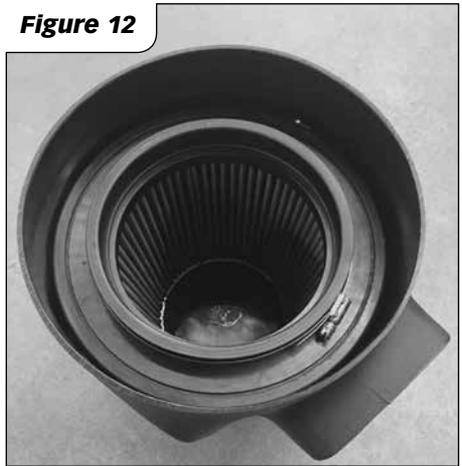
**Figure 11**



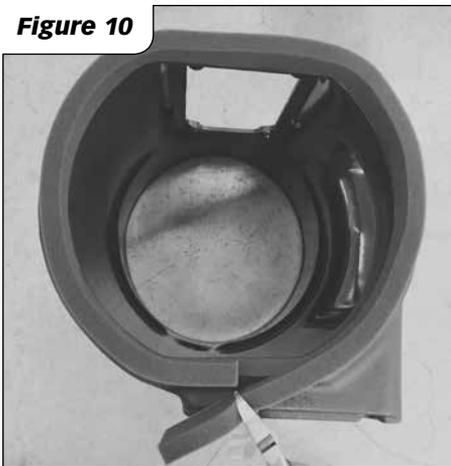
**Figure 9**



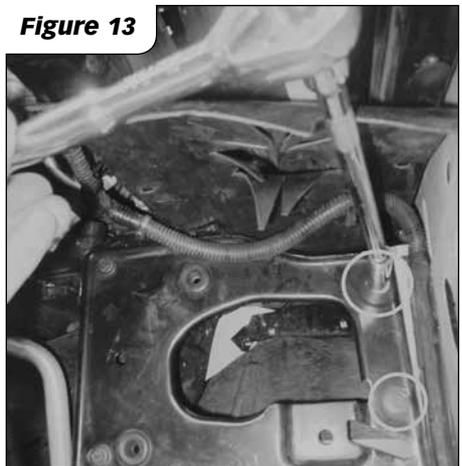
**Figure 12**



**Figure 10**



**Figure 13**



**14.** Insert the Banks Housing into the vehicle. Align the front mounting peg of the housing with the mounting grommet of the OEM bracket. Align the two rear Banks Housing holes with the bracket and install the two OEM bolts to secure the housing to the vehicle. See **Figure 14**.

**15.** Insert the Banks Tube into the vehicle and insert the large end into the Filter. Apply pressure on the back of the filter through the hole in the housing against the tube until the retaining bead engages the filter. Tighten the filter hose clamp. See **Figure 15**.

**16.** Install the OEM Intake elbow. Rotate the Banks tube and OEM Elbow as required so the filter pleats are parallel to the Housing window. Tighten both hose clamps. See **Figure 16**.

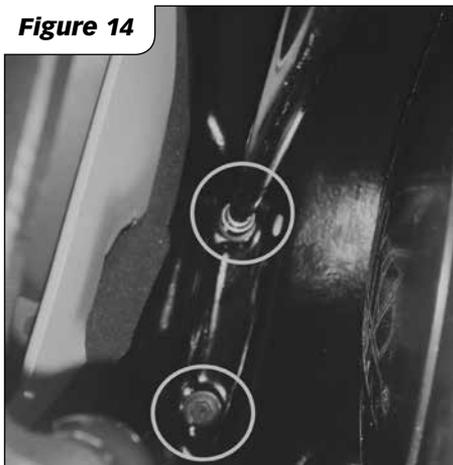
**17.** Apply blue threadlocker to 4 supplied window screw and use to install clear window onto housing. Do not over tighten these screw. They just need to be snug. See **Figure 17**.

**Note:** Window screws may vibrate loose if threadlocker is not applied.

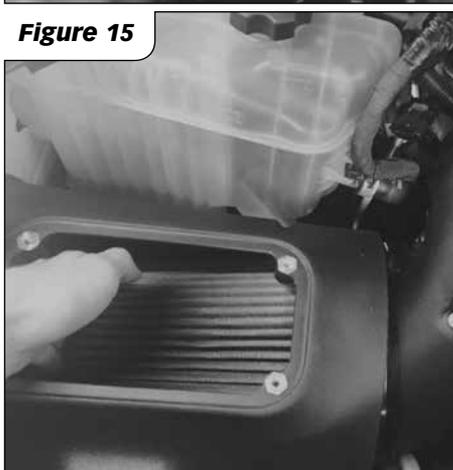
**18.** Reinstall the fender brace in its original location and tighten the two bolts that retain it. Reinstall the OEM fender water channel. Insert the three harness connectors onto the sensors. See **Figure 18**.

**19.** Re-connect battery grounds. You have successfully completed the installation of the Banks Ram-Air Intake system. Make sure to check all hose clamps for tightness and connectors for a sure fit. Make sure that the intake tube is not touching any engine components.

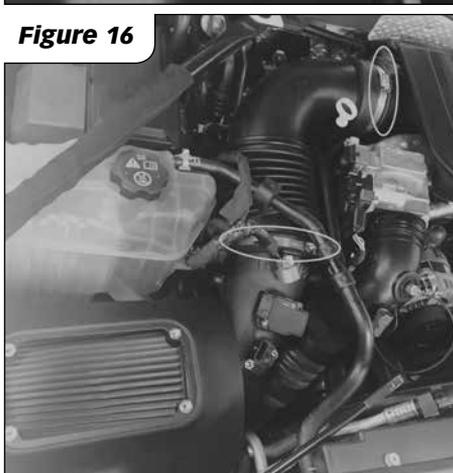
**Figure 14**



**Figure 15**



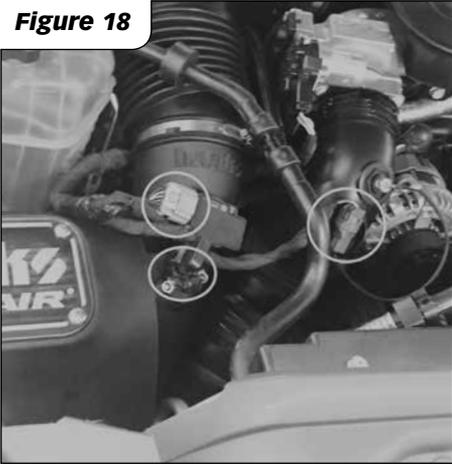
**Figure 16**



**Figure 17**



**Figure 18**



# Section 3

## AIR FILTER CLEANING INSTRUCTIONS

### OILED AIR FILTER ONLY

***NOTICE***: The Banks Ram-Air Oiled Air Filter comes pre-oiled and no oiling is necessary for initial installation. Use Banks Ram-Air Filter Cleaning System (part#90094), available from Gale Banks Engineering to service the Air Filter. Follow the instructions included with the cleaning system to clean and re-oil your Bank Ram-Air Oiled Air Filter.

#### 1. PRE-CLEANING

Tap the element to dislodge any large embedded dirt, then gently brush with a soft bristle brush. *NOTE: If complete cleaning is not practical at this time, reoil the element and reinstall in your vehicle.*

#### 2. SPRAY-ON CLEANING

Spray air-filter cleaner liberally onto the entire element and let soak for 10 minutes.

#### 3. PAN CLEANING

Large air-filter elements can be rolled or soaked in a shallow pan of air-filter cleaner. Remove immediately and let soak for approximately 10 minutes.

***NOTICE***: NEVER use gasoline, steam, caustic solutions, strong detergents, high-pressure nozzles, or cleaning solvents to clean the filter element. All of these can cause harm to the filter media as well as SHRINK and HARDEN the rubber end caps.

#### 4. RINSING

Rinse off the element with low-pressure water. Tap water is okay. Always flush from the clean side to dirty side. This removes the dirt and does not drive it into the filter.

#### 5. DRYING

Always dry naturally. After rinsing, shake off all excess water and let the element dry naturally.

#### 6. AEROSOL OILING

After cleaning air filter always reoil before using. Spray air filter oil down into each pleat with one pass per pleat. Wait 10 minutes and re-oil any white spots still showing.

#### 7. OILING HINTS

Never use a Banks Ram-Air filter without oil (the filter will not stop the dirt without the oil). Use only air filter oil. Air-filter oil is a compound of mineral and animal oil blended with special polymers to form a very efficient tack barrier. Red dye is added to show just where you have applied the oil. Eventually the red color will fade but the oil will remain and filter the air. NEVER USE Automatic Transmission Fluid. NEVER USE Motor Oil. NEVER USE Diesel Fuel. NEVER USE WD40, LPS, or other light-weight oils.

#### 8. REINSTALL

Reinstall your Banks Ram-Air filter element with proper care. Make sure the element seats properly in the filter case. Install the cover making sure it's in the right position. Tighten all the nuts, bolts, screws or clips to factory specifications.

#### 9. DO NOT DISCARD

Affix the "Do Not Discard" sticker to the filter case (included with every Banks replacement element). Make sure you put the sticker in a highly visible place to alert your mechanic not to discard.

#### 10. PERFORMANCE HINTS

Service every 50-100,000 miles on

## 10. PERFORMANCE HINTS

Service every 50-100,000 miles on street-driven applications. Service more often in offroad or heavy-dust conditions. If an air-filter restriction gauge is installed, then change the element when the air-filter restriction reaches 18"—H.O.

**⚠ CAUTION:** **Extremely fine dust from agriculture or offroad use will pull the oil from the element. Frequent reoiling of the element's clean side might be required. Completely service when practicable. For extra protection use an air-filter sealing grease on rubber ends of the element. Service only with air-filter cleaner and air-filter oil.**

## DRY FILTER CLEANING

Clean every 50-100,000 miles on street-driven applications. Clean more often in offroad or heavy-dust conditions. If an air-filter restriction gauge is installed, then change the element when the air-filter restriction reaches 18"—H.O.

### 1. PRE-CLEANING

Carefully tap the air filter element to dislodge any large embedded dirt or debris.

### 2. CLEANING

Spray an appropriate DRY AIR-FILTER CLEANER SOLUTION liberally onto both sides of the entire filter element with the majority applied to the dirty side. Soak for 10 minutes. Do not allow the DRY AIR-FILTER CLEANER SOLUTION to dry on the air filter.

**NOTICE:** **NEVER use gasoline, steam, caustic solutions, strong detergents, high-pressure nozzles, or cleaning solvents to clean the filter element.** All of these can cause harm to the filter media as well as SHRINK and HARDEN the rubber end caps.

## 3. RINSING

Rinse the filter element with cool or warm (not hot) water from the clean side out in order to flush the dirt out of the filter. It may be necessary to use your fingers on the hose to apply light water pressure. Repeat steps 2 and 3, until the water flowing through the media is completely clear of any dirt and debris.

## 5. DRYING

After rinsing, gently shake off excessive water and allow to dry naturally. Re-install the filter onto the intake system, airbox or custom assembly once it is dry or just slightly damp. Follow all original installation instructions.

## 6. REINSTALL

Reinstall your Banks Ram-Air filter element with proper care. Make sure the element seats properly in the filter case. Install the cover making sure it's in the right position. Tighten all the nuts, bolts, screws or clips to factory specifications.

## 7. DO NOT DISCARD

Affix the "Do Not Discard" sticker to the filter case (included with every Banks replacement element). Make sure you put the sticker in a highly visible place to alert your mechanic not to discard.

## 8. PERFORMANCE HINTS

Service every 50-100,000 miles on street-driven applications. Service more often in offroad or heavy-dust conditions. If an air-filter restriction gauge is installed, then change the element when the air-filter restriction reaches 18"—H.O.

-END, SECTION 3-

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