



# Yamaha VX 1050 Power Filter Kit

RY13090



#### Applications: Yamaha VX1050 2016+

Approximate Installation Time: 2.0 Hrs.

<u>Recommended Specialty Tools:</u>	<u>Part #</u>
None	N/A
<u>Required Materials:</u> Blue Loctite	<u><b>Part #</b></u> N/A

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 \*\*\*





# RY13090 VX 1050 Power Filter Kit COMPONENT LIST

	QUANTITY	PART NUMBER	DESCRIPTION
А	1		Intake Duct
В	1	RK13090-2	Flame Arrestor/ Filter
С	1	RY15-04/2.75R	Silicone Reducer Coupler
D	2	203BL064-04	Hose Clamp
E	4	QCA-RY13100-SP	Spacer Collar
F	4	410.6.18	6 x 18mm Flat Washers
G	4	051.6.30	6 X 30mm SS SHC Screw
Н	11	369021SS	6mm Flat Washer
I	7	561030SS	6mm Nyloc Nut
J	2	538078SS	6 x 20mm SHC Screw
К	4	096.8.20	8 x 20mm Hex Head Bolt
L	5	04478	8mm Lock Washer
Μ	5	369023SS	8mm Flat Washer
Ν	1	830236SS	8 x 16mm Hex Head Bolt
0	1	5463K598	1/2" Elbow Fitting
Р	1	FSM-RY13090-BMT	Intake Duct Mount Bracket
Q	1	RK13085-2480	Breather Filter with Clamp
R	1	2NPF2	Lord Mount
S	1	FSM-RY13100-BRKT	Electrical Mount Bracket
т	2	QCA-RS12050-S	6 mm Spacer

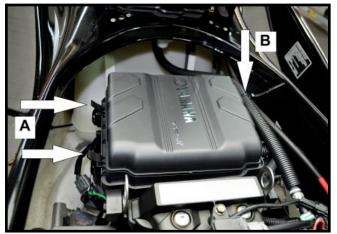
Packed with pride by:

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 <u>tech\_support@rivamotorsports.com</u>

#### Remove seat.

Press down latches (A) and remove air box lid. Cut zip tie (B). (Figure 1)

#### Figure 1



Cut zip ties (2) securing harness to left side of air box. (Figure 2)

#### Figure 2



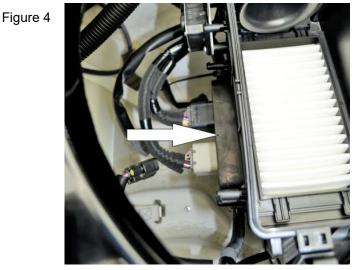
Remove rubber strap holding fuse block and push fuse block forward off mounting studs. (Figure 3)

Figure 3



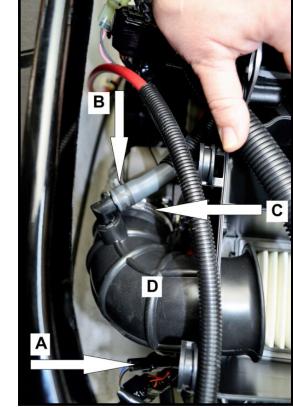
Disconnect harness plugs from fuse block and remove fuse block from hull.

ECU is mounted in rubber cushion. Pull ECU/cushion forward off mounting tabs and drop into hull. (It is not necessary to unplug ECU from harness) (Figure 4)



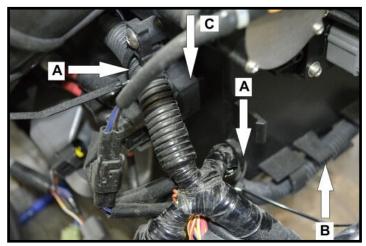
Unplug Tip Over Switch (A). Squeeze clamp and remove crankcase vent hose (B) from intake duct fitting. Loosen clamp (C) and remove intake duct (D) from air box and ) throttle body. (Figure 5)

Figure 5



Cut zip ties (A) holding harness to right side of air box. Slide harness out of holder tabs (B) at bottom front of air box. Pull Starter relay and rubber mount (C) off mounting tabs and drop into hull. (Figure 6)

Figure 6



Remove bolts (4) holding air box to engine. **Note: Use caution when removing top air box bolts. Do not allow engine lift eyes to fall into hull.** There are 2 top and 2 bottom bolts. Only left side bolts are shown. Right side bolts are in similar location. (Figure 7)

Figure 7



Remove OEM air box from ski. Remove angle sensor from OEM air box. Install on supplied electrical mount bracket using 2 each supplied 6 x 20mm screws, 6mm spacers, 6 mm flat washers, and 6mm nyloc nuts. **Note: Back of sensor is marked with an arrow and "UP". Sensor must be installed with arrow pointing up.** (Figure 8)

Install fuse block onto supplied electrical mount bracket using 4 each supplied 6 x 30mm screws, collars, 6 x

18mm flat washers, 6mm flat washers and 6mm nyloc nuts. (Figures 8 and 9)

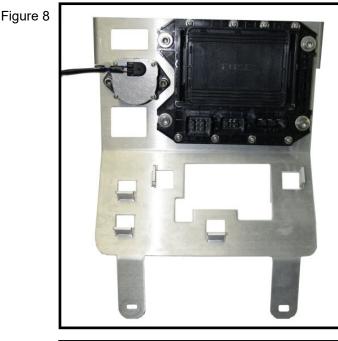


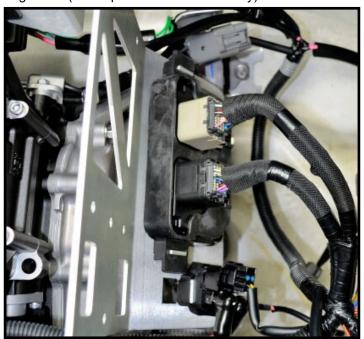
Figure 9

Install supplied electrical mount bracket into same location as OEM air box. Attach to engine with 4 each supplied 8 x 20mm hex head bolts, flat washers and lock washers. **Note: Top bolts also hold engine lift eyes. Install lift eyes between engine and electrical mount bracket.** 

Install ECU and ECU suspension onto (3) tabs on front bottom of electrical mount bracket. (Figure 10)

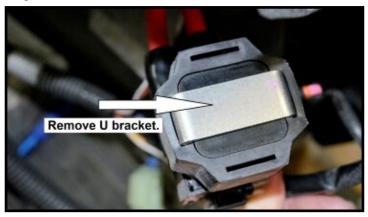
Figure 10 (Some parts removed for clarity)

Figure 12



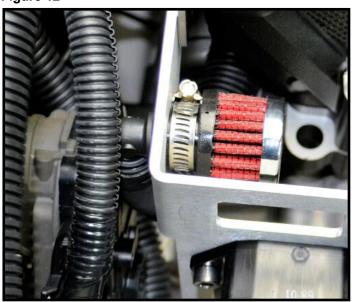
Remove the metal U-bracket beneath the starter relay from the suspension rubber. (Figure 11)

#### Figure 11



Install starter relay and suspension onto (2) tabs on front bottom of electrical mounting bracket. **Note: It may be necessary to bend the tabs of the cables to ease installation onto the tabs.** (Figure 12) Use supplied zip – ties to fasten harness wires to electrical bracket. On some units it may be necessary to cut the zip ties on the main harness to allow cable connections.

Insert one leg of supplied 1/2" elbow into end of OEM breather hose. Note: Lubricate with window cleaner to ease installation. Secure with OEM spring clamp. Insert remaining leg of elbow through hole in top right side of electrical mount bracket. Install supplied breather filter onto elbow. Note: Do not over-tighten clamp. (Figure 12)

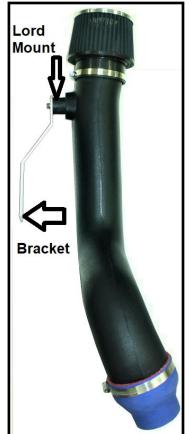


Assemble air intake tube as shown. **Note: Lubricate parts with window cleaner to ease installation.** Slip supplied silicone reducer coupler onto supplied intake duct and secure with supplied hose clamp. Slip supplied flame arrestor / filter onto intake duct and secure with supplied hose clamp. **Note: Do not over-tighten clamps.** Install supplied lord mount onto pipe and tighten hand tight. **Note: Apply blue loctite to threads.** Install supplied mount bracket as shown using supplied 8 x 16mm bolt, flat and lock washer. **Note: Do not tighten at this time! Apply blue loctite to threads.** (Figure 13)

#### Figure 13

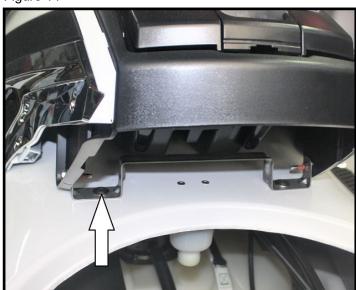
Place OEM hose clamp (previously removed from OEM intake hose) onto throttle body. Insert filter / flame arrestor end of assembled intake into hull ahead of engine. Carefully push forward into space above left side of fuel tank until rear end of silicone coupler can be installed onto throttle body. Note: take care not to get bracket or filter hooked onto cables, wires, or brackets in fuel tank bay.

Install aft end of coupler onto front of throttle body. Note: Lubricate throttle body and coupler with glass cleaner to ease installation. Do not tighten hose clamp yet!



Reach into area over fuel tank and remove nut from upper body support stud. Install mount bracket onto threads of upper body support stud and reinstall nut previously removed. (Figure 14)

Figure 14



Secure with supplied 6 mm nyloc nut and flat washer. Concave end of bracket should fit against lip of engine compartment opening. (Figure 15)

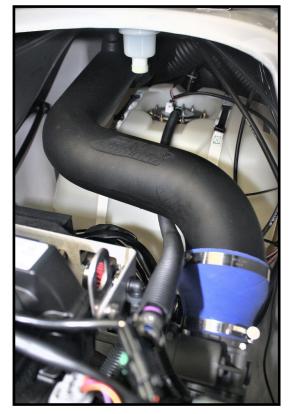
Figure 15

Tighten 8mm lord mount bracket bolt. Tighten hose clamp on throttle body. **Note: do not over tighten clamp.** 

Replace parts previously removed to access intake reversing removal procedure.

Check bilge for tools, rags, etc. Run craft on a flush kit to check for proper operation.





# 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@rivamotorsports.com.

#### **Limited Warranty**

RIVA Power Filter Kits carry a 1 year 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 option, 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.