

## Adjustable Windshield System

## Yamaha WR250R

Please read this entire manual before proceeding with installation.

#### What is in the box:

- (1) MadStad brackets set
- (4) M8 x 50 screws
- (8) M8 flat washers
- (4) M5 T-Screws
- (4) 3/8L rubber washers
- (4) soft rubber washers

These MadStad adjustable windshield brackets are designed to bolt to the top of your handlebar clamps. The windshield attaches to the front of the brackets with quick-removal T-screws. Loosening two adjustment knobs on the brackets allows you to change the windshield height and tilt



without getting off of the bike, and without any tools.

You will not need to loosen the handlebars to perform the installation so your bars will stay in position. You will also be able to remove the MadStad adjustable brackets and shield completely and easily should you decide to go off-roading.

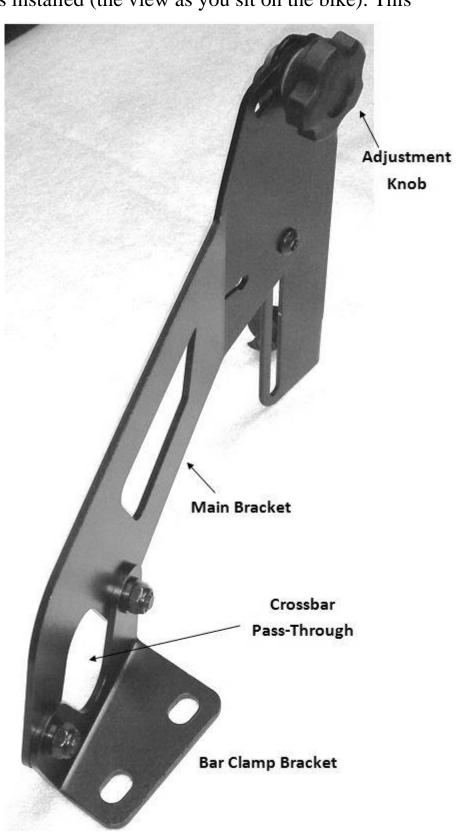
#### INSTALLATION OVERVIEW

The diagram on the first page shows you a top-down view of what the MadStad system will look like once it is installed (the view as you sit on the bike). This

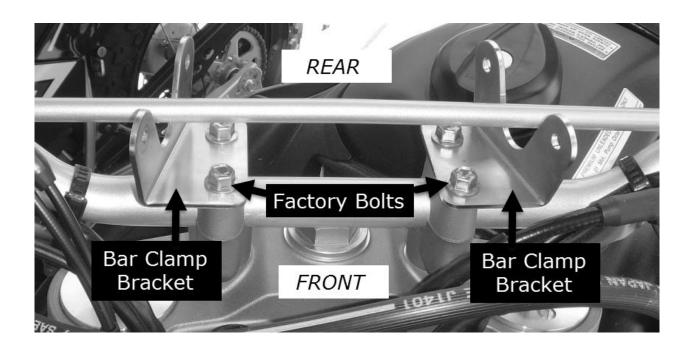
should help you understand more clearly which pieces go together in what way.

The diagram at right shows the various components of each bracket and how we name them in this manual. It shows a "Crossbar Pass-Through" but the Terra handlebars do not have a crossbar so this does not apply.

The basic idea is to bolt the bar clamp brackets on top of the handlebar clamps then attach the main bracket. This means the main brackets can be removed at any time without having to unscrew your bar clamp brackets.

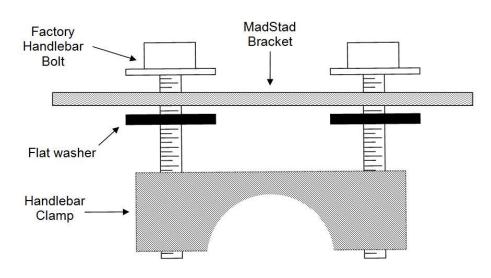


**STEP 1:** – Remove the two factory handlebar clamp bolts ON ONE SIDE ONLY and DO NOT remove the top clamps, only the bolts. (If you remove all four handlebar clamp bolts your bars will come loose. DON'T DO THAT!)



**STEP 2** – Run the two factory bolts through the Bar Clamp Bracket for that side (see photo above) and add two flat washers. (See hardware diagram below). Alternately, use the M8 bolts we provide, just put a flat washer under the head of each bolt before inserting into the bar clamp brackets.

Slide the bar clamp bracket under the crossbar then insert both bolts back into the top clamp, making sure there is a flat washer between our bracket and the factory top clamp. Tighten the front bolt completely <u>first</u>, then tighten the back bolt to factory specifications.



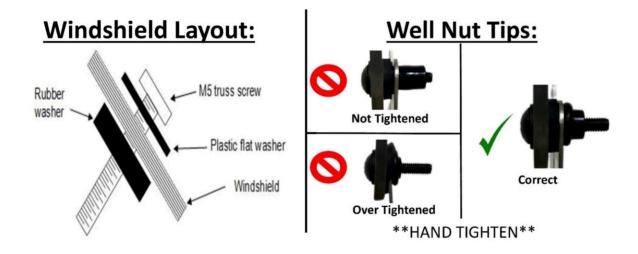
**STEP 3** – Repeat steps 1 and 2 for the other side.

**STEP 4** – Attach the upper Main Brackets to the lower Bar Clamp Brackets using the small button socket screws, flat washers and lock nuts. (See photo at right). The Main Bracket goes to the <u>outside</u> of the bar clamp brackets.



# Windshield Installation

- 1. Pre-install the Truss screws & washers into the windshield holes as shown in the image below.
- 2. Once all four of the screws are in place, gently guide the screws into the Well Nuts in the brackets until all four are set.
- 3. Hand tighten the Truss screws until they swell up behind the bracket and are firmly holding the windshield.



## **Adjusting the MadStad 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.

### **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 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**

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. Please visit our website for further details.

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Thank you for your support, and ride safely!

