



RIVA RACING
PERFORMANCE PRODUCTS & ACCESSORIES

Sea-Doo 2020+ RXT/GTX 300 & 2021+RXP 300 Power Filter Kit

RS13121-2



Applications: Sea-Doo 2020+ RXT/GTX 300 & 2021+ RXP 300

Approximate Installation Time:

3 hrs.

Recommended Specialty Tools:

None

Part #

N/A

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Prior to installation, go to the RIVA Racing online Instruction Library to download the latest version of these instructions:

<https://rivaracing.com/instructions>

Required Materials:

Blue Loctite

Red Loctite

Part #

N/A

N/A

Required Add-on Options:

Catch Can/Engine Breather Kit

— OR —

Power Filter Breather Hose

Part #

RS19050-BCC-5

RS19050-PFBH



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Sea-Doo 2020+ RXT/GTX 300 & 2021+RXP 300 Power Filter Kit

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Notes and Precautions

We strongly recommend the use of a service manual to familiarize yourself with the various components and procedures involved with this installation. Please note that some of the original hardware removed in the disassembly process will be used in the installation process. These instructions have been written in step-by-step format and refer to illustrations. Read through instructions entirely before performing installation. Please follow these step-by-step instructions and illustrations carefully.

***** ALLOW ENGINE TO COOL COMPLETELY BEFORE PERFORMING INSTALLATION *****

***** NO SMOKING *** NO SMOKING *** NO SMOKING *****

CAUTION: Whenever using electric or battery operated tools inside the hull be sure it is well ventilated and no fumes are present. Failure to do so could result in a fire, or explosion and serious personal injury or death.

This kit is not intended for use on pollution controlled vehicles. Installation on pollution controlled vehicles may constitute a violation of state or local statutes.



Sea-Doo 2020+ RXT/GTX 300 & 2021+RXP 300 Power Filter Kit

RS13121-2

COMPONENT LIST

Item	Description	QTY	Part #	Notes
A	Tube A	1	RTL-RS13140	
B	Tube B	1		With large LORD Mount RY15-2NPF2
C	Air Filter	1	RK13090-4	
D	Coolant Reservoir Bracket	1	FSM-RS13120-CB	
E	Small LORD Mount	1	2NPE7	With M8 Nylon Flat Washer 95610A580
F	L Bracket	1	FSM-RS13140-B	
G	Silicone Coupler	2	RY15-04/2.0	
H	Velocity Stack	1	QCA-RS13140	With (2) 6-32 x 1/2" screws 93705A148
I	Threaded Ring	1		
M	Hose Clamp	4	6564E-52	
N	ECU Bracket	1	FSM-RS13171-B	With pad OEMRIVA-RS13171 and cover 1011-347-0605
O	Pre-Filter	1	RK13090PF-BK	
P	M8 X 1.25 X 16 SHCS	2	.8C16SHCS	
Q	M8 Flat Washer	2	.8NWTFS	
R	M8 Lock Washer	2	.8NMLWS	
S	M8 Fender Washer	1	.8NWTFS	
T	M8 Nyloc Nut	1	.8CNNES	
U	M6 X 20 BHCS	2	.6C20SBCHS	
V	Self Tapping Screw	4	92470A196	
W	M6 X 20 SHCS	2	.6C20SHCS	
X	M6 X 12 SCHS	2	.6C12SHCS	
Y	M6 Nyloc Nut	2	.6CNNES	
Z	M6 Flat Washer	8	.6NWTFS	
A1	M6 Lock washer	2	.6NMLWS	
A2	Plastic Dart	1	150155051	
A3	Engine Lift Eye	1	FSM-RS13140-B	
A5	Zip Tie Small	6	TY23MX	
A6	Strap	2	2938501204	
A7	Zip Tie Medium	2	TY24MX	
A8	Nylon Spacer	3	90176A155	
A9	M6 X 16 SHCS	3	.6C16SHCS	
A10	M6 Wave Washer	3	.6NWAWS	
A11	M6 X 16 HHCS	2	.6C16HC3S	
A12	M6 Well Nut	1	67741967	Use for RXT/GTX only packaged in small zip lock bag.
A13	M6 Torx PHS	1	MI635CTBA2	
A14	M6 Flat Washer	1	.6NWTFS	
A15	M6 X 20 PFHS	2	.6C20MXFS	
A16	7/64" Allen Wrench	1	7122A17	

Your kit was inspected and verified before being carefully packaged by our staff. Please check package contents before beginning assembly. If you have a question about missing or damaged items please contact RIVA Technical Support directly at (954) 247-0705 or by e-mail at tech_support@rivaracing.com.

Airbox Disassembly

Remove seats.

Remove access cap (A) and screws (13) at locations shown. **Note: Screws at location B go through the deck and are secured with nuts and washers underneath. Do not drop nuts and washers into hull. Retain hardware for re-use.** Figure 1

Figure 1

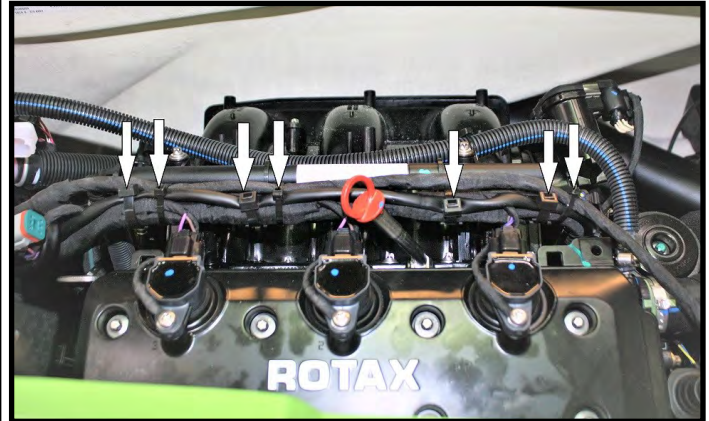


Remove engine compartment access cover. Remove plastic engine cover.

Disconnect battery cables. **Note: Disconnect negative cable first.**

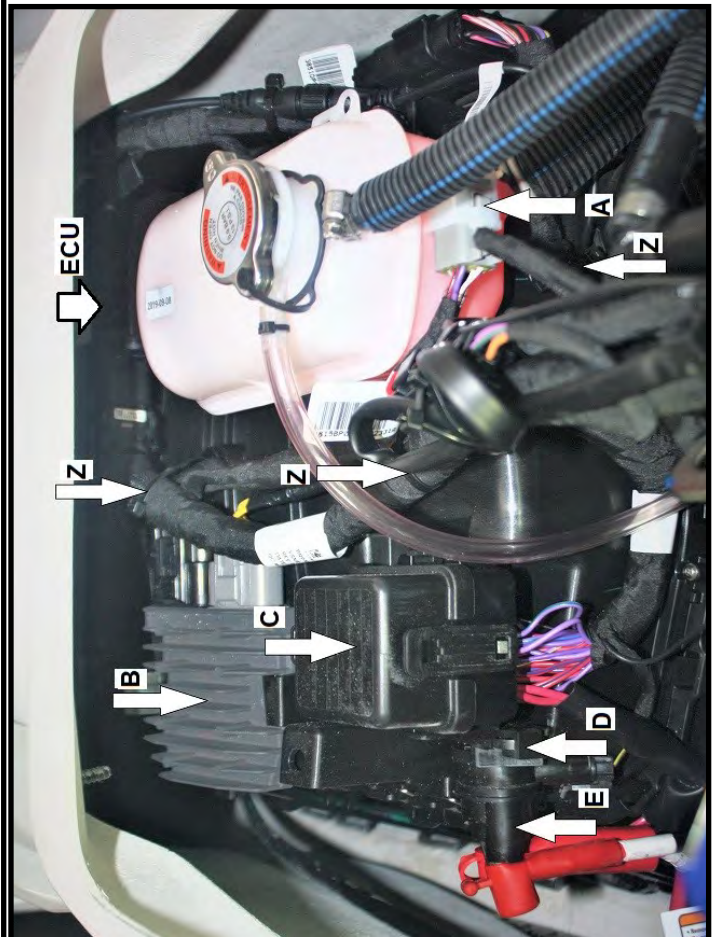
Cut off all zip ties securing wire harness to fuel rail. (Figure 2)

Figure 2



Remove diagnostic plug (A) from coolant reservoir. Unclip voltage regulator (B) and fuse box (C) from airbox and drop into hull. Push catch (D) and lift starter relay (E) to remove from airbox. Unclip reservoir from airbox. **Note: Support reservoir to prevent coolant leak.** Cut zip ties (Z) securing harness to airbox. (Figure 3)

Figure 3



Disconnect rubber straps (3 each side) holding airbox on top of fuel tank. Remove straps from craft and discard. (Figure 4 Next page. Only shows left side of airbox.)

Note: Do not remove the longer straps at the front of the tank that do not hold the airbox.

Airbox Disassembly

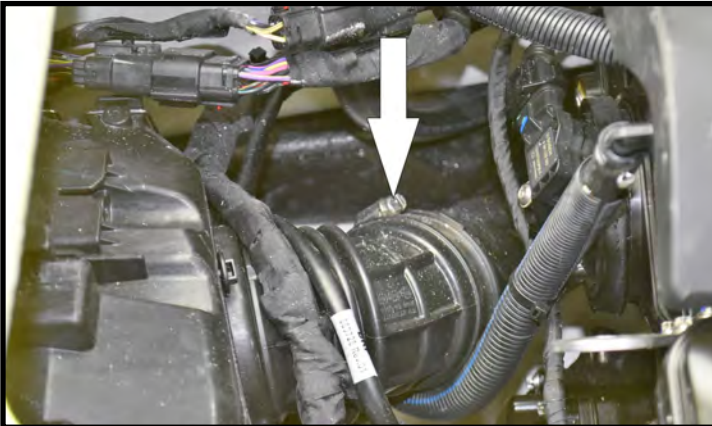
Figure 4



Cut zip ties securing harness to rear of airbox.

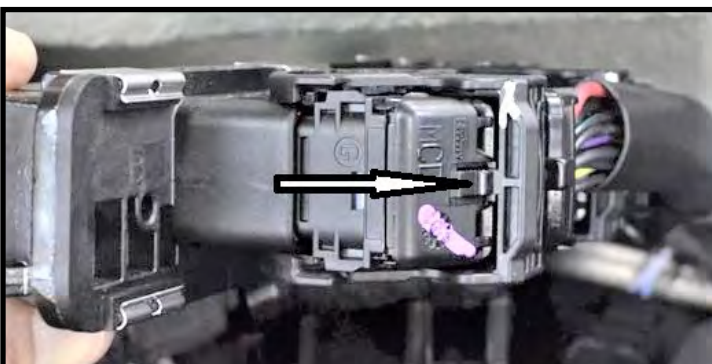
Loosen clamp holding OEM inlet tube to airbox hose and disconnect hose from tube. (Figure 5)

Figure 5



Remove screws (3) securing ECU to airbox. Disconnect harness plugs from ECU by depressing tabs on ECU connectors and rotating levers to push connectors off ECU. (Figure 6)

Figure 6



Disconnect front and rear harness connectors (2) (C) and cut off harness support clamp (S). (Figures 7 and 8)

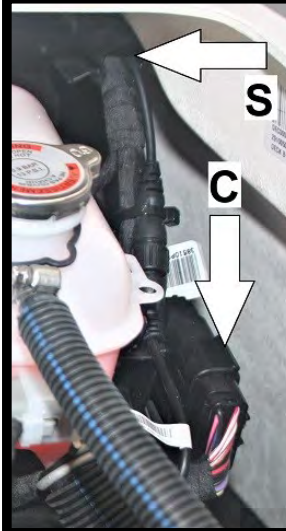


Figure 7

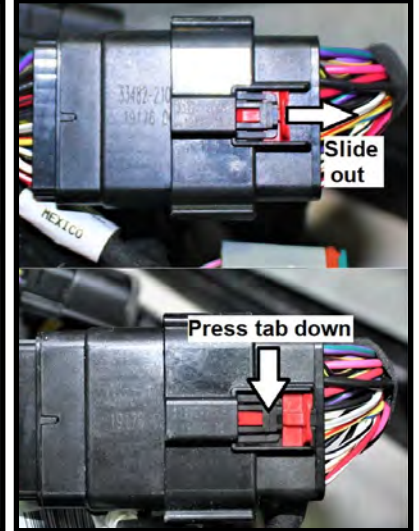


Figure 8

Reaching around and over airbox, with side cutters, cut all zip ties securing harness to airbox.

With Torx #15 bit remove screws at front (2) and rear (3) of airbox. This must be done by "feel" as the front screws cannot be seen from the engine compartment. Note locations of screws in Figure 9.

Figure 9



Insert a flat bladed screwdriver into the joint between the upper and lower halves of the airbox and pry apart. Continue lifting upper half of airbox until completely separated from lower.

Reach into separated airbox and remove front (2) and rear (1) air tubes.

Remove upper airbox half from craft and discard. Remove lower half of airbox from ski and discard.

PROCEED TO SUPERCHARGER INLET REMOVAL (Page 6)

SUPERCHARGER INLET REMOVAL

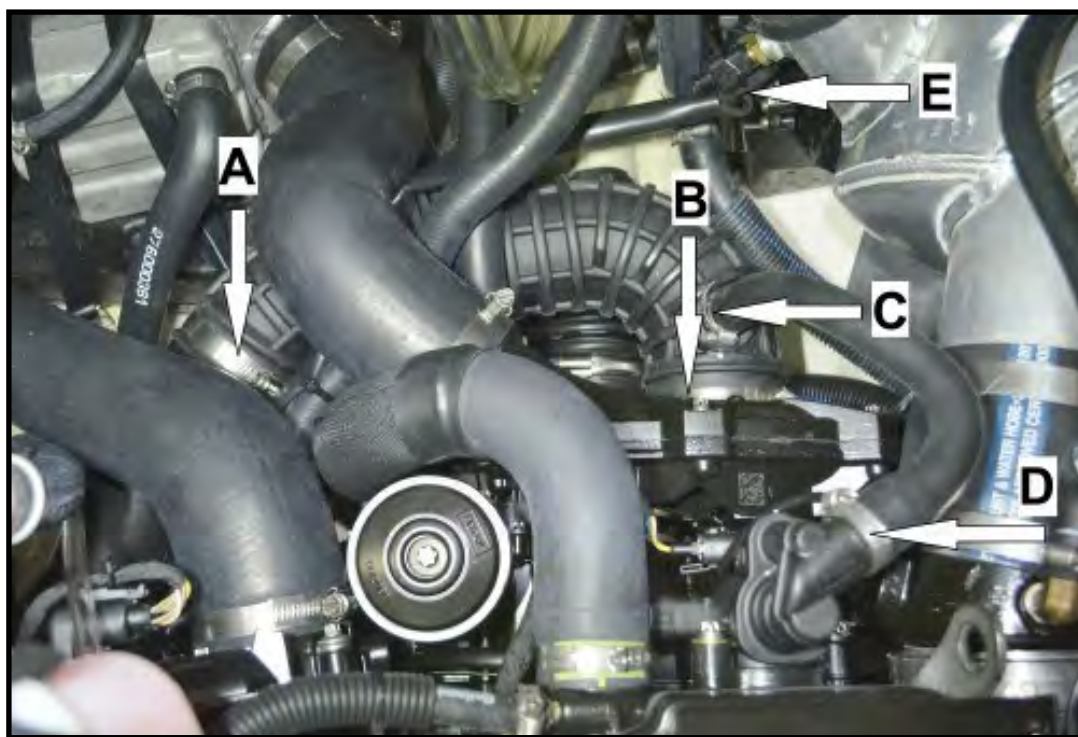
Figure 10

Loosen clamp (A) securing supercharger inlet hose to rear of OEM inlet tube. Pull hose off inlet tube. Remove OEM inlet tube by sliding out toward front of craft.

Loosen clamps (B, C and D) and remove OEM supercharger inlet hose and crankcase breather hose. Retain clamps for re-use.

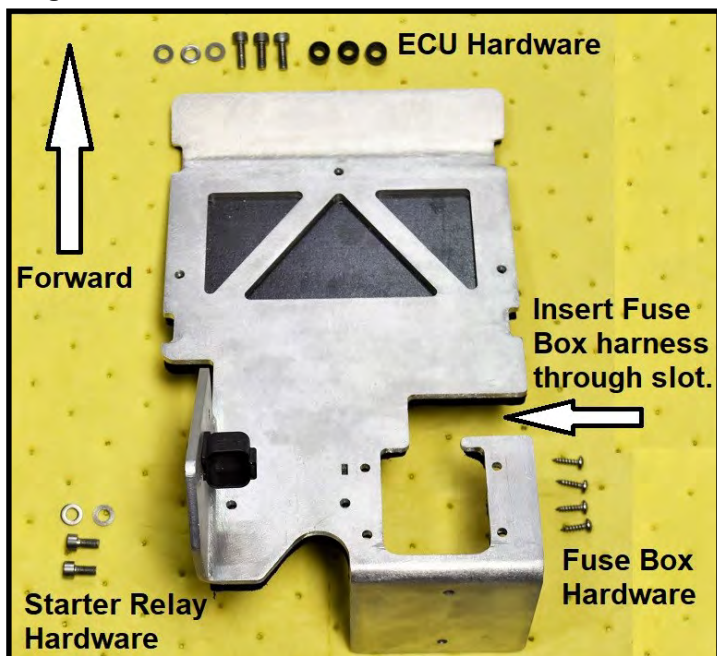
(Figure 10)

**PROCEED TO
ELECTRONICS BRACKET
ASSEMBLY (This Page)**



ELECTRONICS BRACKET ASSEMBLY

Figure 11 Electronics bracket and hardware



Temporarily place supplied Electronics Bracket in position on fuel tank. Slip fuse box harness through slot in bracket. (Figure 11)

Position fuse box on bracket. (See figures 14, 15 and 16, next page) Rotate fuse box if necessary to straighten wire harness. Invert supplied Electronics Bracket. Using supplied self tapping screws (4) attach fuse box to Electronics Bracket inserting screws from beneath as shown. (Figures

12, 13) Note: Do not twist wire harness. Do not over-tighten screws.

Figure 12

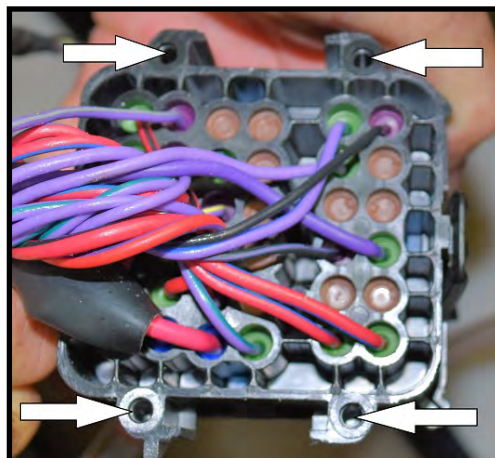


Figure 13



ELECTRONICS BRACKET ASSEMBLY

Return Electronics Bracket to position on fuel tank. Position voltage regulator on portion of bracket between fuel tank and engine, with harness plugs pointing to left side of craft. **Note: Do not twist wire harness.**

Lift bracket for access and secure regulator to bracket using supplied M6 x 20 SHCS (2) and M6 flat washers(2). **Note: Apply blue Loctite to screw threads. Do not overtighten screws.** (Figure 14)

Figure 14

Return Electronics Bracket to fuel tank. Install supplied Rubber Straps (2) over tank and Electronics Bracket. (Refer to completed assembly Figure 17)



Using supplied M6 x 12 SHCS (2) and M6 flat washers (2) install starter relay on left side of electronics bracket. **Note: Apply blue Loctite to screw threads. Do not overtighten screws.** (Figure 15)

Figure 15



Install ECU onto electronics bracket using supplied un-threaded nylon spacers (3), M6 X 16 SHCS (3) and M6 wave washers (3). Place spacers between bottom of ECU and bracket. **Note: Apply blue Loctite to screw threads. Do not overtighten screws.** (Figure 16)

Figure 16

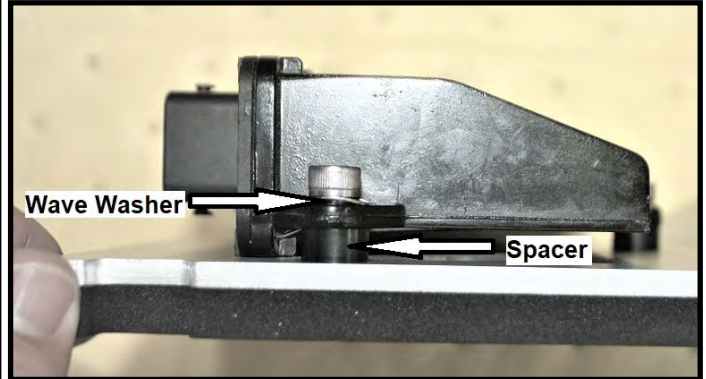


Figure 17



Reconnect ECU to harness.

PROCEED TO POWER FILTER INSTALLATION (Page 8)

POWER FILTER INSTALLATION

Important: If you are using the RIVA Breather Catch Can/ Engine Breather Kit (RS19050-BCC-5) install it now using the instructions supplied with that kit.

If you are using the RIVA Power Filter Breather Hose (RS19050-PFBH) follow the installation steps below.

Using a Dremmel, Roto Zip or similar tool, make a 7/8" diameter hole in the center of the boss provided on the supplied Inlet Tube A. Place the supplied o-ring on the supplied 7/8" barbed fitting and insert it through the hole from the inside of the inlet tube. Secure with supplied 7/8" nut. **Note: Apply red Loctite to threads. Do not over-tighten.** (Figure 18)

Only if not using breather catch can!!



Figure 18

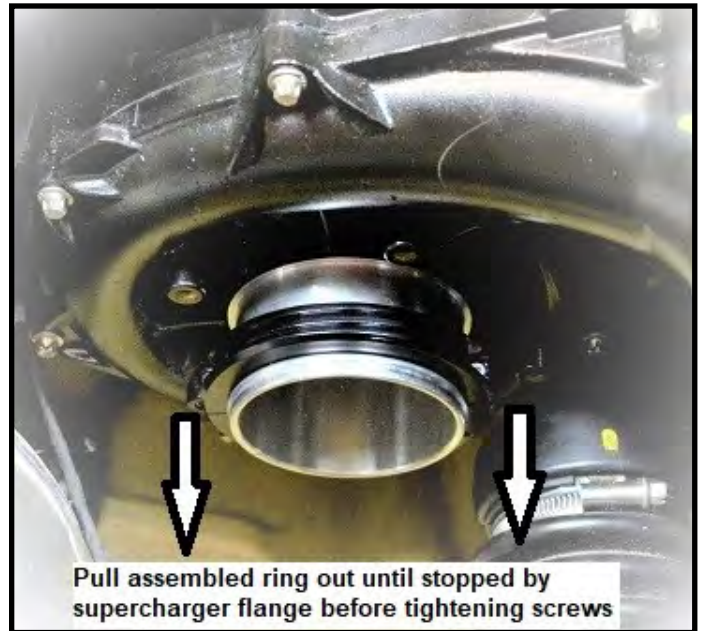
Remove OEM front engine lifting eye and replace with supplied Engine Lift Bracket as shown. Re-use OEM M6 torx head screws. **Note: Apply red Loctite to screw threads. Do not overtighten.** (Figure 19)



Figure 19

Loosen bolts in supplied threaded ring and slip over supercharger inlet. **Note: Assemble ring so that both ring**

halves have two dots showing. (This will align threads in both halves.) Position threaded ring against flare on supercharger inlet and tighten allen screws with supplied allen wrench. **Do not over tighten screws. Do not use**



Loctite on threads. Do not overtighten. (Figure 20)

Figure 20



Screw supplied velocity stack onto threaded ring. Tighten hand tight. Be sure velocity stack is seated all the way onto threaded ring. (Figure 21)

Figure 21

POWER FILTER INSTALLATION

Figure 22



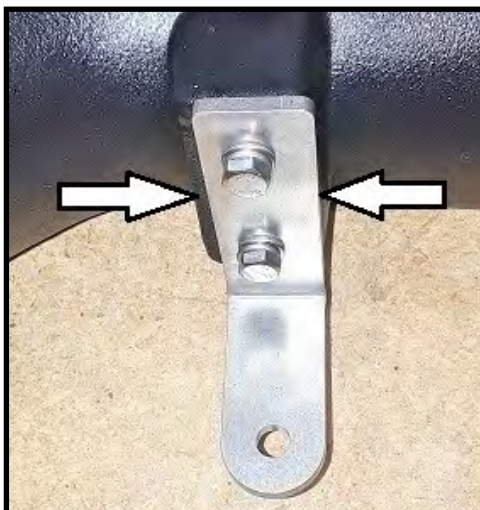
Loosely install supplied L bracket onto Tube A as illustrated below using supplied M6 x 16 HHCS (2) M6 Flat washers(2), and M6 lock washers (2) (Figure 23).

Figure 23



Center bracket evenly side-to-side on mounting point. Once bracket is properly aligned tighten bolts (Figure 24). **Note: Apply blue Loctite to screw threads. Do not over-tighten bolts.**

Figure 24



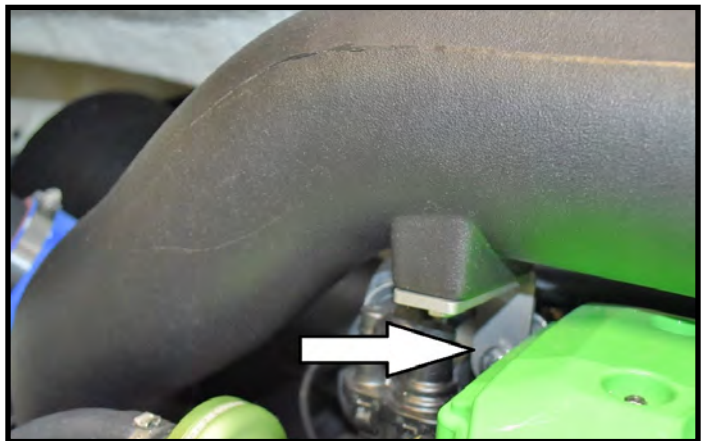
Install supplied lord mount onto L bracket using supplied M8 x16 SHCS (1), M8 flat washer (1), and M8 lock washer (1). **Note: Apply blue Loctite to screw threads. Do not overtighten.** (Figure 25)

Figure 25



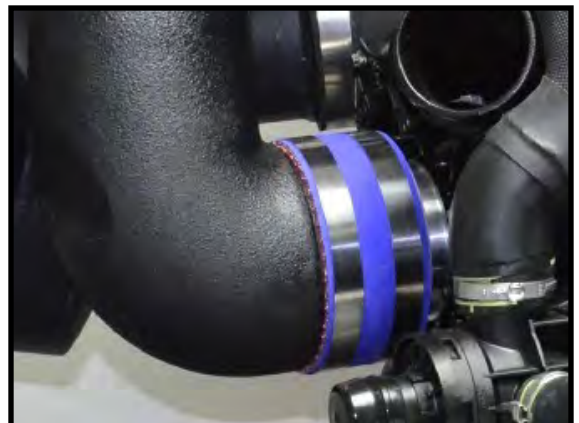
Install supplied Inlet Tube A onto velocity stack. Velocity stack must slide into inlet tube until it is completely seated. When inlet tube is properly installed lord mount on L bracket will align with the hole in rear engine lift bracket. Install M8 nyloc nut (1) and M8 fender washer (1) onto lord mount stud. **Note: Do not tighten.** (Figure 26) **Tip: Lubricate coupler and tube with glass cleaner.**

Figure 26



Slide loose hose clamp onto coupler over inlet tube and tighten. (Figure 27) **Note: Do not over tighten clamps. Tip: Lubricate coupler and tube with glass cleaner.**

Figure 27



POWERFILTER INSTALLATION

If using OEM breather system install supplied formed hose onto crankcase vent valve (D in Figure 10, page 6) and barbed fitting previously installed into Inlet Tube A. Secure with clamps previously removed. **Note: Short end of formed hose goes onto barbed fitting. Do not over-tighten clamps.**

Reconnect battery cables. **Note: Connect positive cable first.**

Install Flame Arrestor and Pre-filter onto supplied Inlet Tube B using supplied hose clamp. Install supplied silicone coupler onto Inlet Tube B. Slide supplied hose clamps onto Inlet Tube B but do not tighten. (Figure 28) **Tip: Lubricate Flame Arrestor, coupler, and tube with glass cleaner to ease installation.**

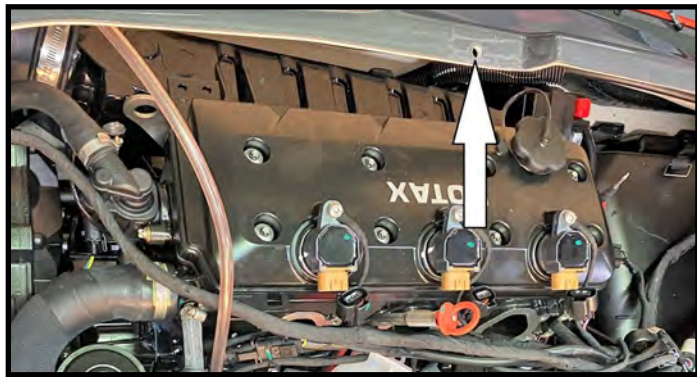
Figure 28



RXT and GTX ONLY (Do not perform this operation on RXP)

Drill out front LH engine access cover screw hole shown using a 1/2" drill bit. Insert supplied 6mm well nut. (Figure 29)

Figure 29



Insert filter end of assembled Inlet Tube B into starboard side of hull ahead of engine and rotate assembly until inlet tubes A and B are aligned. Pull Inlet Tube B back toward Tube A until the ends of the tubes meet and the coupler is fully installed. **Note: Do not tighten clamps at this time.** Secure Inlet Tube B to front engine lift bracket with supplied M8 x 16 bolt (1), M8 flat washer (1) and M8 lock

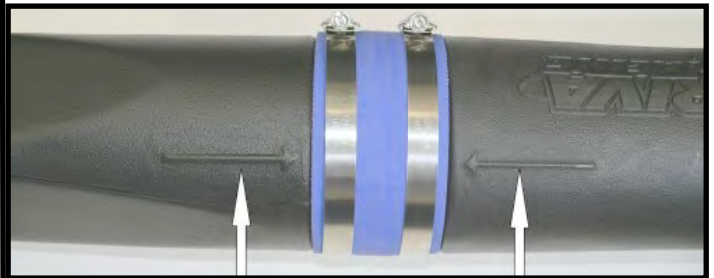
washer (1). **Note: Do not tighten bolt.** (Figure 30) **Note: Apply Blue Loctite to threads.**

Figure 30



Align arrows on inlet tubes (Figure 31) and tighten fasteners on the lord mounts and L bracket on Inlet Tubes A and B. Verify that Inlet tube does not touch oil filler cap or crankcase breather

Figure 31



While maintaining alignment tighten hose clamps on coupler between Inlet Tubes A and B. **Note: Do not over tighten clamps.**

PROCEED TO COOLANT RESERVOIR BRACKET INSTALLATION (Page 11)

COOLANT RESERVOIR BRACKET INSTALLATION

Only if using RIVA Open Loop Cooling Kit, skip this section on installing reservoir and bracket.

Secure diagnostic plug in socket provided on electrical bracket.

Using a 5/32" drill bit, drill a hole in forward reservoir mount and secure to reservoir bracket with supplied 5.5" zip tie as shown. (Figure 32)

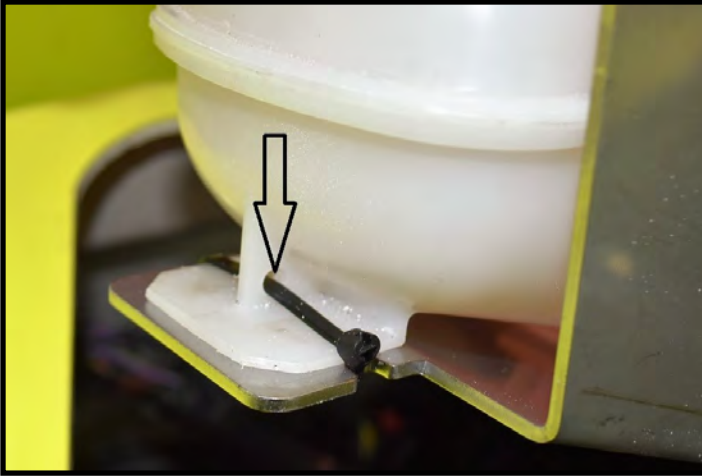


Figure 32

Insert supplied plastic dart through existing holes in reservoir and bracket to secure reservoir to bracket. (Figure 33)

Figure 33

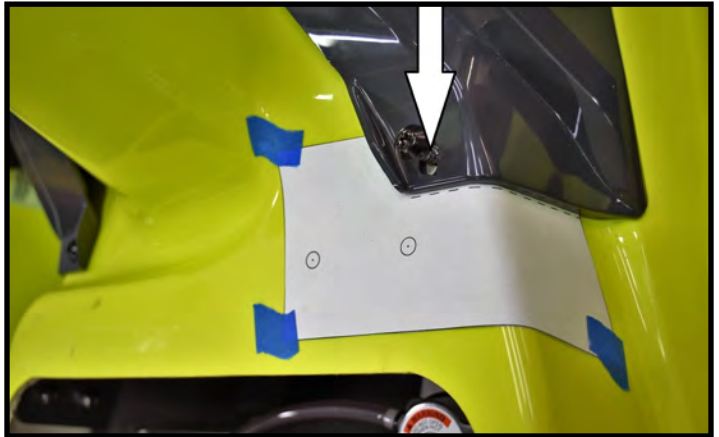


RXT & GTX (See following page for RXP)

Cut out template. (Page 14). Cut out hole indicated on template.

Remove RH lateral cosmetic panel screw and reinstall through hole punched in reservoir bracket template. Tape template in place as shown. (Figure 34)

Figure 34



Using a 17/64" drill bit, drill two holes through body at locations indicated on template. Countersink top side of holes to allow heads of supplied M6 x 20 PFHS to fit flush with hull surface.

Secure bracket to top deck with supplied M6 x 20 PFHS (2), M6 nyloc nuts (2), and M6 flat washers (2). (Figure 35)

Figure 35



Insert diagnostic plug into socket on reservoir.

Using supplied 4" zip ties secure electrical harness wires together in front of engine.

PROCEED TO FINAL ASSEMBLY (Page 12)

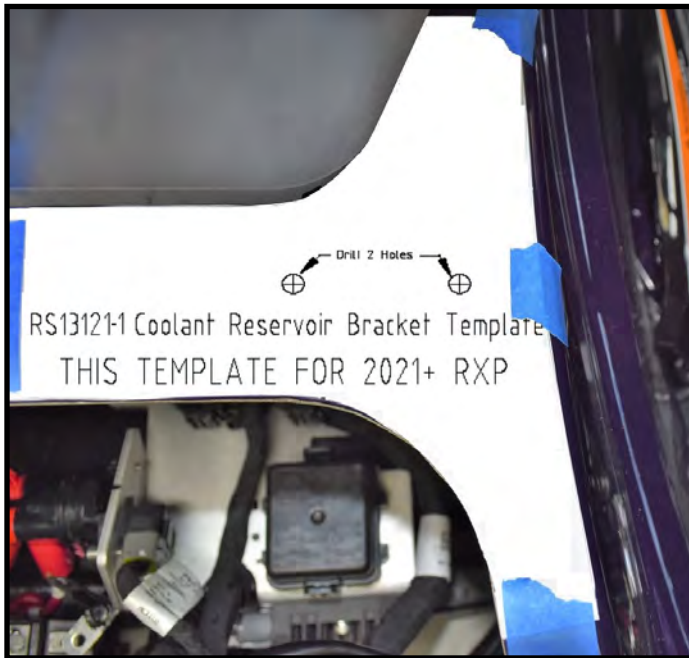
COOLANT RESERVOIR BRACKET INSTALLATION

RXP

Cut out template. (Page 15).

Tape template in place as shown. (Figure 36)

Figure 36



Using a 17/64" drill bit, drill two holes through body at locations indicated on template.

Secure bracket to top deck with supplied M6 x 20 BHCS (2), M6 nyloc nuts (2), and M6 flat washers (2). (Figure 37)

Figure 37



Insert diagnostic plug into socket on reservoir.

Using supplied 4" zip ties secure electrical harness wires together in front of engine.

PROCEED TO FINAL ASSEMBLY (This Page)

Final Assembly

Attach harness to fuel rail with supplied zip ties.

Reinstall plastic engine cover.

Check bilge for tools, rags, etc.

Run craft on a flush kit to check for proper operation.

Reinstall engine access cover. (Refer to Figure 1, page 4)

RXT and GTX only. (Does not apply to RXP)

Use supplied torx screw and 6mm flat washer in front LH cover hole (where well nut is located) instead of OEM screw and nut combination.

Reinstall seats.

***Remember, the water belongs to everyone.
Please ride responsibly and respect the environment!***

Technical Support

For answers to questions regarding installation or trouble shooting RIVA Performance Products contact:

RIVA Technical Support directly at (954) 247-0705 or by e-mail at tech_support@rivaracing.com.

Limited Warranty

RIVA Power Filter Kits carry a 90-day limited warranty to the original purchaser. They are warranted to be free of defects in materials and workmanship under normal use and service. Customer modified components will be void of warranty. This warranty is limited to defects in the primary components only. Finish and/or wear marks in or on primary components are not covered under this warranty.

RIVA Racing's liability is expressly limited to the repair or replacement of the components contained within or associated with this kit. RIVA Racing agrees to repair or at RIVA's option, replace any defective unit without charge, if product is returned to RIVA Racing freight prepaid within the warranty period. Any equipment returned which, in RIVA's opinion, has been subjected to misuse, abuse, overheating or accident shall not be covered by this warranty.

RIVA Racing shall have no liability for special, incidental or consequential damages or injury to persons or property from any cause arising from the sale, installation or use of this product.

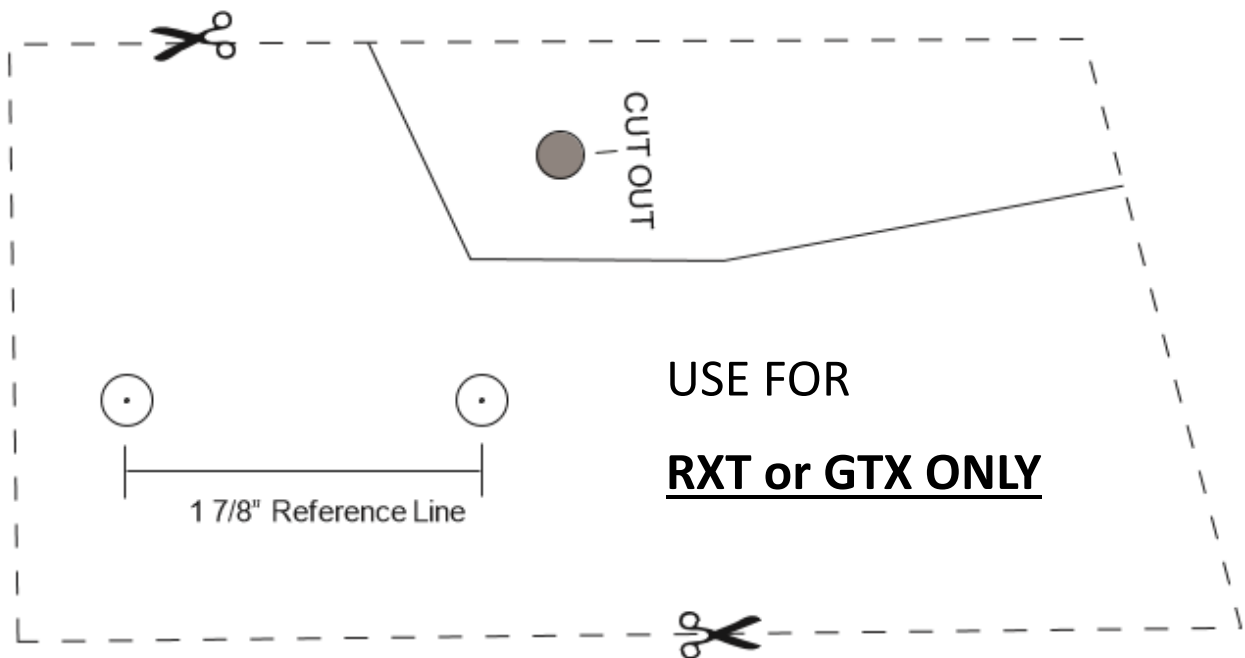
No other warranty, express or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose, applies. Various states do not allow for the limitation of incidental or consequential damages and therefore the above exclusion or limitation may not apply to you.

Warranty does not include the expenses related to freight or transportation of parts or compensation for any inconvenience or loss of use while being repaired. A copy of the original invoice and a Return Authorization Number (RA#) must accompany all warranty claims.


Warranted replacement parts will be returned freight collect.

Reservoir Bracket Template for **RXT/GTX ONLY**

Cut around outline and punch out hole as shown.



Printer check


This line should be exactly 3 inches long

