



NEVER work on a hot engine bay.
Allow time for the vehicle to cool.

INSTALL DIFFICULTY



RECOMMENDED TOOLS & SUPPLIES

- Flathead Screwdriver
 - 7mm, 8mm, 10mm, and 13mm Sockets
 - Philip Screwdriver
 - Ratchet
 - Ratchet Extension
-

2017-2018 FORD RAPTOR & F-150 ECOBOOST 3.5L

Closed Box Air Intake

MaxFlow 5 Part #: 19835, DryTech 3D Part #: 19835D, PowerCore® Part #: 198356



Please take time to read and understand these installation instructions.

Volant recommends that the installation of this system be performed by a qualified service center or professional installer who has the necessary equipment, tools, and experienced personnel. However, if you decide to perform this installation yourself, the use of an additional person may be required.

WARNING: Never work on a hot engine bay. Allow time for the vehicle to cool.

Check that this air intake complies with your Federal, State, and Local laws. We recommend saving your stock system.



PREASSEMBLED MATERIALS

| Volant Filter Box | | Volant Plastic Air Duct | | Volant Air Box Lid | |
|--------------------------|---|-------------------------|---|--------------------|---|
| Filter (See Chart Below) | 1 | Rubber Grommet | 1 | Lid Screws | 4 |
| Filter Adapter (4.0") | 1 | | | | |

FILTER OPTIONS

| | | |
|-------------------------------|------------------------------|-------------------------------|
| MaxFlow 5 (Oiled) Part # 5161 | DryTech 3D (Dry) Part # 5160 | PowerCore® (Dry) Part # 61513 |
|-------------------------------|------------------------------|-------------------------------|

HARDWARE KIT

| | | | | | |
|-------------|---|------------------------------|----|----------------------------|---|
| #48 Clamp | 1 | Straight Sleeve (4.0") | 3" | 6mm – 16 Bolt | 3 |
| #56 Clamp | 1 | Hump Hose (4.0") | 1 | 6mm – 25 Bolt | 1 |
| #64 Clamp | 4 | Reducer Sleeve (3.0" x 3.5") | 1 | Spacer (.25") | 1 |
| 6mm Nut | 1 | Flat Washer (.25" x .75") | 1 | Flat Washer (.25" x .625") | 4 |
| Vent Insert | 1 | | | | |

*Locate the vehicle's battery and disconnect the negative battery cable.
This may reset the computer and clear old air flow data to help prevent CEL errors.*

REMOVAL INSTRUCTIONS

FACTORY INTAKE



1. Disconnect the harness from the air temperature sensor on back side of factory air duct.



2. Loosen the clamps on the top and bottom intake tubes using a ratchet and 7mm socket or flathead screwdriver.



3. Unclip the air box lid and remove the factory duct and lid assembly as one piece.



4. Use a ratchet and 13mm socket or wrench to remove the bolt holding the air box to the vehicle. Save bolt for [Install Step 7](#).

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REMOVAL INSTRUCTIONS

FACTORY INTAKE



5. Remove the three plastic wire retention clips from back of factory air box



6. Remove the two plastic clips from the factory air scoop. Save clips for [Install Step 8](#).



7. Remove the bottom box assembly by pulling it up and out. Remove the rubber grommet and metal bushing from factory air box. Save for [Install Step 4](#).



8. Remove the bolt attaching the scoop to factory air box using an 8mm socket. Remove the factory air scoop from the bottom of the air box.



9. Remove the air temp sensor from factory duct. Save for [Install Step 12](#).



10. Remove O-ring from the temp sensor.

This concludes the removal of the factory intake.

INSTALLATION INSTRUCTIONS

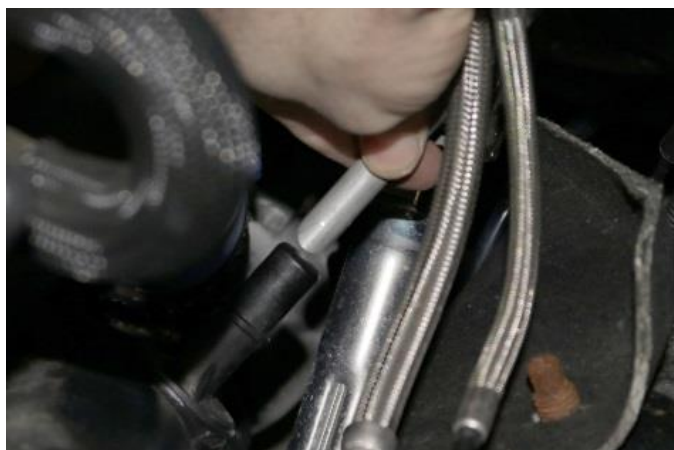
VOLANT INTAKE



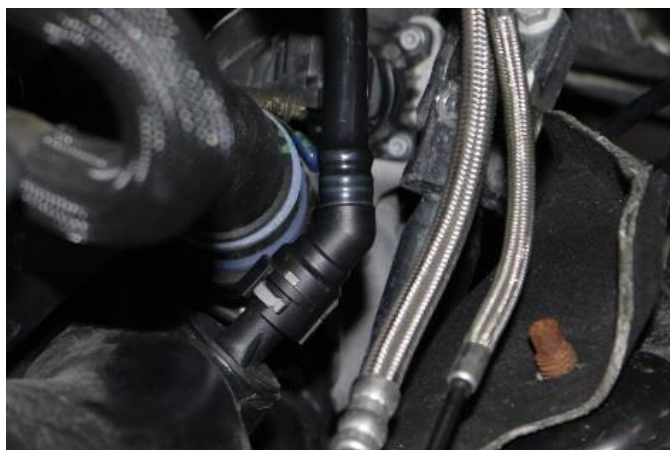
1. Unclip the quick disconnect vent hose.



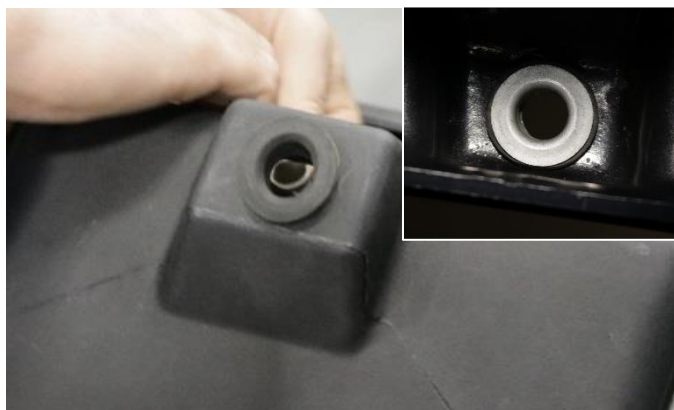
Use the above pictures for the correct way to place the vent line fitting for [Install Step 2](#).



2. Insert vent line fitting with the short side towards the turbo inlet.



3. Reconnect the vent hose.



4. Insert the factory grommet from **Removal Step 7**, then install the metal bushing into grommet from inside box as shown.



5. Install factory scoop to Volant air box using provided 6mm-25 bolt with flat washers, lock washer, spacer, and nut using 10mm socket or wrench.

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INSTALLATION INSTRUCTIONS

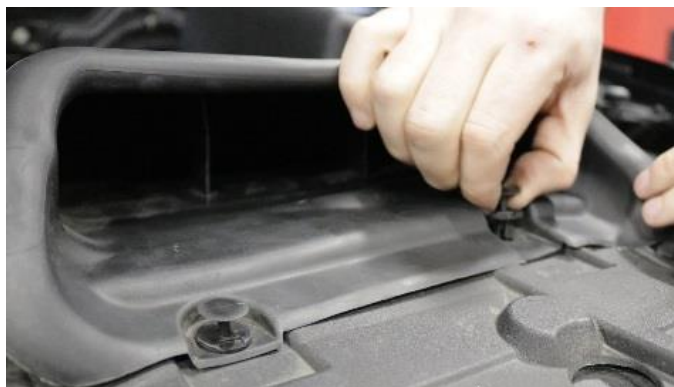
VOLANT INTAKE



6. Install Volant air box into the vehicle by inserting stems on bottom of Volant air box into factory grommets.



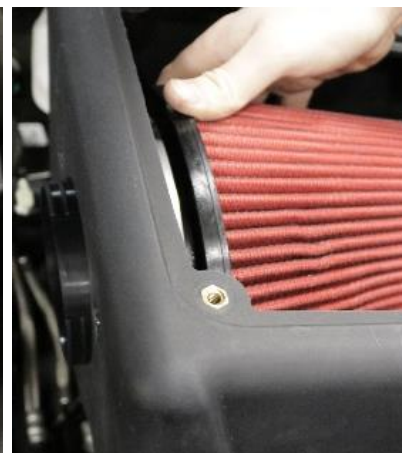
7. Attach the Volant air box to the fender with the bolt from **Removal Step 4** using a ratchet and 13mm socket.



8. Reinstall factory scoop and attach with clips from **Removal Step 6**.



9. Place the filter clamp on the filter and insert the filter adapter as shown. Do not tighten clamp yet.

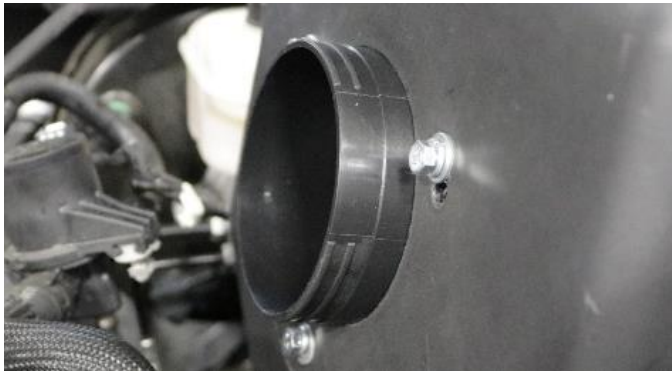


10. Insert the filter into the air box with the adapter side down. Rotate the top of the filter down into the air box and rotate the filter around and push the adapter through air box.

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INSTALLATION INSTRUCTIONS

VOLANT INTAKE



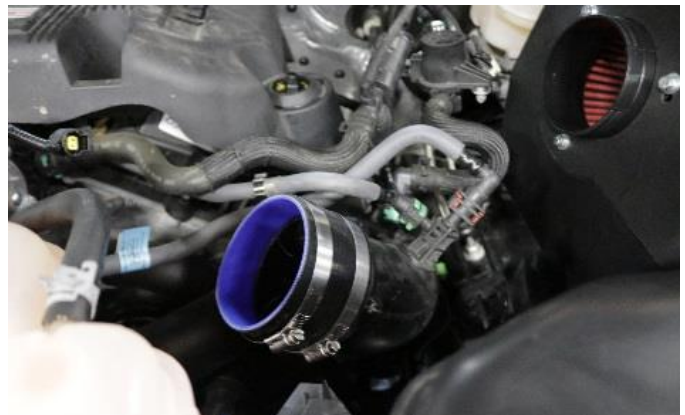
- 11.** Attach the filter adapter to the Volant air box using the provided 3 bolts, flat washers, and lock washers and a 10MM wrench or socket.



- 12.** Install air temp sensor from **Removal Step 9** with the tab facing the short end of the duct, as shown.



- 13.** Install the hump hose onto the Volant air duct along with two #64 clamps and tighten using a ratchet and 8mm socket or flat head screwdriver. Leave clamp on open end of hump hose loose.



- 14.** Install the straight sleeve onto lower factory inlet with #64 clamp. Tighten clamp using a ratchet and 8mm socket or flat head screwdriver. Leave clamp on open end of straight sleeve loose.



- 15.** Insert larger end of reducer onto Volant air duct using #56 clamp. Place #48 clamp on the smaller side. Tighten #56 clamp only using a ratchet and 8mm socket or flat head screwdriver.



- 16.** Install Volant air duct into vehicle by placing the hump hose onto the filter adapter. Then place reducer onto the upper stock inlet. Rotate duct down and into the straight sleeve.

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INSTALLATION INSTRUCTIONS

VOLANT INTAKE



17. Adjust air duct as necessary and tighten all clamps using a ratchet and 8mm socket or flat head screw driver. **NOTE:** Make sure to tighten the filter clamp as well.



18. Clip wiring harness on air temperature sensor.



19. Install lid using provided 4 truss head screws with rubber washers and Philips head screwdriver.

*Check that this air intake complies with your Federal, State and Local laws.
We recommend saving your stock system.*

BEFORE ROAD TESTING

1. Start engine, leaving the transmission in park and securing the parking brake.
2. Make sure to look and listen for any unusual noises or air leaks. Repair problems if needed.
3. Once completed it will be necessary to check periodically, after a few heat cycles, for realignment and tightening of all connections.

MaxFlow 5 CARE AND CLEANING

Check the MaxFlow 5 cotton reusable filter periodically and remove any excessive dirt build-up by tapping the filter on the ground and brushing off the loosened dirt. Clean the filter by using a two stage cleaning kit to thoroughly clean and re-oil the filter. Re-oil every 10,000 miles without cleaning to improve filtering in sand and dirt. Clean only when dirt is very excessive or 50,000 miles.

Reference for Replacement Filters:

MaxFlow 5 (Oiled) Part # 5161, DryTech 3D (Dry) Part # 5160, PowerCore® (Dry) Part # 61513