



## Adjustable Windshield System

Yamaha FJ-09

*Please read this entire manual before proceeding with installation.*

### What is in the box:

- (1) FJ-09 knob brackets set
- (1) FJ-09 brace plate
- (4) Black plastic arrow clips
- (4) M6 x 16 button socket screws
- (4) M6 metal flat washers
- (4) 1/4" split-ring lock washers
- (4) M5 Truss screws
- (4) M5 plastic flat washers
- (4) soft rubber washers



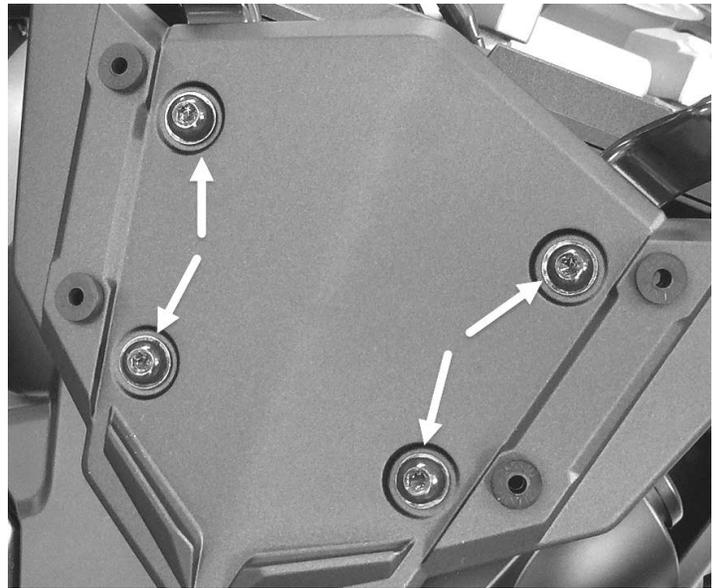
These MadStad adjustable windshield brackets are designed to bolt to the factory sliding windshield brackets. The factory windshield is too slim to provide any meaningful wind protection so it will not be used with the MadStad system. Only MadStad windshields can be directly bolted to our adjustable brackets.

Please remove your factory windshield using a Phillips screw driver on the four plastic screws that hold it on.

## STEP 1: Remove factory mounting plates

The factory windshield attaches to two Yamaha mounting plates, one plastic and one metal. These are mounted together and both will come off when you remove the four screws as shown here.

You will not need either of these plates, but save the screws because they will be used to install the MadStad brackets.



## STEP 2: Position the factory mounts

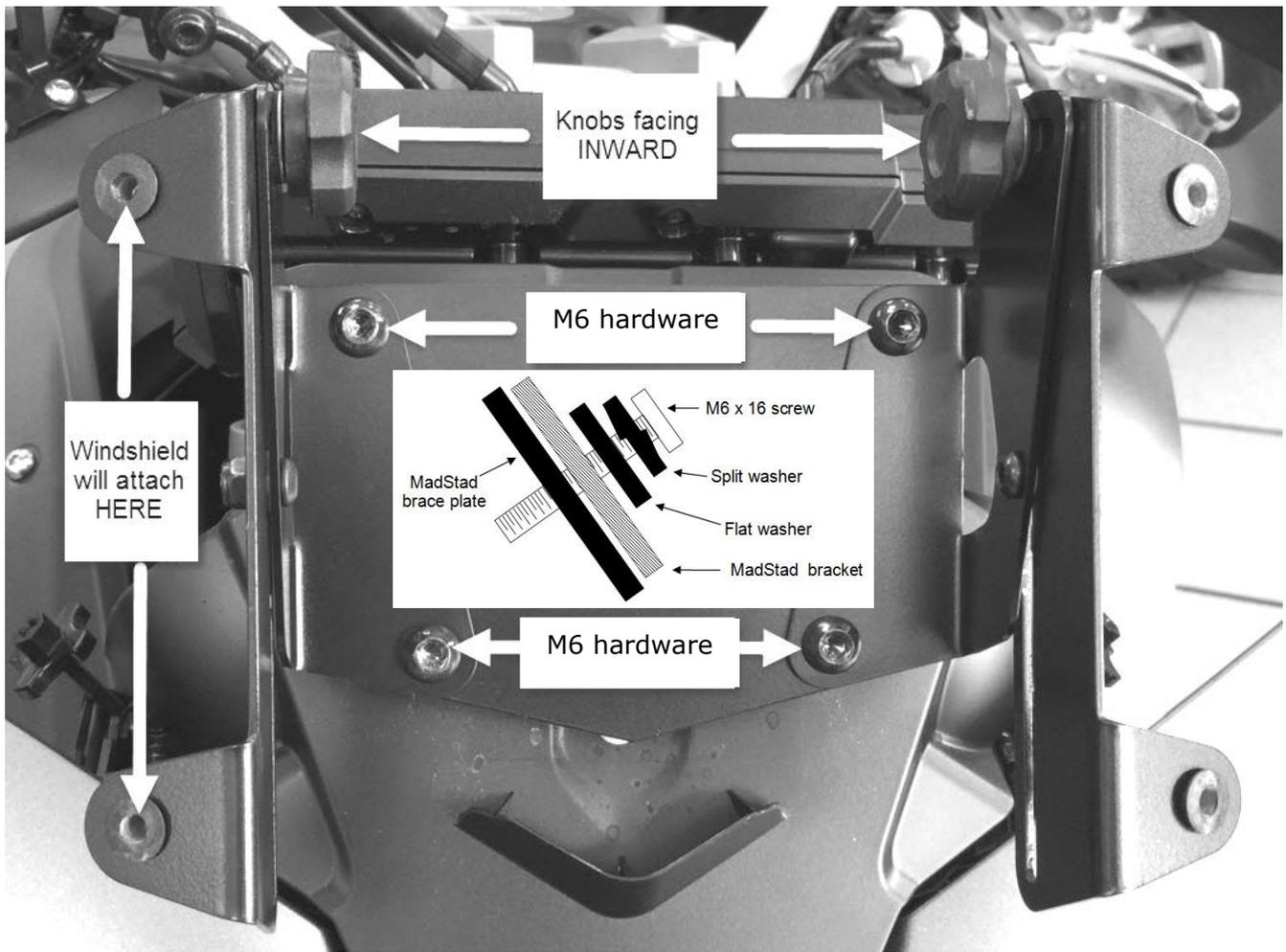
The sliding Yamaha windshield mounts are seen in the photo at right, and these will be the four mounting points for the MadStad brackets and stiffening plate.

Loosen the two factory height adjustment knobs (located underneath the instrument cluster) and slide both of these brackets all the way up, then tighten the knobs back down.



## STEP 3: Attach the MadStad brackets and stiffening plate

Using the M6 mounting screws with lock washers and flat washers provided, attach the MadStad brace plate and brackets to the factory windshield mounting points. The plate goes on first, then the brackets on top. See image on next page for proper orientation and hardware order.



Once bolted on, make sure the MadStad brackets are both set at the same height and angle. You can loosen the adjustment knobs a turn or two if needed to set them up evenly. Snug the knobs back up before installing the shield.

#### **STEP 4: Hand guard modification.**

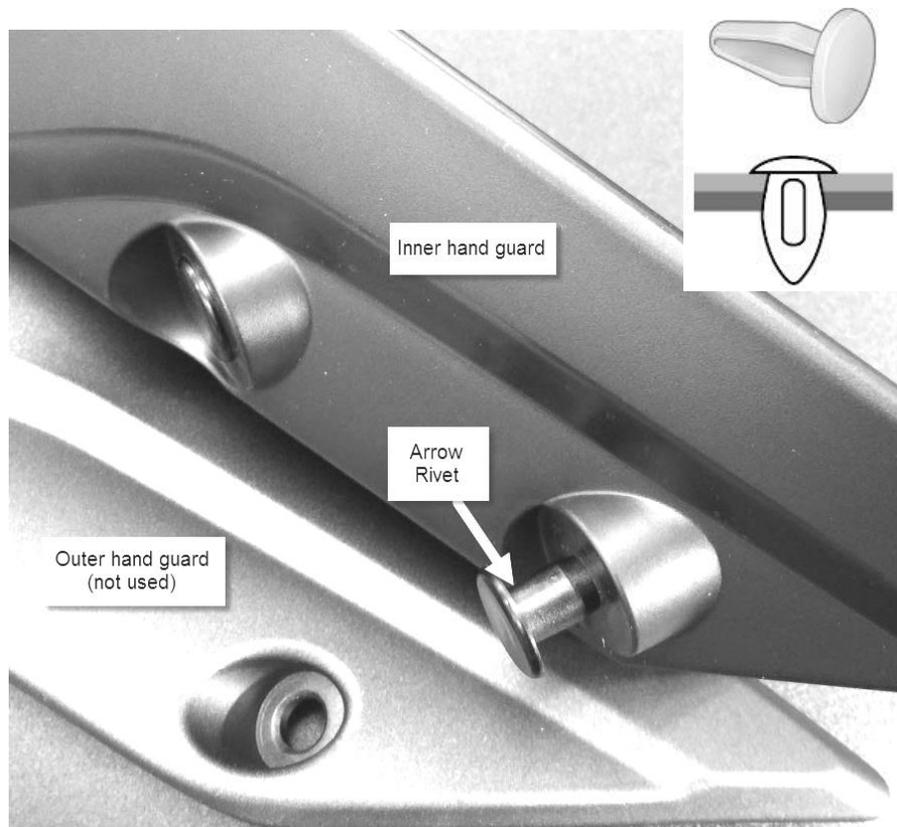
The factory hand guards are actually two overlapping plastic guards. The outer guard sticks out too much and interferes with the windshield, so we're going to remove it and put back only the inner hand guard.

Remove the two screws as shown at right. You are going to need a 3mm Allen wrench and an 8mm socket wrench or nut driver to hold the nut on the back side.



Once the hand guards are apart you will see the two mounting holes in the hand guard frame. You are going to take two black plastic arrow rivets and push them through the inner hand guard (as shown at right) then set that over the frame holes and push the rivets through to snap the two pieces together.

**NOTE:** One of the holes will be easier to push through than the other. Yamaha made the holes different sizes but rest assured, the arrow rivets will push through!

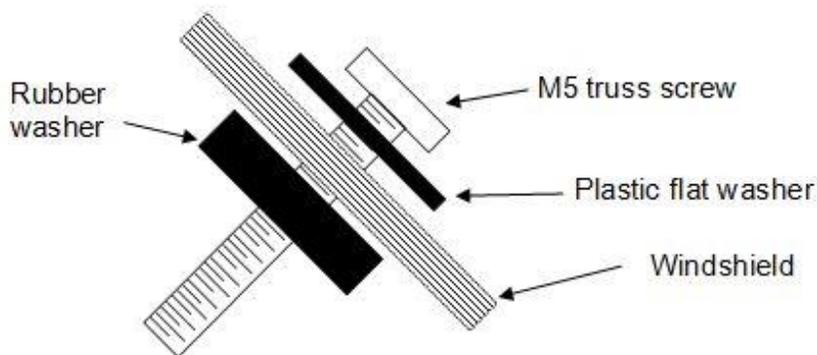


## STEP 5: Windshield Installation

The windshield attaches to the front of the brackets with the Phillips truss screws provided. Prepare the shield first by inserting a truss screw with plastic flat washer into a windshield hole, then slide the other rubber washer onto the back (as shown below). Repeat this for all four screws before attempting to attach the windshield. Then lay the shield over the brackets and insert the four screws into the four rubber well nuts on the MadStad brackets. The well nuts are flexible and shield holes are oversized so you can nudge the shield around to align the screws with the holes properly.

### **DO NOT OVERTIGHTEN THE TRUSS SCREWS!**

The well nuts cannot be pulled up out of the brackets, even if they are not tight, so tighten only until the well nuts begin to swell up and the shield is snug against the brackets. Over-tightening can damage the well nuts.



## Adjusting the RoboKnob Brackets

The knob screws release the brackets allowing the windshield to slide and tilt. These knob screws must always be tightened securely before riding. **DO NOT** attempt to adjust the brackets while riding! You must come to a complete stop before making adjustments. Also make sure that you do not set the windshield in such a way that causes your handlebars or hand guards (if installed) to hit the windshield when turning, or before reaching full lock.

To make adjustments, loosen the knobs 1-2 turns and set the windshield so the top edge is at about your chin level as you look straight ahead while seated on the bike. Set the angle at approximately 60 degrees. (Use the angle guide on the back page of this manual as a guide.) Tighten the knobs and go for a ride to see if you now have smooth airflow over and around your helmet. Do this on a calm day if at all possible; windy days make it hard to judge the airflow. Don't ever try to adjust the mount while in motion!

To try a different windshield position, bring the motorcycle to a complete stop and out of traffic. Loosen the two knob screws and tilt the windshield forward or back 2-3 degrees or so, and/or adjust it up or down if necessary. Re-tighten the knobs and go for another ride.

Continue experimenting with different positions at different speeds until you find a combination of height and rake angle that eliminates buffeting and gives a smoother ride. You may have more than one favorite position, for example shield tilted forward on cooler days, and shield tilted back for hot days to let more air to your body.

**NOTE: You will not need to use the factory height adjustment to control windshield height.** Leave the factory mount in its highest position and just use the MadStad knobs for height adjustment. Sliding the factory mounts downward could put the bottom of the windshield too close to the headlights causing distracting reflections on the inside surface of the windshield.

## **Notes on Windshield Angle**

Most windshields work best when set at a 55-60 degree angle. We have provided an angle guide **on the back page of this manual** so that you can check and see if your shield is set somewhere in this range.

To check your shield angle, your bike should be in an upright position either on a center stand or held up by a helper. Set the spine (folded edge) of the manual against the front of the shield. If the large arrow marked 60° is pointing straight up, then your shield is at a 60 degree angle. (See diagram on Page 5.) A little farther back and your angle would be somewhere between 55 and 60 degrees. Anywhere in this range is fine for your initial test ride. On some bikes a more vertical angle works better, so don't be afraid to experiment later if tilting the shield back doesn't seem to be ideal.

## **PIVOT SCREWS**

The MadStad mount has a pivot screw on each set of brackets, located near the center of the bottom bracket. A nylon lock nut keeps the screw snugly in place, yet allows the brackets to slide back and forth. It is adjusted at the factory to have a minimum of play yet still allow the brackets to move.

If for some reason you wish to adjust the tightness of this pivot screw or move it to an alternate pivot position, use a 4mm Allen wrench along with a 10mm socket or crescent wrench to make the adjustment. If you tighten the lock nut completely you will not be able to slide the brackets.

## **Disclaimer**

Neither MadStad Engineering nor its owners shall be liable for any damages, consequential or inconsequential, resulting from the use of our products. Installation of any of our products constitutes acceptance of these terms.

It is the responsibility of the user to make sure all fasteners are tightened securely, the windshield is mounted properly and the adjustment knobs are tightened snugly before putting the motorcycle in motion. MadStad systems ARE NOT intended to be adjusted while the vehicle is in motion; you must pull over out of the way of traffic and come to a complete stop before making any changes. The user must never place the windshield in such a position as to interfere with the safe and complete movement of the handlebars and controls.

## **Returns and Warranty**

If you are not satisfied with your new windshield system you have 30 days to return it. Full details are available on our web site at [www.madstad.com](http://www.madstad.com). If purchased from a dealer then please contact the dealer for their return policy.

MadStad adjustable brackets carry a lifetime warranty against manufacturing defects. This does not include cosmetic issues nor any parts that inherently wear out or degrade over time such as rubber and plastic parts. Windshields, deflectors and other similar plastic parts are warrantied for 1 year against manufacturing defects, not against cosmetic issues or issues related to normal wear and tear.

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*Thank you for your support, and ride safely!*

