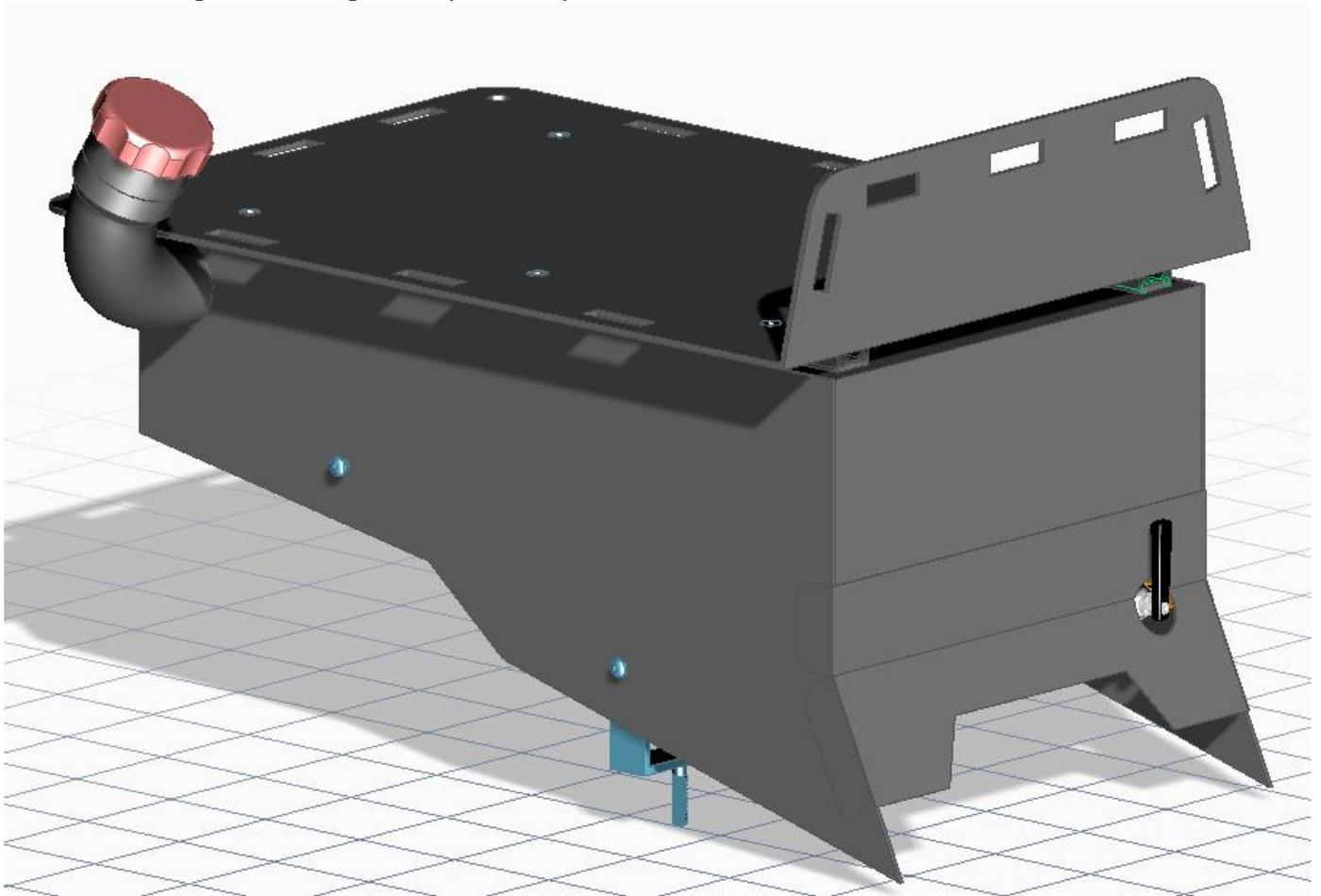


# Yamaha FJR2 Auxiliary Tank Version 8+ Owner's Manual

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Congratulations on your purchase of the FJR2 Auxiliary Tank System. When properly mounted, used, and maintained this product will provide you with years of service.



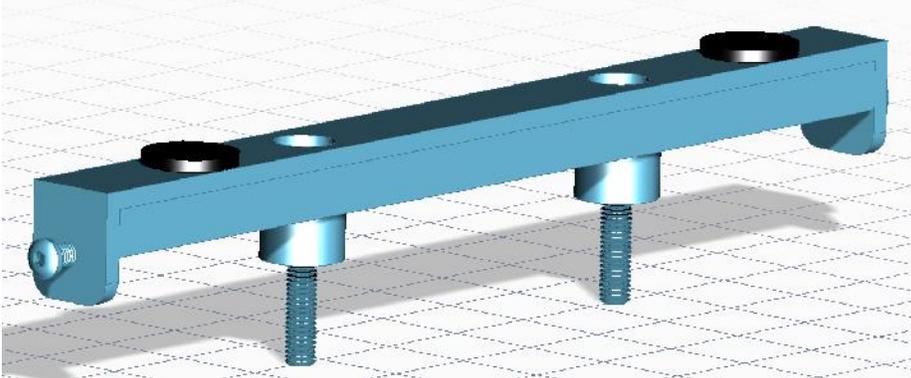
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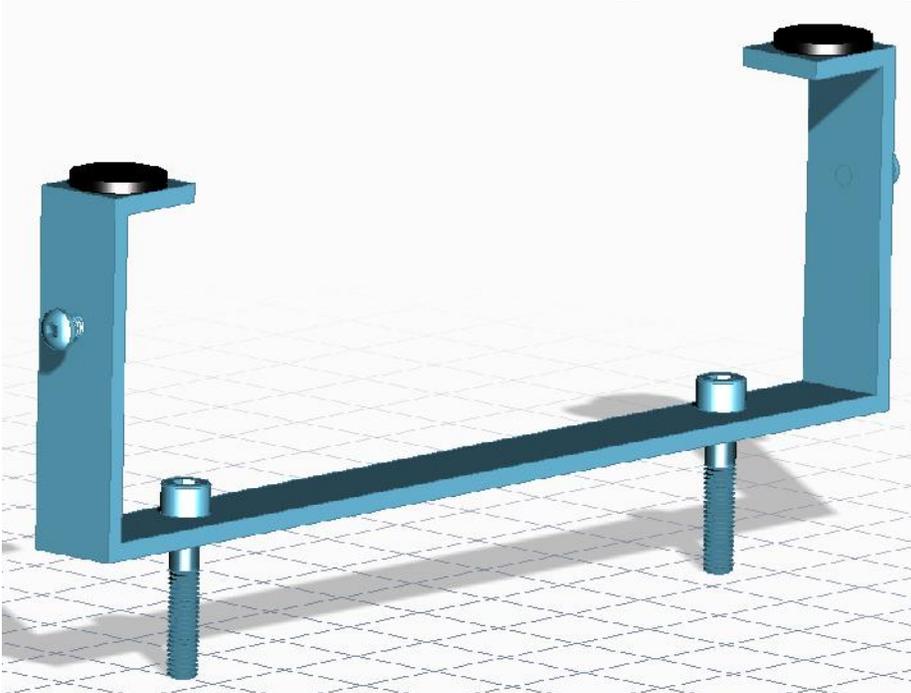
## Description and Features

The system consists of three main components:

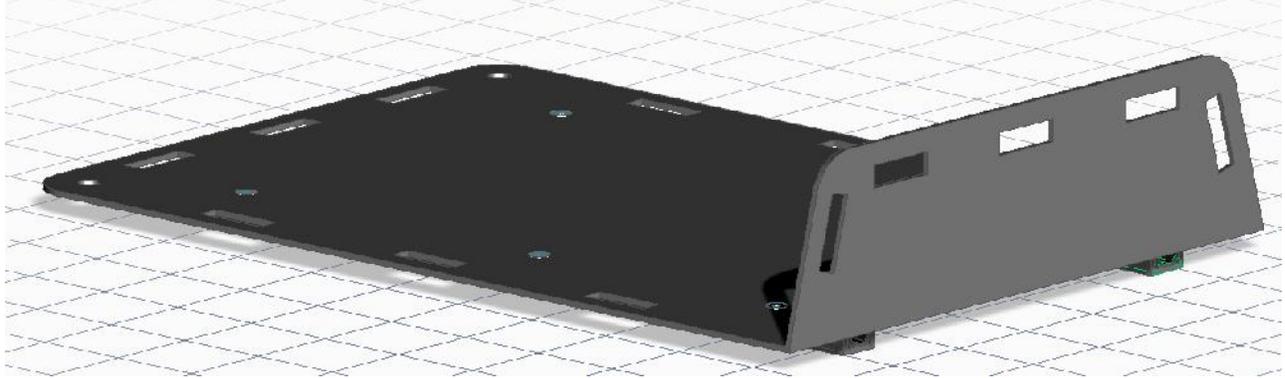
- The Auxiliary Tank:
  - This tank is nominally a 4.8 gallon capacity designed to gravity feed to the stock tank. It comes with non-vented cap affixed to the tank with a security lanyard to prevent accidental loss, a ¼" FNTP drain bung, and a 1/8 " FNTP vent bung.
  - An easily removable front trim panel obscures the open space between the front of the tank and the seat.
  - The side extensions are covered with edge trim.
- The Mounting System:
  - This is a two piece mount, front and rear. Both mounts use existing mounting points in the motorcycle frame meaning there is no modification of the motorcycle required.
  - Rubber pads are on the mounts for shock absorption.
  - The rear mount is the main structural mount of the tank. It is a stainless steel reinforced box design drilled and tapped for tank mounting. with custom machined standoffs.



- The front mount holds the tank at the proper elevation and provides support for the tank and load. It is a stainless steel double bent unit drilled and tapped for tank mounting.



- The Luggage Deck:
  - The deck is a 22" x 15" platform constructed of .125" thick aluminum alloy with a front riser to prevent the load from shifting forward, slots for strapping, and holes for antenna mounting.
  - The deck is not part of the tank. It is mounted to T-slot rails welded to the top of the tank. This mounting method allows you to make modifications (such as drilling holes for your accessories) without compromising the integrity of the tank. The T-slotted rails allows the deck to be longitudinally adjusted to suit the rider's preference.



## ***Unpacking Your System***

Unpack and inspect all components to ensure they are complete and without shipping damage.

**Note:** Save the thin foam packing material wrapping the tank for use in protecting your tank during the installation.

The FJR2 Auxiliary Tank has been partially assembled prior to shipment. The basic plumbing items have been fitted, the filler cap lanyard has been installed, and the deck has been mounted.

### **Baseline Items Included in Package:**

- Auxiliary Tank with the following components:
  - Non-Vented filler cap with brass lanyard
  - Front Trim Panel with felt padding.
- Rear stainless steel mounting bracket with foam padding and attaching hardware consisting of:
  - 2 each M6 x 20 SS button head socket screws
  - 2 each M6 SS flat washers
  - 2 each M8 x 35 SS socket head cap screws
- Front stainless steel mounting bracket with foam padding and attaching hardware consisting of:
  - 2 each M6 x 20 SS button head socket screws
  - 2 each M6 SS flat washers
  - 2 each M8 x 20 SS socket cap screws
- Luggage deck and attaching hardware consisting of:
  - 6 each M6 x 10 SS flat head socket screws
  - 6 each aluminum T-nuts
- Tank plumbing kit consisting of:
  - 1 each 1/4 " NPT Street Elbow attaching shut off valve to tank
  - 1 each chrome plated brass shut off valve with assorted handles
  - 1 each straight barb fitting attached to shut off valve
  - 1 each hose barb elbow attached to filler neck for vent
  - 6 feet fuel line
  - 4 feet clear vent hose
  - 2 each SS hose clamps
- The bike plumbing kit (if ordered) consists of:
  - 1 each Bulkhead Fitting
  - 1 each Quick Coupler Nipple
  - 1 each Quick Coupler
  - 1 each El Barb Fitting
  - 2 each Straight Barb Fitting
  - 3 each SS Hose Clamps

## Installation Instructions

### ***Work Area Preparation***

You will want to have a clean work area. Access to a work table or platform would be advantageous.

You will need the following tools:

- #2 Phillips screwdriver (if changing shut off valve handle)
- Metric hex socket wrench set (allen bolt style)
- SAE open end wrenches or crescent wrench for making pipe joints
- Utility knife
- Parts bin to hold hardware while you work.

### ***Motorcycle Preparation***

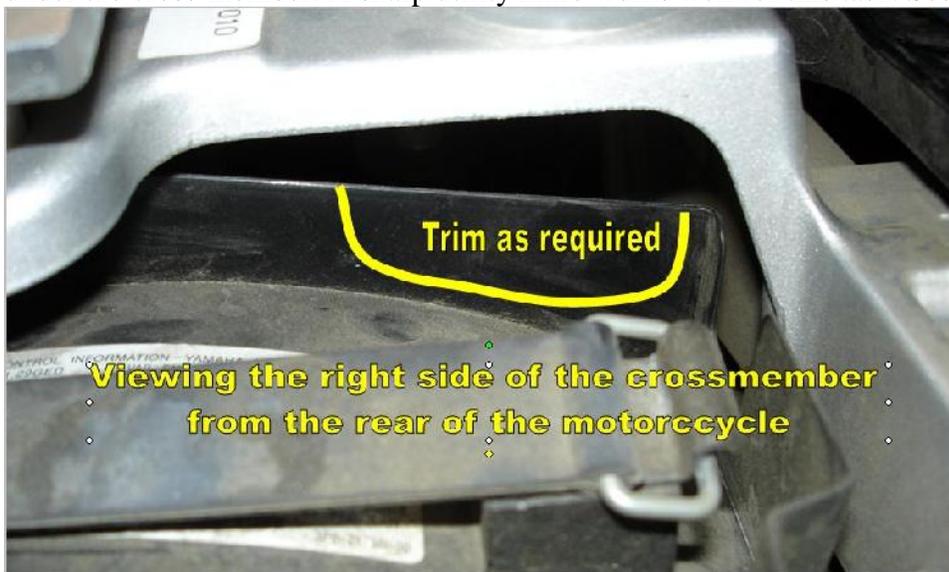
**Note:** These instructions assume you have already installed the bulkhead fitting in the stock tank. Instructions for performing this task are a separate document.

**Step 1** Place the motorcycle on the center stand.

**Step 2** Remove the pillion seat.

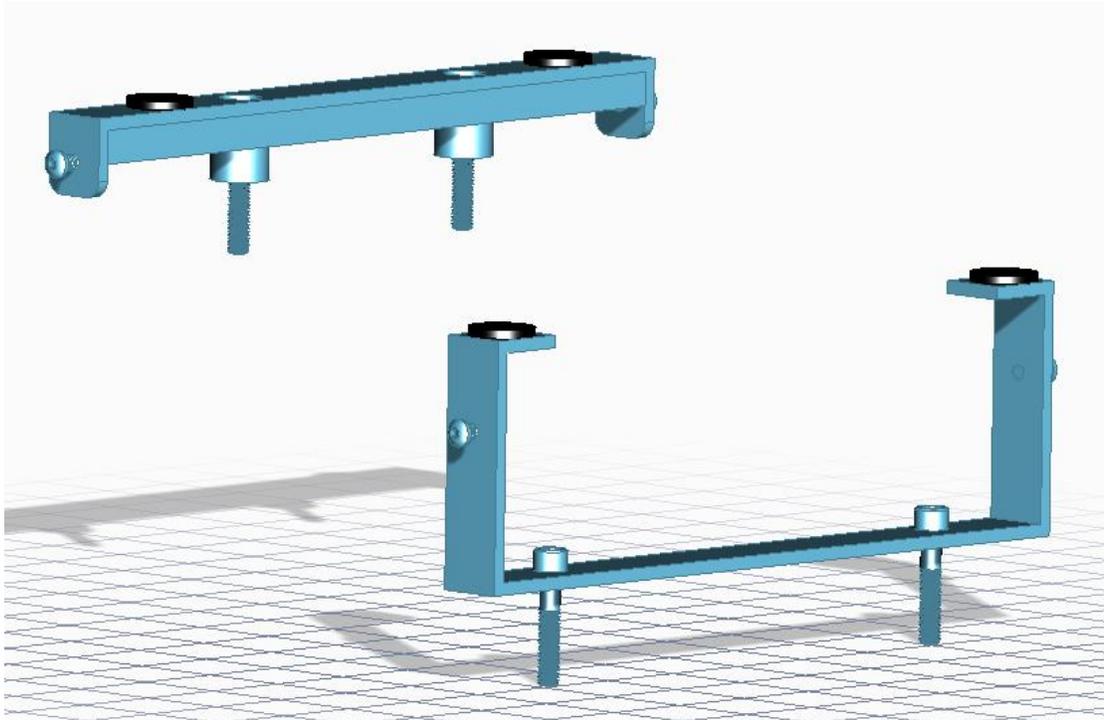
**Step 3** Remove the luggage rack. This is held in place with 5 hex socket screws, 2 on each side under the pillion seat and 3 on the tailpiece. Retain these screws with your luggage rack for future use.

**Step 4** Route your transfer hose line to the area under the pillion seat. Depending on the size of your quick disconnect (QD) fitting you may have to trim the plastic to allow space for the QD to go under the cross-member. A sharp utility knife works well for this task. See illustration for location:



## Auxiliary Tank Mounting

The auxiliary tank mounting is designed to be simple. The two mounting brackets that are bolted to the bike frame using the stock tail rack mounting holes. There is shock absorbing foam pads installed on the upper side of the brackets.



The tank fastens to these brackets. Note that there are orientation arrows on both of these brackets. The ARROW points FORWARD (front of bike)

- Step 5** Place the tank upside down on a work surface. Use the thin foam packing material to protect the paint.
- Step 6** Remove the button head cap screws and washers holding the brackets to the tank. Retain this hardware.
- Step 7** Fasten the rear mounting bracket to the two tail rack mounting holes at the rear of the bike using the M8 x 35MM hex socket bolts. Tighten to 25 Nm.
- Step 8** Fasten the front mounting bracket to the two forward mounting tail rack mounting holes using the 2 M8 x 20MM hex socket bolts. Tighten to 25 Nm.
- Step 9** Position the tank onto these brackets. Use care that you do not pinch or detach the edge trim. There are cutouts in the trim for the brackets.
- Step 10** Visually align the holes in the tank with the nuts in the mounting brackets.
- Step 11** Locate the following hardware you removed in step 2:
  - 4 each M6 x 20 SS button head socket screws
  - 4 each M6 SS flat washers
- Step 12** Place an M6 flat washer button head socket bolt.
- Step 13** Insert the M6 button head socket bolts into each mounting hole.
- Step 14** Press down on the tank to ensure it is compressing the shock foam slightly and tighten the button head socket screws.

## **Deck Attachment**

The deck is secured to the T-slotted deck mounting rails welded to the top of the tank.

### **Deck Installation**

**Step 1** Locate the following hardware:

- 6 each M6 x 10 SS flat head socket screws
- 6 each aluminum T-nuts

**Step 2** Insert the T-nuts into the T-rail and position at approximate location of the deck mounting holes.

**Step 3** Place the deck over the deck mounting rails in alignment with one of the T-nuts and loosely insert one of the flat head cap screws.

**Note:** **Do NOT TIGHTEN any of the screws until they have all been started.**

**Step 4** Slide the deck to align to the next T-nut and insert another cap screw.

**Step 5** Repeat this process until all 6 flat head cap screws have been loosely installed.

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**Note:** You may need to slide the T-nuts fore and aft to achieve alignment.

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**Step 6** Once all screws have been started position the deck as you wish and tighten the screws. **DO NOT OVERTIGHTEN.** You might strip the threads out of the aluminum T-nuts.

## ***Final Auxiliary Tank Installation***

### ***Installing and Routing the Fuel Hose***

- Step 1** Place a hose clamp on the hose.
- Step 2** Put the hose over the barb on the shut off valve
- Step 3** Tighten the hose clamp.
- Step 4** Connect the fuel hose line to the stock tank. Use of a quick disconnect is highly recommended.

### ***Installing and Routing the Vent Hose***

- Step 1** Place the hose on the filler neck barb.
- Step 2** Route the vent line to the rear of the motorcycle.

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**Note:** The vent line must be routed such that any overflow does NOT get on or near the hot exhaust or in the track of the rear wheel.

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- Step 3** Affix the hose such that it stays in position. One or more zip ties are recommended.

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**Note:** If you leave the zip tie slightly loose you can remove the vent line without removing the zip tie.

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- Step 4** Trim the end of the vent line at a 30 to 45 degree angle to minimize the potential of negative pressure caused by air turbulence.

### ***Installing the Trim Panel***

We have attempted to ensure the trim panel will clear the seat but some trimming may be required. This is thin aluminum material that can be easily cut with tin snips. If you don't have access to snips some heavy household scissors or garden shears should do the trick.

- Step 1** Install the rider's seat.
- Step 2** Place the trim panel on the front of the tank.
- Step 3** Trim the panel as required to fit your seat.

This completes the Auxiliary Tank Installation Procedure.

## Auxiliary Tank Removal/Maintenance

Since there are very few removable components auxiliary tank disassembly is pretty straightforward. Essentially, it is the reverse of the installation procedure.

Following are key points.

### Luggage Deck removal/reinstallation.

It may be quite possible to just loosen the T-nut attaching hardware and slide the deck off of the rails. In our experience reinstallation using this method is harder than just starting from scratch.

### Filler Cap

The filler cap is connected to the auxiliary tank with a brass chain to prevent loss. This chain has a twist of copper or stainless steel wire and is inserted into the tank. It can be removed with a steady pull which will straighten the wire. To reinstall, bend loops in the wire (as shown) and push the wire back into the tank. Make sure the ends of the wire are completely in the tank to prevent filler cap loss.



## Periodic Maintenance.

Before every ride inspect the auxiliary tank for visible signs of damage or leakage.

Every 5,000 miles or weekly, whichever occurs first:

- Inspect the auxiliary tank mounts to ensure they are tight and snug.
- Inspect the lanyard on the filler cap to make sure the wire is securely in the tank.
- Inspect the deck mounting screws to ensure they are tight and not working loose.

Every 12,000 miles or annually, whichever occurs first:

- Remove the tank and inspect all components, fittings, and mounting points for visible signs of wear, fretting, deterioration, and/or leakage.