Lieblweb's C5 Rocking Seat Fix

Vehicle Information: 2001 Corvette Coupe. We've only had the Corvette for a little over a month at the time of this write-up but have learned so much from other members of the Corvette online community that this is our way of giving back. We read several write-ups before attempting this fix, and pictures sure would have been a big help. Hopefully those of you with the rocking seat problem that have been putting off the repair will see that it really isn't too bad, and will give it a try. Let us know what you think via the email link, or on www.corvetteforum.com. Our user names on there are 'Sliebl' and 'Janster'.

Although this fix can most likely be used for any year C5 Corvette, your application may have subtle differences not shown in these pictures. Use our write-ups at your own risk. Please don't attempt these fixes if you aren't at least mechanically inclined. We take no responsibility for damage that may result from the use of our write-ups.

What is the Rocking Seat?: On many C5 Corvettes, the rubber isolators will wear out in the seat tracks causing the seat to rock backwards slightly under acceleration, and forward under breaking. How annoying! The "Easy Exit Seat" setting on memory package equipped Corvettes seems to exacerbate the problem with undue wear and tear on the rubber isolators. I'd recommend turning off this feature unless you really need it.

With our write-up you will not have to split the seat tracks apart. No removing the white ball bearings will be required!

Parts Required: 8 Nylon Washers total. 3/4" OD, 7/16" ID, 1/8" THICK. We got ours at ACE Hardware for $0.30 each. Our ACE part number for these washers was 59558K. You can also find suitable washers at True Value, and some other home improvement stores. I have also read on various forums that ACE part number NYXH will also work. Again, it's not the part number that is important, it's the dimensions of the washer, and even then, you'll be changing that slightly. You will also need some grease to repack the aluminum block during reassembly. We used some Mobil1 synthetic bearing grease. Use whatever you have.

Tools Required: 15mm socket w/ratchet, T-20 torx socket, T-25 torx socket, T-40 torx socket, 1/4" wrench, small screwdriver, pliers.

Difficulty Level: I'd give this a rating of 2 out of 5 with 5 being the most difficult mods, and 1 being an oil change. Plan on 2-3 hours if you take your time. Have a buddy help you lift the seats out of the car to prevent damage to the door sills and surrounding trim pieces.

Note: Please do one seat at a time so you have a point of reference, should something not go back together correctly. Also, do one lead screw at a time, as one rod is reverse threaded. Make sure the lead screws go back in on the proper side of the seat.
Click any of the small photos for a larger version.

I have also created a handy printable version of this write-up for you to take out in the garage with you. Click HERE to open that version.

Step 1: Remove Plastic Trim Fastener

You need to remove the two trim pieces that cover the mounting nuts at the front of the seat. We did the passenger side first, and almost all of the photos are of that seat for your reference.

Pull the center part of the fastener towards the front of the vehicle. The fastener will pop right out.

You may need to get it started with a small screwdriver, and finish it with the pair of pliers.
Don't forget, you can click any of the pictures for a larger version to see more detail.

Step 2: Remove Plastic Trim

Slide the trim pieces forward to reveal the 15mm nuts that need to be removed.

We actually found enough change to buy the $3.00 worth of washers we needed for this fix!

Note: All the change is from the previous owner. What a slob.

Step 3: Remove Two Front Seat Mounting Nuts

There are two 15mm nuts that need removed. Slide the seat backwards if you don't have enough room to remove them.

Step 4: Slide Seat Forward and Raise to Highest Setting

This step is VERY important. Make sure the seat is as far forward as it will go, and raised as high as it will go. Not performing this step may cause the seat to bind when you reinstall the lead screw later.

Step 5: Remove Two Rear Seat Mounting Nuts

Having the seat all the way forward and raised to the highest setting will make it easy to remove the rear mounting nuts. Look closely, there may be more change in there!

Step 6: Lift Seat Off of Mounting Studs

Lift the seat up and off of the mounting nuts. Pull it towards the door sill and tilt it towards the center console. This is to expose the wiring harness that you need to unplug. Please make sure you cover your door sill with a towel to avoid scratching the paint or the plastic trim.

Step 7: Unclip the Wiring Harness

With the seat positioned so you can reach the harness, gently push the connector latch in to release it. Pull the two halves of the connector apart. The passenger seat has one harness, the drivers side has two. I believe one is for the memory seat package, you may or may not have this harness.

Please note the towel protecting the rockers.

Step 8: Remove Connector From Seat Track

After separating the two halves of the connector, you need to slide the one half off of a small gray clip that attaches it to the seat track. Slide the connector half towards the back of the seat and it will slide off of the gray clip. The clip remains attached to the seat track. It's tricky to reassemble the connector onto the connector housing, but just look carefully while you are taking it apart, or study this picture and you can easily see how it goes back together.

Step 9: Drivers Side Harness Detail (for when you get to this side)

As mentioned in step 7 above, the drivers seat has two harnesses, and the passenger side only has one. Remove the second harness just like the first one once you get to the drivers side.

Now, back to the passenger side removal.

Step 10: Remove the Seat

Congratulations. You are ready to remove the first seat. Get a friend to help you with this step. Please be careful not to scratch your door sills, or trim panels with the seat tracks. Carefully lift the seat up and out of the vehicle. It's easiest if you have the top removed on a coupe, or top down on a convertible. Sorry FRC/Z06 guys, you'll have to deal with the roof. Once the seat is out, place it on a clean towel or sheet to protect the leather. Now is also a great time to clean the carpets and do a full detail to the seat with leather cleaner/protectant.

PLEASE WORK ON ONE SEAT TRACK AT A TIME!

Step 11: Use Masking Tape to Mark the Tracks

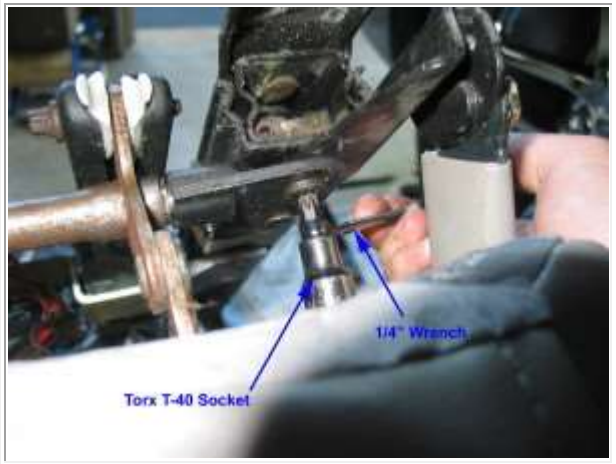
By wrapping masking tape around the seat tracks, you can verify that you have the Lead Screw adjusted correctly during re-assembly. Don't forget to slit the masking tape so the seat tracks can slide. If you have followed the early steps regarding the seat being placed at the full forward position, you won't need this, but it can't hurt to do it just for piece of mind. This first track was the only one of the four we used the masking tape on.

Step 12a: Remove Cover on Seat Track

If you are working on the outside seat track, you will need to remove the cover that hides the two Torx T-25 screws. Gently pry up one end of the cover and it will slide out of the way.

Step 12: Remove Two Torx T-25 Screws Securing the Aluminum Block

Remove these two screws in the middle of the seat track and set them aside.



Step 13: Remove One Torx T-40 Bolt Under the Seat Track

This was a bit tricky. Click the picture and look at the large image. This bolt is in the underside of the back portion of the seat track where the back of the seat hinges to the seat bottom.

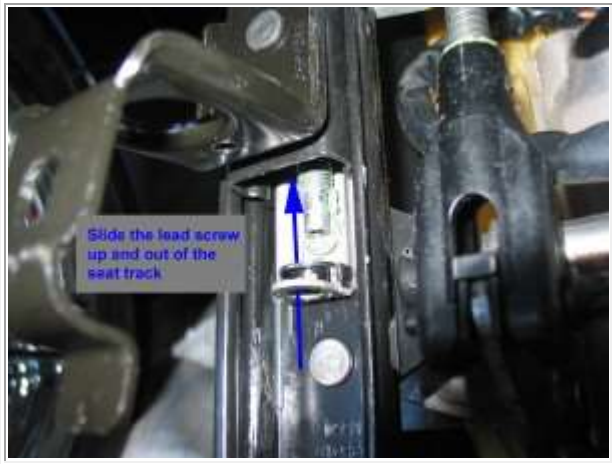
We used a T-40 socket that is about 1.5" tall. That is all the room you will have to get a tool on this bolt. We grabbed the T-40 end of the socket with a combination wrench (1/4") and the bolt came right out. The next track wasn't so easy. We ended up with the same wrench arrangement and a vice grip on the socket. We also used a screwdriver to pry the socket up into the bolt head so as to not strip it out. That worked great. A drop of PB Blaster on the bolt doesn't hurt either. Be careful around the leather.

Step 14: Remove Two Torx T-20 Screws Near the Front of the Seat Track

These two screws affix the 90 degree drive mechanism to the seat track. Remove the two screws and sit them aside.

Step 15: Remove Drive Mechanism

Once the two T-20 screws are removed, the drive mechanism will basically fall out. Leave the square drive shaft that drives the Lead Screw in the mechanism. Sit it aside.



Step 16: Remove Lead Screw and Aluminum Block Assembly

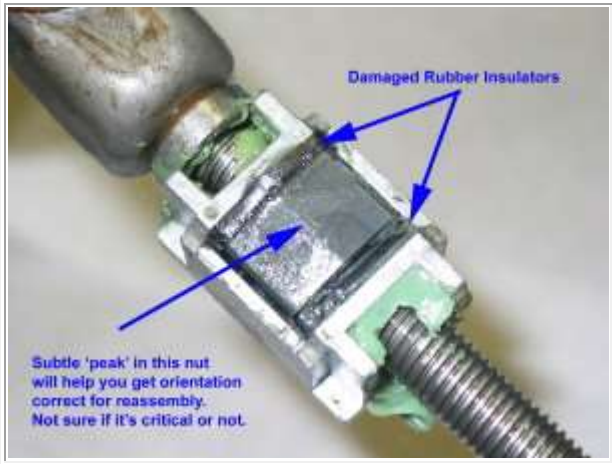
Use this picture and the one in step 17 to help with this step. Once all the screws are out the Lead Screw will basically just slide out the back of the seat track. See Step 17 for a tip.

Step 17: Trick for Removing Lead Screw Assembly

Slide the track towards the front of the seat. Once lowered, place a small screwdriver in one of the T-25 screw holes in the Aluminum Block. Lift the track back to it's original position and the Lead Screw assembly will be lifted up towards the rear of the seat track. It can now be removed. See Step 18.

Step 18: Slide Lead Screw Assembly Out from the Rear of the Track

Slide the track out and take it to a clean work area. Work on cardboard or paper towels, this is a little greasy!



Step 19: Aluminum Block Close Up View

This picture shows a close up of the removed seat track Lead Screw and Aluminum Block. You can also see the Rubber Isolators that are the cause of the Rocking Seat problem. Please take note of the gray Nut in the middle of the Aluminum Block. It has a peak on one side that faces out as pictured. During reassembly, make sure this peak is still visible so you know you are putting it back together correctly.

Also, note the location of the Aluminum Block on the Lead Screw. It should be all the way to one end. You'll reassemble it exactly the same way.

Step 20: Lead Screw Before Disassembly

Again, it's a good idea to do these steps on some cardboard or paper towels. Wash your hands before handling the leather seats.

Step 21: Unthread Aluminum Block From Lead Screw

Unthread the Aluminum Block all the way off the Lead Screw. No need to count turns or anything, as running the seat all the way forward before disassembly will make reassembly a breeze.

WARNING: If you decided to tear both seat tracks apart at the same time, please be aware that one of the blocks is reverse threaded. If you get the two sides switched during reassembly, the seat will move forward when you tell it to go backward, and vice verse.

Also, I had one person tell me they tore both SEATS apart at the same time and got two left threaded lead screws on the same seat causing the seat to bind badly once reassembled.

That said, do one seat at a time, and one lead screw at a time for safety sake.

Step 22: Remove the damaged Rubber Isolators From the Aluminum Block

It is now time to get to the offending Rubber Isolators that have caused the Rocking Seat problem! Remove the Nut and Rubber insert from the Aluminum Block. You will not need the Rubber insert for reassembly, as it will be replaced by the Nylon washers that you purchased. Clean all of the parts of the old nasty grease, or at least most of it.

Step 23: Modify the Nylon Washers

The washers you have purchased are 1/8" (0.125") thick. This is too thick to get two of them in the Aluminum Block with the Nut. You will need to sand down the thickness to about 0.110" each. I used a small belt sander, but you can use plain old sand paper to do the job. Sand the washers a little at a time while trial fitting them in the Aluminum Block between sandings. You want a slop free, zero clearance fit when done. Take your time with this step.

When you are able to get two washers and the nut together in the Aluminum Block, sand or file a flat spot on one end of each washer. This will allow the Lead Screw to pass through the center of the Nylon Washers.

Step 24: Reassemble the Aluminum Block

When you have the washers sanded down to a zero clearance fit, you are ready to reassemble your Aluminum Block. After cleaning out most of the old grease, relube to Aluminum Block with a bit of grease. I also applied grease to the individual washers to make reassembly easier. Place the washers on either side of the nut with the flat spots going in first. Push them into the bottom of the block. The Nut should be placed so the peak is facing out of the Aluminum Block. See Step 19 for a detailed picture of that.
MAKE SURE THE WASHERS DO NOT STICK OUT OF THE ALUMINUM HOUSING HIGHER THAN THE PEAK IN THE NUT. IF THEY DO, SHAVE THEM DOWN SLIGHTLY. (Thanks JOHDVETTE)

Step 25: Reinstall Aluminum Block Onto Lead Screw

Wipe excess grease off of the Lead Screw, and relube with new grease before threading on the Aluminum Block assembly.

Step 26: Thread Aluminum Block Assembly All The Way Up The Lead Screw

Turn the Aluminum Block all the way up the lead screw until it contacts the bearing at the other end. Back it off ever so slightly. It's should look just like the picture on the left. Note the orientation of the block to the flat mounting area on the end of the lead screw. Adjust the Lead Screw until it looks like this.

Step 27: Reinstall Lead Screw Assembly Into Seat Track

Pull the track upwards and drop the lead Screw Assembly into the track. Please note the orientation of the assembly during installation. From here you align the bottom of the screw assembly into the pocket it came out of. See step #16 for this photo. Reinstall the T-40 Torx bolt using the same technique you used to remove it. Follow this up with the two T-25 screws. Now, reinstall the 90 degree drive mechanism and it's associated T-20 screws. If the drive mechanism does not engage the lead screw properly, you might have to rotate the Lead Screw a fraction of a turn to get the square drive shafts to line up.

Congratulations! You've got one seat track done! Only 3 more to do! The first track took us an hour or so to do, but we didn't have photos to help us. After that, the other 3 took us about an hour total since we were pros by then!

Take care reinstalling the seats using the reverse of the removal procedure.
We were very happy with the 'non-rocking results' of this fix! You will be too!

Please drop us an email and let us know what you think about our write-up!

Successful fix? Saved hundreds?

Donate


Slide cover this direction
to reveal 15mm nut


15mm Socket

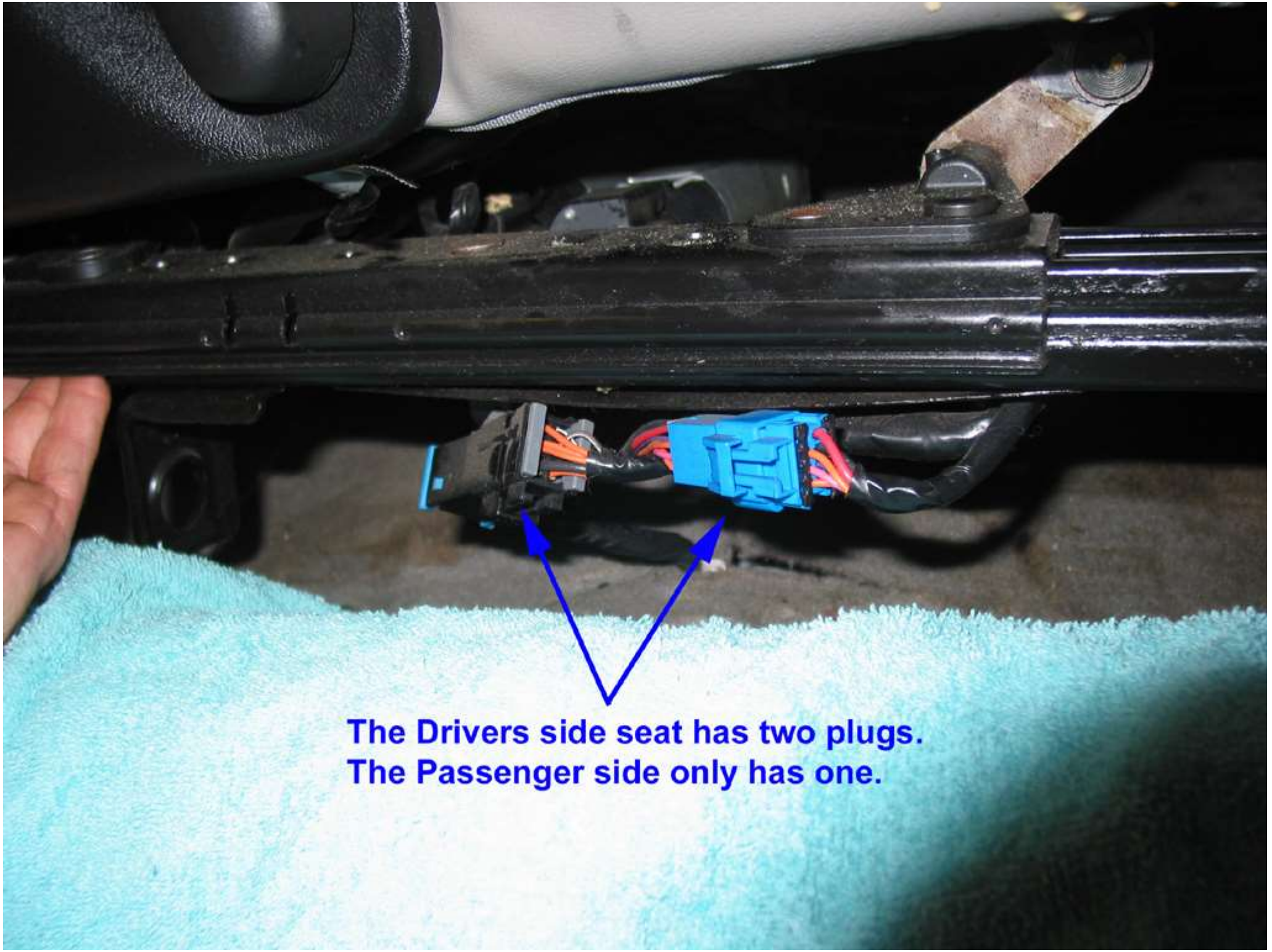

Lift seat to it's highest frontmost position

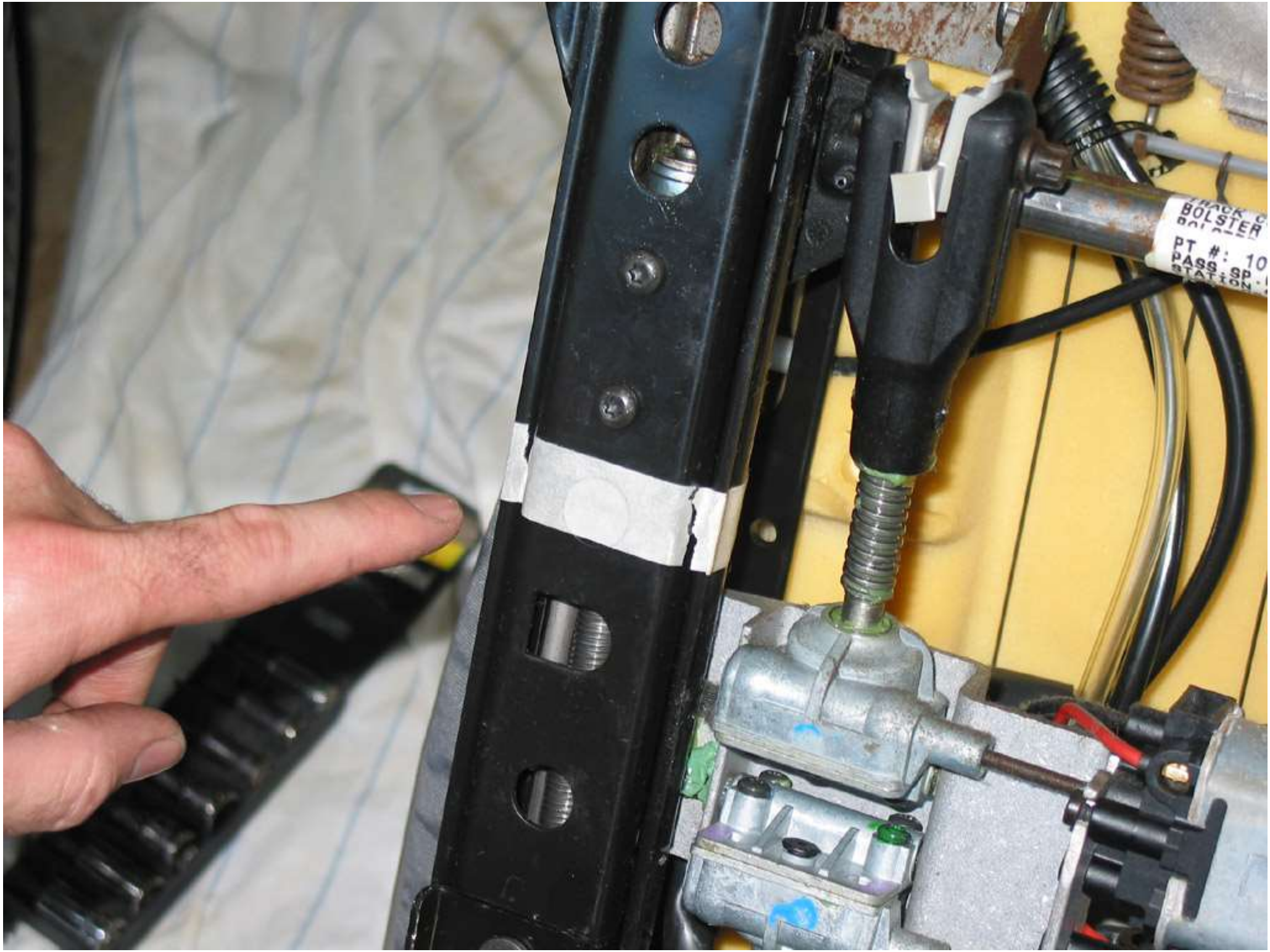

15mm socket with long extension makes
removal of the rear nuts easy.


Pull seat up and off of the seat bolts.
Lift it far enough to unclip the wiring.


Push the connector latch in
to release it. Slide the two
halves apart.

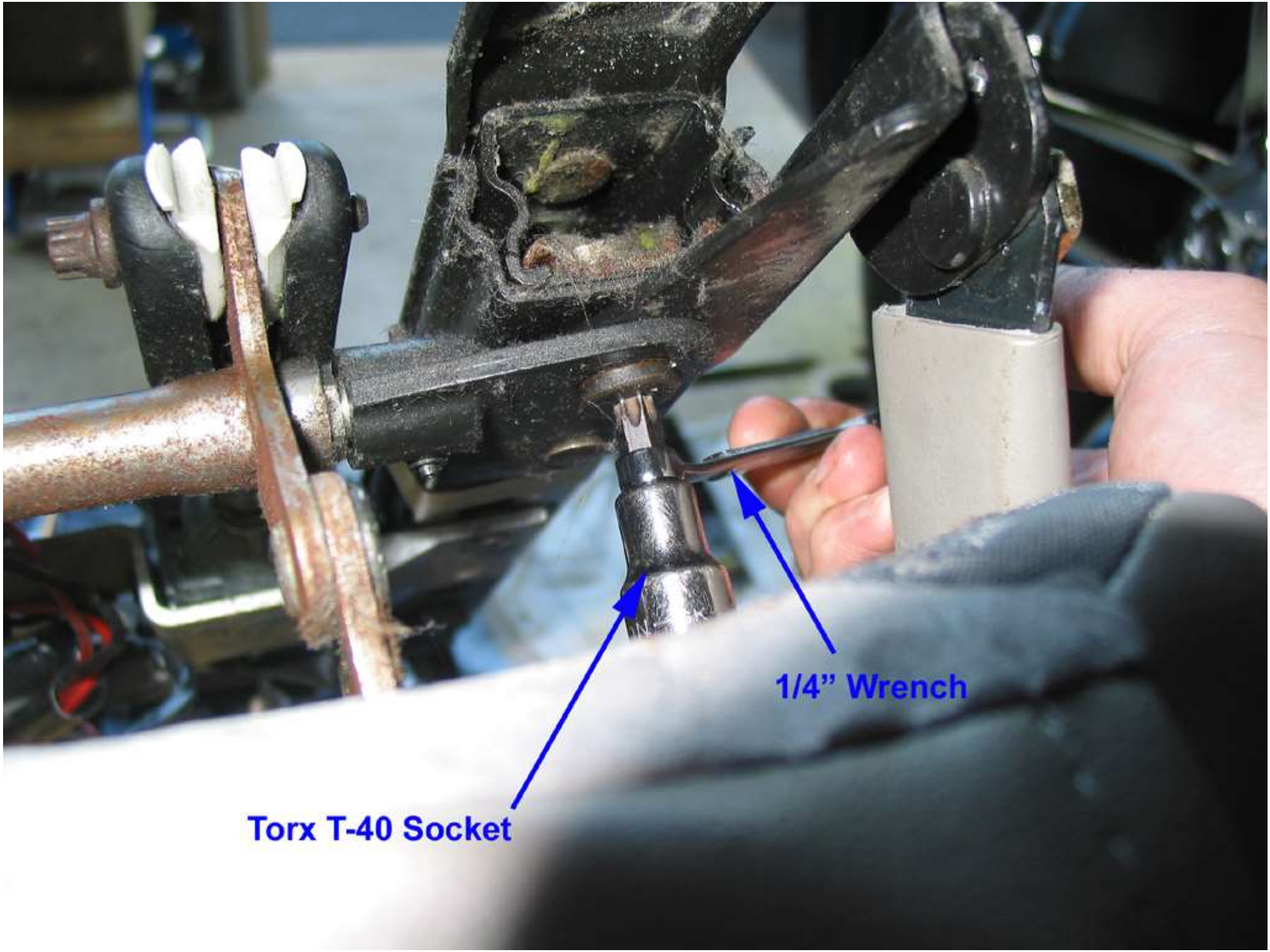

Slide the connector backwards, off of the gray clip. Remember how it comes off, it's a little tricky to get back together.

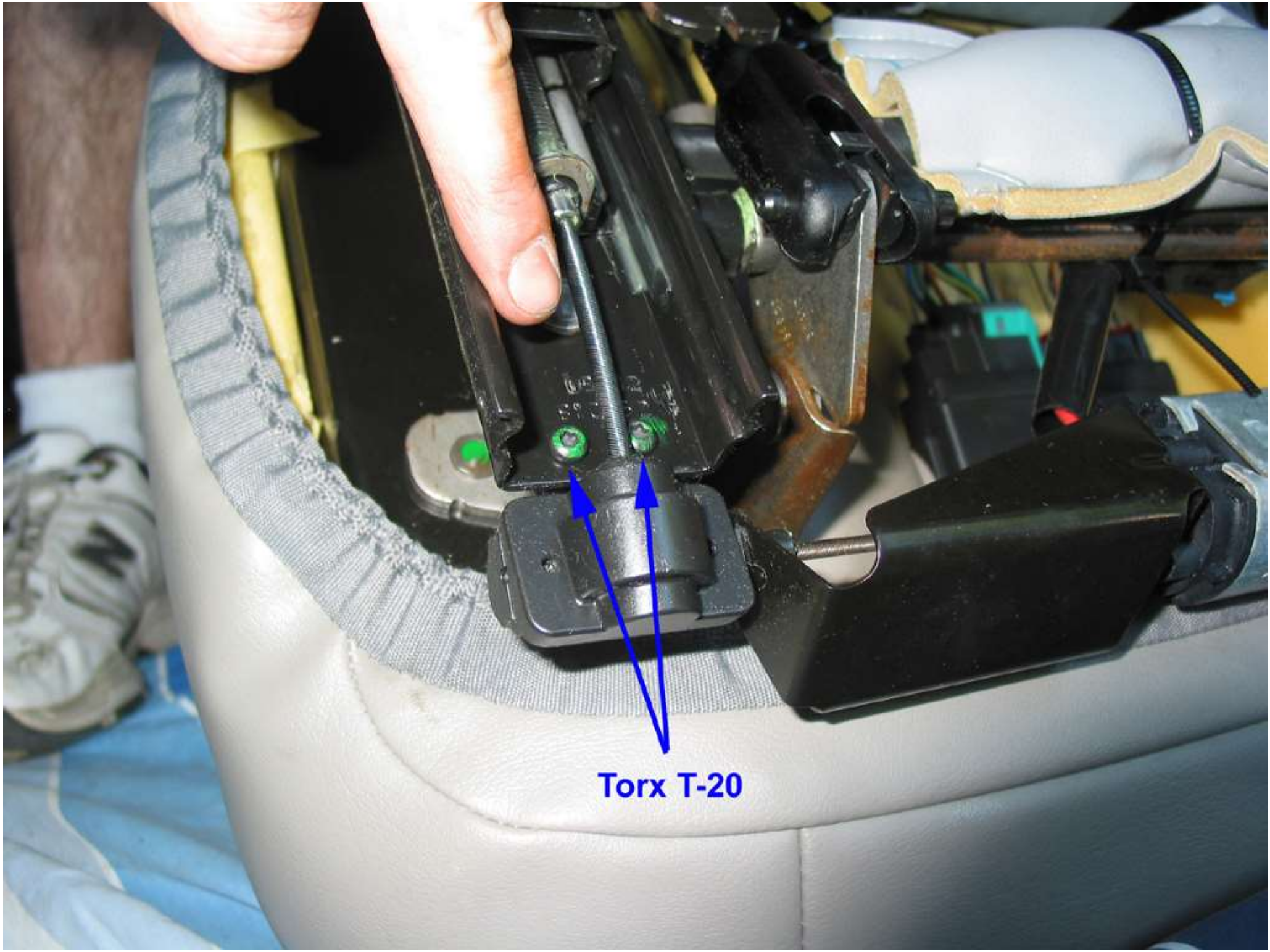

The Drivers side seat has two plugs.
The Passenger side only has one.

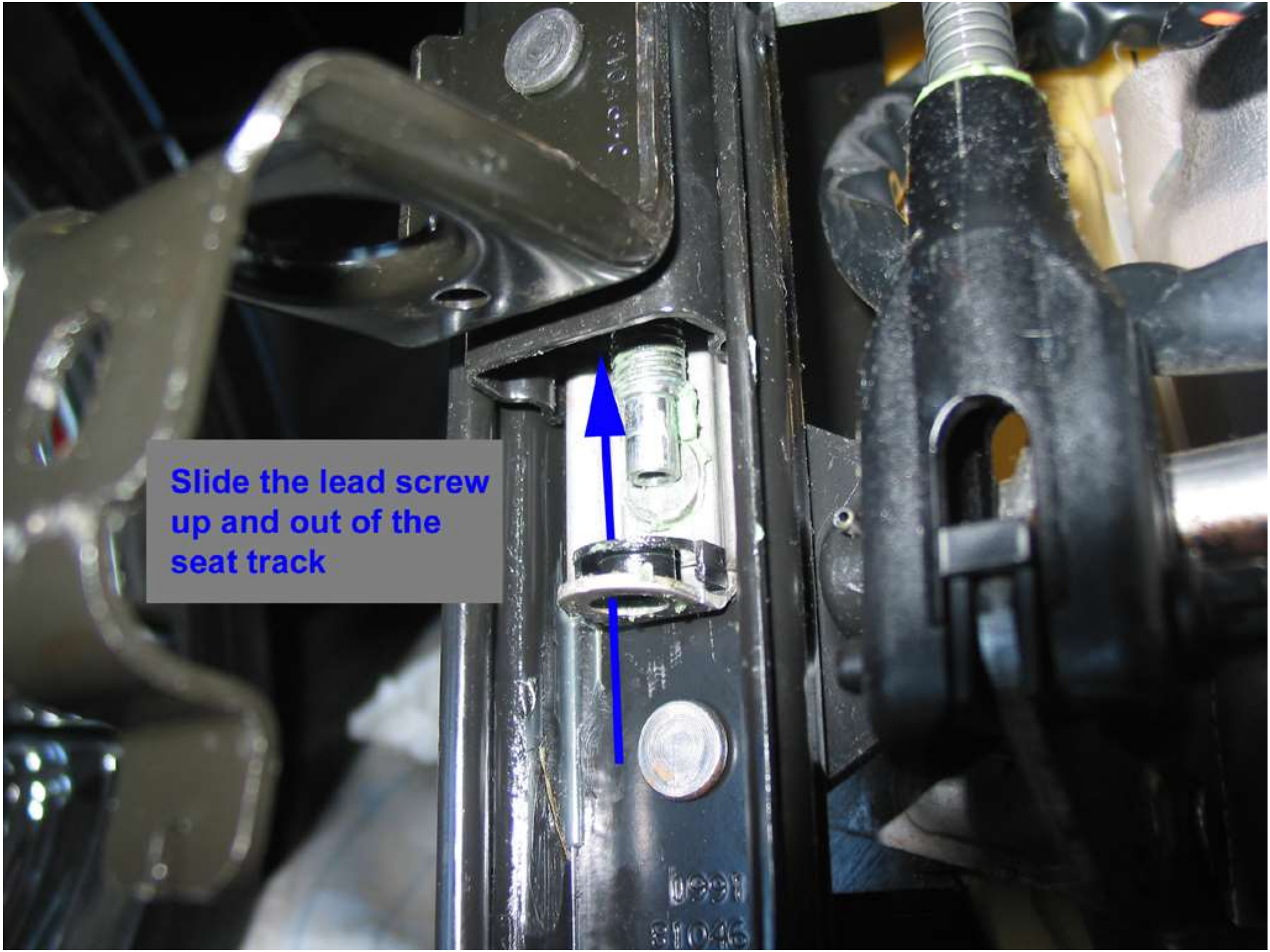

BOLSTER
PT #: 10
PASS. SP.


Gently pry this cover up
to reveal the two Torx T-25
screws underneath.
One side of each seat only.

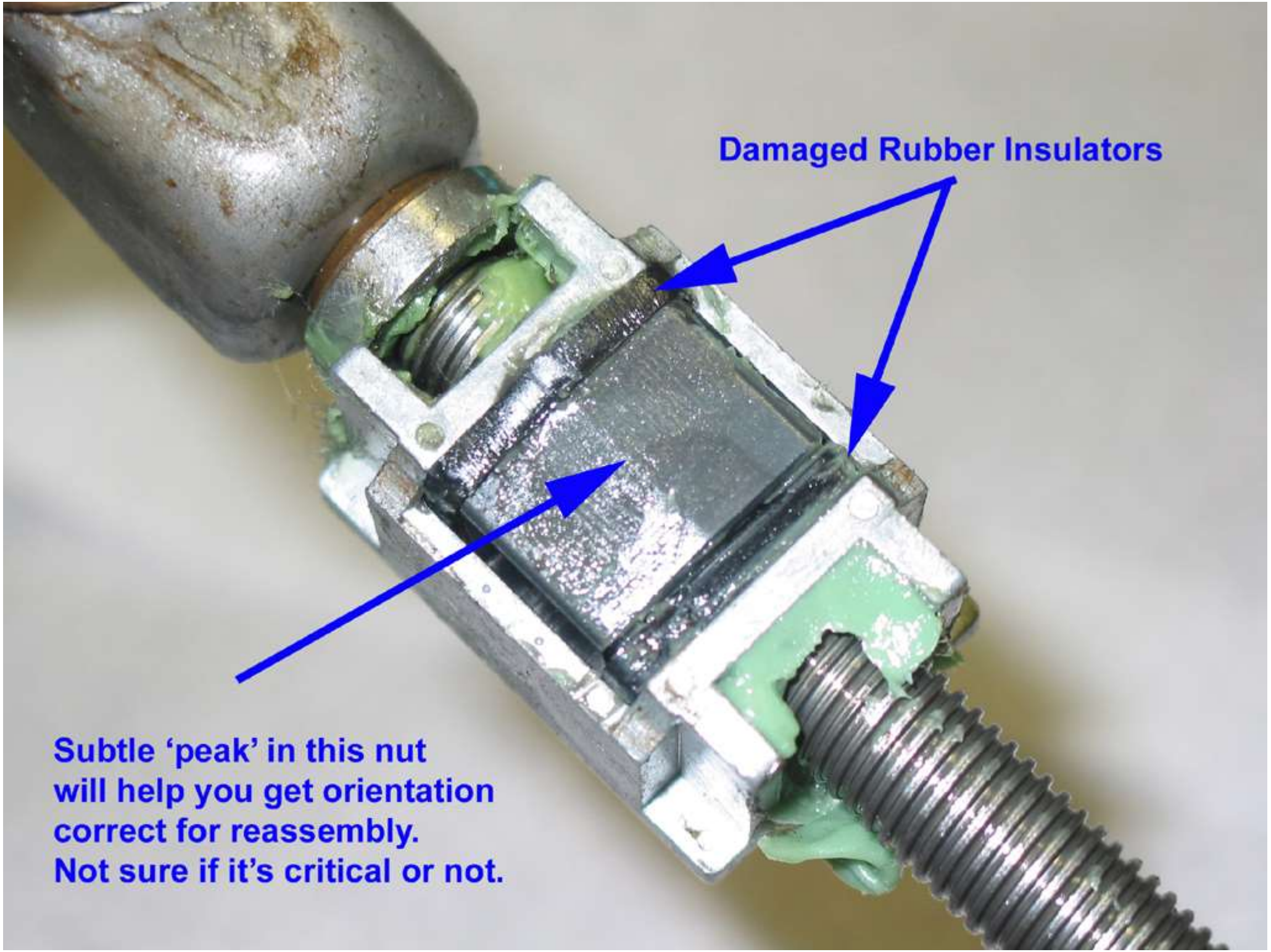

Torx T-25


1/4” Wrench
Torx T-40 Socket

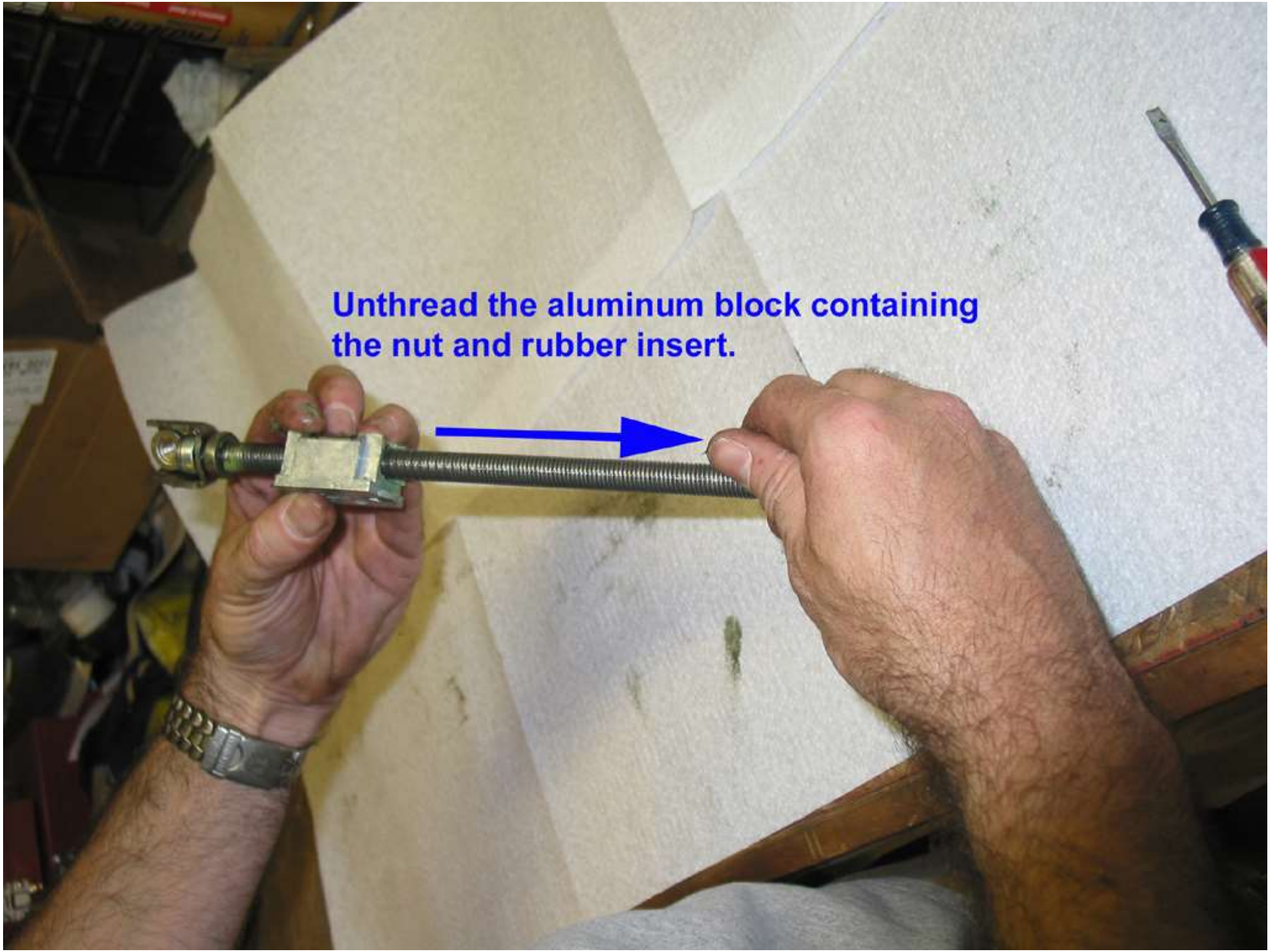

Torx T-20

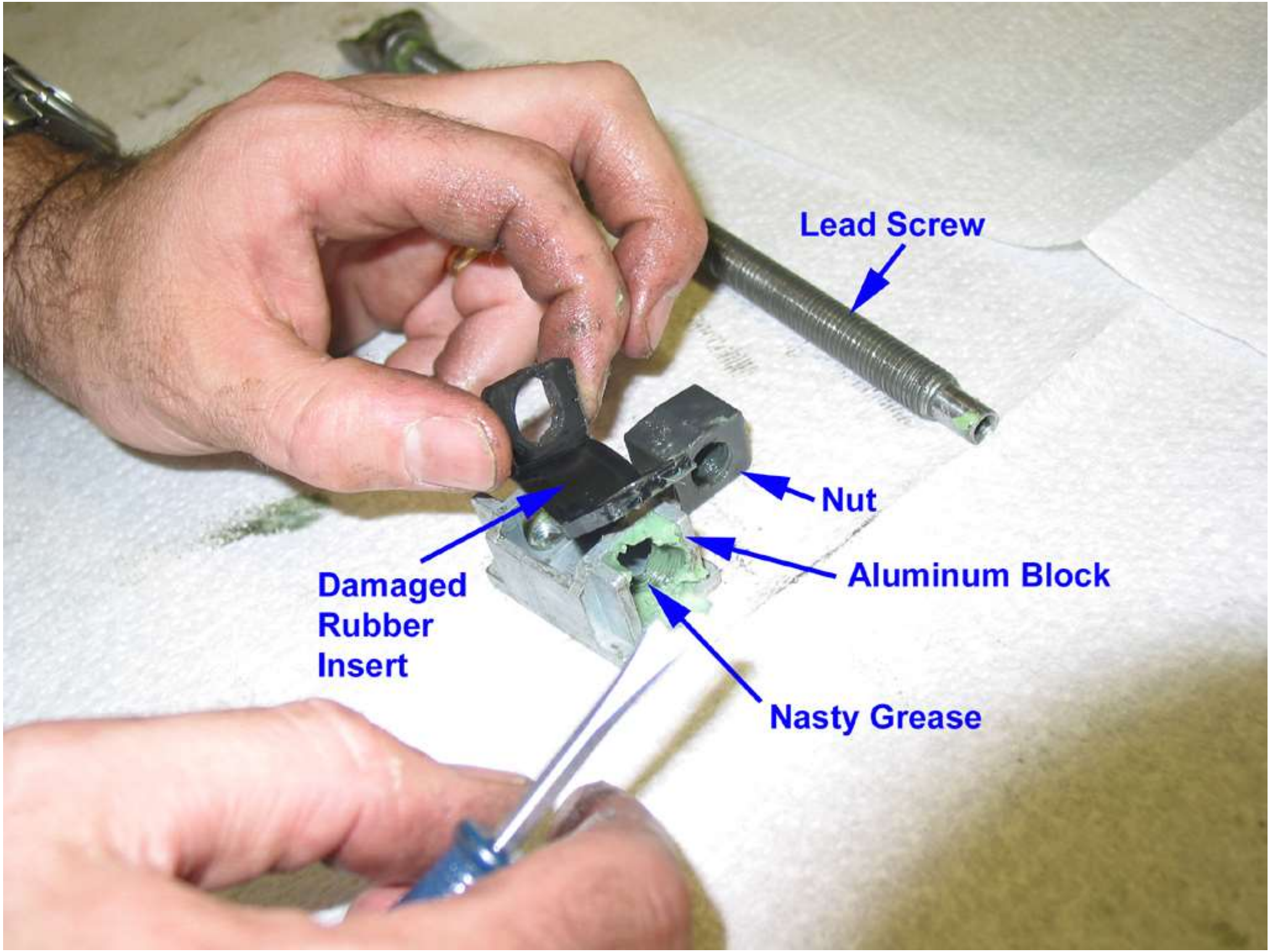

Slide the lead screw up and out of the seat track


Track now slides freely.
To remove the lead screw and Aluminum Block, slide the track in the direction shown. Place small screwdriver in aluminum block, and return track to the original position. The lead screw will slide up with the track.
You'll see.


Damaged Rubber Insulators
Subtle ‘peak’ in this nut
will help you get orientation
correct for reassembly.
Not sure if it’s critical or not.


Lead screw before disassembly


Unthread the aluminum block containing
the nut and rubber insert.

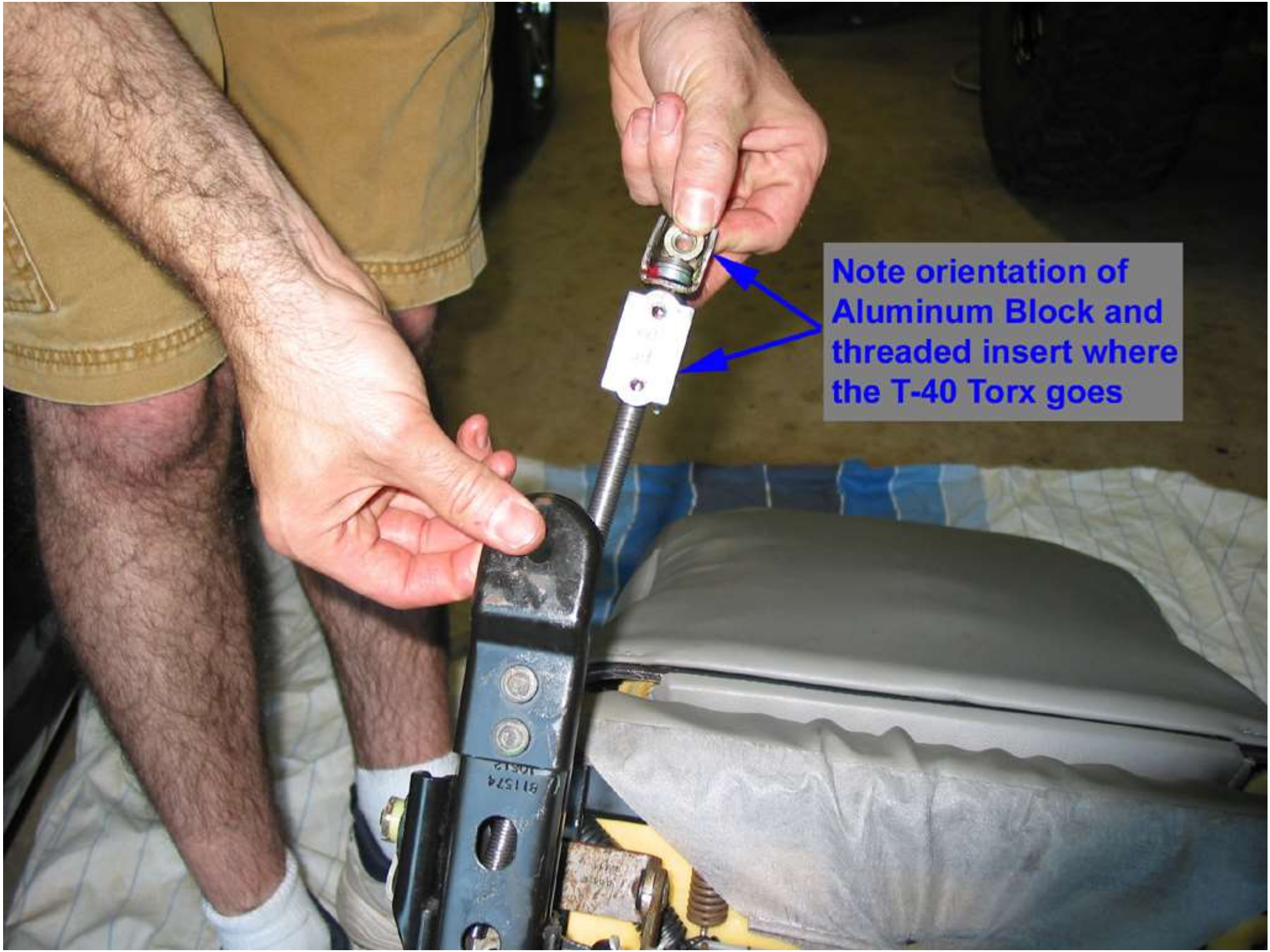

Lead Screw
Nut
Damaged
Rubber
Insert
Aluminum Block
Nasty Grease


Unmodified Nylon Washers
Washers are
from Ace Hardware
3/4” Outside Dim
7/16” Inside Dim
1/8” Thick (0.125”)
Note the flat spot
Modified Nylon Washers
Washers are thinned to approximately 0.110” or until the two
washers and one NUT fit without slop in the aluminum block.
I used a hobby belt sander, but you can use plain sand paper.


Two washers and NUT shoud fit
with zero clearance in the Aluminum
Block. Note: Flat spot goes in FIRST.


Reassebled and regreased
Aluminum Block ready to
be threaded onto lead screw.


Aluminum Block threaded the whole way
up the lead screw until it just comes into
contact with the bearing at the other end.
Back off 1/8th turn. It's ready to reinstall.


Note orientation of
Aluminum Block and
threaded insert where
the T-40 Torx goes