



Ford E-Series Passenger & Driver Swivel Installation Instructions 1996.5 to Current



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 and for choosing "Mo' Better"...

This document contains detailed installation instructions for your Ironcloud Metalworks E-Series Passenger & Driver Swivel 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](https://www.instagram.com/IRONCLOUDMETALWORKS).

NOTE: We wrote these instructions based on an install in a 2000 Ford E-Series with a 7.3L Diesel Engine. As such—your van may differ from these instructions, but the basic concept is the same.

We believe we've accommodated for the various electronic modules that may be under the seat(s) in your van, but if you encounter any interference or difficulties installing that are not addressed by this installation guide—please contact us directly and we'll get you sorted!!

NOTE: We will be making edits to these instructions periodically over the next few days, so be sure to download the latest version before conducting your installation.

You can see which version you have in the lower right-hand corner of the first page.

STEP #0 – ACCOUNT FOR ALL HARDWARE AND ENSURE YOU HAVE THE CORRECT MODEL

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	5/16-18 Female Threaded Lock Handle	1	Part #1 of Lock Handle
2	1/4-20 Serrated Flange Bolt	1	Part #2 of Lock Handle
3	Threaded Lock Handle	1	Threaded Lock Assembly
4	3/8-16 Jam Nuts	2	Retention Nuts for Threaded Lock Handle



#1



#2



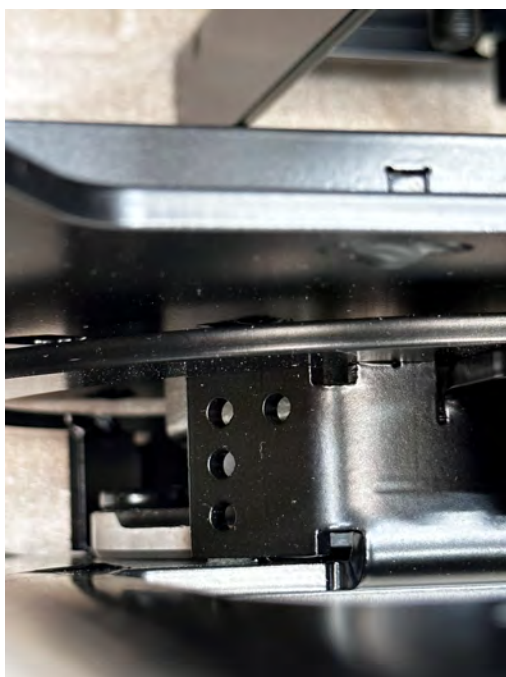
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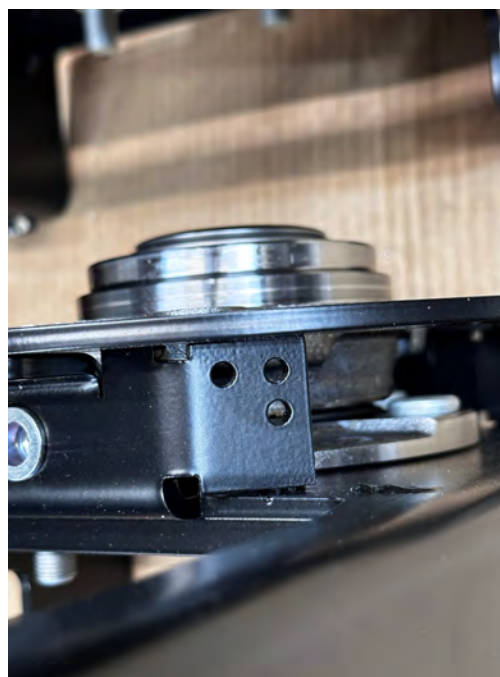
#4

Identify Your Swivel(s)

Using the pictures below as reference—verify that you have the correct unit before proceeding. The passenger-side unit has 4 dots (braille for P) on the left-front wing of the lock detent assembly and the driver-side unit has 3 dots (braille for D) on the right-front wing of lock detent assembly.



(a) Passenger-Side



(b) Driver-Side

Figure 2: Swivel Identification

STEP #1 – INSTALL THE TAPERED GRAB HANDLE

Do not worry if your swivel looks different than the pictures in the next two sections!! These pictures are from our Astro/Safari unit – but the same steps apply to every model we manufacture!

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.

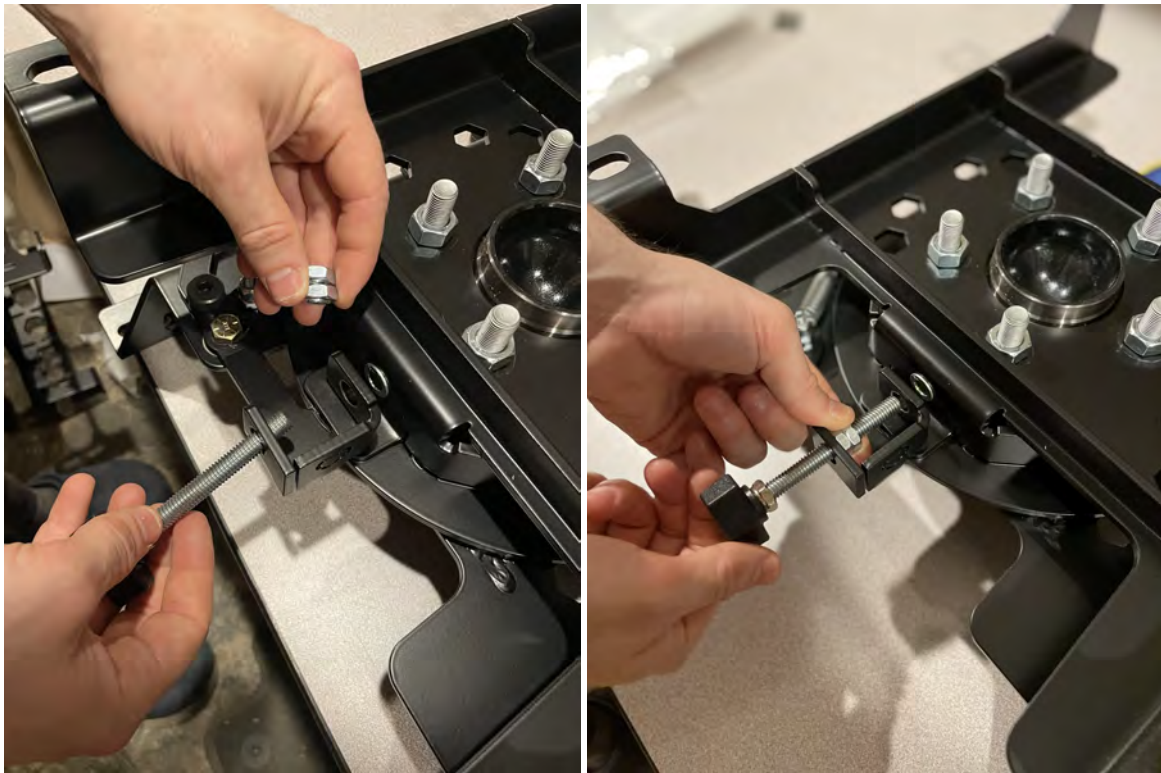


STEP #2 – INSTALL THE THREADED LOCK ASSEMBLY

1. The threaded lock handle consists of the threaded lock arm (#3) and two 3/8-16 jam nuts (#4). The jam nuts retain the lock handle during operation so it does not fall out of the lock arm.



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)

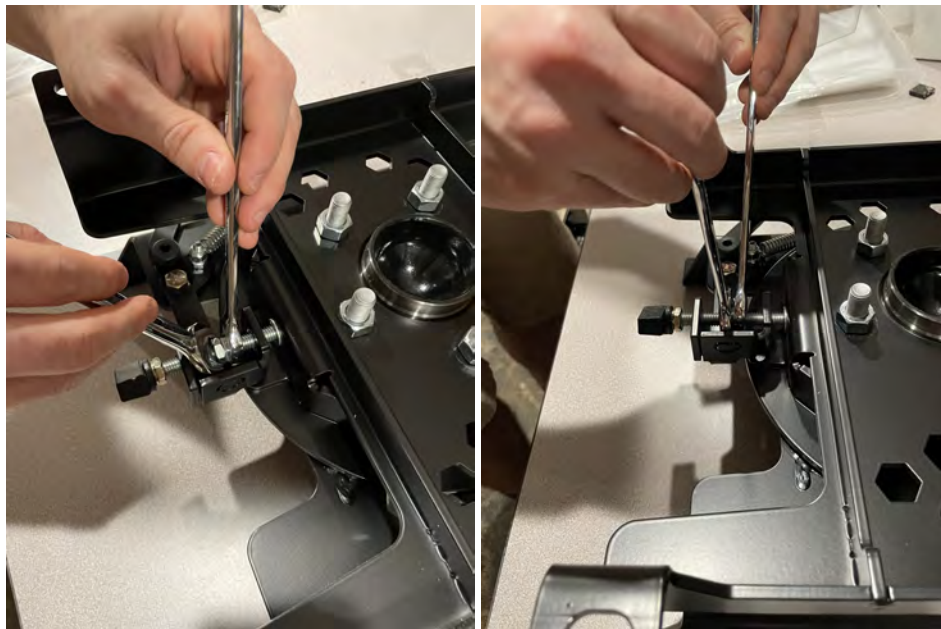


3. Keep threading the jam nuts (#4) onto the threaded lock handle (#3) until the front of the threaded lock handle is flush with the innermost hole on the lock arm while the jam nuts are flush with the outermost hole. See the picture below for how it should look.



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!

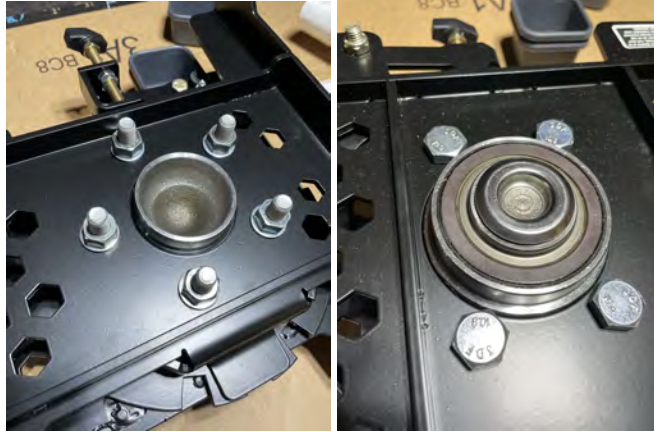


STEP #3 – INSPECT SWIVEL

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

1. Using a ratchet and 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.

NOTE: Unlike the picture below, your swivel will not have washers on the bottom nuts.



DRIVER SIDE NOTE: We remove one wheel stud from the bearing for clearance with the SRS moduled located beneath the driver's seat. We replace this stud with a bolt and nut. Depending on the bearing, the nut will either be on the top or bottom side of the bearing – either way is fine.



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 #5 – REMOVE WIRING

Before you will remove your OEM seat and seat pedestal and prepare your seat tracks for installation onto the swivel base—you will need to disconnect the SRS wiring (white or yellow pigtails) to remove the seat...

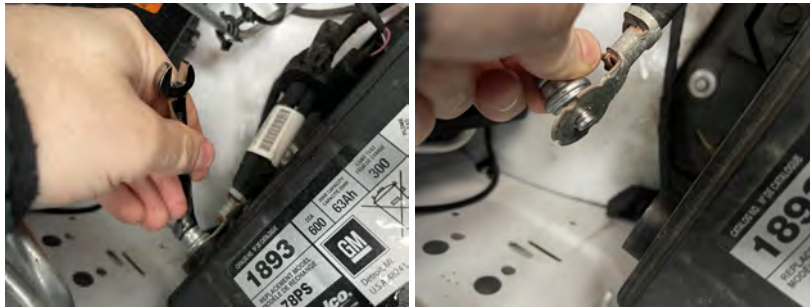
YOU MUST DISCONNECT THE BATTERY AND ENSURE THE VEHICLE HAS NO POWER BEFORE DISCONNECTING THE CONNECTORS/PIGTAILS IN THESE STEPS.

A FAILURE TO FOLLOW THESE INSTRUCTIONS MAY LEAD TO AIRBAG OR SEATBELT PRE-TENSIONER DEPLOYMENT. PROCEED WITH EXTREME CAUTION!

WE ARE NOT RESPONSIBLE FOR ANY DAMAGE OR INJURY THAT OCCURS IF YOU DO NOT FOLLOW THESE INSTRUCTIONS.

Follow the steps below to remove the SRS/passenger seat wiring in preparation for your swivel base installation:

1. Open the hood and disconnect your battery negative cable (yes, this picture is of a GMC Savana – but I'll update it later!!)



Leave the battery disconnected for 15 minutes to ensure any remaining load in capacitors or other components has time to drain. You want to make sure there is no power remaining in the system before messing with the airbag/SRS-related connectors/pigtails.

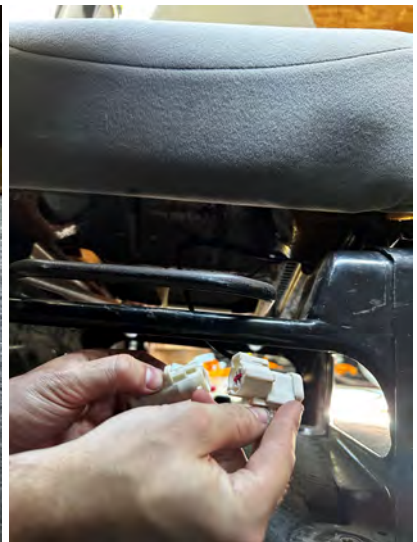
2. Now we're going to start removing the seat from the vehicle. You need to start by disconnecting the wiring underneath the seat.
3. Locate the SRS/Seatbelt Pretensioner Wiring Connector underneath your seat. It will either be white or yellow and will be clipped into the front of the seat pedestal as indicated in the pictures below:



4. Using a prybar or panel clip remover (a flathead screwdriver will work,ntoo), remove the electrical connector from the seat pedestal.



5. With the connector removed, depress the tab and separate the male and female ends of the connector. Your connector may look different and may disconnect differently, too.



WE'RE HERE TO HELP: If in doubt about the step above—feel free to contact us so we can help you with the proper disconnection steps – just send us some photos of the connector first!

FUN FACT: the thing you are disconnected in the step above is called a "Seat Belt Pretensioner" – it legitimately is a small explosive charge that locks your seatbelt in the event of a crash! Who knew explosives could be so safe.

6. Double check the wiring is completely disconnected and proceed to the next step.

STEP #6 – REMOVE SEAT AND PEDESTAL

In this step, you'll remove the the OEM Seat Pedestal with the seat and adjustment sliders/tracks attached. I find it easier to remove the pedestal first and then remove the seat from the pedestal.

1. First, we're going to remove the two nuts on the two rear seat pedestal to body studs.
2. Your van may have covers over the studs (some vans I've seen do not have these – see photos below).

If your van does have these, use a small prybar to "pop" them off. They may break in the process – but if you remove them carefully you will be able to reinstall them later (which is optional).



3. With an 18MM socket, remove the 2X nuts on the studs that attach the seat pedestal to the van body. Retain these nuts (and the covers from the last step) as you will use them during re-installation.





4. Using a *Torx Plus 55* socket (see the note below – this is different than *normal* Torx), remove the front two bolts from the seat pedestal. Retain these bolts as we will use them during re-installation later.

WARNING: DO NOT USE POWER TOOLS IN THIS STEP, AS IT IS VERY EASY TO STRIP THESE BOLTS.

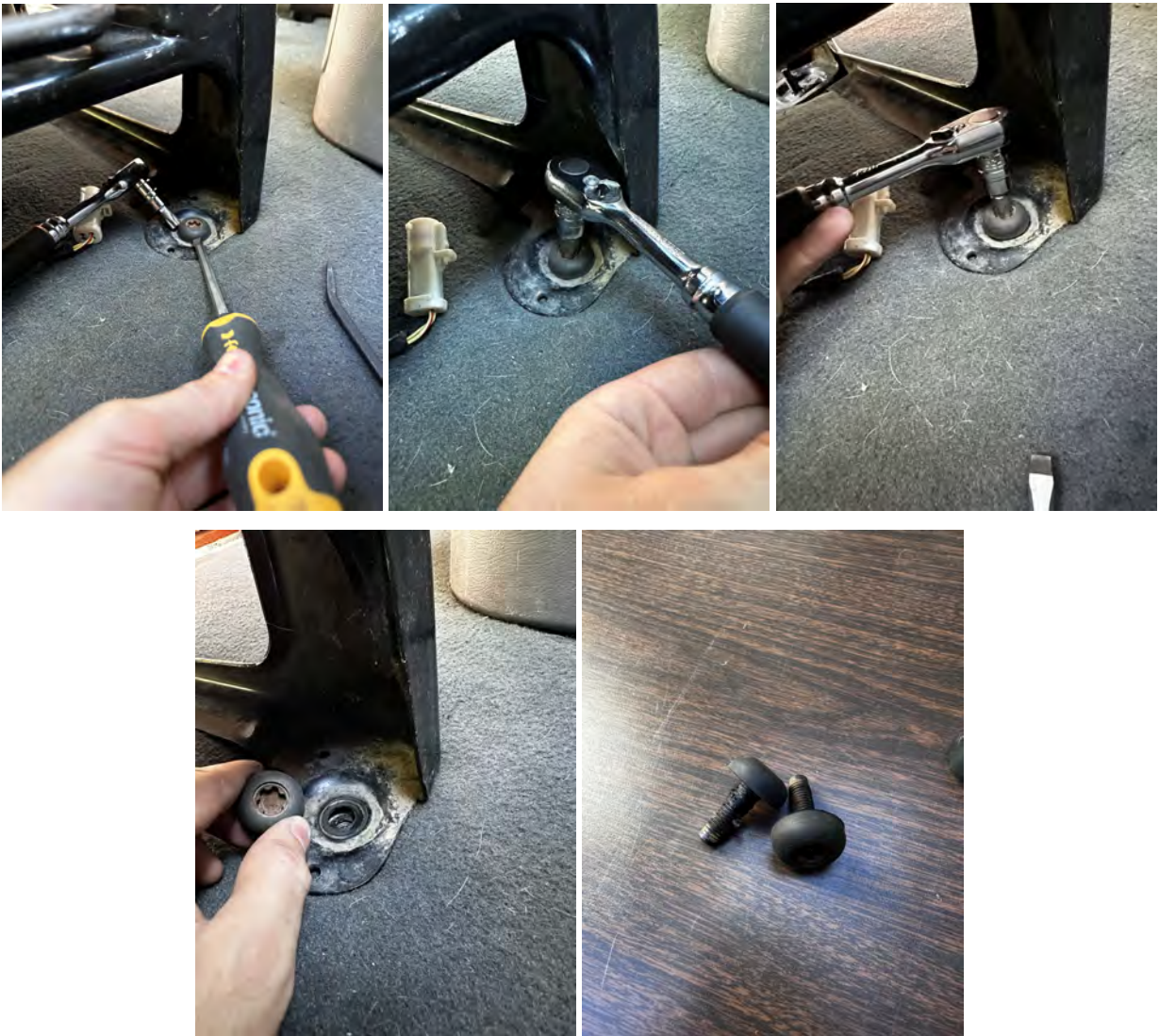
A NOTE ON TORX: Torx Plus is a special variety of Torx socket—they are similar but different. Using a regular Torx socket on a Torx Plus fastener is a great way to strip the bolt, but if you are careful a regular Torx 55 socket will work.



You may want to slide a nitrile glove between the socket and bolt to alleviate any potential slippage or bolt stripping. Don't force it – if you strip this bolt, it will be a massive headache.

We **strongly** recommend using the proper socket.





5. With the pedestal disconnected from the van body, lift the seat pedestal (with seat attached) and lay the seat down on the back support. You can do this inside the van if you have space—or feel free to remove the seat and pedestal from the van if it is easier/more comfortable for you.



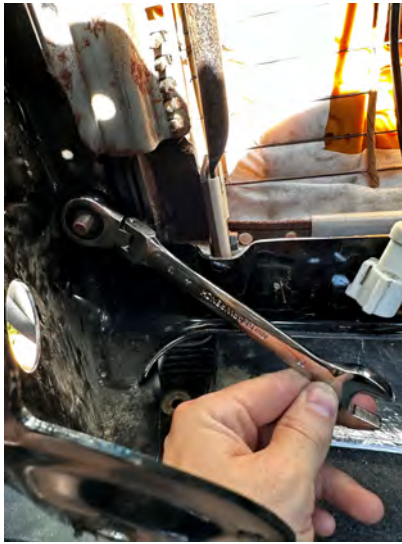
6. With a 15MM socket—remove the 4x nuts that attach the seat adjustment rails to the seat pedestal. There are

two in front and two in rear. Retain these nuts as you will re-use them during installation.

Depending on your tools, the outside-lower nut can be a bit awkward to get with a socket. This is the lower left hand side bolt on the passenger side and the lower right-hand-side bolt on the driver side.

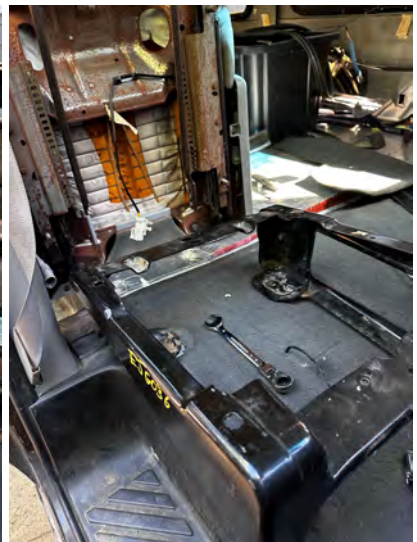
You can use a socket extension through the oblong holes in the seat base to access this bolt, but I find it easier to use an offset or flex-head ratcheting wrench for this nut (see the last photos).





7. After all 4X nuts are removed and securely stashed away—seriously, don't lose them—remove the pedestal from the seat/adjustment rails/sliders. This may require a very firm pull or even a prybar.

DO NOT remove the seat adjustment slides/rails from the seat—there is no reason to remove them.



PRO-TIP: Lay the seat down on its back (on cardboard if you're working outside) – that way the studs from the adjustment sliders don't puncture anything. The seat is quite heavy and cumbersome and those studs can do significant damage to the carpet or cargo liner (or that freshly installed laminate floor – don't ask me how I know!!)

8. Now that the pedestal is removed and the seat is disconnected from the pedestal, you can set the pedestal aside as you will no longer need it.
9. Congratulate yourself for getting this far with a cold beverage of your liking.

BONUS POINTS: Now is a great time to grab a vacuum and clean up the area around your seat.

I know you just want to install your swivel and start doing it "mo' better" – but those Cheetos from your Moab roadtrip last year aren't aging well. Or wait – was that 2 years ago?

Just get the darn vacuum already.

STEP #5 – INSTALLING THE SWIVEL BASE

The moment you've all been waiting for—the installation of your Ironcloud Metalworks swivel seat base...

DRIVER VS. PASSENGER – If you're installing both – make sure you grab the right one!!

The design for the passenger and driver swivels are slightly different.

One way to tell them apart is to look at the identification dots on the outer wing of the bottom body.

The swivel with 4 dots is the passenger side and the swivel with 3 dots is the driver side. These are braille codes for P and D, respectively.

The swivels only fit in the van one way – so as long as you install it with the front of the swivel facing forward you should be good. Which way is the front? Good question. The front of the swivel is the portion with a crossmember with our logo in the middle.

The indicator dots outlined above should be closest to the door of whichever side you're working on.

PHOTOS TBD

1. Grab the swivel and place it upright in the middle of the mounting location (i.e. the bottom of the swivel base will facing the front of the van).

See the photo below as this is one of those moments where a picture is worth 1000 words.



This is a great moment to check the identification dots, too.

2. Next, feed the wiring through the hole in the center of the pivot bearing on the swivel base. You may need to remove connector retaining clips to ensure they fit – but the pigtails should fit.



If they do not fit – see the notes below and contact us immediately.

ALERT: I tested this using all the vans I could get my hands on—but that doesn't mean your pigtails are going to fit for sure. If you cannot get the pigtail(s) through the center of the bearing – please contact Info@Ironcloudmetalworks.com and we'll get you sorted!

Thank you!!

OPPORTUNITY FOR BEER MONEY: If you CANNOT fit the pigtails through the bearing – I want to know! I'm working on creating a database of vans that work without any depinning/splicing – but I need you to help me do this!!

So if your pigtails do not fit – there is a \$5 bounty waiting for you in exchange for an email with the following: 1) year/make/model/engine and cargo/passenger, 2) a picture of the offending pigtail(s) (showing the part number if you can find it), and 3) a picture of the center of the bearing on your swivel.

Send it to Info@IroncloudMetalworks.com and I'll send you your money!!

Thank you!!

3. With the wiring passed through the center of the bearing, carefully lift the swivel and place it onto the two rear mounting studs. Be careful not to pull or stretch the wiring and double check that you are not pinching or smashing any wiring or modules underneath the pedestal.



A NOTE ON ELECTRONIC MODULES UNDER THE SEATS: Depending on the year and configuration of your van, you may have electronic modules underneath your passenger seat, driver seat or both.

We designed this swivel to clear these modules—so if you run into issues with clearance, we're here to help and desperately want to know if this is happening.

If at any point you sense interference with another component, let us know immediately so we can help troubleshoot a solution.

THANK YOU!

4. Loosely install the 2x rear nuts by hand. Do not tighten them yet.



5. Now loosely reinstall the 2X front seat pedestal bolts (the Torx Plus 55 bolts). Start these bolts by hand to avoid any cross threading.



6. Now that everything is aligned, tighten the 2X rear studs/nuts and the front 2X bolts to manufacturer specification. Be careful with our wire routing to ensure that you are not pinching or smashing and wires while tightening. Reinstall the 2x rear stud covers if you are so inclined.



7. Now install the seat with sliders attached onto the swivel base. I find it is easiest to hold the seat at an angle

so you can drop in the back two studs first and then “drop” the front of the seat down through the front two holes.

It can help to have a partner here as the seat is a bit heavy and awkward. Again, be careful with your wire routing as to not pinch anything in this step.



8. With the seat/sliders aligned onto the swivel pedestal, install the two nuts on the side nearest the door. Tighten to manufacturer specification.





9. Now, let's put that swivel to use! Disengage the threaded lock (if necessary), adjust the seat to the forward-most position, and put the seatback to its full-and-upright position.

Now disengage the lock and spin the seat around towards the door until the seat is facing rearward.

Install the other two nuts and tighten them to manufacturer specification.

PRO TIP: The nut near the front of the seat (rear of the van) is easiest to access through the rear doors/slider.





10. Celebrate. Your Ironcloud Metalworks E-Series Swivel Seat is installed!!
11. Proceed to the next section to familiarize yourself with the swivel operation BEFORE reconnecting your battery!

STEP #7 – USING YOUR SWIVEL & RECONNECTING YOUR BATTERY

Now it's time to familiarize yourself with the swivel.

1. Start with the locking mechanism. The lock arm is spring loaded and contains an auxiliary lock that is threaded. The threaded lock only operates in the forward facing position.

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

2. The spring-loaded lock has 6 detents – 0, 90, 165, 180, 195 and 270 degrees – with 0 degrees being the forward facing position. You must NOT operate the vehicle with the swivel in any position other than 0 degrees with the threaded lock securely engaged.
3. **PASSENGER-SIDE OPERATION:** The passenger side swivel is intended to swivel in the clockwise position. There is likely sufficient clearance to operate in the counter-clockwise direction, but this will depend on which center console you have in your van.

To operate the swivel, put the seat back to the full-and-upright position and position the seat sliders in the middle.

Begin operation by disengaging the lock and slowly spinning the seat towards the door (clockwise). If the front of the seat interferes with the door panel, slide the seat backwards a few notches on the seat adjustment sliders and continue rotating. Continue this process until it is in the backwards facing position.

The armrest may slightly interfere with the door panel, but you should be able to spin it into place without too much trouble.



To access the 270° position (i.e. facing the steering wheel), starting from the forward-facing 0 degree position, you will need to spin the seat in the counter-clockwise direction, adjusting the seat as necessary to clear the center console.



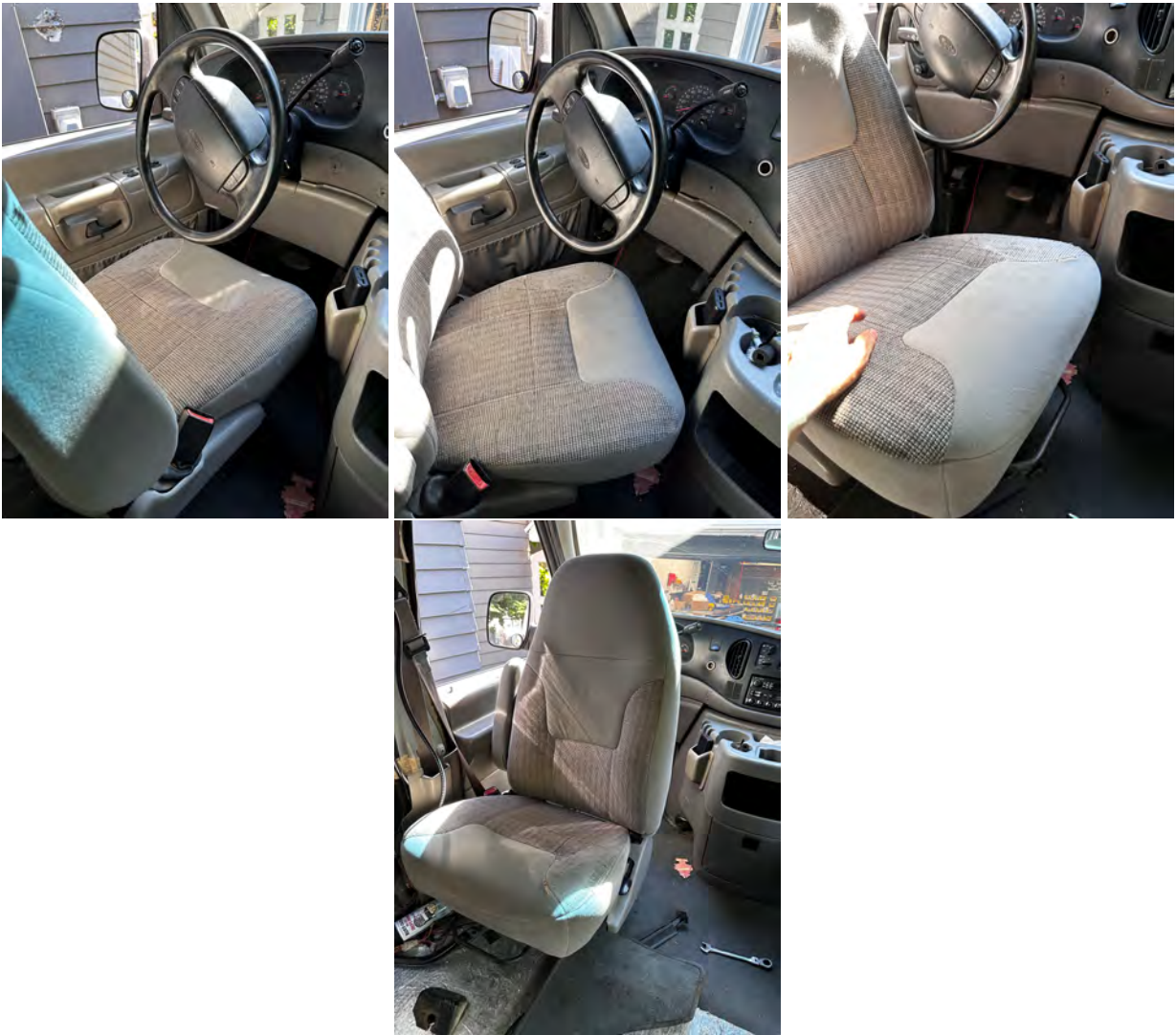
4. **DRIVER-SIDE OPERATION** The driver-side swivel is intended to swivel towards the center of the van (i.e. clockwise).

To swivel the seat, position the seatback in the full-and-upright position and position the seat adjustment rails in the forward-most position (i.e. move the seat as close to the steering wheel as you can).

From this position, swivel the seat towards the center of the van. It will likely interfere with the center console. Once it does—slide the seat “backwards” on the seat adjustment sliders and continue spinning the seat clockwise until it reaches the 90° position (i.e. facing the passenger seat).

From here, continue swiveling the seat – the armrest may interfere with the steering wheel, especially if you have a tilt wheel, so adjust the steering wheel as needed to accommodate the swivel.

Once the seat is in the rearward facing position, move the seat forward on the adjustment sliders (i.e. towards the back of the van) so that you are able to recline the seat back.



5. Some of this is just trial and error based on your van and what you find comfortable – once you use it a few times, it'll become second nature... but I will admit – it is VERY clunky the first few times until you get it dialed in!
6. I have verified fitment using OEM seats, but if you have aftermarket seats, it may not swivel without opening the door. If you have serious fitment issues, please contact me at Info@IroncloudMetalworks.com.
7. RECONNECT YOUR BATTERY!
8. **ENJOY YOUR IRONCLOUD METALWORKS FORD E-SERIES SWIVEL(S)!**



HELP US HELP YOU: Were these instructions helpful? Useless? Utterly infuriating? Were they "Mo' Better"? We want to know.

Your feedback is important and we take it seriously.

If you liked this guide or if there is something we can do better—we're listening!!

Email us at Info@IroncloudMetalworks.com

