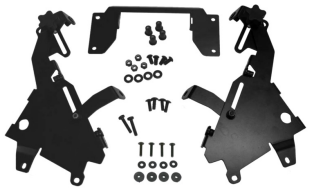
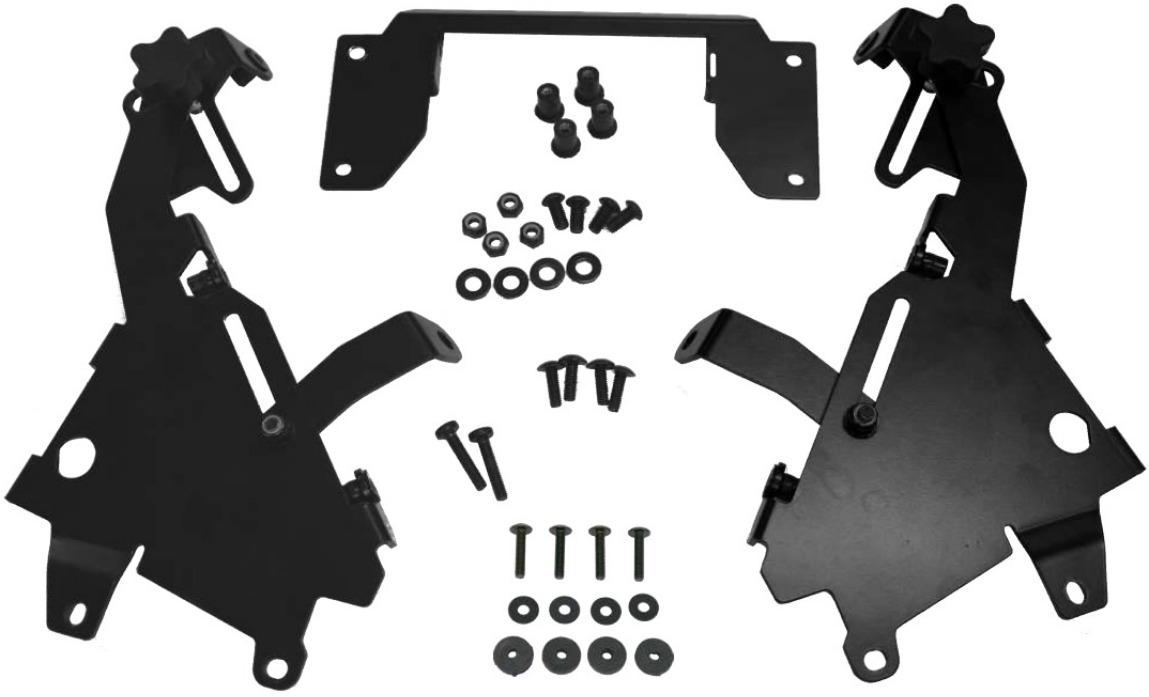


MADSTAD Engineering Adjustable Windshield System Instruction Manual

Contents

MADSTAD Engineering Adjustable Windshield System



Please read this entire manual before proceeding with installation.

What is in the box

- (2) MadStad Harley Pan America adjustable brackets (left/right pair)
- (1) Digital display mounting plate
- (4) M6 x 12 button socket screws
- (4) M6 flat washers
- (4) M6 nylock nuts
- (4) M5 well nuts
- (2) M5 x 30 Pan Phillips screws
- (8) M5 x 20 Phillips truss screws
- (4) M5 flat plastic washers
- (4) M5 soft rubber washers

Tools Needed:

- 4 mm Allen wrench (hex key)
- 10 mm combination wrench or socket
- #2 Phillips screwdriver
- Torx drivers in T20, T25 and T27 sizes

The MadStad bracket system replaces the factory windshield, factory arm assembly and display support housing. The first steps will be to remove all of these components, only the slotted plastic front plate with deflectors will be reused. If possible put the bike on its center stand before beginning.

REMOVAL

Step 1: Remove the front cowl.

You will need to pull the front cowl off, it is held in place only by rubber sockets. Simply stand infront of the bike, grab the cowl in each side by the back edge at the center (see photo below) and pull forward. There are four posts on the back of the cowl which will pop out of their rubber sockets (retainers). When you reinstall later simply line these posts up with the rubber sockets and push the cowl into them.

Step 2: Remove the windshield.
Using a T20 Torx driver unscrew the four windshield screws and remove the shield along with the black plastic plate underneath.

Step 3: Remove the side deflectors.
Using a T25 driver remove the four shoulder screws which hold the side deflectors on. Save these so that you can re-install the deflectors later.

Step 4: Remove the instrumentation display panel.

The digital display screen is attached to the factory plastic base housing with two push-in plastic retaining pins. Access those pins inside the housing and using either an Allen wrench or a small screwdriver, push both pins outward from the inside as shown here enough to release the display.

Once the panel comes free from the housing, unplug the cable from the back. There are two snap posts under the U-shaped gray retainer (one on each side) so you will need to pry that retainer off on both sides to release the plug (see image at right).
Once the plug is off then the display panel is free to remove. Set it aside for installation onto the MadStad mounting plate.

Step 5: Remove the plastic housing.
Unscrew the plastic ring holding the USB receptacle on the right side of the housing and push the receptacle in through the hole. Using a T27 driver remove the four silver screws on the sides of the plastic housing and lift the housing off of the frame and set it on a table. Save the screws, they will be used to attach the MadStad system.

Step 6: Remove the slotted front plate.
There are four T25 screws holding the slotted plastic front plate onto the housing. Two are easily seen at the bottom of each of the long slots. The other two are hidden inside the top of the slot as shown here. Only the right one has a bent metal tab as seen here.
Remove all four screws and the tab but don’t pull off the plastic plate just yet, you will need to get the sliding arms out first.

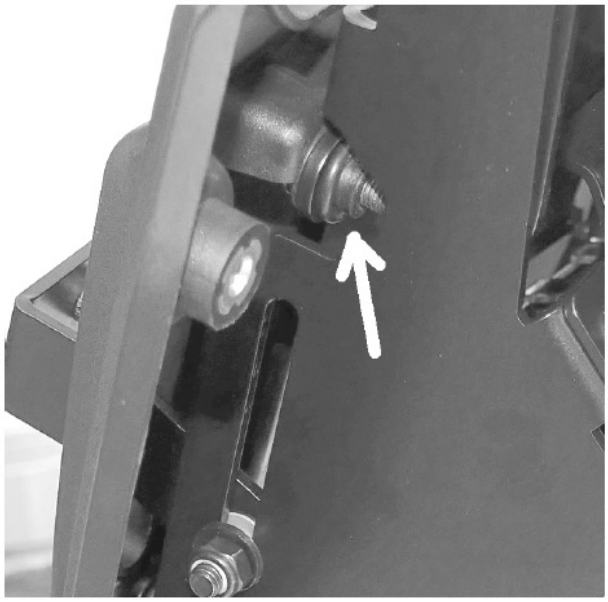
Step 7: Remove the sliding arms.
Now that the front plate is loose you can slide the factory windshield arms up and out of the slots with the small round shiny metal pins that are inserted into each arm behind the plate (see photo on next page). As you slide the arms up to the larger opening at the top of each slot you will see these pins. The arms with pins in them will come out of the slots at the top.

MadStad System Assembly

The MadStad bracket assembly is shown at right, off of the bike, so you can see how the left and right brackets connect to each other with knobs up and rounded mounting tabs pointing inward. You cannot preassemble them like this because they have to slip into the plastic factory slotted front plate first, and that will be explained in the next step.

Step 8: Fit the brackets into the slots.
Each of the side bracket assemblies has bent mounting tabs for the windshield. The upper two (by the knobs) have rubber well nuts inserted. Feed each of the side bracket bottom tabs through the slots as shown at right, tabs pointing inward toward each other. Insert the two included well nuts into these tab holes. Set this down on a table, it will be loose but keep both brackets through the slots as you assemble the display mounting plate connecting two sidesas shown below. Install four short button-head screws through the middle plate then into the side bracket tabs using washers and lock nuts on the back side and tighten.

Step 9: Attach the front deflector panel.
The front slotted deflector panel can now be screwed onto the bracket assembly. This assembly has four rubber well nuts and you will use four of the M5 Phillips truss screws provided. When the tip of the screw starts to come out the back and the well nut has swelled up, it is snug enough (see photo at right). No need to overtighten, you can feel with the wrench when it starts to get snug



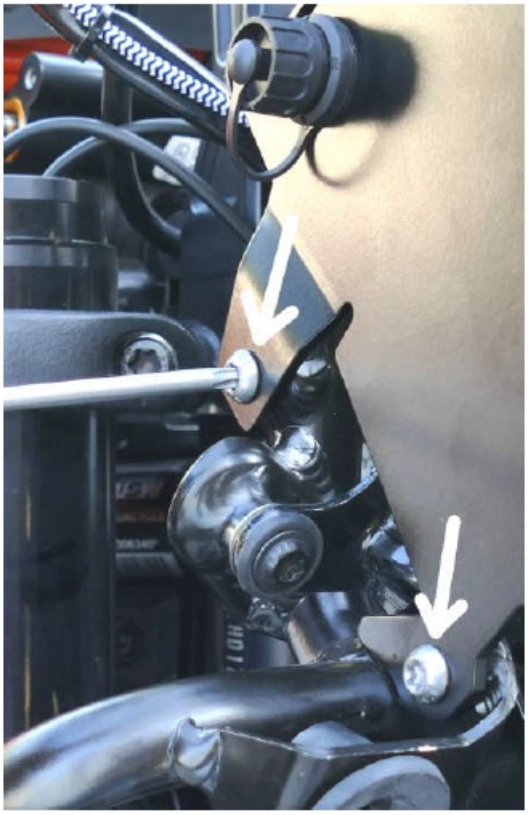
Insert one rubber well nut on each side of the display from the outside (see photo below).

Step 10: Attach the display panel.
The display attaches to the MadStad mounting plate by sliding the two pivot tabs on the back of the display in between the two raised tabs on the back of the plate.

The well nuts will be a bit loose so make sure you keep them pressed inward as you set the back of the display down in between the two vertical tabs as shown below, making sure that the mounting holes align with the well nuts.

Insert the M5 x 35 Phillips screws in each side and screw them in until snug.
Take care not to push hard on the screwdriver, you could push the well nut out of the other side.

Step 11: Attach the MadStad assembly to the bike.
Place the bracket assembly over the front frame. Insert the USB-C port back into the side hole from inside the assembly, then slide the dust cap ring on and screw the mounting ring on until snug. Reattach the display plug which should snap up and into the display.

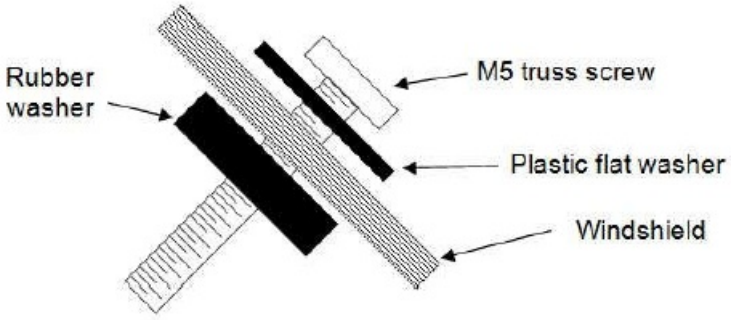


Once the electrical components are installed, set the assembly over the four OEM threaded frame mounting holes that the original plastic housing was on, and screw the assembly on with the original four housing screws. (See photo at right). Make sure these screws are all tight.

Step 12: Finishing up.
You can now push the front cowl back onto the bike into its four rubber sockets, then reattach the two side deflectors that were removed from the slotted front plastic plate. Final result should look like the photo at right.

Before attaching the windshield, check the adjustable brackets and make sure they are in the same position of height and angle. If not then loosen the knobs one turn to change height, and several turns to release the angle adjustment so you can set both in the same position. See the “Adjusting the Brackets” section on the next page for details.

Windshield Installation
The windshield attaches to the brackets with four M5 Phillips truss screws. Preassemble these onto the shield with screws and plastic flat washers through the front, then M5 rubber washers on the back side as shown here. The rubber washers keep the screws from falling out and also cushion the windshield.



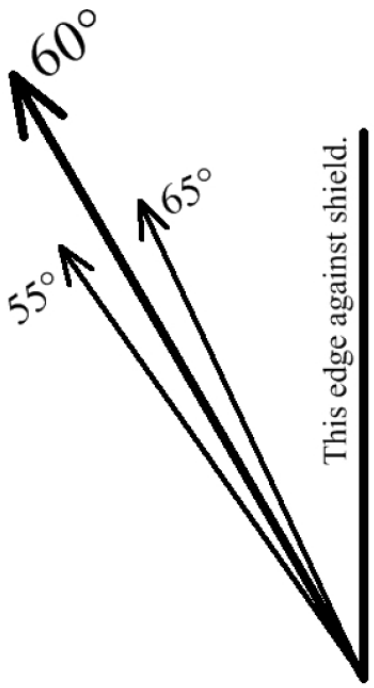
Set the windshield over the brackets so that the four screws go into the four rubber well nuts in the brackets. The rubber well nuts are flexible and shield holes are oversized so you can nudge the screws around a bit if necessary. Hand tighten all four with a screwdriver until snug.
Again, do not overtighten, it isn’t necessary and can damage the well nuts.

Adjusting the 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 turn for height, and 3-4 turns for angle. Set the windshield so the top edge is at about your mouth level as you look straight ahead while seated on the bike. Set the angle at approximately 60 degrees which should be about the middle of the bracket angle slot, or use the angle guide on the back page of this manual as a guide. Tighten the knobs and go for a ride to see how it is working. 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 brackets while in motion!

Continue experimenting with different positions at different speeds until you find a combination of height and angle that give you the smoothest 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.



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 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!

Documents / Resources

	MADSTAD Engineering Adjustable Windshield System [pdf] Instruction Manual Adjustable Windshield System, Windshield System, Adjustable Windshield, Windshield

References

- MadStad Motorcycle Windshields – MadStad Engineering