IRONCLOUD METALWORKS

AstroSafari Driver & Passenger Swivel Installation Instructions

WARNING: While the vehicle is in motion, the seat MUST be in the forward facing position with the threaded lock securely engaged.

Thank you for your purchase!

This document contains detailed installation instructions for installing your new Ironcloud Metalworks AstroSafari Passenger Swivel seat base!

If you have any questions regarding the installation – email our support lead (aka me) at: Info@IroncloudMetalworks.com

Thank you once again for your business – without you Ironcloud Metalworks would only be an idea.

-Derek
Owner, Ironcloud Metalworks

WE'D LOVE TO SEE PHOTOS OF YOUR INSTALL!

SHARE THEM WITH US ON INSTAGRAM @IRONCLOUDMETALWORKS.

STEP #0– ACCOUNT FOR ALL HARDWARE

Hardware List

Your package should contain two bags with the following hardware contents. These instructions will reference the item numbers where applicable. If any hardware is missing – please contact support.

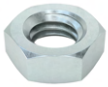
Item No.	Item	Quantity	Description
1	1/4-20 Female Threaded Lock Handle	1	Part #1 of Lock Handle
2	1/4-20 Serrated Flange Bolt	1	Part #2 of Lock Handle
3A or 3B	Threaded Lock Handle	1	Threaded Lock Assembly
4	3/8-16 Jam Nuts	2	Retention Nuts for Threaded Lock Handle
5	5/16-18 x 1” Grade 8 Bolt	4	Seat Rail to Swivel Base
6	5/16-18 Grade 8 Nylon Locking Nut	4	Seat Rail to Swivel Base
7	5/16 Washer	8	Seat Rail to Swivel Base

#1

#2

#3A

#3B



#4

#5

#6

#7

STEP #1– INSTALL THE TAPERED GRAB HANDLE ON THE LOCK ARM

1. The tapered grab handle consists of a female-threaded handle (#1) and a serrated flange bolt (#2).
2. Place the bolt through the hole in the lock arm as below.

> TIP: Due to varying thickness on the powder coat – you may need to persuade it through the hole by spinning the bolt or using a few light taps with a hammer.

3. Once the bolt is through the hole – thread on the plastic handle until it completely seats.

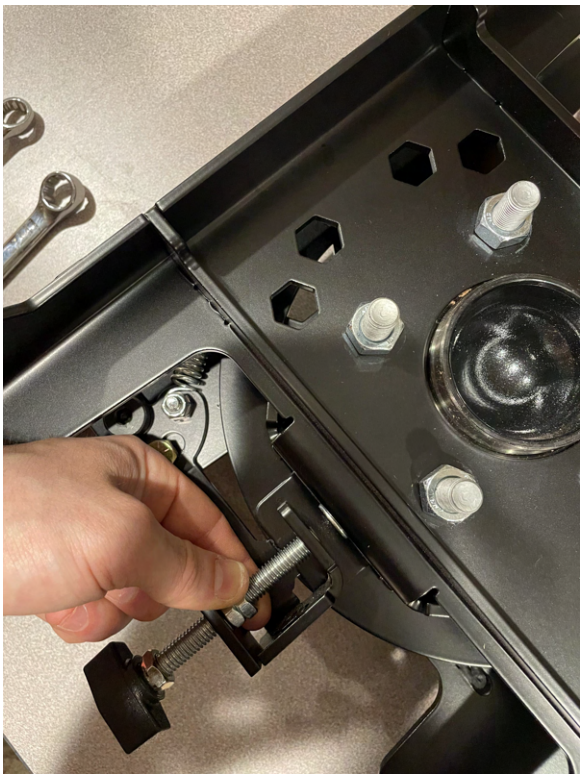
4. Using a wrench on the bolt and holding the handle with you hand – tighten the bolt until it is good and tight. Don't overdo it – the handle threads are brass and will strip if you put too much "oomph" into this step.

STEP #2– INSTALL THE THREADED LOCK ASSEMBLY

1. The threaded lock handle consists of the threaded lock arm (#3) and two 3/8-16 jam nuts (#4). The jam nuts are used to retain the lock handle.

2. Flip over the swivel assembly and place the threaded lock handle (#3) through the outermost hole on the lock arm and thread on the two 3/8-16 jam nuts (#4)

3. Keep threading the jam nuts (#4) onto the threaded lock handle (#3) until the front of the threaded lock handle is flush with the innermost hole on the lock arm while the jam nuts are flush with the outermost hole. See the picture below for how it should look.




4. Grab two 9/16 wrenches. With the jam nuts (#4) in the correct position, use one wrench to hold the outermost (i.e. the one furthest from the center of the swivel) jam nut stationary and use the second wrench to turn the innermost jam nut *counter clockwise* to lock or "jam" the nuts together.

   In the pictures below – I am holding the outermost jam nut with the wrench in my right hand and the innermost jam nut with the wrench in my left hand.

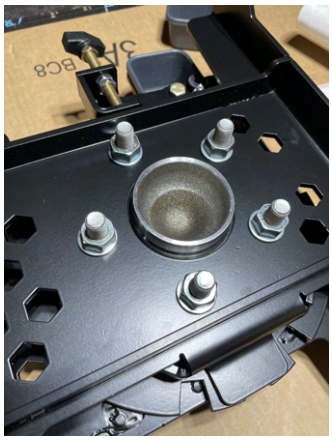

This step have you confused?
Check out this video about how to use jam nuts
https://youtu.be/ilbQOxMfYQg
it should definitely help!! Clear as mud, right?

5. Test the threaded lock by threading it into the base and then proceed to the next step!

STEP #3– INSPECT THE SWIVEL

Conduct the following steps to ensure your swivel is ready for installation:

1. Using a 19MM socket, ensure that all the unit bearing/hub nuts and bolts are firmly fastened. There are 4x bolts on the top of the swivel and 5x nuts on the bottom of the swivel.




2. Familiarize yourself with the locking mechanism. Ensure the spring is attached between the lock arm and the top of the swivel base. Unscrew the threaded lock and release the locking arm. Ensure the spring-loaded lock arm locks into all 6 detent positions.

> BUSTED KNUCKLE WARNING: If the lock is difficult to release by hand – don't force it! There are some serious pinch hazards while the swivel is not mounted in the van (don't ask me how I know). Save your knuckles and use a light blow with a soft-faced mallet or deadblow hammer to shock it free (see photos below).

> NOTE: The threaded lock may be a bit "tight" due to machine tolerances but you should be able thread it in both directions by hand. If you cannot securely engage the threaded lock – please reach out to support before continuing.


If anything else seems irregular or problematic – contact support before proceeding with your installation.

STEP #4– PREPARING YOUR PEDESTAL FOR RIVET REMOVAL

In this step – you will remove your OEM seat and seat pedestal and prepare your seat tracks for installation onto the swivel base.

1. Remove your seat and pedestal from your van.
2. Adjusting the sliders as necessary, remove your seat from the pedestal by removing the 4X bolts holding the seat to the pedestal.

> NOTE: Save these bolts as you will reuse them.

3. Once the seat is removed your pedestal will look like the picture below.

4. Disconnect the two parts of the seat pedestal by removing the center support bolts and unhooking the adjustment lever cable.

STEP #5– RIVET REMOVAL

This step can be frustrating – but I've seen the future – and trust me – this will all turn out OK.

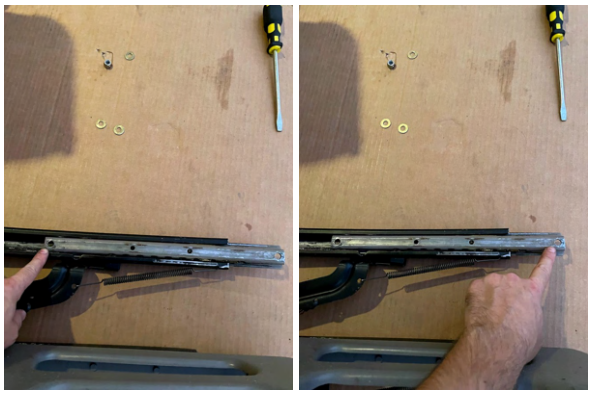
1. Using an angle grinder with a flap disc, grind the heads off the 4X rivets on each seat rail. You can also drill them out or use a hammer/chisel. But you'll need to get them out.
2. Using a punch and hammer, punch out the remainder of the rivets.

> TIP – If you cannot get them out with a punch – try drilling the center of rivet – start with a small drill bit and keep drilling progressively larger.
>
> Try punching them out periodically while drilling – sometimes drilling out the middle gives them a bit more "flexibility" to respond to a punch and hammer.
>
> If all else fails – eventually you will drill out the entire rivet.

3. With rivets removed, remove seat track from pedestal mount.



4. Using a step-bit or 5/16” drill bit, drill out the front and rear rivet holes to 5/16”.



STEP #6– RELOCATE SEAT TRACK SPRINGS FOR CLEARANCE

UPDATE AS OF MARCH-10-2025:

This step is still a work-in-progress. I realized while writing these steps, I do not have enough pictures to properly document the process. Nothing here is that challenging, but I realized it is harder to explain in words than I thought it might be!!

If you feel confused or have any issues with this portion fo the installation, please contact Derek Wolfson directly at info@ironcloudmetalworks.com or 503-869-0158.

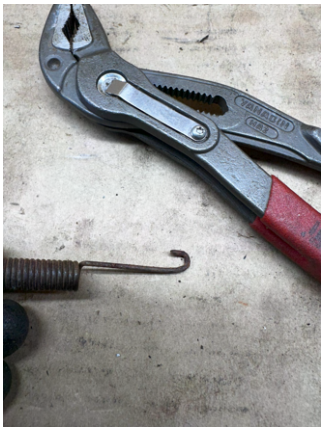
Thank you!

1. Remove the spring that activates the locking detent lever from the seat rail. It is easiest to remove the rear part of this spring first. Use a pair of pliers for extra grip. Do not lose this spring – you need it.

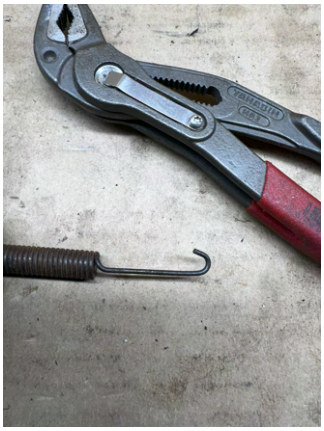
   [NOTE: NEEDS PICTURES – SEE BELOW IF YOU'RE CONFUSED ABOUT WHICH SPRING]

2. Using a 3/16" drill bit, drill a hole on the top of the seat track in the location indicated in the picture below:

3. Using a pair of pliers, reshape/open-up the rear “hook” on the spring as indicated in the before/after pictures below:



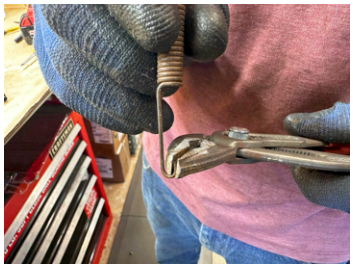
(a) Before



(b) After

You can do this by gripping the spring with pliers as indicated below and twisting them to reshape the spring:

(a) Setup



(b) Grab Spring

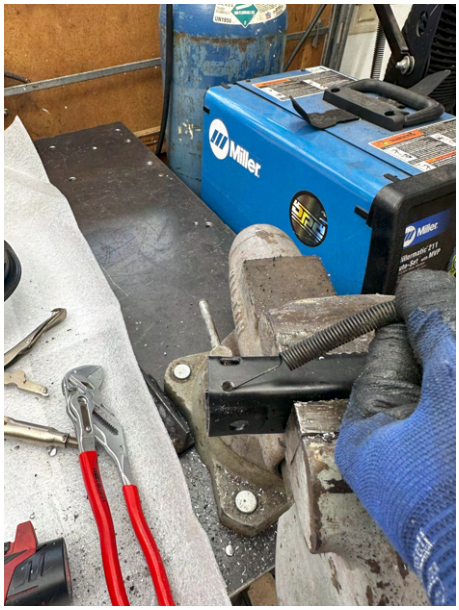
(c) Open/Widen Spring

4. CHOOSE YOUR OWN ADVENTURE:

> IF YOU WANT TO REMOVE THE REMAINING RIVET PIECE FROM THE SEAT TRACK – GO COMPLETE STEP 7 BEFORE PROCEEDING.
>
> IF YOU DECIDE TO SKIP STEP 7, CONTINUE THIS SECTION.

5. Now it is time to reinstall the spring. We'll attach the rear-most portion of the spring first.

   With the spring held perpendicular to the seat track, hook the newly opened end of the spring into the hole you drilled earlier. Next, twist the spring so the spring is running parallel to the seat track. See the pictures below:



6. Next, stretch/extend the front of the spring and while twisting it 180 degrees, hook it onto the detent arm.

NOTE: Spring Orientation is WRONG here – need to twist 180 degrees – see photos below for verification!

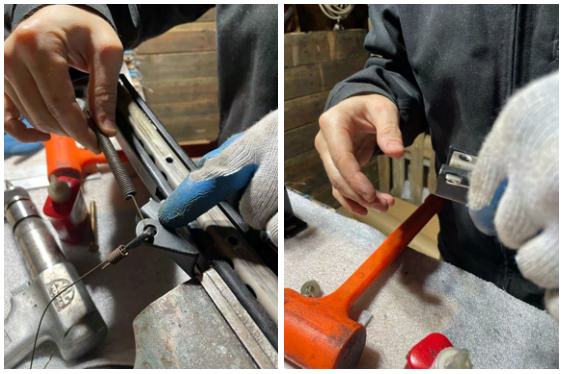
You'll know you've done this step correctly if the straight portion of the spring goes over top of the lock detent arm. Ensure your assembly looks exactly like this:

7. Repeat these steps for the other seat track and then proceed to Step #8 below.

STEP #7– REMOVING THE RIVET PIECES FROM INSIDE THE RAIL

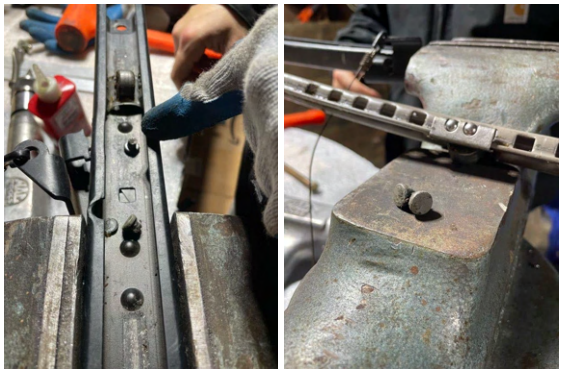
This step is optional – but if you punched out the two center rivets in the previous step – you can remove them from the seat rail using this procedure. I've had no issue leaving rivets floating in the seat track before I determined this disassembly procedure – so this step is probably not strictly necessary – but if you want to remove them for good – this is the easiest way to remove the remaining bits of rivets.

1. Remove the spring that activates the locking detent lever from the seat rail rail. Do not lose this spring – you need it. Swing the detent arm into the unlocked position so the inner seat rail can move freely.



2. Using a hammer and punch (I used a 3" bolt), drive the inner seat rail forward until it releases from the outer (black) portion of the seat track. Remove the inner portion of the seat track.

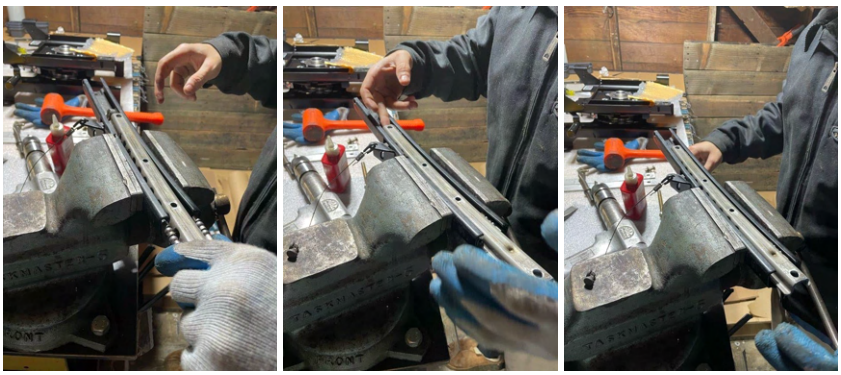
3. Now that the inner track is removed – you can remove the remaining rivet pieces from within the outer track.



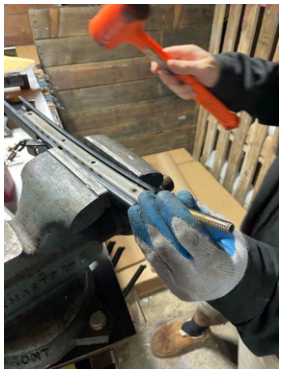
4. Now onto re-assembly. Ensure the rear most roller wheel/bearing assembly is behind the round protrusion on the outer (black) seat track.

5. Ensure the front roller is behind the protrusion on the inner part of the seat track, as pictured below:

6. Place the inner part of the seat track into the outer (black) part of the seat track. You must ensure the front wheel/bearing assembly does not come forward of the detent in the inner part of the seat track indicated in the previous step.

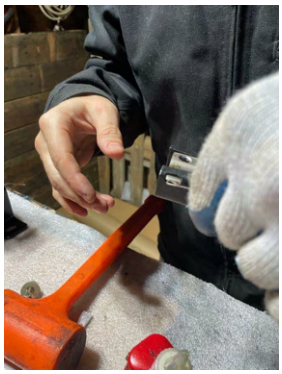


7. Using a hammer and punch – softly drive the inner seat rail back into the outer (black) part of the seat track



8. Double-check that the front bearing and wheel assembly is behind the protrusion on the inner seat track – and that the rear bearing/wheel assembly is behind the protrusion on the outer (black) seat track – you may need to flip the unit over to verify the rear positioning.

9. Re-attach the locking detent spring. Verify the locking detent snaps into place as you move the slider into a locking position.



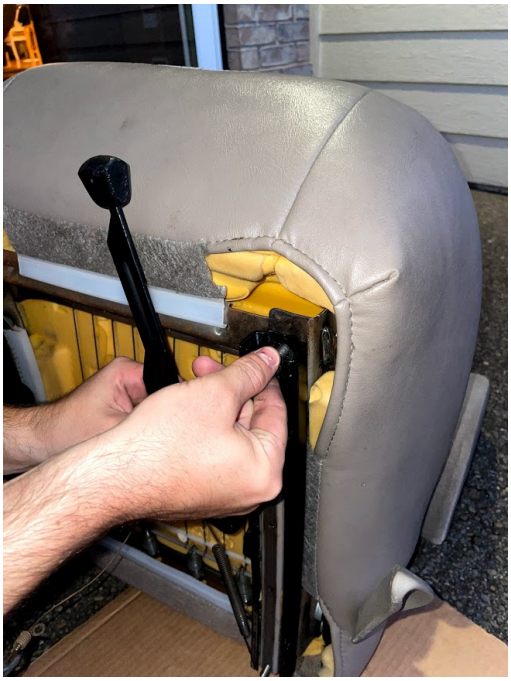
10. Rinse and repeat for the other seat track.

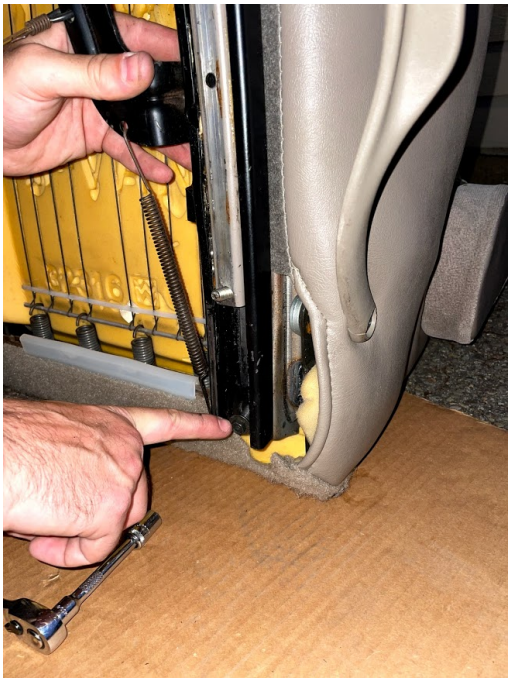
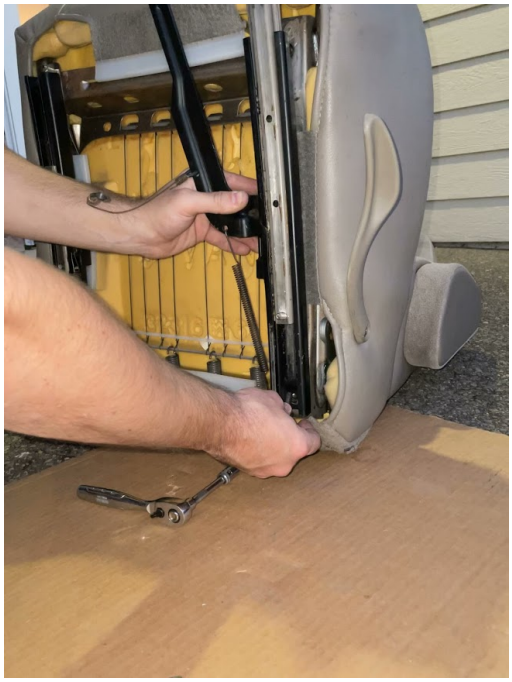
Note: The rear wheel/bearing assembly may fall out the back of the outer (black) seat track during reassembly. This will not happen once the seat rail is installed onto your swivel as the bolts for the attachment of sliders to the swivel base will act as limiting stops – just as the rear rivet did in the OEM configuration. If the rear wheel/bearing assembly falls out during reassembly – just re-assemble again until you get it right.

STEP #8– INSTALLING YOUR SEAT ONTO THE SWIVEL BASE

1. Install the included 5/16-18 x 1" (#5) bolts into each of the holes you drilled in the previous step. To keep them from falling out you may want to thread on the included nylon locking nuts (#6) a few threads. You will need to adjust the seat track back/forth to access all four holes.
2. LOOSELY install each seat track to the base of the seat. Ensure the seat track with the handle is on the right side of the seat. You will need to adjust the inner part of the rail forward to access the rear bolts and you will need to adjust the inner part of the rail backward to access the front bolts.

> NOTE: Do not tighten these bolts down – they need to be loose for alignment. You will tighten these bolts when you install the seat to the swivel base.



3. Reconnect the seat slide adjustment cable. See pictures below for detail.

4. Place the seat base/tracks onto the swivel base matching each 5/16” bolt with its corresponding slot on the swivel base. This may involve some cussing – but it will fit.

> TIP: Put your swivel base into the van on the floor pan mounting studs while doing this step – it works great for holding the base stationary while aligning the tracks to the base!

5. Loosely install a nut (#6) and washer (#7) on the bottom of the front two 5/16 bolts.

6. For the rear bolts, install TWO washers (#7) between the seat rail and the base (see picture below)

> NOTE: This is to account for the curvature of the seat track rails.

7. Loosely install a nut (#6) and washer (#7) on the bottom of the two rear 5/16 bolts (#5). Do NOT tighten these bolt yet.
8. Now that the seat is loosely installed on the base, push the seat back as far as possible and ensure the seat is aligned square with the base.
9. Once square, tighten all four swivel base to seat track bolts. You will need to slide the seat forward to tighten the rear bolts and rearward to tighten the front bolts.

> TIP: Wedge a (cheap) screwdriver or prybar between the head of the bolt and the seat track to keep the bolt head captive while you tighten the included nylon locking nuts.




10. Now tighten the 4x seat track to seat base bolts to the OEM torque specification. You will need to slide the seat all the way forward to tighten the rear bolts and all the way back to tighten the front bolts.

STEP #9– INSTALLING SWIVEL BASE AND SEAT BACK INTO YOUR VAN

1. Place your seatbelt receiver assembly onto the rear left stud. Turn it about 5-10 degrees towards the back of the van to account for clearance for the lock arm handle as indicated in the picture below:

2. Place your swivel assembly with attached seat onto the 4x floor pan studs. Ensure the seatbelt receiver assembly installed BELOW the swivel base on the rear left stud.
3. Loosely tighten all four nuts. Tight enough that the base is stationary but not too tight in case you need to readjust.
4. Test the swivel in all six positions – spin it around 360 degrees. If the lock arm hits the seatbelt receiver assembly bracket and does not allow the seat to swivel, readjust the seatbelt and try again.

> NOTE: The seatbelt receiver may make it difficult to swivel sometimes as it interferes with the base of the seat. This is unfortunate – but expected.
>
> You may also need to adjust the seat and seatback position to achieve 360 degree rotation without hitting the glovebox, B-pillar,. This is also normal and you will get a hang of it with use!

5. After ensuring the seat can swivel to all positions – tighten all 4 seat base to floor pan nuts to the OEM torque spec.
6. Celebrate your successful installation!
7. **ENJOY YOUR IRONCLOUD METALWORKS ASTROSAFARI SWIVEL!**

WARNING: While the vehicle is in motion, the seat MUST be in the forward facing position with the threaded lock securely engaged.