



FX Velocity Stacks

PART# - RY1325-VSK

APPLICATIONS: FX140, FX140 Cruiser, FX High Output, FX High Output Cruiser

INSTALLATION INSTRUCTIONS

Parts list

1 - # 17 Oetiker clamp	2 – Aluminum spacers
2 – 8 x 35 Hex head bolts	4 – O-rings
2 – 8mm Nylock nuts	4 – Set screws
2 – 8mm Flat washers	4 – Velocity stacks

NOTE: Installation of this part requires use of RIVA Power Filter RY1325 to meet U.S. Coast Guard certified flame arrestor requirements.

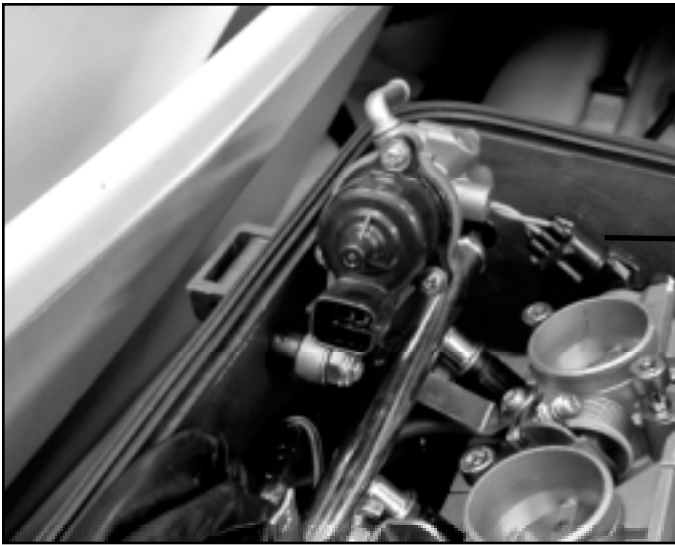
WARNING! DISCONNECT BATTERY BEFORE PERFORMING WORK!

1. Disconnect battery cables from battery.
2. Remove the 2 – 5 x 70mm screws, air filter cover case and OEM filter.
3. Remove the 4 OEM flame arrestors by removing the 4 – 6 x 7mm bolts (see illustration # 4). You can bag these parts and put them on the shelf.

NOTE: FX140 and FX140 Cruiser users proceed to step 11.

4. Remove fuel line from the fuel rail going to the throttle bodies (see illustration #4). You will need to cut the oetiker clamp holding the fuel line to the fuel rail.
5. Disconnect throttle position sensor, 3 hoses connected to bypass valve motor and throttle cable from throttle bodies (see illustration #4).
6. Remove the 8 – 8 x 50mm bolts that hold throttle bodies to manifold. (see illustration #4).
7. Remove throttle bodies from air box. **NOTE: Make sure to seal off entire intake area before doing any work past this step to insure no debris enters engine.**
8. Remove bypass valve motor and bracket from throttle body assembly. Bypass valve motor will be relocated for FX High Output and FX High Output Cruiser **ONLY**. Discard OEM bracket.
9. Using included template (see illustration #5) align and drill 2 – 8mm holes in OEM air box. This is relocation point for bypass valve motor. Make sure that template is in correct location before drilling holes. Location is very important for clearance of Velocity stacks. After holes are drilled, make sure to clean air box thoroughly.
10. Install throttle bodies. Torque the 8 – 8 x 50mm bolts to 16ft-lbs. Attach fuel line to fuel rail with included oetiker clamp. **NOTE: If you do not have a set of oetiker pliers you can substitute by using a pair of wire cutters to pinch the clamp together.** Attach throttle cable and make sure the throttle position sensor is connected.
11. Install the 4 RIVA Racing Velocity Stacks. Apply thin coat of grease onto O-ring. Carefully install Velocity Stacks onto throttle bodies taking care not to damage o-ring. Make sure setscrews are accessible. Use Blue Loctite on setscrews. **NOTE: DO NOT OVERTIGHTEN SETSCREWS.** The O-ring is also holding the Velocity Stacks in place. Just a good snug fit on the setscrew is necessary.
12. **FX High Output and FX High Output Cruiser Only:** Mount bypass motor valve with included M8 ny-lock nuts, 8 X 35mm bolts and M8 spacers to OEM air box. Use Blue Loctite on bolts and install bypass motor valve and sung down bolts. Attach 3 lines previously removed from bypass motor valve.
13. Install flame arrestor* and filter case cover in reverse order of Step #2.
14. Check bilge for tools, rags, etc. Connect battery cables.

* = RIVA FX Power Filter RY1325 is required when using Velocity Stacks to meet U.S. Coast Guard certified flame arrestor requirements. Power Filter is designed to work in conjunction with Velocity Stacks so as to optimize performance.



Re-Location of bypass motor valve without velocity stacks installed.
FX High Output, FX High Output Cruiser **ONLY**

Re-location of bypass motor valve with velocity stacks installed.
FX High Output, FX High Output Cruiser **ONLY**



Re-location template for bypass motor valve. Location of bypass motor valve is **very** important to ensure sufficient clearance for velocity stacks.

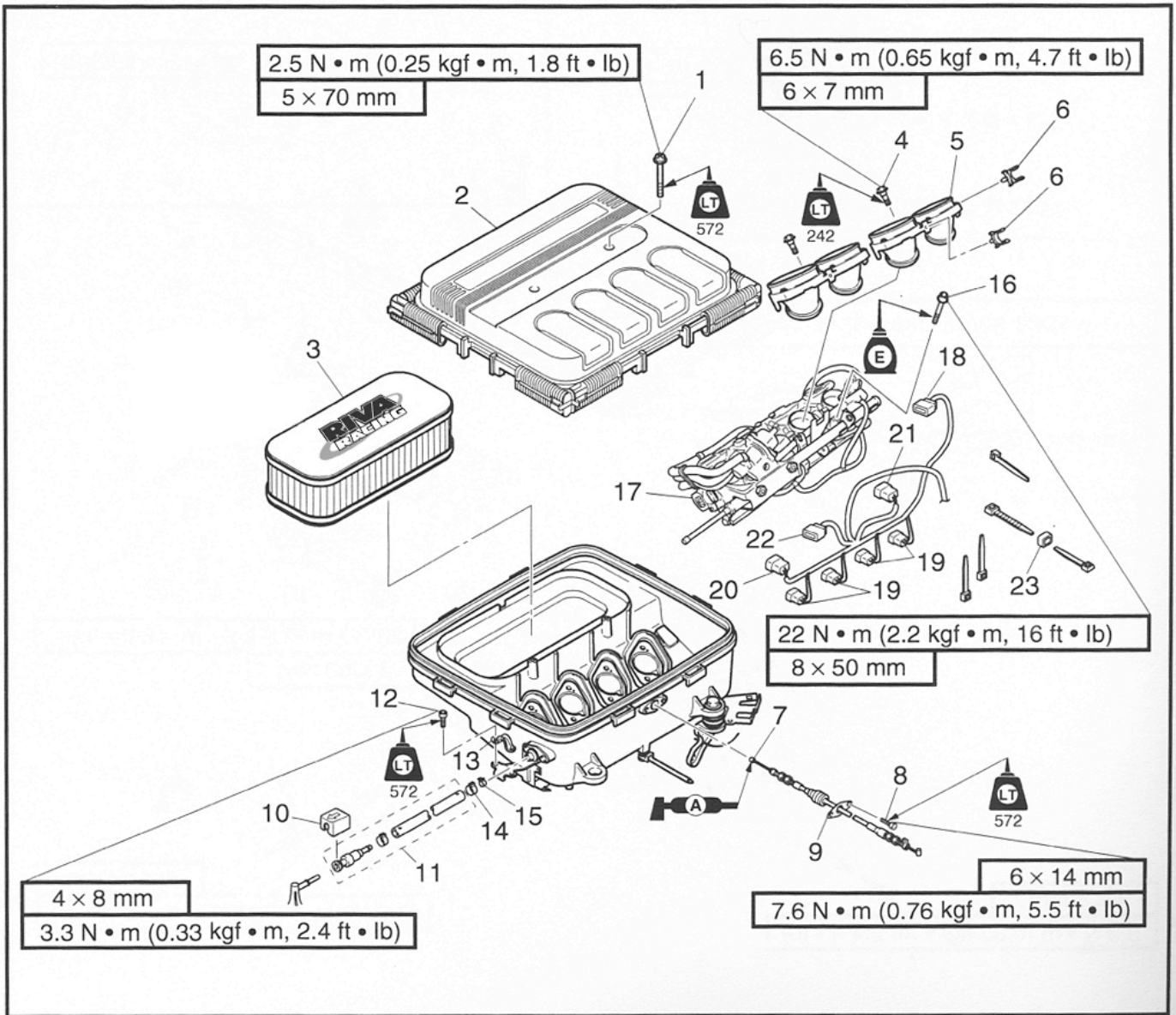
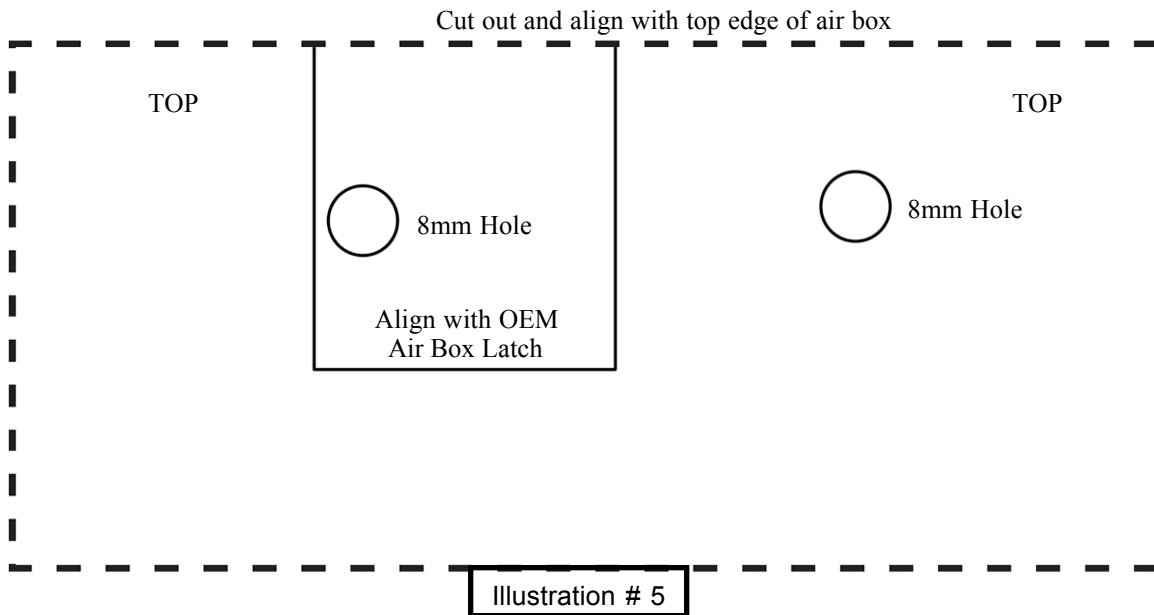


Illustration # 4

REMOVAL AND INSTALLATION CHART	
1. Screw	13. Fuel hose holder
2. Air filter case cover	14. Clamp
3. Air filter	15. Clamp
4. Bolt	16. Bolt
5. Ribbon sub assembly	17. Throttle bodies
6. Holder	18. Sensor assembly coupler
7. Throttle cable	19. Fuel injector coupler
8. Bolt	20. Throttle position sensor coupler
9. Throttle cable holder	21. Joint connector
10. Cover	22. Bypass valve motor coupler
11. Fuel hose	23. Ring
12. Bolt	



RIVA Racing Limited 1-Year Warranty

RIVA Racing Velocity stacks 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 billet aluminum components only. Anodized finish, wear marks in or on Velocity stacks, O-rings and hardware are not covered under this warranty.

RIVA Racing's liability is expressly limited to the repair or replacement of the billet aluminum components contained within or associated with this Velocity stack kit. RIVA Racing agrees to repair or at RIVA's option, replace any defective unit without charge, if product is returned to RIVA freight prepaid within the warranty period. Any equipment returned which, in RIVA's opinion, has been subjected to misuse, abuse, 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 must accompany all warranty claims.

Warranted replacement parts will be returned freight collect.

Remember the water belongs to everyone.

Please ride responsibly!