



Stinger Roof System

Please read this entire manual before proceeding with installation.

What is in the box:

- (1) Stinger center assembly**
- (2) Canopy assemblies** *(with acrylic panels)*
- (2) Hinge assemblies** *(dual shafts through a connecting plate)*
- (2) Roll Bar mounting plates** *(large flat steel plates)*
- (4) Roll Bar insert blocks** *(aluminum)*
- (1) Center support post**
- (1) Support Post base plate**

Color indicates color of bag.

Roll Bar Mounting Plates Hardware (yellow bag)

- (8) 5/16" flat washers
- (4) 5/16"-18 x 3-3/4" stainless hex-head bolts
- (4) 5/16"-18 steel nylock nuts (yellow plated)

Stinger Center Hardware (red bag)

- (8) M6 x 12 button socket screws
- (8) 1/4" black plastic flat washers
- (4) Quick-release pins
- (8) M8 x 25 button socket screws
- (8) M8 nylock nuts, zinc-plated steel
- (8) M8 flat washers

Center Support Tube Hardware (green bag)

- (4) M6 x 16 button socket screws
- (2) M6 x 20 button socket screws
- (11) M6 metal flat washers
- (2) M6 nylock nuts
- (1) M6 x 50 hex head cap screw

- (2) Lift supports**

PREPARATION

You must remove your two cup holders in order to install the Stinger system. No drilling or modification is required, just basic hand tools including a 4mm Allen wrench and a 10 mm nut driver or socket. We also recommend having a helper for the first two steps to make them go easier.

Both the Stinger and Canopies have wood blocks or wood frames attached in the shipping boxes to protect them from shipping damage. Please remove all of this wood carefully prior to installation.

Step 1 – This step attaches the large steel mounting plates onto the roll bars of the Slingshot. The final result is seen in the photo below.



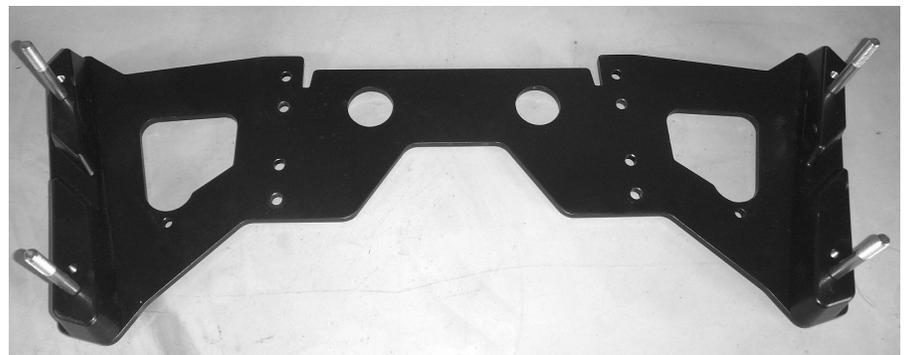
The two horizontally-mounted steel plates bolt through the two roll bar hoops. Aluminum block inserts fit inside the hoops so that the plates don't actually ever touch the hoops. The four roll hoop inserts are seen at right and there are two ways to install these parts:



Option #1: Tape the inserts in place with masking tape, then you can attach the plates with bolts. You will then have to peel off the masking tape after they are loosely installed.



Option #2: Pre-assemble the inserts onto the mounting plates (as seen at right) and set them into the roll hoops on the back side, then slide on the inner inserts and plate with hardware. (This method is preferred if you have a helper, then there's no tape to peel off.)



Put an M8 flat washer under the head of the bolt, put the bolt through the plate and then the insert. On the other side slide on the inserts, then the plate, then flat washers and the **YELLOW** lock nuts. (see photos below)



NOTE: DO NOT fully tighten these mounting plate bolts yet! Do install the flat washers and yellow lock nuts and tighten them just until they get snug, but then back them off 1/2 turn. Because there is some wiggle room in this mounting plate assembly, we want to leave it just a little loose and wait until we've installed the rest of the system (center Stinger and both canopies) because canopy alignment can be affected by how this assembly is bolted together. Again, leave this assembly just a little loose, just enough so that you can shift it around later for final alignment in Step 14.

Step 2 - Slide the Stinger onto the mounting plates as shown in the photos. First, remove the top aluminum plate which is only loosely attached with eight screws and plastic washers. Save that for installation later.

It is very helpful to have a second person hold the Stinger on the other side of the vehicle to help you lower it down smoothly and evenly onto the slots in the mounting plates. The fit is intended to be snug so you may have to wiggle it around a bit to get it to slide all the way down to the bottom of the slots.



If installing by yourself, you can rest it on your right shoulder then kneel on your passenger seat facing the rear of the Slingshot. You can set it onto the mounting plates from there.

There are two height options; low and high. **We recommend the lowest mounting position** which should allow plenty of clearance for most riders up to 6'5" tall, even wearing a helmet. **NOTE:** If you find you need to install in the high position please contact Twist Dynamics first. We will need to send you a specialty parts kit made just for the high mounting position.

Once the Stinger is lowered fully down onto the mounting plates, secure it with the hex-head M6 bolts and flat washers as shown (see next page for photos). Make sure you secure all 8 bolts on both sides, front and back.

Use the M8 button-head bolts with flat washers, put them through the holes from the outside to the inside of the mounting plates as shown here, then slide washers and lock nuts on and tighten.



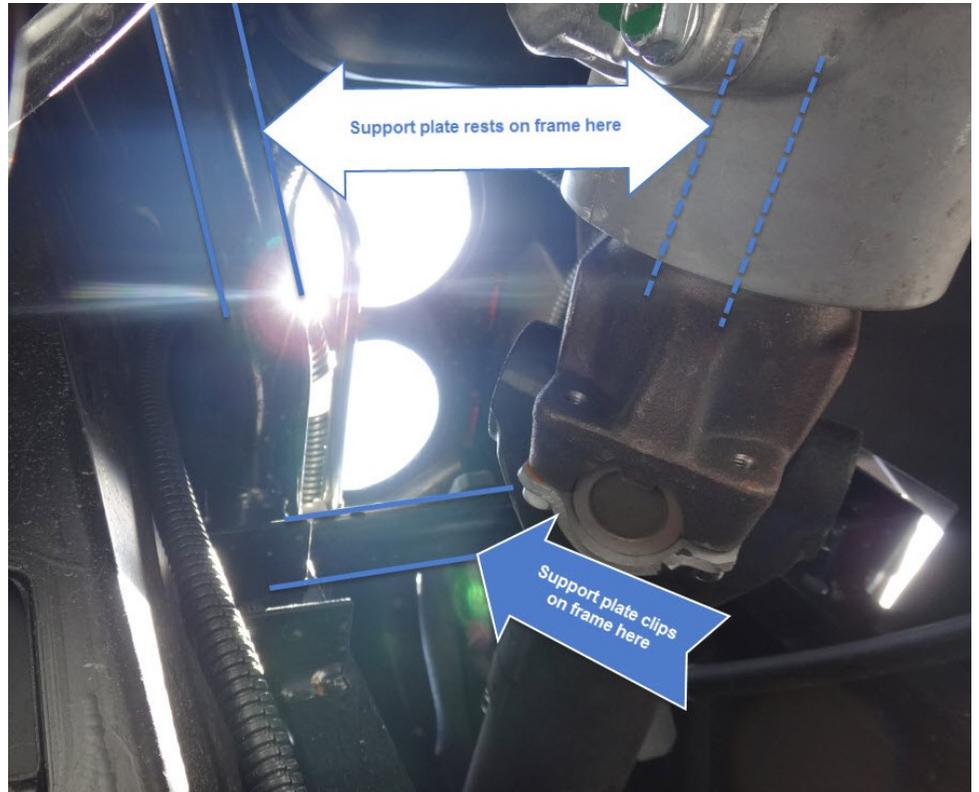
Step 3 - Attach the center support post base plate beneath the factory cup holders. This plate must be inserted from underneath the vehicle and you will need to remove both cup holders.



The photo shows the base plate oriented correctly, meaning that the large flat side face up and the welded clip underneath faces down and will be oriented toward the front of the vehicle. The next photos show how and where it attaches. NOTE: Do not have any screws in the plate when you insert it; they will all go in afterward.



The easiest way to get it in is from underneath the vehicle at the driver's side. Hold the plate oriented with the clip side toward the front and tip the passenger side of the plate up slightly to slide it up over the tubular framework, then bring the other side up and in to level the plate and slide it forward over the short horizontal tube as shown, resting the rear of the plate on top of the "Y" tubes running toward the back of the Slingshot.



Once the plate is in place, go back topside and insert the M6 x 50 mm long hex-head bolt with a black M6 flat washer on it down through the front cup holder. Run the screw down through the hole in the front of the base plate and tighten it up to clamp the base onto the frame tube. **DO NOT TIGHTEN YET!** Just get it threaded in by hand for now, you will tighten this bolt later.



Step 4 - Install the center support post.

STOP. If you are installing an Overhead Console you will first need to run a power cable up through this post. Go to the Console manual and do that first.

Install the post bottom down onto the base plate and secure with M6 screws and flat washers as shown (2nd photo with green arrows).



Step 5 – Slide the plastic post cover over the top of the support post. You can just let it rest at the bottom of the post for now.



Step 6 - Pull the center post up to the underside of the Stinger and align the bracket slots with the two holes in the center section. Use the M6 x 16mm screws with lock nuts and washers on both sides to fasten, but **DO NOT** tighten these yet. You need to be able to move that slotted bracket for a final tension adjustment.

NOTE: If the top bracket doesn't reach the underside of the Stinger, you may need to remove the post and adjust the bottom bracket to move the post upward. **Also**, if you have the Overhead Console option you will need to back out the side screws shown above so that you can insert the wiring harness down into the tube.



Step 7 – Stand at the back of the Slingshot and check the alignment of the post. If it looks off-center or twisted slightly, go inside the vehicle and give the post a bit of a twist, or bump it left or right slightly near the bottom. (This is why you left the base plate loose, so you can properly align the post!)

Once the post is straight, take a 10 mm socket on an extension and set it down through the first cup holder to tighten that base clamp bolt so the base doesn't move. **DON'T TIGHTEN THIS BOLT TOO HARD**, just good and snug. You can then snap the front cup holder back in.

Step 8 – Go back to the top of the post and move it along the slotted bracket so that there is a little bit of upward tension on the Stinger. In other words, we don't want the post pulling the Stinger down when you tighten those screws and nuts, we want the post pushing the Stinger upward just slightly. If your post seems to be a bit "short", you can remove the screws on the sides of the top bracket to reveal the scalloped side slots. By moving to the screws to the middle or bottom of the slot, you are able to raise or lower the top bracket to position it snugly against the Stinger.



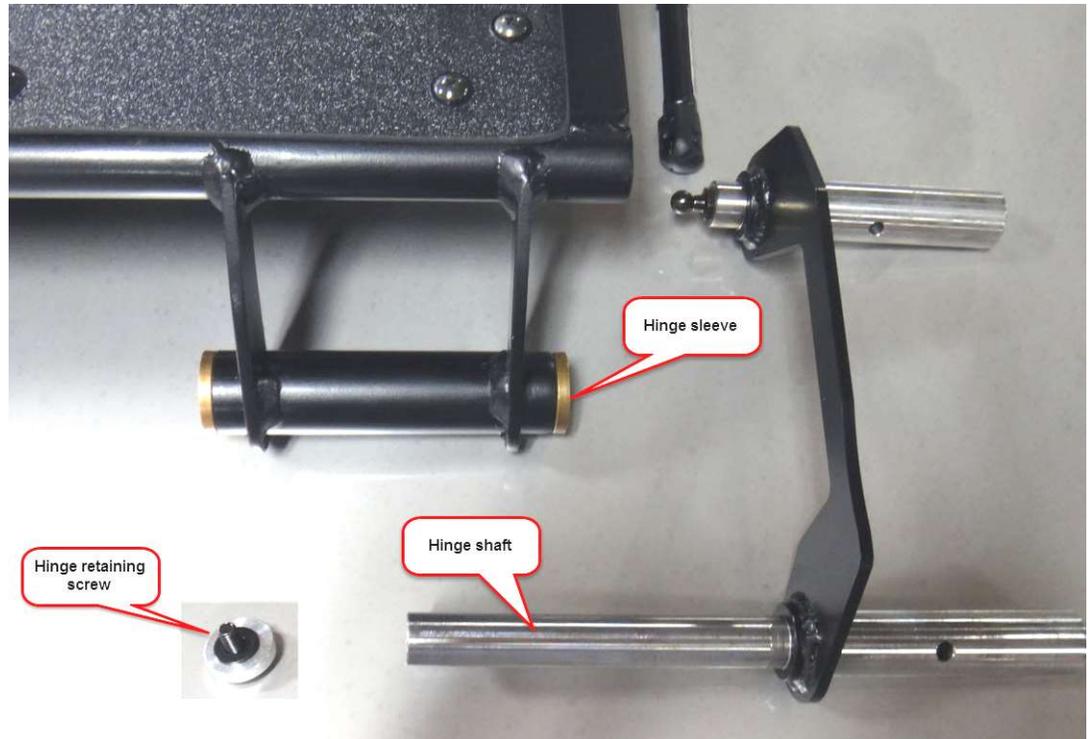
Once you have the bracket set and the post adjusted with a little tension, go ahead and tighten the two screws and nuts fully.

Step 9 – Go get the top skin you removed in Step 1 and set it back on top of the Stinger. Screw it down with the eight M6 screws and plastic flat washers that came out of it originally.



Step 10, Option 1 – Attach the hinges to the canopies. **NOTE:** There are two ways to do this, please read the second version (**Step 11, Option 2**) to see which way you think would be easier. Please refer to the image below (driver side) so you can see how each hinge aligns with the canopy. We pre-installed the Hinge Retaining Screw along with a large washer and small washer, but you will need to remove them before sliding the hinge shaft into the hinge sleeve.

NOTE: The order of the washers on the hinge retaining screw must go back the same way. Meaning, the large washer will go on the screw first, then the small washer.



Slide the shaft into the bronze bearings on the sleeve as shown below. The shaft may not go fully through, but that's OK. Thread the hinge retaining screw on (with washers) and tighten it to pull the shaft all the way through and tighten it on.



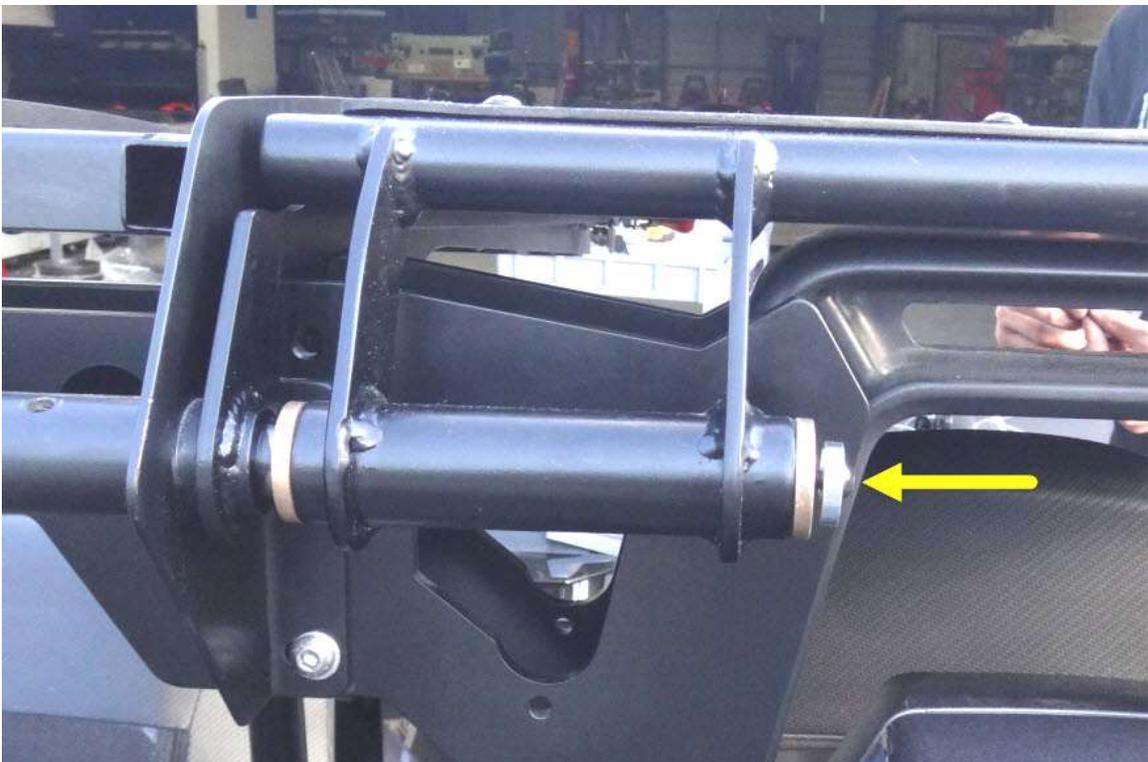
Step 10, Option 2 – Slide the hinges onto the Stinger first, then attach the canopies. See photos on the next two (passenger side).



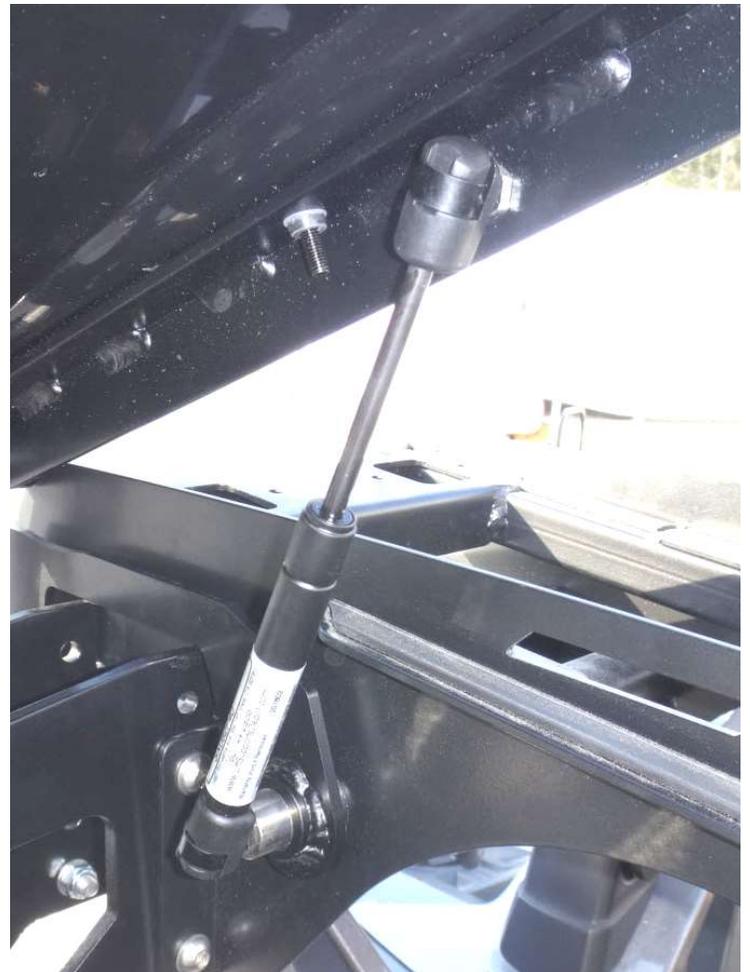


NOTE: *Before installing the canopies*, take a #2 Phillips screwdriver and go around each plastic panel to gently snug all of the screws down. We've left them loose for shipping but they need to be screwed down snug (**NOT** extremely tight, you could crack them!) before attaching the canopies.

Slide each canopy onto its hinge shaft and be sure to fasten it on with the hinge retaining screw and two washers (large washer goes on the screw first, then the small).



Step 11 –Attach the lift supports to the canopies. The main body of the lift snaps onto the ball stud on the front shaft post (first photo at right). The top (thinner) portion of the lift support snaps onto the ball stud on the inside of the canopy frame (second photo below). Tilt the canopy up/down to position it so you can snap onto the upper ball stud.



Step 12 – Insert the quick-release pins to secure the canopies to the rear of the Stinger. Two pins push in through the rear tube and hinge shaft, two pins push in through the front tube and front shaft as shown here.

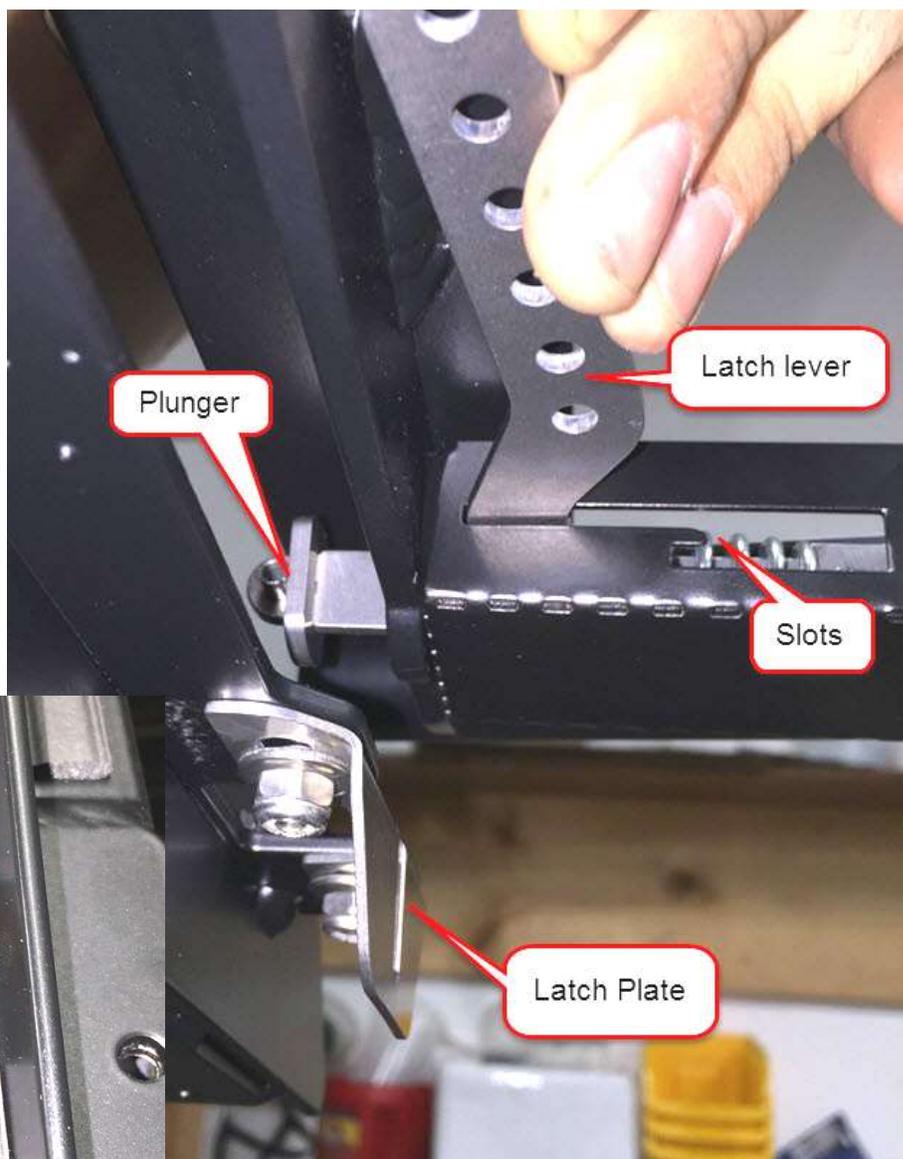


Step 13 - LATCHES

NEVER ride with the canopies unlatched and/or open! They must be down and securely latched before placing your Slingshot in motion. It is the owner's responsibility to properly secure the canopies in the locked position and test to make sure they are secure before driving.

Latching the canopies down is a 3-step process so let's take a look at the components:

At right is a photo looking up at the passenger-side latch system. A lever moving through two slots operates a plunger. The plunger slides down through a slot on the latch plate. Once the plunger is down inside the latch plate, the lever is pulled out and down to secure the canopy to the Stinger.

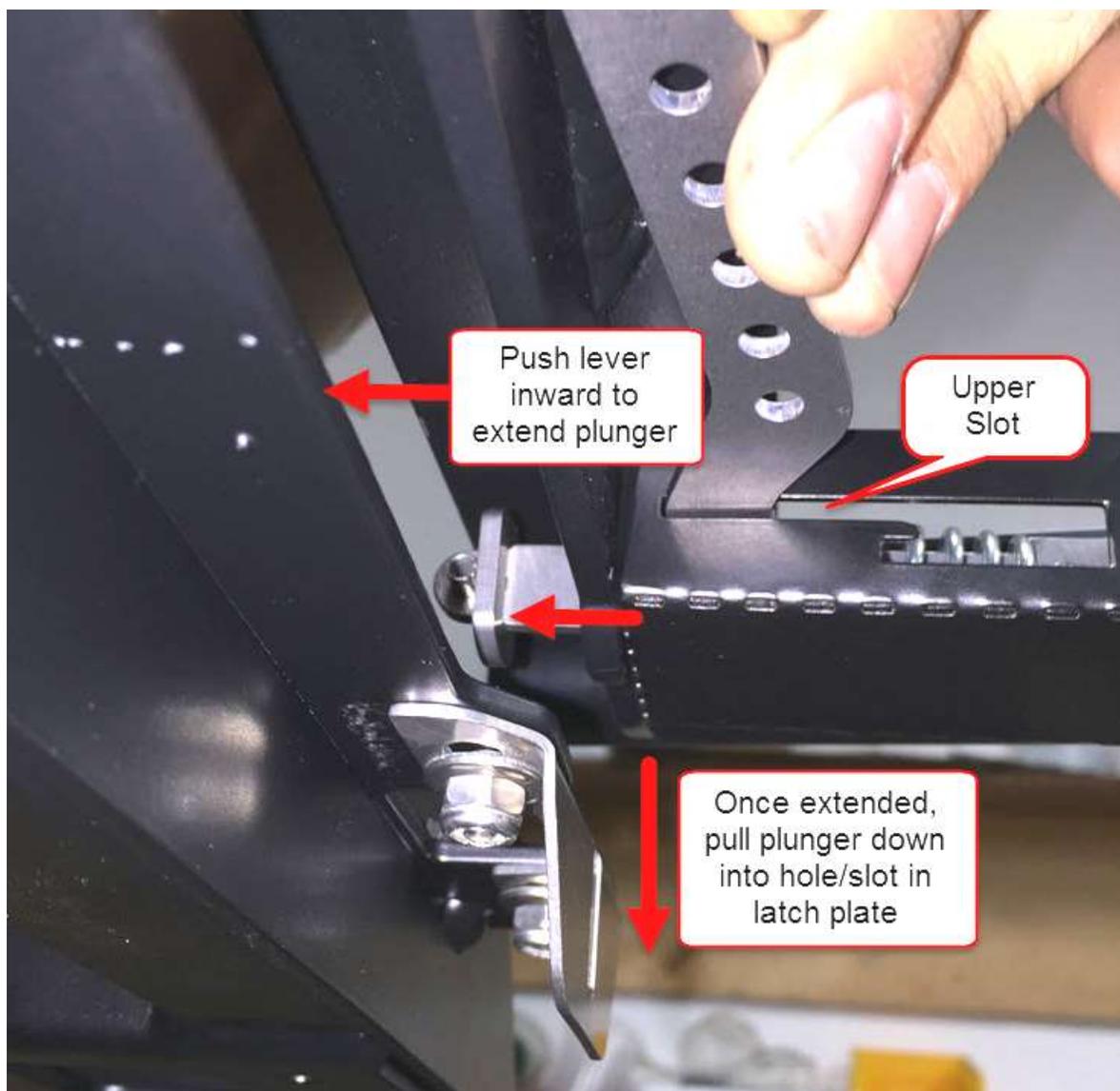


Latching the canopies is a 3-step process as follows:

1. Push the lever in to extend the plunger and pull it down into the latch plate slot.
2. Release the lever and pull down on the front of the canopy until you hear the plunger “click” into the latch plate.
3. Push the lever to the outside and down into the lower slot to secure it in the locked position.

Once you get the hang of it the latching procedure is actually pretty quick and easy. These photos make it look harder than it is! Here it is in photos:

STEP 13-A - Lower the latch plunger down into the latch plate so that the vertical plunger plate is inside the latch plate.



STEP 13-A continued



STEP 13-B – Snap the latch fully down.



FYI, sometimes in Step 1 when you are pulling the canopy down and into the latch plate, the plunger may snap itself in. Just listen for a light “click” sound. If that is the case then you don’t need to pull down again on the canopy, just skip ahead to Step 3.

STEP 13-C – Shift the latch fully outward and secure the lever.



Step 14 – Now that you can latch the canopies, let's make sure they fold down squarely onto the Stinger. If they do fold down even with the Stinger, tighten the four bolts that hold the mounting plates to the roll bars and this step is done.

If the canopies seem to veer off to the outside as you fold them down, it means that the roll bar mounting plates are slightly skewed. Push up or down on the hinge pin (see below) to shift the plates slightly, then lower the canopies again to check alignment. Once they come down straight, tighten the four bolts that hold the mounting plates to the roll bars and this step is done.



Step 15 – Install the post cover and cup holder. Before installing the post cover, be sure to insert the cigarette lighter plug up into the factory accessory socket. Then set the cover into the cavity behind the support post and set the cup holder over the two mounting holes. Use the M6 x 20 mm screws provided (flat washers are optional) to secure the cup holder in place as shown below. The factory cup insert snaps down into the holder. To remove it, push up on the bottom of the insert and simultaneously rotate it to snap it out.



HELPFUL HINTS

- If the canopy panels are see-through then they are made of cast acrylic (Plexiglas). You can wash them with soap and water, Glass Plus, car wash detergent, almost any type of cleaner so long as it doesn't contain large amounts of alcohol. (Over time alcohol will cause acrylic to degrade which is why we don't recommend it.) With basic care your roof panels should look great for many years. If they get scratched, you can polish light scratches out with common polishes like Meguiar's PlastX, or use a headlight lens-cleaning kit (the kind designed to remove the old yellow haze off of your headlight lenses). Just buff them out manually with light pressure and a clean cotton rag or old tee shirt.

- The hinge shafts on the canopies are made of high-carbon steel for durability and long life. They will develop rust but this is normal. Coat them now and again with a light film of oil like WD40, 3-in-1 or a light grease. Put a little on a rag and wipe it all around the steel shafts. You just need a little bit on there, no need to leave them sticky or dripping. Normally you don't see these shafts as they are inserted into the Stinger, and if they get some rust spots just use steel wool to clean it off. Apply a film of oil after cleaning.



- When removing the canopies from the Stinger, apply gentle upward pressure as you slide them out. If you let the canopy drop down as you remove it, the steel plate which connects the two canopy shafts can drop down and accidentally scuff the paint on the top of your roll hoops. They will come out without hitting your roll hoops, just be careful of this when you remove and install them.

Disclaimer

Neither Twist Dynamics 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 roof system and all components are mounted properly and latched securely before putting the motorcycle in motion. This roof system IS 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 adjustments. The user must never install or modify this system in any way other than as directed in this manual.



1468 Northgate Boulevard

Sarasota, FL 34234

Phone: 941.323.5912

Email: sales@TwistDynamics.com

Thank you for your support, and ride safely!