



## Fuel Module Upgrade Kit PART# - RY12040-FMUK-340FP

## APPLICATION(S): Yamaha 1.8L Models

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 clamps, hoses and hardware removed in the disassembly process will be used in the installation process. These instructions have been written in point form and refer to illustrations. Please follow these step-by-step instructions and illustrations carefully.

## \* \* \* NO SMOKING. ALLOW ENGINE TO COOL COMPLETELY \* \* \*

Drain fuel tank completely.

While holding a heavy shop rag under fitting disconnect fuel supply hose from front of engine fuel supply rail.



NOTE: Fuel system is under pressure. Use care when disconnecting.

At top of fuel tank disconnect electrical connectors (2) and fuel supply hose.



Remove the nine brass nuts securing fuel pump to fuel tank. Remove stainless retainer ring.

Note front of fuel pump in relation to bow of craft. Fuel pump must be tilted toward its front as you lift upward so as not to damage fuel gauge float.



2) Fuel Gauge Arm

3) Rubber Caps

**TIP:** Twist fuel pump assembly clockwise and tilt towards the right to remove. *BE PATIENT!!!* This process requires careful maneuvering to remove fuel pump assembly.

Drain fuel from fuel pump assembly by tipping upside down. Inspect bottom of fuel pump. There should be three rubber caps (one per post – see above). If any are missing they must be removed from fuel tank and replaced. Disconnect electrical connectors (2) at underside of top of fuel pump sender.



Disconnect fuel supply hose from underside of top of fuel sender.

#### **Remove Fuel Gauge Arm**

Carefully squeeze stopper hooks<sup>3</sup> together that secure fuel gauge arm unit to fuel sender. Push upward at top of stopper to remove.

While depressing tabs<sup>b</sup> on each side of fuel sender push upward on unit to remove from side of fuel sender.



#### Separate Fuel Sender Halves

At middle of fuel sender carefully pry open tabs (4 - 2 per side) securing lower section to upper section.



Pull upper and lower sections apart until compression spring guide rod is free from lower section.

Disconnect electrical wire from top of fuel pump and set aside.

Remove connector<sup>1</sup> from end of stock fuel supply hose and retain. Remove stock fuel supply hose<sup>2</sup> and discard.



## Separate Lower Section of Fuel Sender

If stock fuel pressure regulator is utilized remove clip securing stock regulator and carefully lift up to remove.

At top of lower section of fuel pump sender carefully pry open tabs (4 - 2 per side) securing outer shell of lower section to inner shell.



Remove outer cover to expose inner shell. Remove stock fuel pump fuel filter and discard.

#### **Remove Stock Fuel Pump**

At bottom of inner shell on lower section carefully pry open tabs (3) to remove cap securing fuel pump.



Remove stock fuel pump from inner shell by pressing down at top (at electrical connection).

#### Prepare High Volume Fuel Pump for Installation

Remove rubber spacer at inlet end<sup>1</sup>. Remove rubber sleeve and plastic collar at supply end<sup>2</sup>. **NOTE:** If rubber sleeve is not present on supply end of fuel pump remove from cavity inside inner shell.



Transfer pieces removed above onto supplied High Volume Fuel Pump.



## **Modify Inner Shell**

Locate raised flat landing on top of inner shell.



Using a sanding wheel or file grind down only the raised flat landing to expose opening below.

Method 1



Method 2



Result



Using supplied pilot point boring bit and a drill press open top of inner shell at center.





Discard plastic collar that separates from underside.



Thoroughly clean inner shell using non-residual carb cleaner.

#### **Install Aeromotive Fuel Pump**

Place open end of supplied fuel supply hose in hot water for several minutes to soften.

#### The following steps must be performed quickly. Review reference images below before proceeding.

- 1. Remove fuel supply hose from water.
- 2. Slide fuel hose up into inner shell and through newly created opening.
- 3. Place supplied 11.3 Oetiker over open end of fuel supply hose.
- 4. Install OE connector completely into fuel supply hose.
- 5. Secure Oetiker.





Apply oil to rubber sleeve on Aeromotive fuel pump outlet. Install into billet fitting in fuel supply hose.



NOTE: Raised collar has a flat spot. Place opposite from electrical connector when installing pump.

Slide fuel pump into inner shell completely. Place rubber grommet onto base of fuel pump.



Replace cap securing fuel pump in inner shell. **NOTE: Make sure all clips snap into place securely.** 



Install supplied fuel pump filter onto fuel pump inlet.



**TIP:** Approach at an angle placing tab over post on base of fuel pump first.



Press down firmly at middle of filter to secure.

If an aftermarket fuel pressure regulator is utilized remove OE fuel pressure regulator and hose from lower shell and discard. If not skip this step.



#### **Reassemble Lower Section of Fuel Sender**

Place inner shell into outer shell. Press down evenly until it snaps into place securely. Check all four locking tabs. **NOTE:** Inner shell fits into outer shell one way only.

Reconnect electrical wiring to fuel pump.



NOTE: Ensure connector snaps into place securely.

If stock fuel pressure regulator is utilized apply a light coating of engine oil to O-ring on regulator and replace. Secure with stock clip making sure both sides snap into place securely.

#### **Reassemble Fuel Sender**

(Reverse order of disassembly.)

Insert compression spring guide rod into lower section of fuel pump assembly. Align lower section with upper section.Carefully reconnect the two halves by pressing firmly and evenly at both ends until they snap together. **NOTE: Make sure all 4 clips snap into place securely.** 

Reconnect fuel supply hose to underside of top of fuel sender making sure connector snaps into place securely.

Reconnect fuel pump electrical connector (blue & black wires) to underside of top of fuel sender making sure connector snaps into place securely.

Replace fuel gauge arm ensuring all clips and electrical connectors snap into place securely.

Install fuel pump into fuel tank. Note front of fuel pump in relation to bow of craft. Fuel pump must be tilted toward its front as you install it so as not to damage fuel gauge float. **TIP:** Tilt towards the right to install. **BE PATIENT!!!** This process requires careful maneuvering to install fuel pump.

With fuel pump facing proper direction install stainless retainer ring and secure with stock washers and nuts **NOTE: Do not over tighten nuts.** 

Reconnect electrical connectors (2).Reconnect fuel supply hose to fitting at top of fuel pump assembly and fuel supply rail on motor. **TIP:** Apply a thin coat of engine oil onto fittings. **NOTE:** Make sure fuel hose connectors are installed onto fittings completely and locking clips are secure.

#### **Electrical Box**

Remove electrical box cover (2 tabs at top). Remove fuse cap.



Swap stock 20amp operational and spare fuses (yellow) with supplied 25amp fuses.



Replace fuse cap and electrical box cover.

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

#### **Limited Warranty**

RIVA Fuel Module Upgrade 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.

NOTE: This RIVA Performance Product is designed and intended for competition use only.