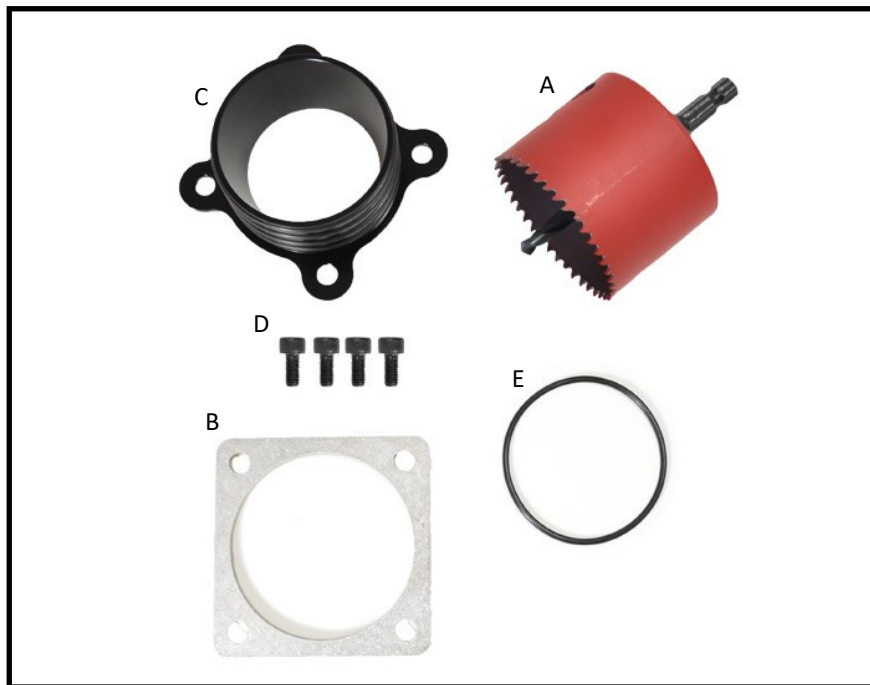




**Yamaha 1.8L SVHO Intake Manifold Upgrade Kit**

PART# - RY12080-IMUK



**Applications:** Yamaha 1.8L SVHO 2018+

**Approximate Installation Time:** 3.0 hrs.

**Recommended Specialty Tools:**

N/A

**Part #**

N/A

**Required Materials:**

Blue Loctite

**Part #**

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 \*\*\***



**Yamaha 1.8L SVHO Intake Manifold Upgrade Kit**

**COMPONENT LIST**

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>RIVA PART #</u>	<u>QTY</u>	<u>NOTES</u>
A	Hole Saw, 2-3/4	116442	1	
B	Hole Saw Guide Plate	FSM-RY12080-IMUK	1	
C	Manifold Sleeve	QCA-RY12080-IMUK	1	O-rings (4) Pre-Installed
D	SHCS M8 X 1.25 X 16MM	91290A418	4	
E	O-ring, Dash 142	9464K142	5	

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](mailto:tech_support@rivaracing.com).

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.

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**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.**

## - INSTALLATION INSTRUCTIONS -

Remove lanyard and disconnect battery cables. **NOTE: Negative (black) first. Positive (red) second.** Remove seats and rear storage bin.

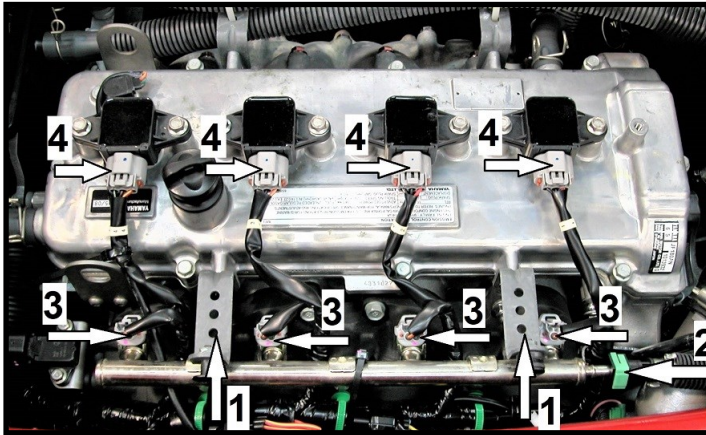
Remove two screws holding plastic engine cover and pull cover up off rubber mounts. (Figure 1)

Figure 1



Remove bolts (2) holding brackets (2) on left side of valve cover for plastic engine cover. Remove brackets. (#1 in figure 2)

Figure 2



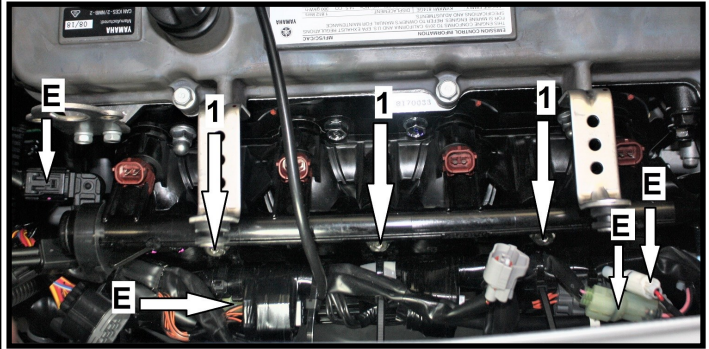
While holding a heavy shop rag under fitting disconnect fuel supply hose from front of engine fuel supply rail. (#2 in Figure 2)) **NOTE: Fuel system is under pressure. Use care when disconnecting.**

Disconnect electrical connectors from injectors (4) (#3 in figure 2)

Disconnect electrical connectors from ignition coils (4) (#4 in figure 2)

Remove bolts (3) securing fuel rail to intake manifold. (#1 in Figure 3)

Figure 3

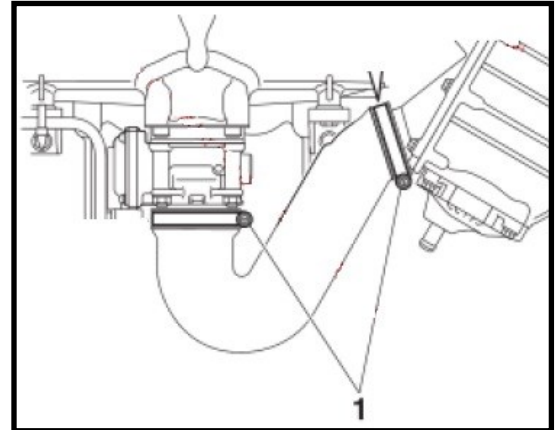


Lift up on fuel rail to remove fuel injectors from intake manifold. Raise front of fuel rail up and move towards back of engine. You will need to disconnect several electrical connectors during this step. (E in Figure 3) Store fuel rail assembly vertically in engine compartment to right of electrical box.

Reach down alongside intake manifold to locate hose clamp connecting throttle body to 'J' pipe. (Figure 4)

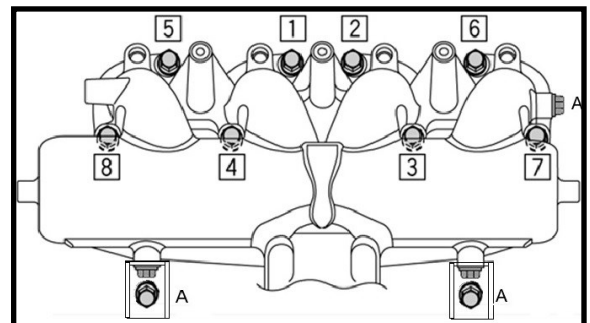
Loosen clamps securing 'J' pipe to throttle body and intercooler.

Figure 4



At top of intake manifold remove bolts (6) and cap nuts (2) securing intake manifold to engine. Remove bolts (2) securing brackets at bottom of manifold to engine. (Figure 5)

Figure 5



A – Bolts securing manifold support brackets.

5 & 6 – Cap nuts securing manifold to cylinder.

1~4 & 7~8 – Bolts securing manifold to cylinder.

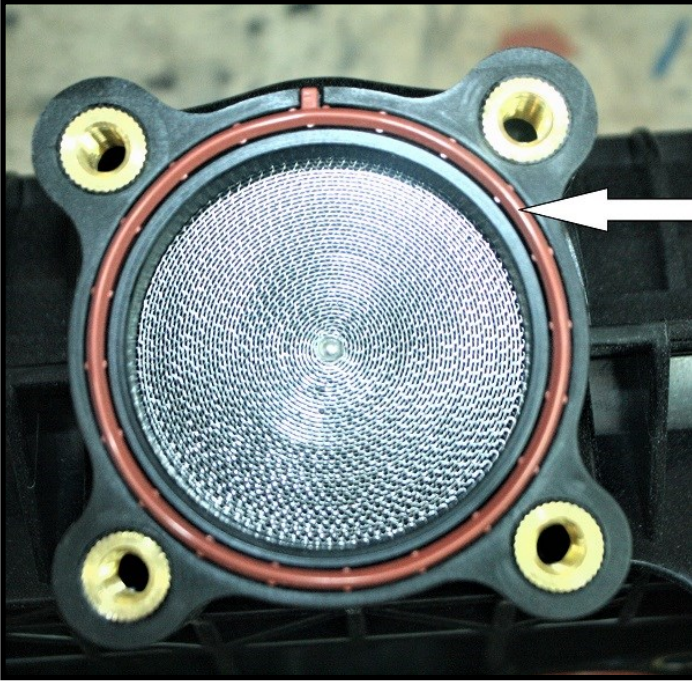
Torque in sequence starting with 1 and ending with 8.

## **- INSTALLATION INSTRUCTIONS -**

Remove intake manifold by lifting up and away from motor. Remove throttle body from manifold.

Place manifold into a bench vice. Remove o-ring. (Figure 6) **Note: protect manifold from damage by putting shop rags over vice jaws before clamping manifold in place. Do not overtighten vice!**

Figure 6



Place supplied Holesaw Guide Plate on manifold entrance and secure with supplied 8 x 16mm SHCS (4). (Figure 7)

Figure 7



Put a light coat of grease on the outside of the holesaw. Insert holesaw through guide plate and cut off plastic

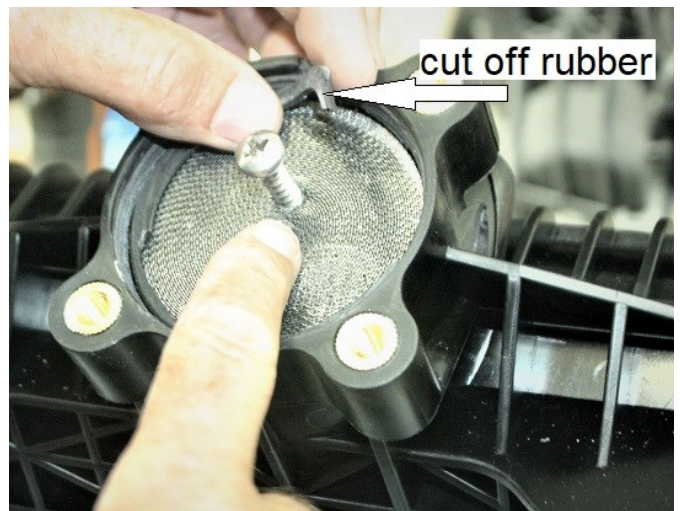
holding OEM flame arrestor. (Figure 8) Note: Run drill slowly. Rock drill around inside hole of guide to prevent sticking. Take your time. Do not push on drill. Plastic is about 1/4" inch thick here.

Figure 8



Cut until holesaw contacts OEM flame arrestor ribbon. Remove cut plastic ring from hole and clean shavings and debris from manifold. With a sharp knife cut rubber sleeve around arrestor ribbon flush with top of ribbon and remove. Screw a large wood or sheet metal screw into the top face of the ribbon. Using a pair of vice grip pliers grasp the screw and pull the OEM spark arrestor ribbon out of the manifold. (Figure 9)

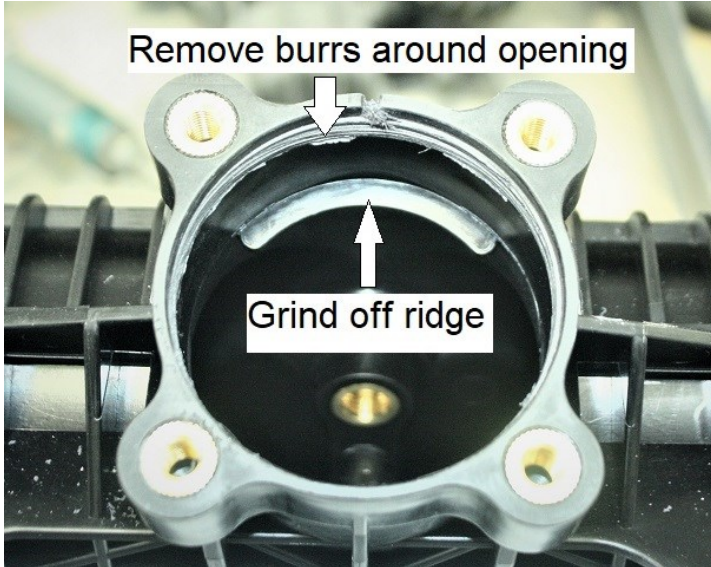
Figure 9



## **- INSTALLATION INSTRUCTIONS -**

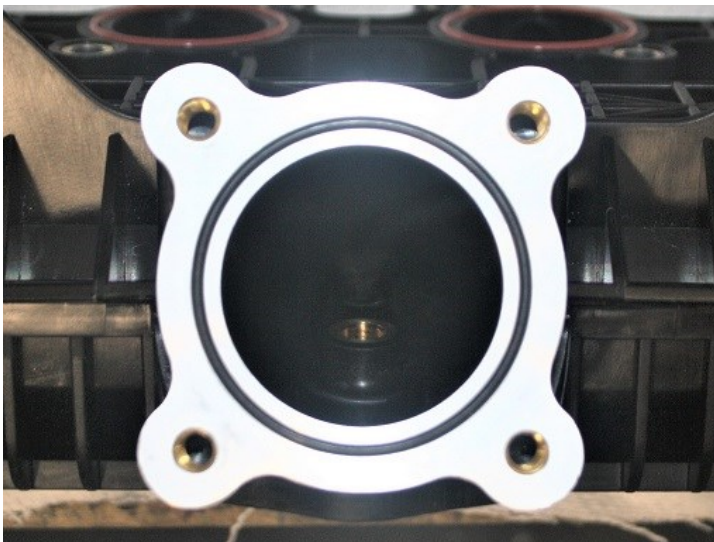
Inside the manifold is a plastic ridge that supports the OEM flame arrestor. Using a Dremel tool or similar with a sanding drum grind the ridge down flush with the interior surface of the manifold. Remove burrs left by hole saw around opening. (Figure 10)

Figure 10



Clean intake manifold thoroughly. Apply a light coat of grease to inside of manifold and outside of supplied Manifold Sleeve and O-rings. Align holes in Sleeve assembly with bolt holes in manifold and insert Manifold Sleeve into manifold. Re-align holes in Sleeve with bolt holes in manifold. (Figure 11) **Note: This is purposely a tight fit. It may be helpful to turn the manifold upside down and press the manifold over the sleeve. If necessary a few taps with a soft face mallet may be used to fully seat the sleeve. Do not damage the mating surface of the manifold and throttle body.**

Figure 11



Install supplied o-ring into open o-ring groove in sleeve. (Figure 11).

Install throttle body onto manifold and secure using OEM hardware. Apply blue Loctite to bolt threads. Torque to OEM specification.

Reinstall intake manifold onto engine reversing removal procedure. **Note: Make sure o-rings between manifold and cylinder head are in place before installation.** Torque to OEM specification following sequence in Figure 5, page 3.

Replace parts removed during disassembly. Re-connect battery cables , **NOTE: Positive (red) first. negative (black) second.** Re-install storage bin and seats.

Thoroughly inspect engine compartment and bilge for tools, rags, parts, etc.

Run craft on stand using 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@rivaracing.com](mailto:tech_support@rivaracing.com).

### **Limited Warranty**

RIVA Intake Manifold Upgrade 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 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.