

INSTALLATION INSTRUCTIONS

VEHICLE APPLICATION

Year: **2012 - 2017**
 Make: **Arctic Cat**
 Model: **Wildcat X, 4X, Limited, EPS, SE, 1000i**
 Engine: **951, V-Twin, SOHC, High Output 4-Stroke**

TOOLS REQUIRED

- 4mm, 5mm Hex Key
- 10mm, 16mm, 19mm Wrench/Socket
- 5/16" Nut Driver
- 1/8"-1/4" Drill Bit
- Phillips Screwdriver
- T30 Torx
- Wire Cutters
- Tape
- Razor Blade
- Hole Saw (Included with Kit)
- Panel Popper/Flat Head Screwdriver

BEFORE YOU START

- Please read the entire installation manual before proceeding.
- Ensure all components listed on page 10 are present.
- If you are missing any of the components, call our customer support at (909) 947-0015.
- Do not work on the vehicle while the engine is hot.
- Make sure the engine is turned off, the vehicle is in Park, and the Parking Brake is set.

THREAD LOCKER USE

We have provided a small tube of thread locker in your kit. Whenever you see the symbol above on a step of the instructions apply 1 small drop of the thread locker to the threads of the screws or bolts. This will keep your hardware from vibrating loose during rough driving. If the hardware ever needs to be removed, do so slowly to avoid having the inserts strip out from the plastic.

WARNING:

THIS EQUIPMENT SHOULD BE INSTALLED, ADJUSTED, AND SERVICED BY PERSONNEL FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THIS TYPE OF EQUIPMENT AND THE HAZARDS INVOLVED. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE INJURY. READ THIS MANUAL THOROUGHLY AND MAKE SURE YOU UNDERSTAND THE PROCEDURES BEFORE YOU ATTEMPT TO OPERATE THIS EQUIPMENT. THE PURPOSE OF THIS MANUAL IS TO PROVIDE YOU WITH INFORMATION NECESSARY TO SAFELY OPERATE, MAINTAIN, AND TROUBLESHOOT THIS EQUIPMENT. DO NOT USE THIS EQUIPMENT FOR ANY REASON OTHER THAN ITS INTENDED PURPOSE. FAILURE TO FOLLOW THESE INSTRUCTIONS WILL VOID ANY WARRANTY. KEEP THIS MANUAL FOR FUTURE REFERENCE. THE INFORMATION CONTAINED IN THIS MANUAL IS SUBJECT TO CHANGE WITHOUT NOTICE.

Product will intake and expel both air and loose materials with high force and velocity.

- Install product on roll cage, ensure air inlet is not blocked.
- Install product securely to roll cage and avoid placing hair, extremities, clothing, or other loose material in front of air inlet during use.

Moving parts are sharp and could cause personal injury.

- Keep fan safety guard and exhaust cover in place while operating and after service.
- Disconnect product from power source before servicing.

Scavenge Fan is designed for use in conjunction with an UTV's operating manual, and state and federal law.

- Keep your seat belt fastened and wear a helmet while operating the vehicle.

Risk of electric shock!

- Improper installation, maintenance or operation could cause serious injury or property damage.

Cut Hazard!

- Please read through the warning sheet included with the hole saw before starting your project.
- Improper operation of the hole saw safely could cause serious injury or property damage.

Installation Options

There are 2 options for how the stock air inlet can be plugged (see step 6a) and several options for how to connect the relay that powers the fan. The relay needs a signal source of at least 8V (preferably 12V) that is either switched or "key on". If you want to plug the factory intake tube at its end (rather than delete it and plug at the air box) and tap into the 12V accessory plug behind the shifter, then begin with steps 1-5. If you choose to use the plug at the air box and tap into a 12V source at a location other than the one below and behind the shifter, then steps 1-5 may not be necessary.

SEE EXPLODED VIEW ON PAGE 10

INSTALLATION INSTRUCTIONS (CONTINUED)

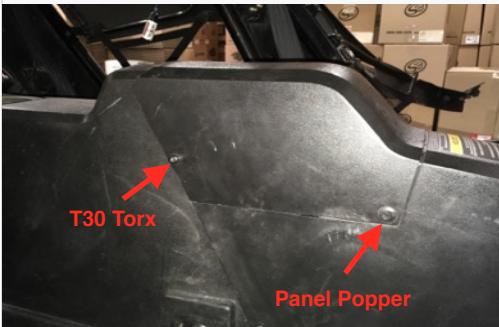
1. If you have a 2-seater Wildcat, remove both seats. If you have a 4-seater Wildcat, remove both the front and rear seats. The seats can be removed either by pulling on the tab behind the seat or using a 10mm Socket/Wrench to remove the bolts securing the seat.



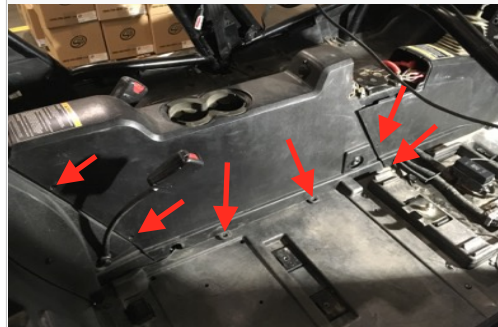
2. Remove the seat belt holder with a 16mm Socket/Wrench. There is a nut on the other side of the boss that is tack welded in place. If the welds break, then use a 19mm wrench to hold the nut in place while loosening the bolt. Repeat for the other side.



3. Remove the battery cover. Use a T30 Torx on the rear fasteners and a panel popper/flat head screwdriver on the push tabs. Repeat for the other side.



4. For 4 seater only (2 seaters; skip to step 5) Remove the rear center console. Use a T30 Torx to remove the fasteners. Repeat for the other side.



5. Use a T30 Torx to remove the fasteners for the front center console. Repeat for the other side. The front center console will need to be tilted up.



6a. Determine where you want to install the Intake Inlet Plug (S). There are two options to install the intake inlet plug. The plug is designed to close any openings where air that has not been filtered by the particle separator can enter your induction system. The simplest option is to plug the inlet end of the factory intake tube, which is located at the rear of the center console area. **Note:** Keep in mind that deleting the factory intake inlet may allow more dust to enter the CVT system through the opening in the intake bracket, left by the factory intake tube.

Intake Inlet

Intake Box



6b. (Intake inlet plug installed on inlet tube) Install the Intake Inlet Plug (S) with the Hose Clamp #52 (C) onto the lower intake tube. This is the factory intake inlet. Make sure you are not installing the plug onto the CVT inlet.



6c. (Intake inlet plug installed onto intake box) Remove the CVT air inlet tube by first loosening the clamp holding the tube to its coupler. Pull the tube out of the opening in the intake channel that it sits in, and then the tube should be able to be pulled free (remember that this tube must be reinstalled). To remove the engine intake tube, begin by reaching above the intake box with a short Phillips screwdriver to access the clamp that holds the elbow/coupler onto the air box, and loosen it. Rotate the tube to make it easier to work free. Remove the oval clamp used to hold the factory elbow/coupler to the intake box, and place it on the intake plug with the head of the screw facing down. Place the plug onto the intake box and tighten the clamp.



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INSTALLATION INSTRUCTIONS (CONTINUED)

7. Remove the right rear passenger fender and set it aside. There are five screws and at least one clip that need to be removed. Use a T30 Torx on the screw on top and a 10mm Wrench underneath on the nut to remove the screw on the upper panel. There is one screw and nut underneath the upper panel that needs to be removed and a screw and clip on the side.



8. Remove the factory intake lid from the vehicle. Start by releasing the five clips. Rotate the intake lid 90 degrees clockwise with the shorter end facing straight up. Lift the lid up towards the opening near the radiator. This should give you enough room to allow you to slide the intake lid out between the roll cage and shock.

Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



9. Use a flat head screwdriver to pry the factory lid gasket out of its groove, then pull the entire gasket out. Clean out the gasket groove of any debris or contaminants.



10. Remove the five clamps on the factory intake box by pressing the clamp to the side until it is released.



11. To install the replacement intake box lid clamps, begin by having the top of the clamp hang over the rim of the air box, and then press the bottom into position (as shown below). Repeat for all five clamps.



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INSTALLATION INSTRUCTIONS (CONTINUED)

12. With the flat side of the gasket facing down into the groove, carefully install Lid Gasket (T) into the groove on the air box. Try to compress the length of the gasket while pushing it into the groove. If there is extra length at the end, then trim it, however be sure that the gasket is still long enough so that its ends meet.



13. Insert the Lid Coupler (V) into the replacement Intake Box Lid (B). The lip on the air box lid must sit in between the center grooves on the lid coupler. Double check to make sure that the lid coupler is not pinched anywhere around the opening.



14. Install the Intake Box Lid (B). Slide the air box lid between the frame tube and the shock, with the lid rotated so that the Lid Coupler (V) is on the lower left. Lift the lid up and towards the opening in front of the radiator, so that the lid can clear the frame tube and slip into position. Rotate the lid clockwise about 180° and place it into position on the air box. Press the lid on, so that it compresses the gasket some. The lid should be making contact with the gasket all the way around, and close to or touching the top of the filter. While continuing to press the lid into place so that it compresses the gasket, use your other hand to push each clamp into place. Be sure the clamp "snaps" into place. Check to make sure the lid meets the gasket all the way around. If there are any gaps, please contact S&B customer service.

Step 1



Step 2



Step 3



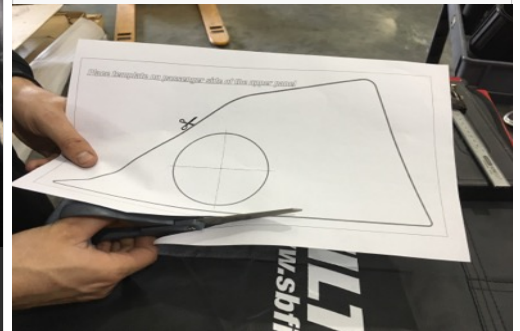
Step 4



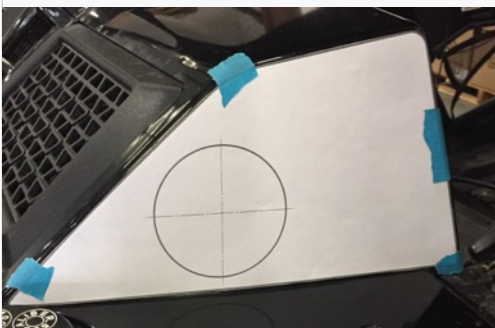
Step 5



15. On Page 11 of this instruction manual you will find a drill template. Cut out the drill template along its outline. This will be used to locate the correct drill location.



16. Align the edges of the drill template with the edges of the upper panel (as shown below), use tape to secure the template.



17. Before you start drilling, the radiator hose and any other parts need to be cleared from behind the panel. A long screwdriver or similar tool can be wedged between the radiator and frame tubing, in order to hold the radiator hose out of the way.



18. Press the Plastic Rivet (AG) inside the rubber Washer (AH). Together these act as the depth stop for the Hole Saw (U). Press the four depth stops into the slots on the hole saw. These are used to prevent the hole saw from traveling further past the upper panel and cutting anything on the other side. Do not rely on the depth stops however for 100% protection. Be sure that there is at least 4" of clearance between the backside of the panel surface and any parts/objects.



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INSTALLATION INSTRUCTIONS (CONTINUED)

19. Use a hole punch or a 1/8" - 1/4" drill bit on the upper cover to create a pilot point where the cross hairs meet on the template. Attach the provided Hole Saw (U) to a power drill and line up the drill bit with the template and pilot hole. **Note:** Read the warning sheet before attempting to use the hole saw. While maintaining a moderate drill speed (500-750 rpm) and while holding with a firm grip, the saw should slowly be moved in towards the panel until it makes contact and begins cutting. Doing so should give you a better cut. Try to keep the angle on the hole saw as flat to the wall as possible.



20. Once you have completely drilled through the radiator cover, remove the cutout template then use a deburring tool to clean up any burrs left behind.

21. Insert the Wall Grommet (G) into the hole.



22. Insert the Upper Adapter Tube (F) through the Wall Grommet (G) into the radiator cover. The tube should be flushed against the wall grommet and should be facing the same direction as shown below. Follow the next step for proper alignment and installation. **Warning:** Do not force the adapter tube into position, doing so may result in damage to the wall grommet, upper panel or other parts below the upper panel.



23. As you insert the Upper Adapter Tube (F) into the Wall Grommet (G) you may notice that the upper adapter tube will hit the radiator. It is still possible to install the tube without removing or lifting the upper panel. To do this, have the tube positioned as seen in image with the tube furthest out. When the tube makes contact with the radiator, reach underneath and pull the tube towards you, while guiding its end around the radiator. The panel will flex some at the hole without deforming.



24. Insert the Lower Adapter Tube (W) into the Lid Coupler (V) with Hose Clamp #52 (C). Do not tighten the hose clamp yet. It may be helpful to apply soapy water to the lower adapter tube and lid coupler where they mate with each other. Also, work the part into the coupler in a circular pattern or at an angle to make it easier for the part to be installed without pushing the lid coupler out of its seat.



25. Insert the Straight Coupler (X) onto the Upper Adapter Tube (F) with Hose Clamps #52 (C). Do not tighten the hose clamps yet. Rotate the Lower Adapter Tube (W) clockwise and insert the lower adapter tube into the straight coupler. Once everything is lined up. Tighten all hose clamps with a 5/16" Nut Driver.



26. Determine where you would like to install the Particle Separator (H) on the roll cage, making sure you have enough room to fit the clamps and Particle Separator on the roll cage without any interference. Planning ahead will save you time during the install. Our clamps are adaptable enough to work around most accessories you may already have installed on the roll cage.

Low Position



Middle Position



High Position



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INSTALLATION INSTRUCTIONS (CONTINUED)

27. Once you have determined where you would like to install the Particle Separator, install the two Straps (O) onto the roll cage. Do not pull the ends of the straps open. Loosely wrap some protective material around the roll cage and push the straps onto the roll cage until they snap into place.



28. Install the Pivot Body (R) onto the Strap (O) with the supplied M6 Screw (N), Washer (J) and Locknut (Q) onto the roll cage. Do not fully tighten the screws and locknuts. Leave the strap loose. Repeat for both clamps.



29. Install the Adapter (I) on the mounting bosses of the Particle Separator (H) with the supplied M6 Screws (Z), 42mm Adapter Spacers (Y) and Washers (J). Apply Threadlocker (AF) to the screw before installing. Use a 4mm Hex to tighten these screws. Repeat for both sides.



30. Determine the proper angle to mount the L-Bracket (K) to the Adapter (I) based on the desired location for the Particle Separator (H). When installing the L-Bracket, make sure the ribs in the L-Bracket are properly seated inside the grooves of the adapter. Do not attempt to rotate these parts once assembled. They are designed to lock into place once seated. Once you're satisfied with these configurations apply Threadlocker (AF) to the M8 Screw (M) and with a Washer (L) installed, tighten using a 5mm Hex. Repeat for the other side of the Particle Separator and make sure the L Bracket on both sides are pointed in the same direction and are aligned with each other.



31. Install the L-Bracket (K) onto the Pivot Body (R) using M8 Screw (M) and Washer (L). Apply Threadlocker (AF) to the screw before installing. You may have to adjust the position of the Strap (O) and pivot body to get the holes to line up. Do this for both sides. Tighten the screw with a 5mm Hex. Having an extra pair of hands holding the Particle Separator (H) to help line up the holes will make the install easier.



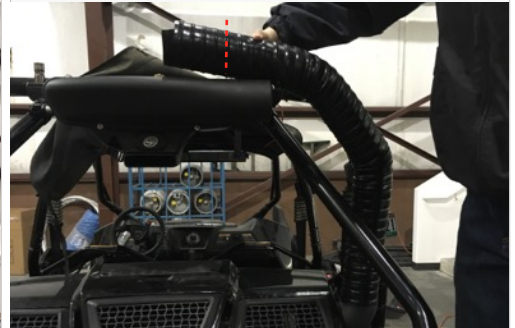
32. Once you are satisfied with the position, tighten the M6 Screws (N), Locknut (Q), and Washer (J) to secure the Strap (O) at the roll cage with a 4mm Hex and 10mm Wrench/Socket. Repeat this for both sides.



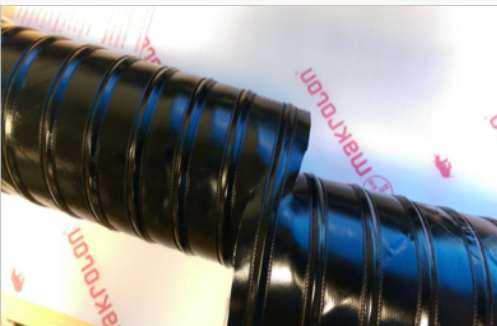
33. Double check that all screws and locknuts are tight and that they are securely holding the Particle Separator (H) assembly to the roll cage.



34. Insert one end of the Flexible Duct (D) onto the Upper Adapter Tube (F), do not tighten. Bring the other end towards the plenum on the Particle Separator (H). Note the length needed to reach the clean air plenum on the Particle Separator. We recommend adding an extra 3" more to the length of the duct needed.



35. Pierce the Flexible Duct (D) using a razor, centered between the two wire reinforcements. Cut all the way around, keeping the blade centered between the wire reinforcements the entire length of the cut. Use a mini-bolt or a heavy duty wire cutter to cut through the wire and duct. Use a pair of scissors to cut through any remaining duct not yet cut.



36. Before installing the Flexible Duct (D) onto the plenum of the Particle Separator or adapter. Insert one end of the flexible duct fully into the Flexible Duct End Cuff (AA) with a Hose Clamp #56 (E) installed. Do not tighten yet. Repeat for the other end of the flexible duct.



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INSTALLATION INSTRUCTIONS (CONTINUED)

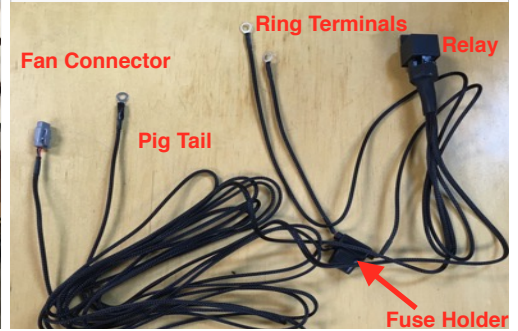
37. Insert the Flexible Duct (D) into the plenum and Upper Adapter Tube (F) Tighten all hose clamps.



38. If needed use the Velcro Strap (AE) to secure the Flexible Duct (D) to the roll cage.



39. Familiarize yourself with the Wire Harness (AC) and each of the connectors. Coming from the relay should be a pig tail, fan connector and ring terminals. Pig Tail Wire is used in conjunction with the Posi-Tap (AB) to tap into a power source. Ring Terminals have the fuse holder with the red and black ring terminals for the battery. Fan Connector has the connector to power the Particle Separator (H).



40. Loosen and remove the screw on the negative battery terminal, then disconnect the terminal from the battery. Repeat for the positive battery terminal. Install the Ring Terminals, from the Wire Harness (AC), onto the battery terminal clamps. Red wire with the fuse holder to (+) and Black wire to (-) and reinstall the screw. Secure the positive terminal first and then secure the negative terminal.



41. The Pig Tail connector comes with a ring terminal that could be connected to a powered terminal bus bar. If you do not have one on your UTV, cut off the terminal and strip about 3/8" of insulation off of the end of the Pig Tail Wire. Unscrew the bottom cap on the Posi-Tap (AB) and insert the Pig Tail Wire through it. Then insert the wire into the main body of the Posi-Tap, making sure the strands go around the metal core. While holding the wire in place, screw the bottom cap back on until it is firmly tight. Double check both caps to make sure they are tight.



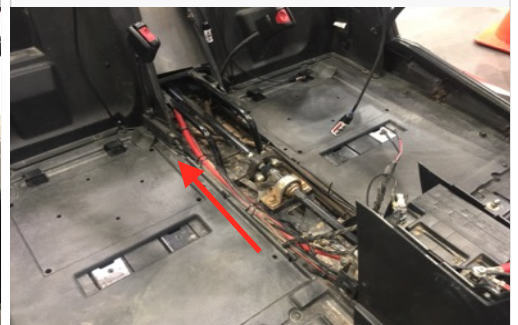
42. Remove the shift boot and lift up the front center console to gain access to the 12V auxiliary connector by the shifter linkage. Unscrew the large top cap and place the cap around the orange wire on the auxiliary connector, then screw the body onto the cap until it is firmly tight and pierces the wire. Double check both caps to make sure they are tight.



43. To ensure that you have installed the Wire Harness (AC) correctly, connect the Fan Connector to the fan connection point on the Particle Separator (H). Note the color of the wires whenever connecting or disconnecting this connector. Make sure not to cross the connectors. Power (red) to power (red) and ground (black) to ground (black). The connector should snap into each other with very little resistance. Do not try to force the connectors into each other. Turn the key one position clockwise (without bumping the starter) or if you have wired in a switch, flip the switch to the ON position. If you hear the Particle Separator fan turning on, you have installed it correctly. Proceed to the next step.



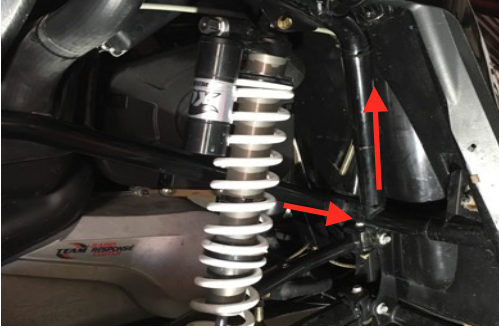
44a. The Wire Harness (AC) should be routed through the vehicle in such a way that the wire harness is protected from direct contact with flying dirt/rocks and other moving parts on the vehicle. The layout shown in this instruction manual serves as a guide for an acceptable location to route the wire harness for a 4-seater Wildcat. A 2-seater Wildcat can use a similar method.



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INSTALLATION INSTRUCTIONS (CONTINUED)

44b. Finish your wiring. The extra length added to the wire harness will allow it to be routed in various configurations depending on your vehicle setup. Route the wire harness along the factory wire harness and driveshaft towards the rear of the vehicle. In this particular installation, after the wire passed through the firewall it followed a chassis tube up towards the Particle Separator (H).



45. Connect the fan connector into the Particle Separator (H). Use Cable Ties (AD) or Velcro Strap (AE) to secure the Wire Harness (AC).



46. Group together any excess wires and tie them together with the provided Cable Ties (AD). Use another cable tie and secure the bundle in a place away from any exhaust components or moving parts that could potentially damage the harness.



47. Reinstall the CVT inlet tube and be sure all clamps are tight.



48. Reinstall the right rear passenger fender. Make sure all fasteners are tightened.



49. Reinstall the rear and front center console.



50. Reinstall the seat belt holder. Be sure to torque to factory specifications.



51. Reinstall the battery cover.



52. Reinstall the seats.



53. Make sure the connectors are all plugged in and secure. Turn the ignition on and make sure air is blowing out the exhaust. If the exhaust fan does not turn on, double check your electrical connections. When you turn the ignition off, the fan will stay on for several seconds, and is normal. Your installation is now complete.



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INSTALLATION INSTRUCTIONS (CONTINUED)

RELATED ITEMS FOR YOUR PURCHASE



Stainless Steel Faceplate
(Brushed)
SKU# 76-3000



Stainless Steel Faceplate
(Polished)
SKU# 76-3001



Stainless Steel Faceplate
(Havasu Red)
SKU# 76-3002



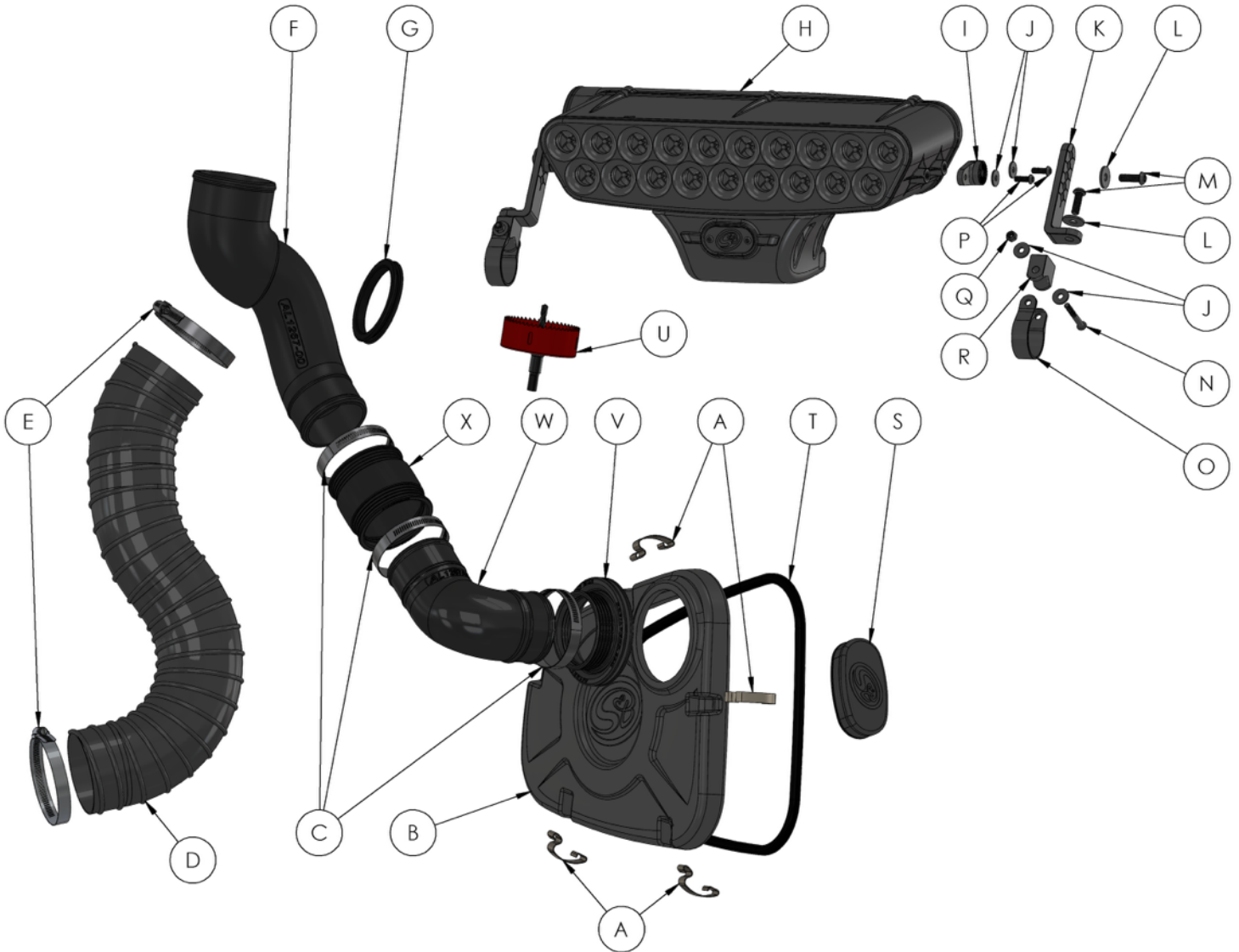
Stainless Steel Faceplate
(Voodoo Blue)
SKU# 76-3003

Order online today at www.sbfilters.com or through your local S&B distributor.

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EXPLODED VIEW



ITEM	QTY.	DESCRIPTION	PART NUMBER
A	6	INTAKE BOX CLAMPS	AI1866-00
B	1	INTAKE BOX LID	AL1268-00
C	4	HOSE CLAMP, #52	AG1007-00
D	1	FLEXIBLE DUCT, 39"	AI1735-01
E	2	HOSE CLAMP, #56	AG1019-00
F	1	UPPER ADAPTER TUBE	AL1267-00
G	1	WALL GROMMET	AI1805C-00
H	1	PARTICLE SEPARATOR	AL2003-00
I	2	ADAPTER, CLAMP	AI1800-00
J	8	FENDER WASHER, M6	AI1755-00
K	2	L-BRACKET, CLAMP	AI1781-00
L	4	FENDER WASHER, M8	AI1742-00
M	4	SCREW, BHCS, M8X1.25X25	AI1788-00
N	2	SCREW, BHCS, M6X1.0X50	AI1801-00
O	2	STRAP, CLAMP	AI1783-00
P	4	SCREW, M6X1.0X18	AI1802-00
Q	2	LOCKNUT, M6	AI1790-00
R	2	PIVOT BODY, CLAMP	AI1782-00

ITEM	QTY.	DESCRIPTION	PART NUMBER
S	1	INTAKE INLET PLUG	AI1817C-00
T	1	INTAKE LID GASKET	AI1832-01
U	1	HOLE SAW, 84MM	AI1821-00
V	1	LID COUPLER	AI1831C-00
W	1	LOWER ADAPTER TUBE	AL1267A-00
X	1	STRAIGHT COUPLER	AI1806C-00
PARTS BELOW ARE NOT IN THE EXPLODED VIEW			
Y	2	ADAPTER SPACER, 42mm	AI1882-00
Z	4	SCREW, BHCS, M6X1.0X60	AI1789-00
AA	2	FLEXIBLE DUCT END CUFFS	AI1865C-00
AB	1	POSI-TAP	AI1799-00
AC	1	WIRE HARNESS	AI1796-00
AD	16	CABLE TIE	AI1750-00
AE	1	VELCRO STRAP	AI1779-01
AF	1	THREADLOCKER, BLUE	AI1595-00
AG	4	PLASTIC RIVET	AI1567-00
AH	4	WASHER, RUBBER	AI1435-00



DRILL TEMPLATE

Place template on passenger side of the upper panel

