



Adjustable Windshield System

Husqvarna TR650

Please read this entire manual before proceeding with installation.

What is in the box:

- (1) MadStad brackets set
- (1) Black mounting plate
- (2) Rear supports
- (2) M6 x 12 screws
- (2) M6 x 14 screws
- (4) M6 flat washers
- (4) M6 lock nuts
- (4) 1/4" Black Spacers
- (4) M5x30 Phillips screws
- (4) M5 Black Plastic Flat Washers
- (4) M5 T-Screws
- (4) 3/8L rubber washers
- (4) soft rubber washers



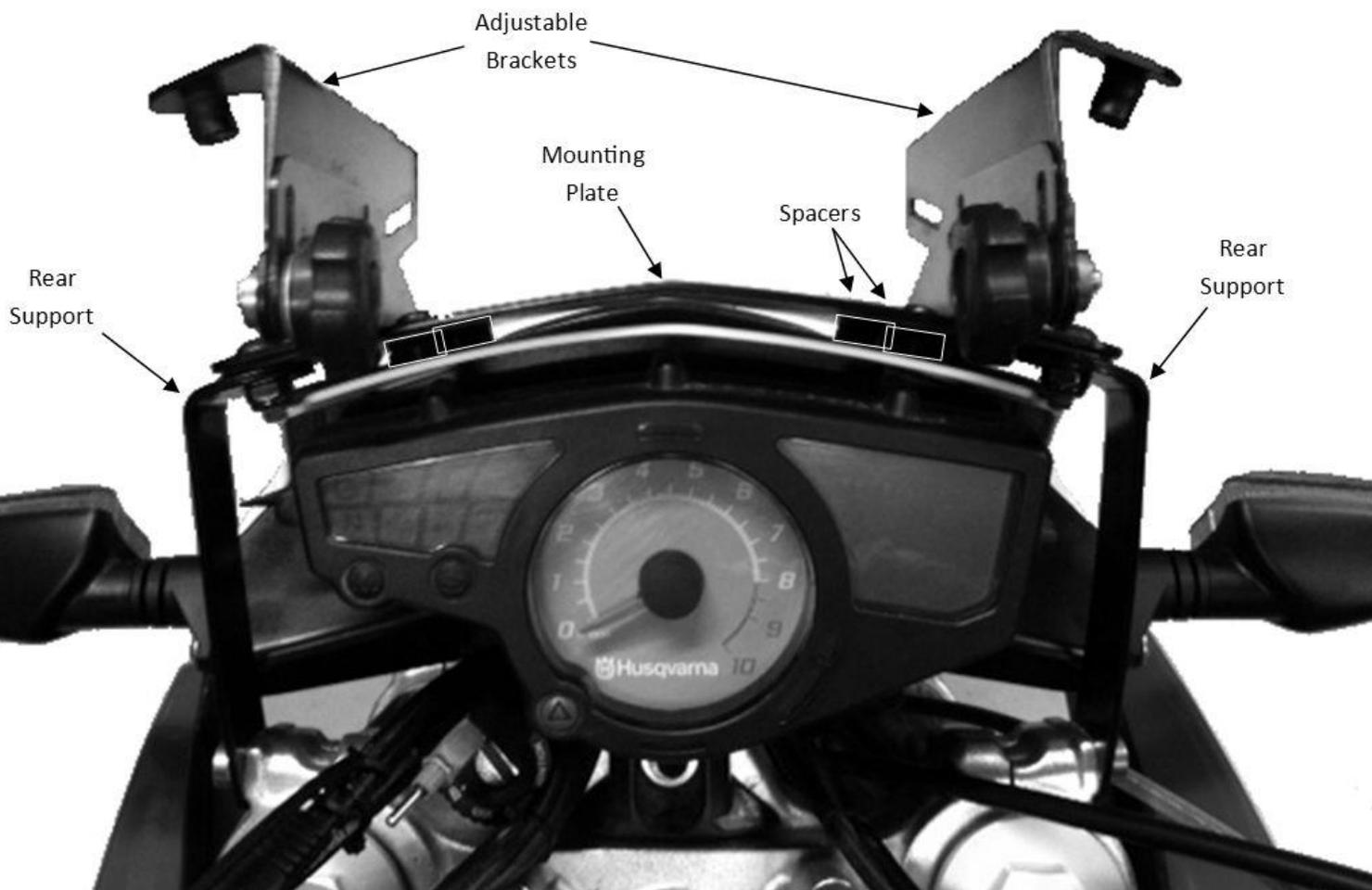
(actual brackets may appear different)

MadStad RoboKnob brackets are designed to bolt to a curved surface like the metal adapter plate included in this kit. The new windshield attaches to the top of the brackets with quick-removal T-screws. Loosening the two adjustment knobs allow you to change the windshield height and tilt without getting off of the bike, and without any tools.

Your bike has a black plastic wedge-shaped plate above the headlight, held on by four (4) screws. This plate must be removed because the MadStad metal version will replace it.

INSTALLATION OVERVIEW

The diagram below shows you a top-down view of what the MadStad system will look like once it is installed. This should help you understand more clearly which pieces go together in what way.



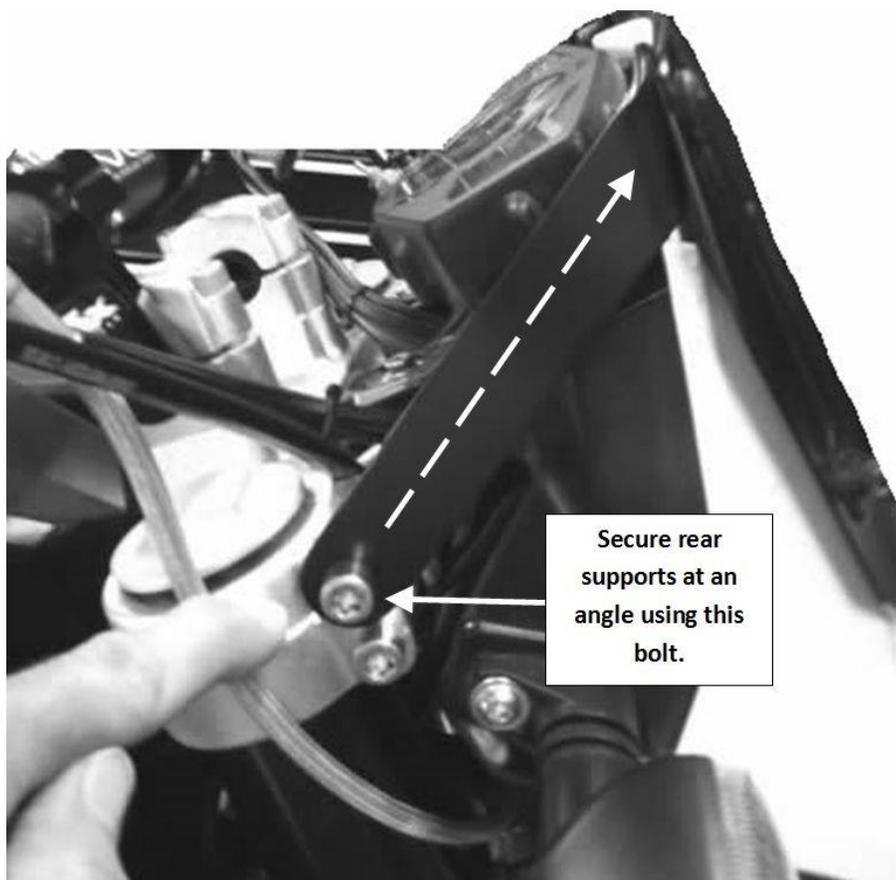
The basic steps will be to remove the black plastic plate that's above your headlight, attach our brackets to our mounting plate, attach the rear supports to the upper fork clamps, then attach the mounting plate w/brackets assembly to the bike and our rear supports. You will need the M4 Allen wrench that came with your hardware packet and a 10mm crescent wrench (or an adjustable wrench). You will also need a Torx (star) driver to remove the upper bolts from the upper fork clamps.

STEP 1: Remove the factory black flyscreen

The front black flyscreen plate, just above the headlight, must come off. Remove the four screws that hold it onto the bike.

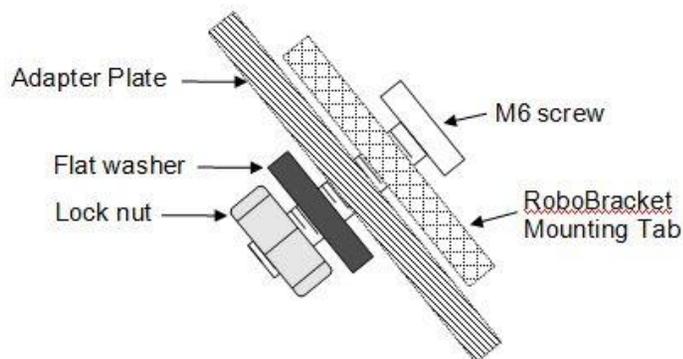
STEP 2: Rear supports

Remove the top bolt from the upper fork clamp, then use that to attach the rear support to the bike. Position it angled upward as shown at right, with the bent end at the top pointing inward. Don't tighten these down too hard yet, just snug enough to hold the supports in place at an angle as shown. Repeat on the other side.

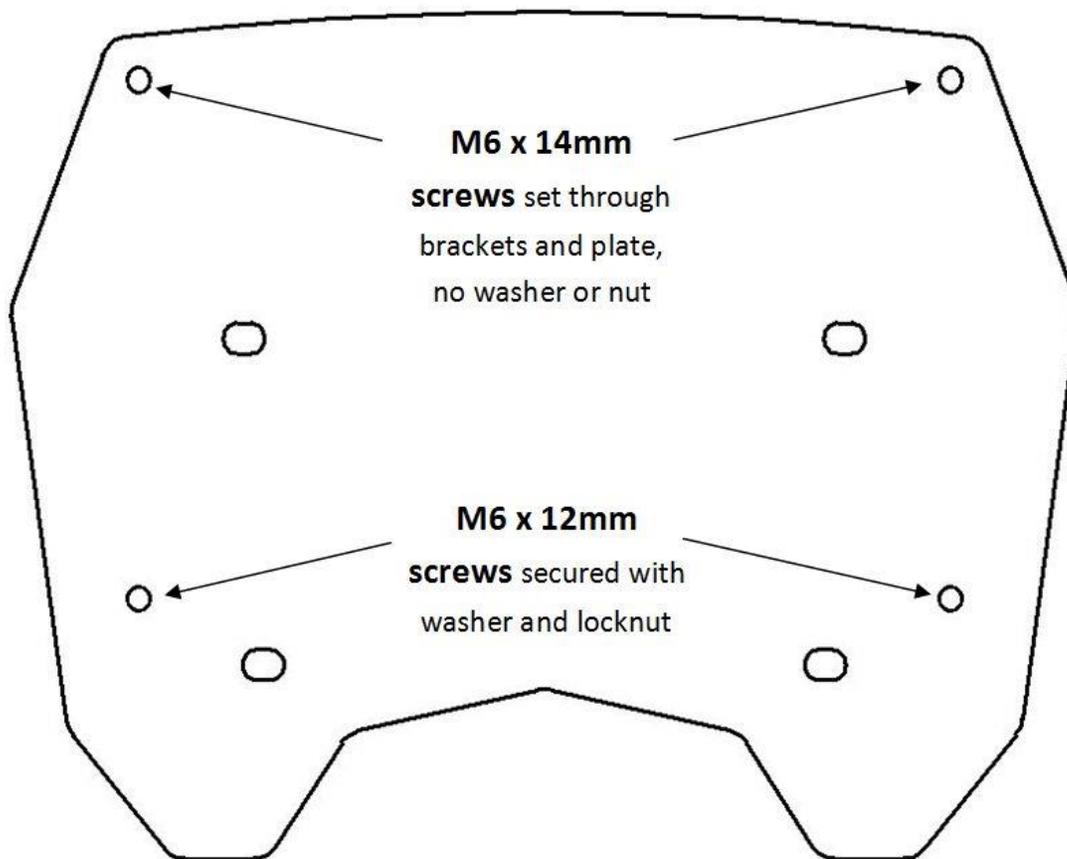


STEP 3: Bracket Installation

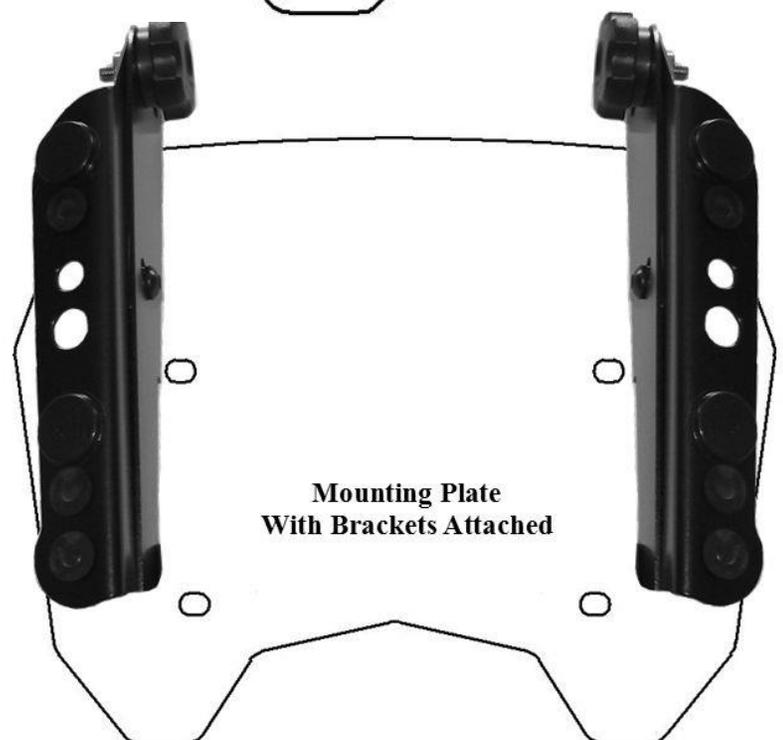
Your MadStad Knob brackets attach to the new aluminum adapter plate with the four M6 screws, flat washers and lock nuts as shown in the diagram at right. It is easier to attach the brackets first, and then mount the assembly onto your fairing.



NOTE: You have two different lengths of screws in the hardware packet. This is because on the **upper holes** of our adapter plate, you also have to bolt through the rear supports, so you must use the slightly longer screws. The diagram on the next page shows which screws are used in which position.



The knobs on the brackets go to the insides (facing each other) with the knob sides up. Attach the brackets to the plate with the four screws, but only put the flat washer and nut on the bottom two screws, and tighten these to secure the brackets in place. The upper 14mm screws will keep the brackets in place while you install the lower two with washers and nuts. When both brackets are installed it should look like the image at right:

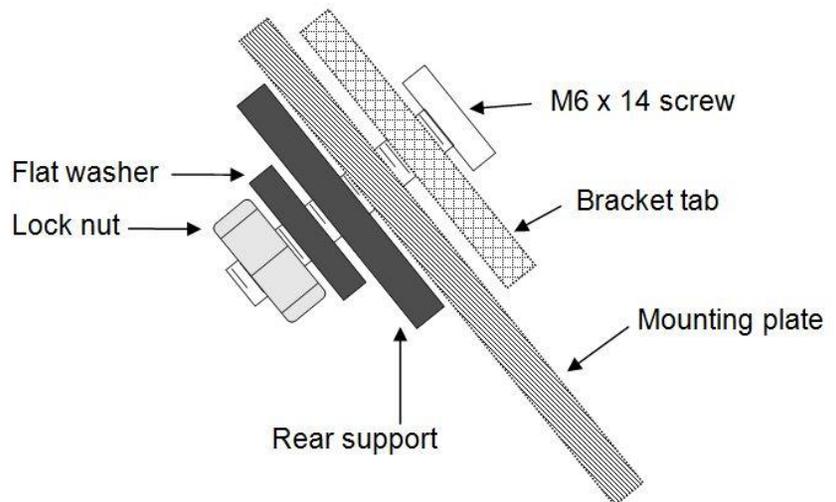


STEP 4: Mount plate to bike

Once you have the brackets on the plate, lay the plate over the headlight and secure it through the four central holes in the plate with the new M5 x 30mm Philips screws provided, an M5 flat washer under the head of each screw, and a 1/4" black spacer on the back side of the plate. (You may want to use a small piece of tape to hold these in place.) These spacers are necessary to provide some clearance between our plate and the factory fairing. Check the image on Page 2 to see how these spacers go.

STEP 5: Secure the rear supports

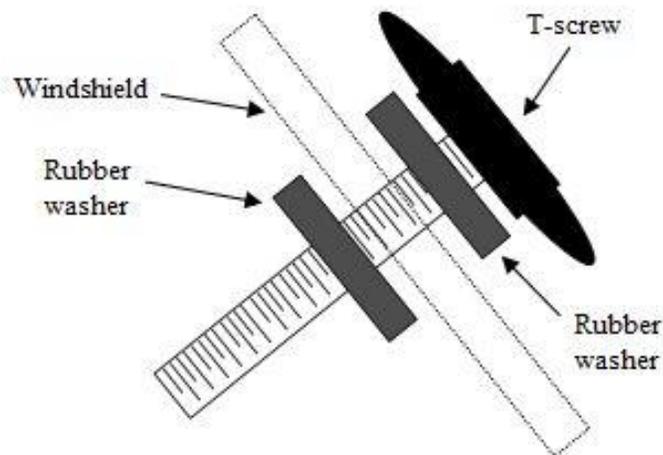
Now that the plate and brackets are on the bike, attach the tab of each rear support to the back of the plate, using the upper screws of the brackets and plate. Put a flat washer and M6 nut on the back of each screw and tighten. This should all go together like the diagram at right.



Once that's done, go back to the upper fork clamp screws and tighten those the rest of the way.

Windshield Installation

Once bracket adjustment is complete, the windshield attaches to the brackets with T-screws and rubber washers as shown at right. Insert all four T-screws and washers into the four windshield holes as shown at right before attempting to attach the windshield onto the RoboBrackets. We recommend that you first install the upper and lower screws on one side, then install the upper and lower screws on the other side. The rubber well nuts are flexible and shield holes are oversized so you can nudge the shield around to align the T-screws with the holes properly.



DO NOT OVERTIGHTEN THE T-SCREWS! The rubber 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 rubber 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.

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

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. 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 warranted 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!

