## INSTALL INSTRUCTIONS FOR 75-5085

## PART#: 75-5085 / 75-5085D



#### **Vehicle Application**

YEAR: 2017 - 2019

MAKE: Ford

MODEL: F-250 / F-350 Superduty

**ENGINE:** 6.7L Powerstroke

#### Note:

This intake kit may not fit with the following Aftermarket Parts installed:

- Body Lift or Lowering Kit
- Custom Hood
- Throttle Body Spacer / Upgrade

#### **Tools Required**

- 7mm, 8mm, 10mm (Deep), 13mm Wrench/Socket
- 5/16" Nut Driver or Flat Blade Screwdriver
- Phillips Screwdriver
- · Panel Popper
- Heat Gun
- T20 Torx
- Wire Cutters

Note: Approximate Install Time: 1 Hr 30 Mins.

#### S&B Filter Maintenance

KF-1063 (https://www.sbfilters.com/replacement-filters/filters-sb-intakes/kf-1063?variant\_id=211) Cotton Cleanable : If the enclosed filter is RED, it came pre-oiled from the factory.

Click here (https://www.sbfilters.com/replacement-filters/filters-sb-intakes/kf-1063?variant\_id=211) for exact oil amount required for cleaning.

KF-1063D (https://www.sbfilters.com/replacement-filters/filters-sb-intakes/kf-1063?variant\_id=212) Dry Extendable : If the enclosed filters is WHITE, it is a disposable filter and should be discarded once it reaches capacity. This filter does not require oil.

**Foam Filter**: Service and check the condition of your Foam Filter (L) every time you service your air filter. Wash it with water or gently blow it off with compressed air. If it can't be cleaned with water or compressed air, or it is torn or damaged, please replace the foam filter.

HP1473-00 is the replacement foam kit that includes (1) Foam Filter, (1) Foam Retainer, and (3) Screws.

#### **CARB Status - EXEMPT**

CARB EO # D590-17

\*Legal for use in CA and other states adopting CA emissions Standards.

#### **Before You Start**

- Please read the entire product guide before proceeding.
- Ensure all parts are present.
- If you are missing any of the components, call our customer support at (909) 947-0015.
- Do not work on your vehicle while the engine is hot.
- Make sure the engine is turned off and the vehicle is in Park or the Parking Brake is set.

#### **Related Products**

- Cotton Cleanable Filter (
   KF-1063 (https://www.sbfilters.com/replacement-filters/filters-sb-intakes/kf-1063?variant\_id=211))
- Dry Extendable Filter (
   KF-1063D (https://www.sbfilters.com/replacement-filters/filters-sb-intakes/kf-1063?variant\_id=212))
- Cleaning & Oiling Kit (88-0008 (https://www.sbfilters.com/cleaning-kits/precision-ii-cleaning-oil-kit))
- Filter Wrap (WF-1059 (https://www.sbfilters.com/filter-wraps/wf-1059))

#### **Performance Testing**

- After your installation is complete engage parking brake and start your engine. Listen for abnormal noises. If an air leak is detected, re-inspect hoses and connections as they may need to be repositioned and tightened
- S&B FILTERS recommends that you keep your OE intake system in the event it is required in the future.
- In order to maintain your warranty, all connections and components must be checked periodically for alignment and for proper tension on all connections. Failure to do so may void your warranty.
- Use only S&B FILTERS cleaning and oil products to service your filter. Using any other brand oil and or cleaners on your S&B air filter may void your warranty.

#### **Warning!**

If your vehicle has a Vehicle Emission Control Information decal affixed to the factory airbox, a new replacement label must be obtained and installed in a readily visible position in the engine compartment in order to remain CARB compliant. Failure to do so will prevent the vehicle from passing a smog check. Replacement labels can be ordered from your local dealership. Regulations state that the VECI label shall not be affixed to any equipment which is easily detached from the vehicle. Label placement, under the hood on a painted surface, is recommended.

#### **Operation in Wind or Rain**

If you are driving in heavy snowfall or extreme rain conditions, you should always check for accumulated snow and water on the air filter. The following is recommended after operating the vehicle up to 100 miles in heavy snowfall or extreme rain: At the earliest opportunity, open the hood and check the air box and filter. If any snow has accumulated, make sure to remove the snow from the filter, box, and inlet. It is ok if the filter is a little wet. Wet filters will normally dry out on their own. If the filter is dripping wet, it should be replaced with another filter that is not wet. Do not reuse the dripping wet filter until it has naturally dried..

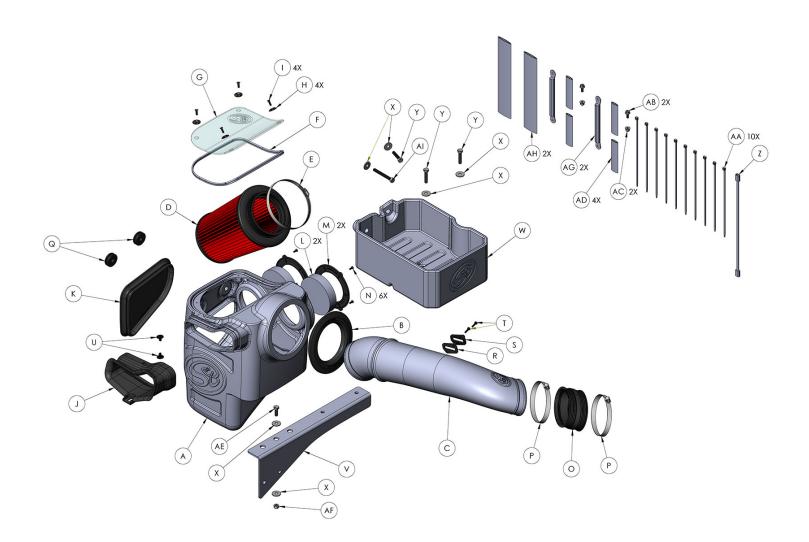
### **Air Box Plug Testing**

Stock air boxes are a significant contributor to poor airflow which is why S&B designs custom air boxes with secondary and/or enlarged openings. With that said, S&B recognizes the benefits of cooler air, so we have included a plug to seal off the opening if so desired. For optimal performance, we recommend that the intake be used without the plug except in conditions of extreme heat.

## **Periodically Check the Following**

- Intake Tube (C) and Filter (D) connnections, Intake Box (A) fasteners, and Battery Tray (W) fasteners, making sure they are tight.
- All electrical connections and wire harnesses moved during the installation of the intake and make sure they are secure and away from any hot or moving components.
- Check for any signs of abrasion or wear and tear on the intake tube, box, filter, and electrical harnesses moved or near the intake and repair/replace as necessary.

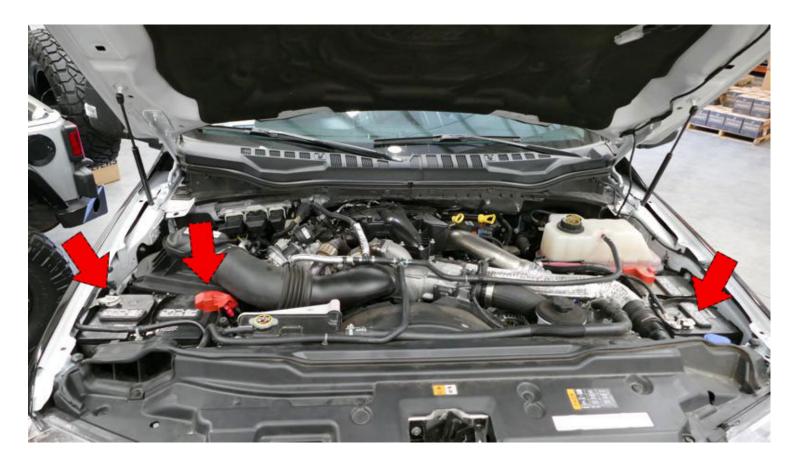
### **PARTS LIST**



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
Α	1	AL1298B-00	Intake Box
В	1	AI1650C-00	Box Seal
С	1	AL1298-00	Intake Tube
D	1	KF-1063	Filter
Е	1	AG1010-00	Hose Clamp, #80
F	1	AI1766-07	Lid Seal, Cut to 30", for AL1298B-00, 75-5085
G	1	AI1959-00	Lid
Н	4	AI2006-00	Counter Sunk Washer, #10
1	4	AI2005-00	Flat Head Machine Screw, #10-24 x 5/8" Lg, SS, Blk
J	1	AI1956C-00	Box Inlet
K	1	AI1957C-00	Box Plug
L	2	AI1961-00	Foam Filter
М	2	AI1960-00	Foam Retainer
N	6	AI1473-00	Pan Head Phil Machine Screw, M47mm, 10mm long, 18-8 SS
0	1	AI1523C-00	Straight Coupler, 4.50" ID x 2.13" LG
Р	2	AG1009-00	Hose Clamp, #72
Q	2	AI1618-00	Grommet
R	1	AI1823-00	Gasket, MAF Mount

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
S	1	AI1822-00	MAF Mount, Black
T	2	AI1837-00	Sems Screw, #8-32 x .75" Lg, SS
U	2	AI1762-00	Plastic Rivet, Interlocking Shank, 1/4" dia
V	1	AI1958-00	Battery Tray Bracket
W	1	AL1298T-01	Battery Tray
Χ	6	Al2317-00	Zinc Plated Steel Oversized Washer, M8, DIN 9021
Υ	3	AI2319-00	HHCS, M8-1.25 x 40mm Long, Class 8.8, Zn Pltd
Z	1	AI1481-00	MAF Wire Harness Extension
AA	10	AI1750-00	Cable Tie, 9" Long
AB	2	AI2014-00	Hex Flange Bolt, M6 x 16mm, Class 8.8, Zinc Pltd, DIN 6921
AC	2	AI2015-00	Flange Locknut, Nylon Insert, M6, Stl Zn Pltd
AD	4	Al2019-01	1" ID Heat Shrink, Red, 4.0" Long
AE	1	AI1214-00	HHCS, M8-1.25 x 25mm Long, Class 8.8, Zn Pltd
AF	1	AI1736-00	Locknut, M8-1.25, Nylon Insert, Class 10, Zinc Plated
AG	2	AI2007-00	Battery Cable Extension
АН	2	AI2107-02	Fabric Heat Shrink, Black, 10" Long
ΑI	1	AI2318-00	HHCS, M8-1.25 x 70mm Long, Class 8.8, Zn Pltd

# **INSTALLATION STEPS**

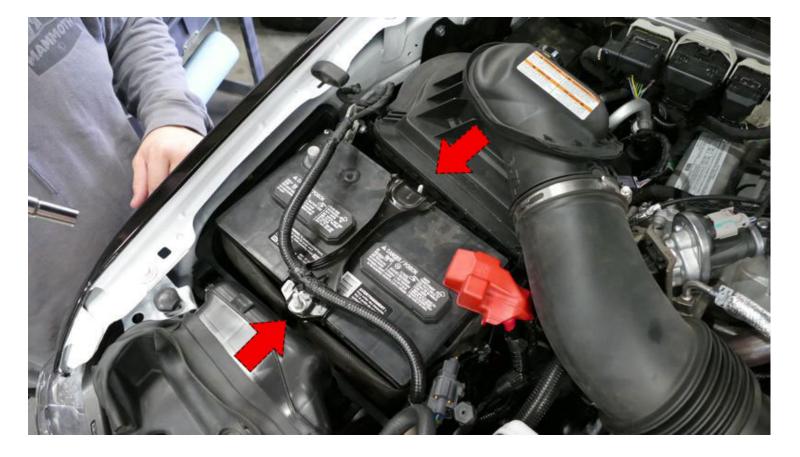


### STEP 1

With the ignition switched off and the parking brake set, Disconnect the negative battery cables on both batteries and positive battery cable on the passenger side only.

**Note:** Failure to disconnect the battery may cause the CEL to illuminate upon completion of the installation and subsequent operation. Do not skip this step!

Tool Required: 10mm Socket/Wrench



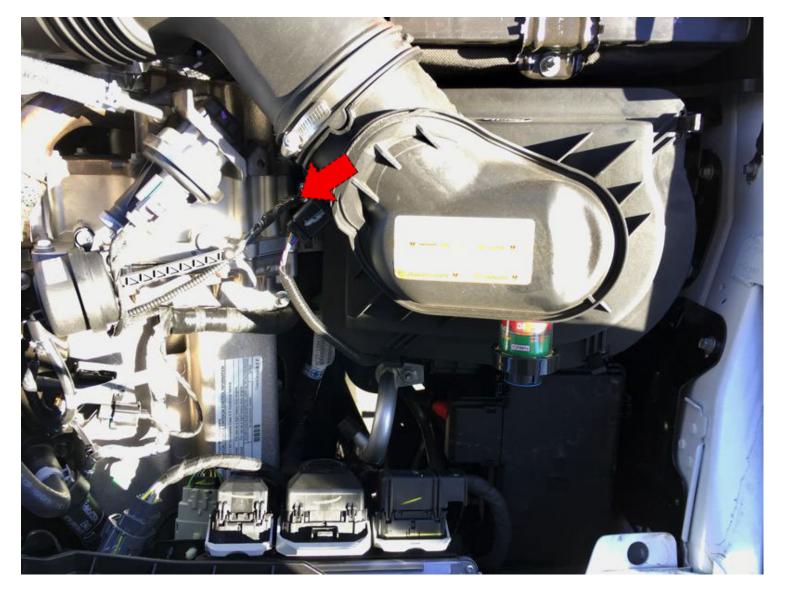
Remove the two nuts on the battery hold-down bracket, then remove the negative battery cable mounting tab and hold down bracket from the battery. Set the hardware aside they will be reused in Step 25.

Tool Required: 10mm Deep Socket/Wrench



Remove the battery and battery blanket from the vehicle. The battery is heavy so be extra careful when taking it out. The battery is also filled with battery acid so remember to keep it level to prevent the acid from spilling out the top.

Safety Note: Wear appropriate safety glasses and protective gloves for battery removal and installation.

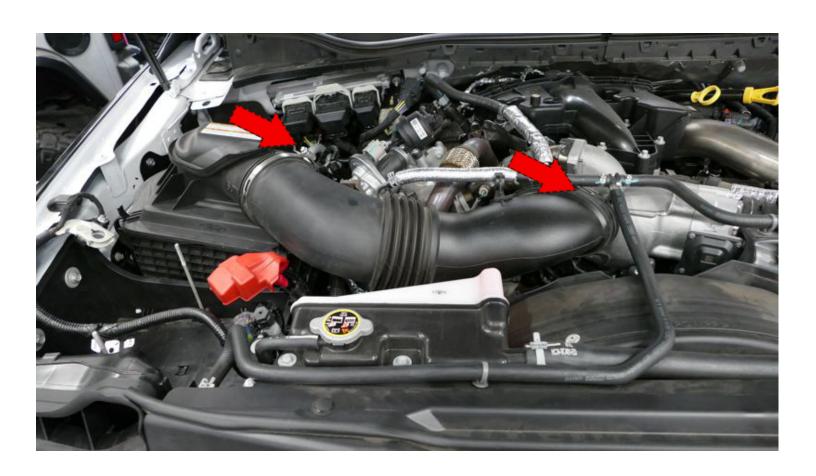


Disengage the red locking clip, press down on the tab, then pull out to disconnect the MAF sensor harness from the MAF sensor.



STEP 5

Disconnect the hoses attached to the stock intake tube.



Loosen the hose clamp connected to the stock intake box and turbo inlet then remove the stock intake tube from the vehicle.

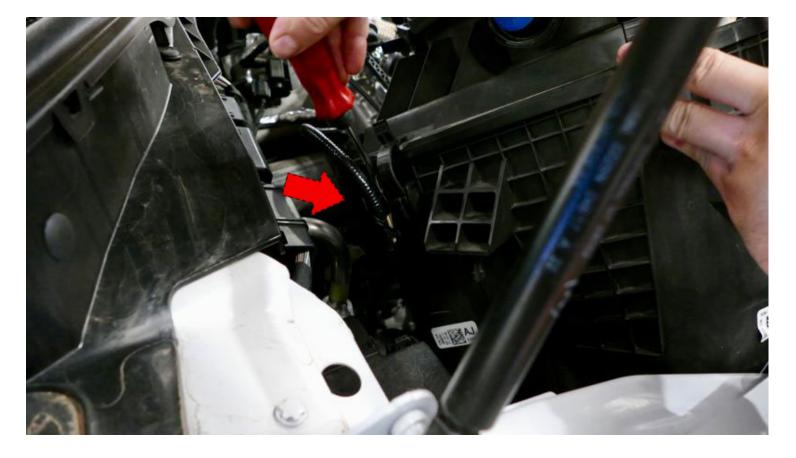
Tool Required: 7mm Socket/Wrench



# STEP 7

Remove the two screws securing the stock intake box.

Tool Required: 8mm Socket/Wrench



# STEP 8A

Pop-out the harness clip attached to the back of the stock intake box.

Tool Required: Panel Popper or Flat Blade Screwdriver



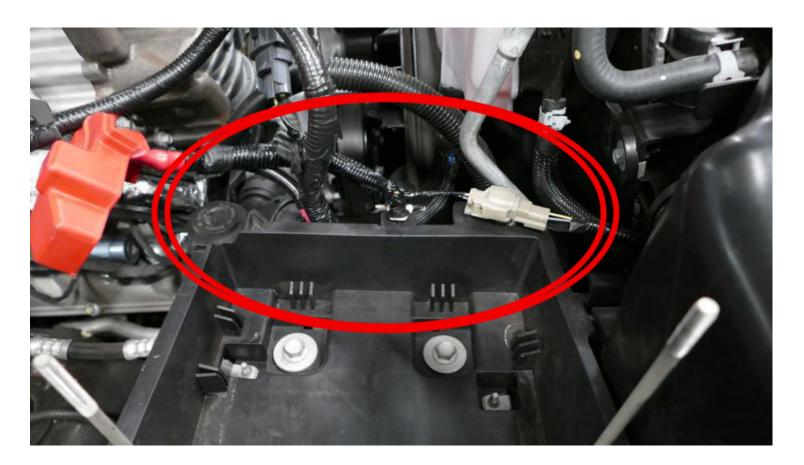
# STEP 8B

Lift up the stock intake box slightly to unseat the prongs from the stock grommets then remove the stock intake box from the vehicle.



Pop-out the stem and remove the push in rivet securing the front inlet. Set the push in rivet aside, it will be reused in Step 47.

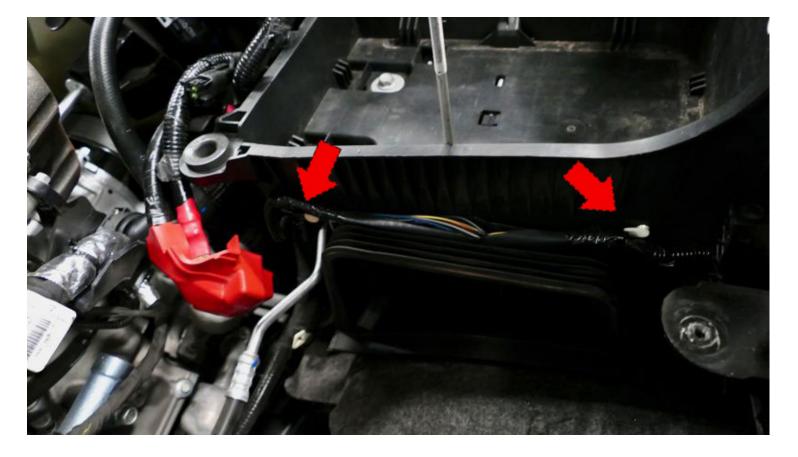
Tool Required: Panel Popper or Flat Blade Screwdriver



## STEP 10

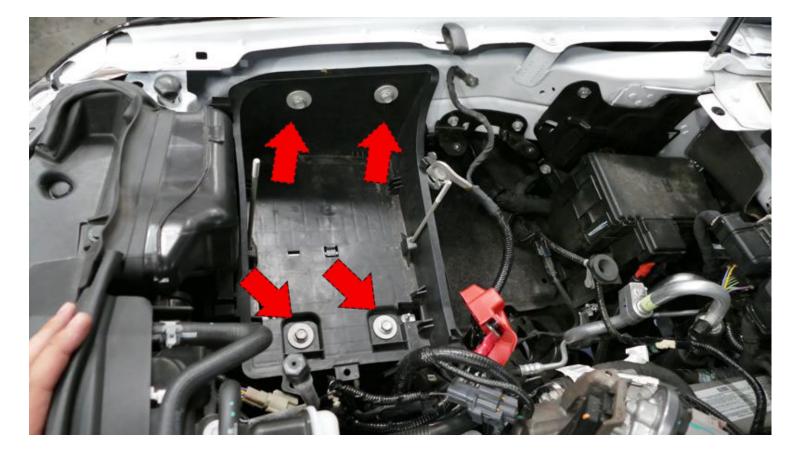
Pop-out all the wire harness clips secured to the side of the battery tray.

Tool Required: Panel Popper or Flat Blade Screwdriver



Pop-out the two harness clips on the back of the battery tray.

Tool Required: Panel Popper or Flat Blade Screwdriver



Remove the four screws then remove the battery tray from the vehicle. Set the screws aside, they will be reused in Step 14 and 39.

Tool Required: 13mm Socket/Wrench



Remove the two screws then remove the stock intake box bracket from the vehicle.

Tool Required: 10mm Socket/Wrench



Remove the AC line clip and electrical harness clip that is attached to the frame before installing the Battery Tray Bracket (V). Make sure that the flange on the battery tray bracket is on the side facing the engine, then align the three mounting holes on the battery tray bracket with the three mounting holes on the frame. Loosely install the M8 Screw (AE), Washers (X) and M8 Locknut (AF) into the center mounting hole and stock screws from Step 12 into the bracket. This is to prevent the bracket from spinning and keeping all the mounting holes from becoming misaligned. Do not fully tighten yet. Reinsert the AC line clip and electrical harness clip into the holes provided in the side of the battery tray bracket.

Tool Required: Panel Popper, 13mm Socket/Wrench



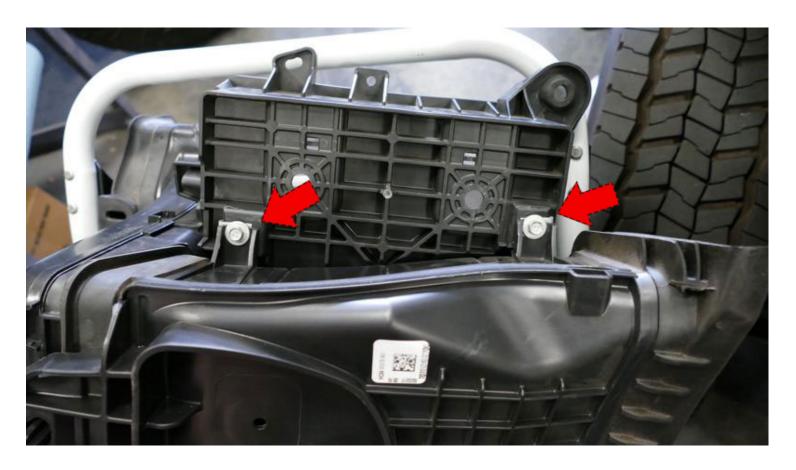
STEP 14 (IMAGE 2)



STEP 15

Remove the stock hold down U-bolt from the stock battery tray by first removing the two screws underneath securing the stock battery tray to the stock intake inlet.

Tool Required: 8mm Socket/Wrench



STEP 15 (IMAGE 2)



STEP 16

Push the locking tabs and lift the stock inlet away from the stock battery tray and pop out the hold down U-bolt.



# STEP 16 (IMAGE 2)

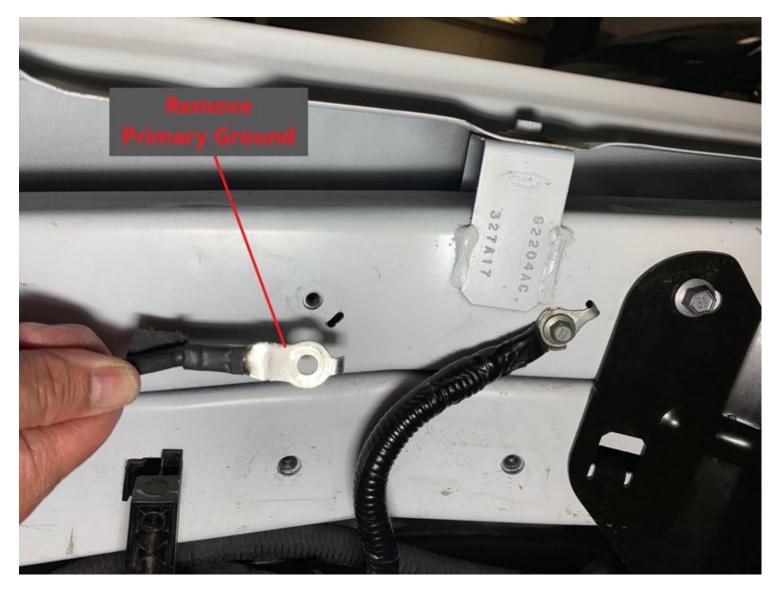


### STEP 17

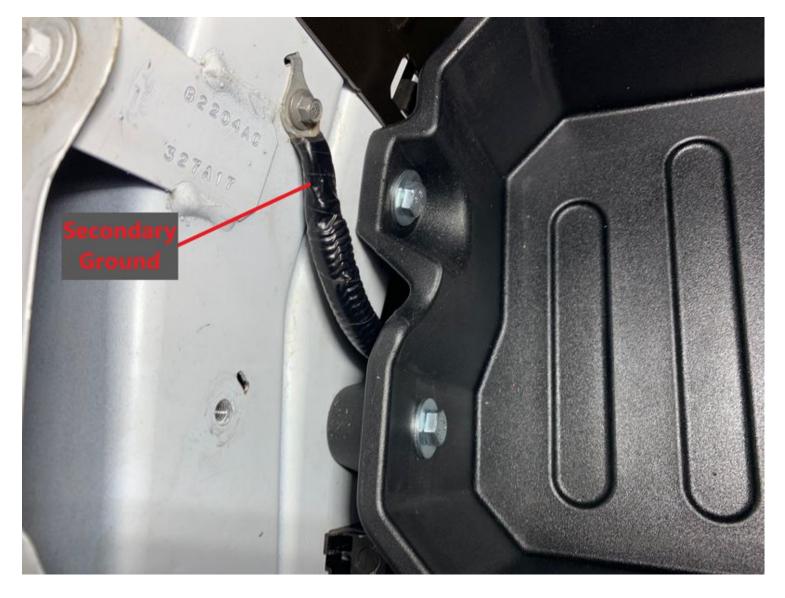
Install the stock hold down U-bolt onto the Battery Tray (W). The stock hold down U-bolt should be installed as shown below. The longer end should be closest to the longer side of the Battery Tray (W). Use a Cable Tie (AA) through the center of the battery tray to secure the hold down U-bolt.



Check to see if you have one or two ground cables attached to the fender as shown. Some trucks have only the primary ground and others have both the primary and secondary grounds. The primary ground is the wire attached to the negative battery terminal.



Remove the grounding bolt that attaches the primary ground to the fender. Set the grounding bolt aside to be used in Step 23.



Do not loosen the screw that holds down the secondary ground. The Battery Tray (W) is designed to have enough clearance so that the secondary ground does not touch the Battery Tray.



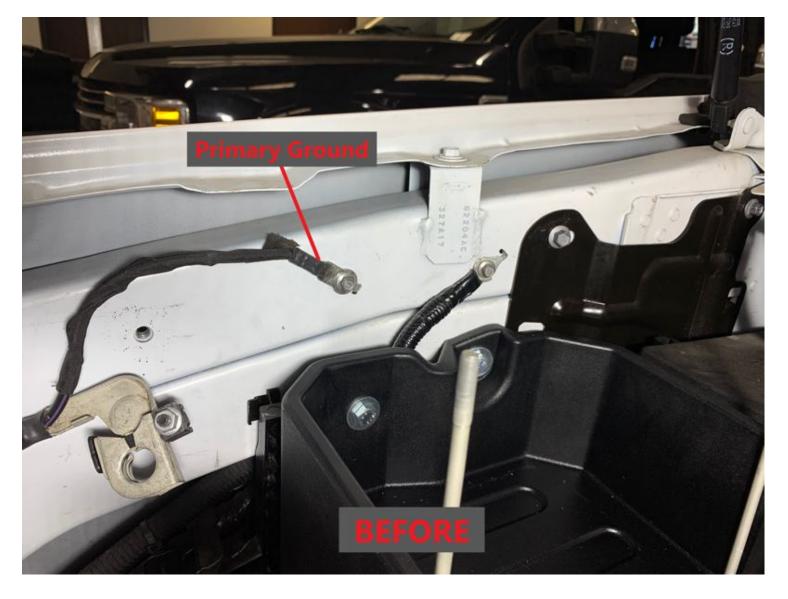
Align the holes on the Battery Tray (W) with the holes on the Battery Tray Bracket (V) and side fender wall then tighten with the M8 Screws (Y) and Washers (X). Use the longer M8 Screw (AI) for going through the long side fender boss on the Battery Tray. Make sure the Battery Tray is not touching the secondary ground.

Tool Required: 13mm Socket/Wrench



Fully tighten the center mounting hole with the M8 Screw (AE), Washers (X) and M8 Locknut (AF) on the Battery Tray Bracket (V) then remove the two stock screws from the bracket to be used in Step 39B.

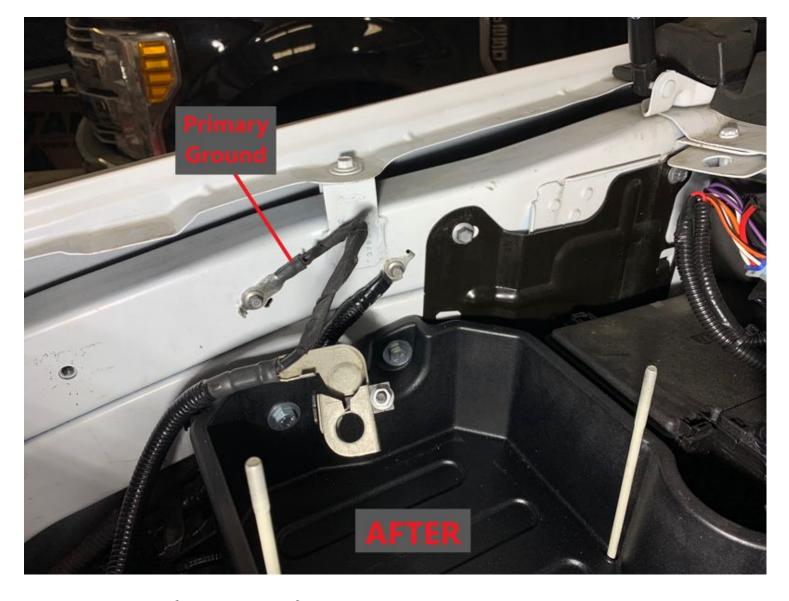
Tool Required: 13mm Socket/Wrench



Reattach the grounding bolt removed in Step 19 as shown. Re-use the factory grounding bolt to attach the primary ground to it's original threaded hole on the fender and torque to factory specifications, 106 lb-in (12 Nm).

**Note**: The primary ground should be at an angle with the prong facing away from the fender as shown.

Tool Required: 8mm Socket/Wrench, Torque Wrench



STEP 23 (IMAGE 2)



Place the battery and battery blanket inside the Battery Tray (W) as shown. Be careful as the battery is heavy. The battery is also filled with battery acid so remember to keep it level to prevent the acid from spilling out the top. Pay attention to the orientation of the battery where the negative post is closest to the fender and the positive post is closest to the engine. Also, make sure the U-bolt is on the outside of the battery blanket.

Safety Note: Wear appropriate safety glasses and protective gloves for battery installation.



Secure the battery to the Battery Tray (W). Install the stock hold down bracket and the negative battery cable mounting tab then reinstall and tighten the nuts removed in Step 2.

Tool Required: 10mm Deep Socket/Wrench



We will now rearrange and flip the tightening mechanism on the negative battery cable terminal. This will allow the terminal to reach the battery post after the battery relocation. First completely remove the nut, screw, and wedge then pull out the metal clip then reinstall the metal clip into the longer side on the battery terminal as shown in Image 2.



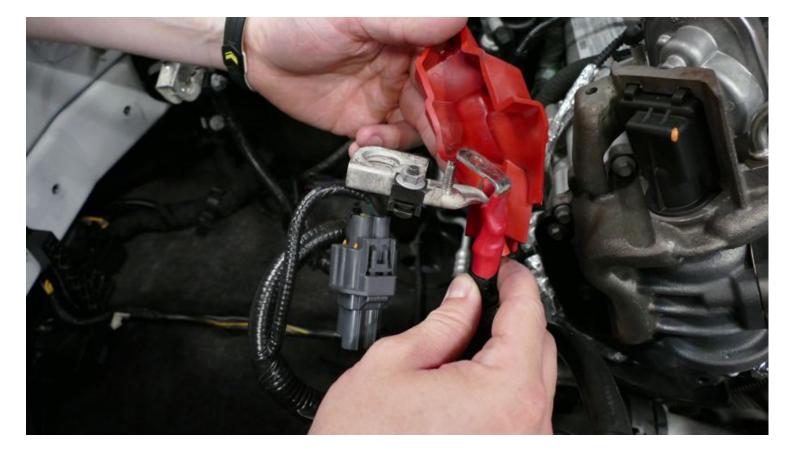
STEP 26 (IMAGE 2)



Reinstall the tightening mechanism as shown. Open the battery terminal diameter by opening up the slit with a screwdriver so it will be easier to get the terminal fully seated onto the battery post. Do NOT install the negative I battery terminal to the battery post at this time.



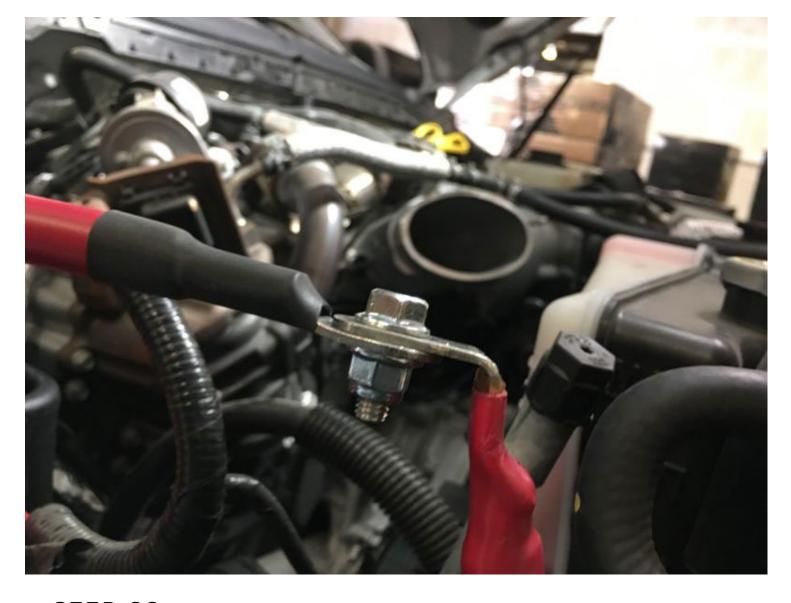
STEP 27 (IMAGE 2)



Remove the nut on the positive battery terminal and disconnect the secondary cable. Set the nut aside, it will be reused in Step 31.

Note: If you have two secondary positive battery cables, disconnect both from the battery terminal.

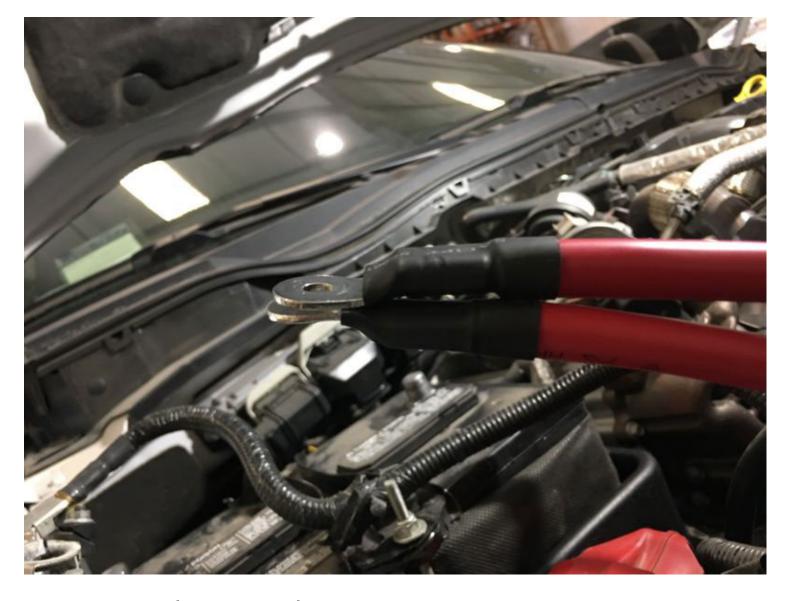
Tool Required: 10mm Socket/Wrench



Secure one end of the Battery Cable Extension (AG) to the secondary battery cable using the M6 Bolt (AB) and Flange Nut (AC). Keep the metal contacts straight. Torque the M6 Bolt (AB) and Flange Nut (AC) to 88 lb-in (9.9 Nm).

Warning!: If you have two secondary positive battery cables, install the battery cable extensions separately. Do not attempt to install two secondary positive cables with only one Battery Cable Extension (AG). This may lead to a potential fire. Also, note the orientation of the extensions when attaching them so that the free end can be stacked flat and back to back as shown in Image 2.

Tool Required: 10mm Socket/Wrench, Torque Wrench



STEP 29 (IMAGE 2)



#### STEP 30A

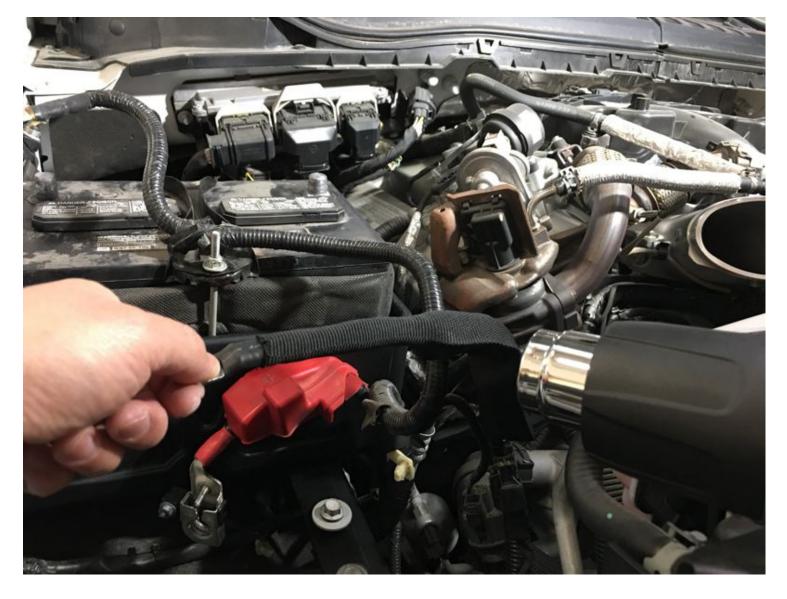
Slide the Heat Shrink (AD) over the metal contact then shrink the tubing. Make sure there is no exposed metal or tears after shrinking the tube. Repeat the procedure and cover the Heat Shrink (AD) with another Heat Shrink (AD).

**Note:** If you have two secondary cables, complete the process for each secondary cable individually. Do not use one Heat Shrink (AD) for both cables.

Tool Required: Heat Gun



STEP 30A (IMAGE 2)



# STEP 30B

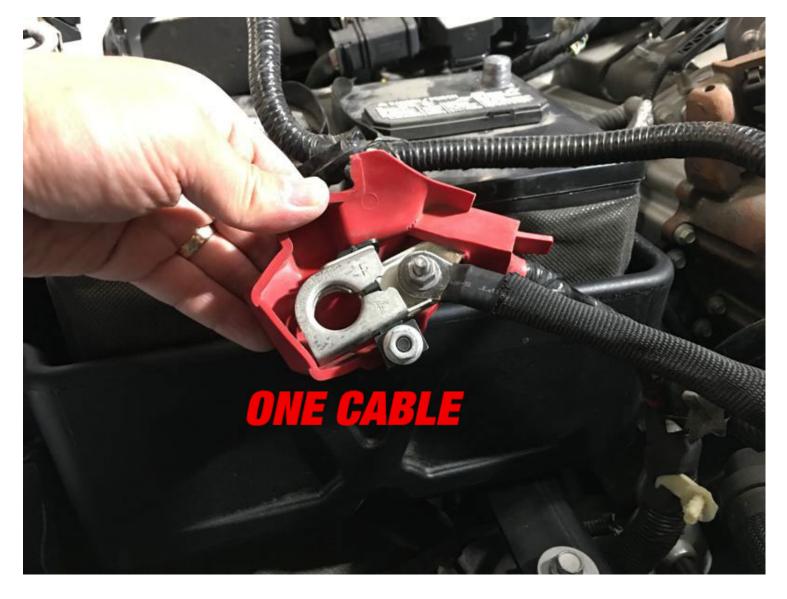
Slide the Fabric Heat Shrink (AH) and cover the entire extension including the Heat Shrink (AD). Make sure there is no exposed metal or tears after shrinking the Fabric Heat Shrink (AH).

Note: If you have two secondary battery cables, complete the process for each secondary cable individually. Do not use one Fabric Heat Shrink (AH) for both cables.

Tool Required: Heat Gun.



STEP 30B (IMAGE 2)



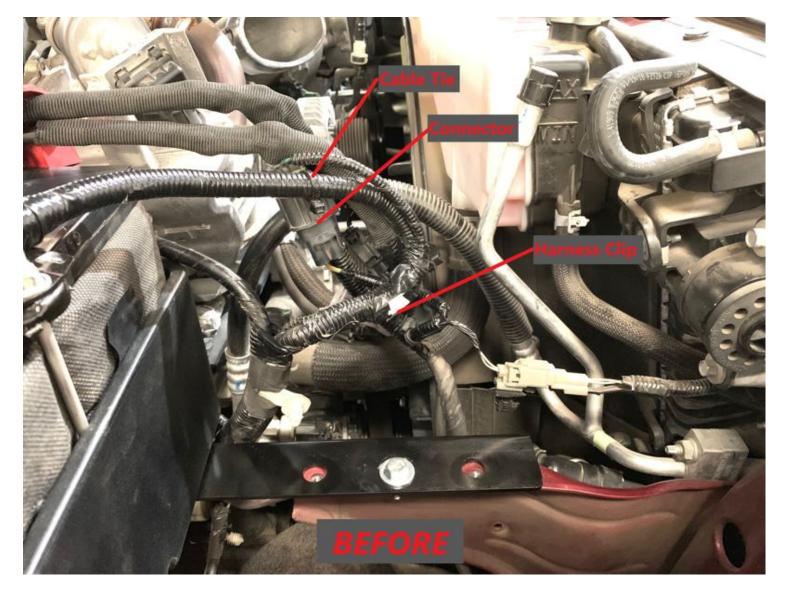
Reinstall the nut removed in Step 28 to secure the other end of the Battery Cable Extension (AG) onto the positive battery terminal. Leave the nut loose.

**Note:** If you have two Battery Extension Cables (AG) installed, stack the two cables on top of each other flat, back to back as shown in Step 29, image 2, then reinstall the nut.

Tool Required: 10mm Socket/Wrench

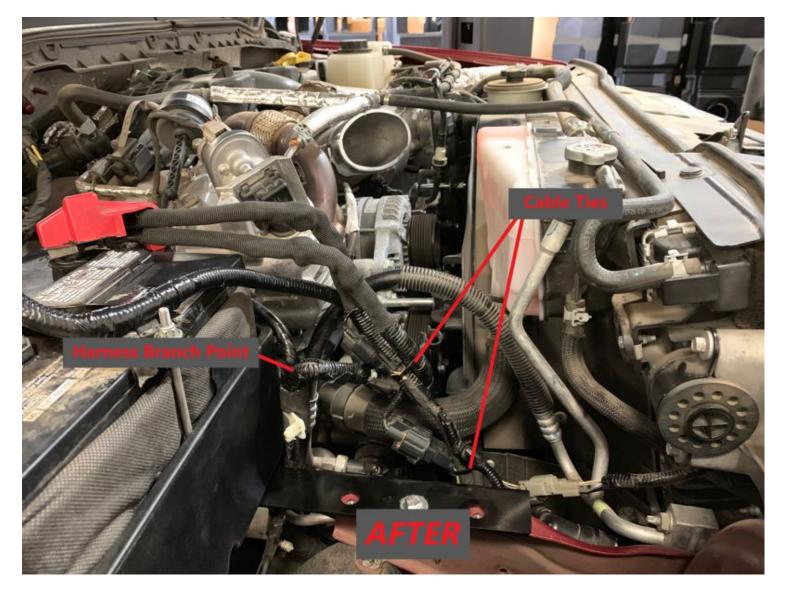


STEP 31 (IMAGE 2)



# STEP 32A

Disconnect the harness clip and remove the cable tie on the connector shown.



#### STEP 32B

Temporarily place the positive battery terminal onto the positive battery post. Neatly arrange the harnesses and use Cable Ties (AA) to group them together. If you require additional slack to get the positive terminal to reach the battery post, you can extend the harness branch by removing some of the electrical tape and moving the branch point down. Use new electrical tape to cover the wires and cables of both branches individually to replace the removed electrical tape. Afterwards, remove the positive terminal from the battery post.



STEP 33
Install the Tube Seal (B) onto the Intake Box (A).



Install the Foam Filter (L) and Foam Retainer (M) onto the Intake Box (A) with the M4 Screws (N).

**Note:** For information on servicing the Foam Filter go to the "S&B Filter Maintenance" section in the beginning of the Install Instructions.

Tool Required: Phillips Screwdriver



#### STEP 35

Install the Box Inlet (J) onto the Intake Box (A) with the Plastic Rivets (U). Squeeze the plastic rivets together so they lock into place.



Determine if you want to install the Box Plug (K) onto the Intake Box (A). See the "Air Box Plug Testing" section in the beginning of the Install Instructions to decide the desired setup.

Image shown with box plug installed.



STEP 36 (IMAGE 2)

Image shown with box plug uninstalled.



STEP 37

Press the Grommets (Q) into the side of the Intake Box (A).



Place the Intake Box (A) into the truck.



### STEP 39A

Align the mounting holes on the side fender wall and the bracket then carefully install the two stock screws removed in Step 12 making sure that the Grommets (Q) do not fall off the airbox. Leave the screws loose. Some adjustments may be needed to get the other mounting holes to line up.

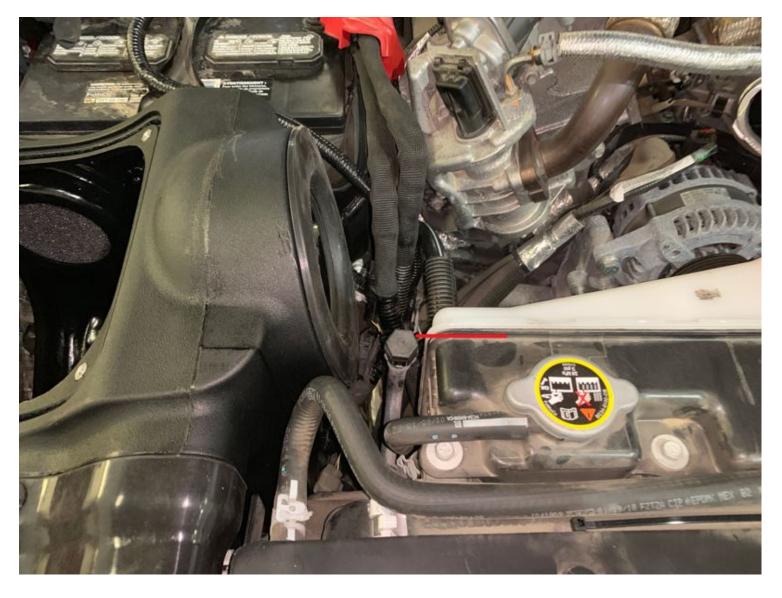
Tool Required: 13mm Socket/Wrench



## STEP 39B

Install the other two stock screws and secure the bottom of the Intake Box (A). Fully tighten all four screws in Step 39a and 39b.

Tool Required: 13mm Socket/Wrench



Slightly bend the AC service port so that the center of the cap lines up with the seam of the coolant reservoir as shown below (this will give clearance to install the Intake Tube (C) in Step 42).

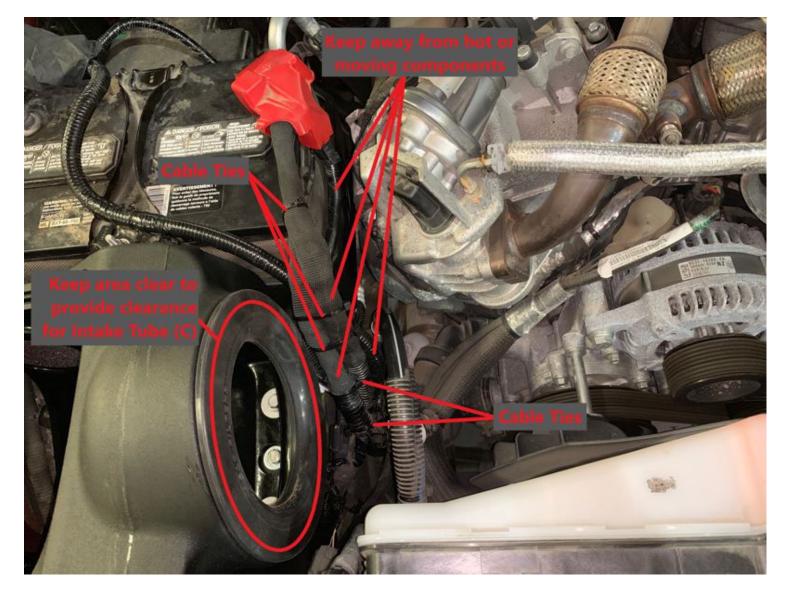


Install the positive terminal on the positive battery post. Remove the terminal clamp nut assembly and rotate it to the other side of the terminal as shown by the white arrow. Moving the terminal clamp nut will allow the positive cables and extensions to be as close as possible to the side of the battery. Now position the terminal so that the battery cables and Battery Cable Extention(s) (AG) are as close as possible to the side of the battery so that the cables do not come in contact with any hot components or moving parts. Torque the terminal clamp nut to factory specifications, 80 lb-in (9 Nm). Torque the battery cable nut to factory specifications, 80 lb-in (9 Nm).

Tool Required: 10mm Deep Socket/Wrench, Torque Wrench



STEP 41 (IMAGE 2)



Place the positive terminal cover over the positive terminal and verify that the battery cables and extensions are as close as possible to the side of the battery tray. Also make sure that the cables and extensions are away from the Tube Seal opening on the Intake Box (A) to provide clearance for the Intake Tube (C). Use Cable Ties (AA) to group the wires/harness and secure them away from any hot components and moving parts that could potentially damage the cables or wires.

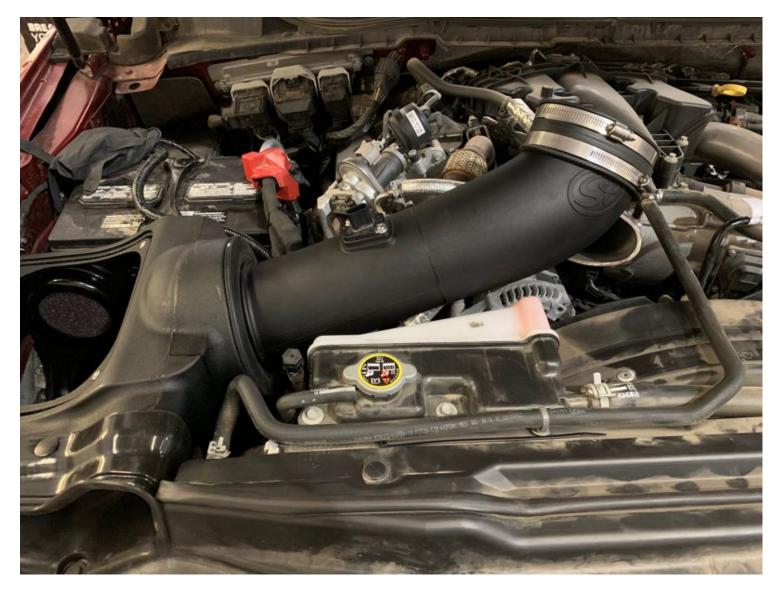


Carefully remove the MAF sensor from the stock intake tube and install it onto the Intake Tube (C) with the 8-32 Screws (T), MAF Pad (S) and MAF Gasket (R).

Tool Required: T20 Torx, Phillips Screwdriver

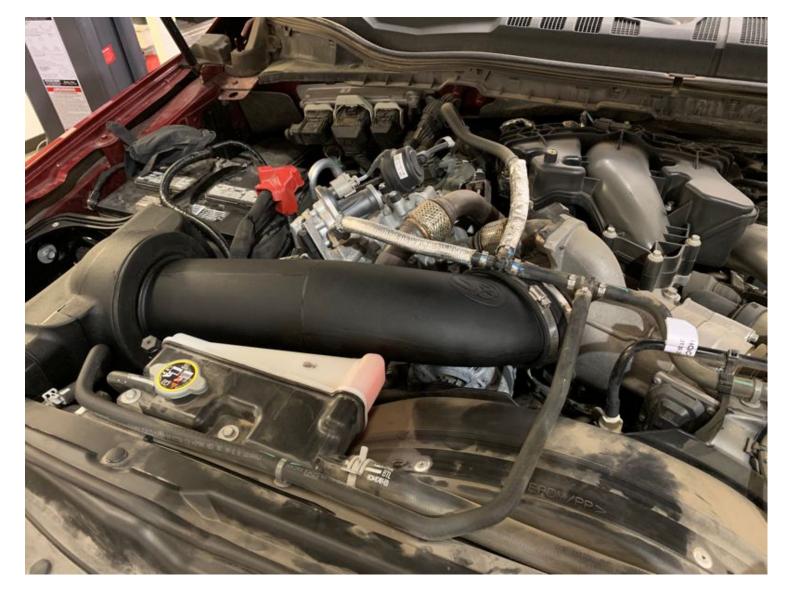


Slide the Coupler (O) over the Intake Tube (C) with the two #72 Hose Clamps (P) up to the edge of the tube as much as possible. This will give you extra clearance room during the installation. Leave the hose clamps loose.



STEP 45

Insert the Intake Tube (C) into the Intake Box (A) at the angle showed below.



Rotate the Intake Tube (C) and then slide the Coupler (O) over the turbo inlet. The radiator hoses will be sitting on top of the coupler so position the hose clamp screws away from the hoses then tighten both #72 Hose Clamps (P).

**Tool Required:** 5/16" Nut Driver or Flat Blade Screwdriver



STEP 47

Secure the Box Inlet (J) with the push in rivet removed in Step 9.



Install the Air Filter (D) and #72 Hose Clamp (E) onto the Intake Tube (C). Tighten the hose clamp.

Tool Required: 5/16" Nut Driver or Flat Blade Screwdriver



**STEP 49** 

Press the Lid Seal (F) into the groove on top of the Intake Box (A).

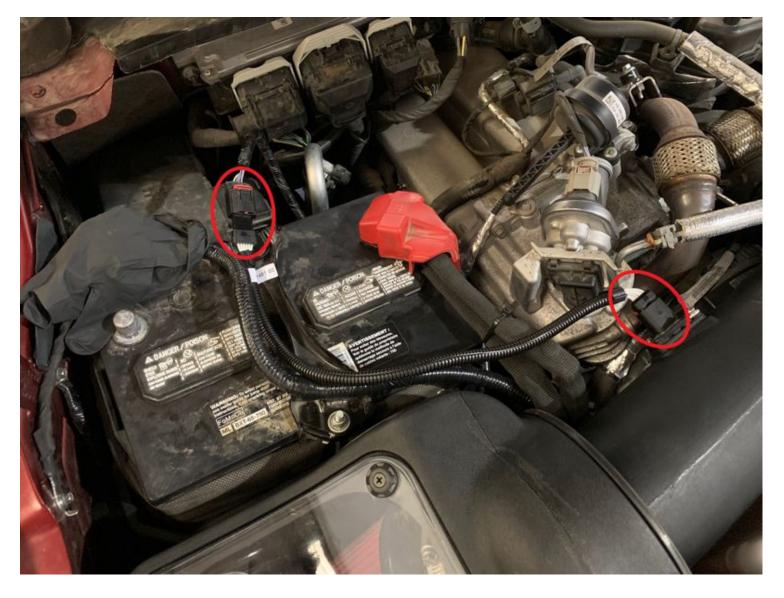


Peel off the protective covering on the Clear Lid (G).

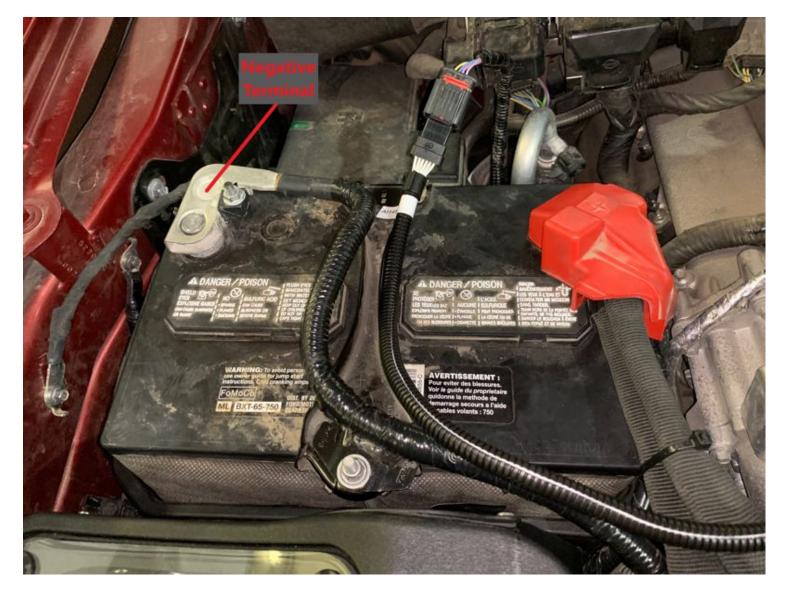


Place the Clear Lid (G) on top of the Intake Box (A) and secure with the 10-24 Screws (I) and Lid Washers (H).

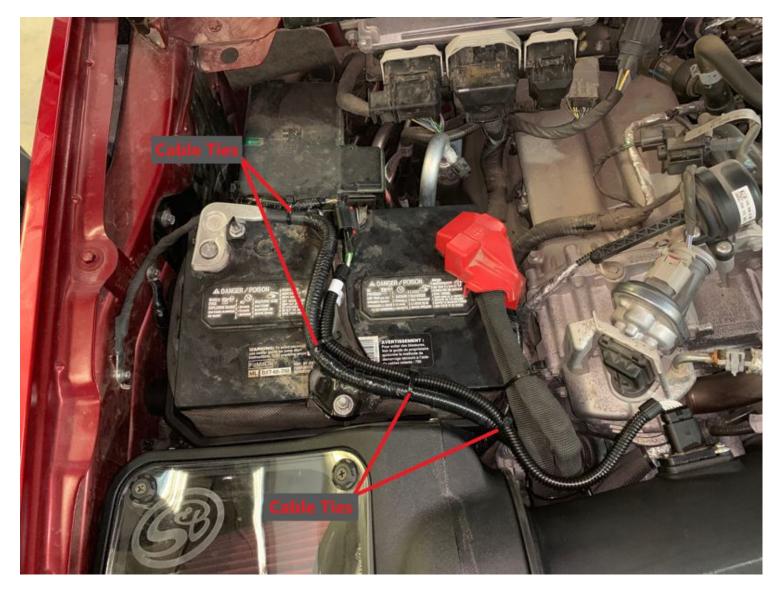
Tool Required: Phillips Screwdriver.



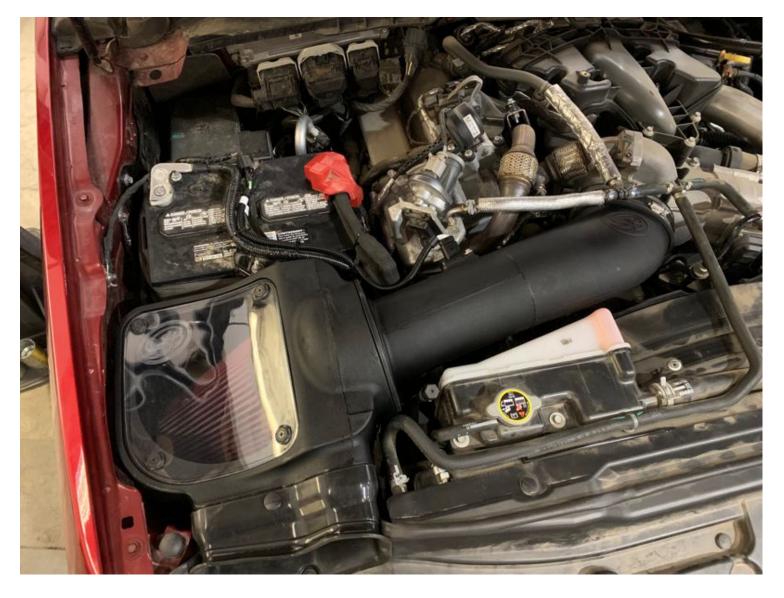
Install one end of the MAF Harness Extension (Z) into the stock MAF harness and the other end into the sensor. Make sure to engage both red locking clips.



Install the negative battery terminal on to the negative battery post as shown. Tighten and torque the terminal clamp nut to factory specification, 80 lb-in (9 Nm). Also install the negative battery terminal on the driver's side battery and tighten and torque the terminal clamp nut to factory specification, 80 lb-in (9 Nm)."



Group together any loose wires/harness such as the MAF Harness Extension (Z) and secure them away from any hot components and moving parts. Use Cable Ties (AA) to neatly secure them.



Inspect your installation, make sure the kit is properly positioned and all fasteners are secured. Keep all stock parts in case you would ever need to reinstall the stock intake assembly. Affix the ID label near the intake kit. The installation is now complete.

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