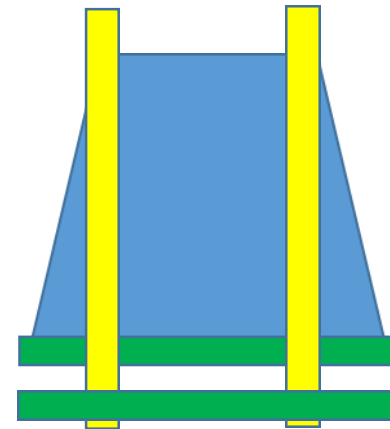
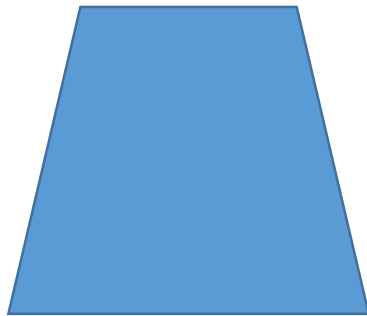


Ranger Seat Extension for 4 door Lariat

- The provider assumes no risk for modifications that you make to any vehicle. If you do it wrong, you are at fault.
- Do NOT weld on your vehicle or on the seat. If you don't know why, see the first bullet point above.
- You may lose ½" or more head room in gaining extra leg room.
- This is not a blue print nor was drafting software available. You must make and verify your own measurements.
- It isn't an easy modification. The space is cramped and you need to be careful with electronics, sharp things and tools. YMMV

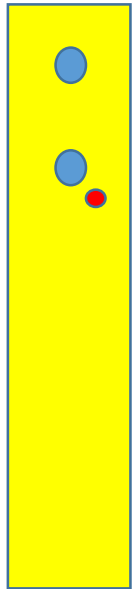
Seat layout and Extension Frame format

- The seat is bolted in a truncated triangle (think pyramid with the top cut off, viewed from the side).
- The frame will have two longitudinals going from the front bolt holes straight back.
- And two cross pieces at right angles.



Bolt & Location Pin Holes

- Longitudinals (mirror images)
- Horizontals (may be duplicates)



Sized to fit seat bolts



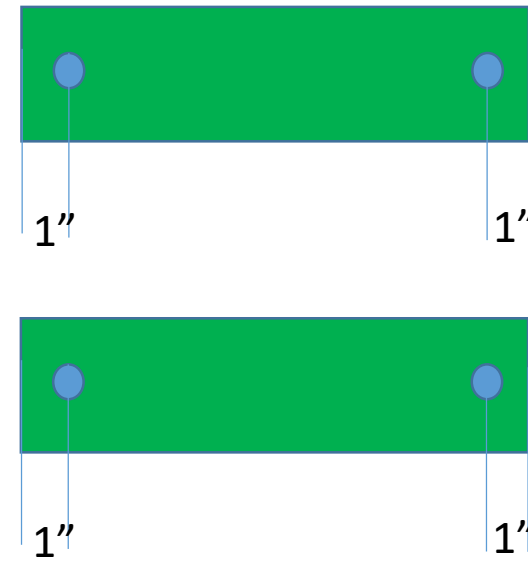
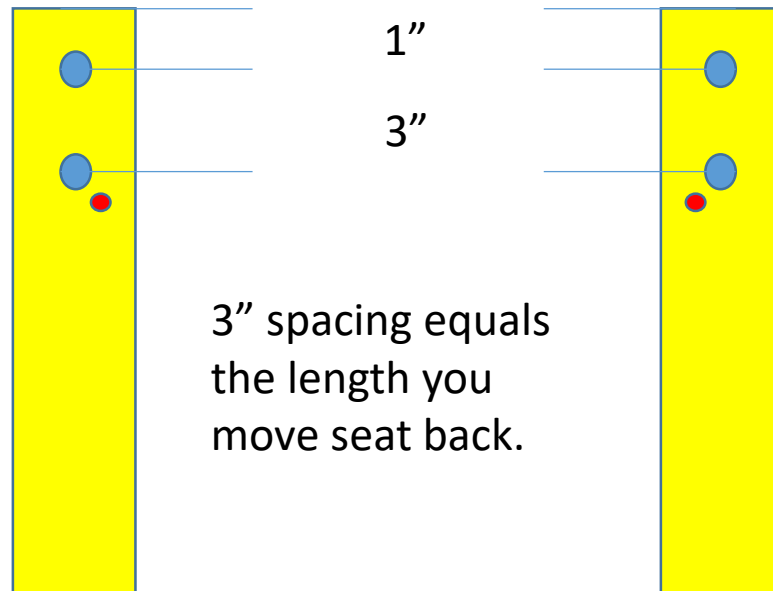
Sized to fit seat location pins

Not scale images, shown for positional reference



Bolt & Location Pin Holes, rough measurements

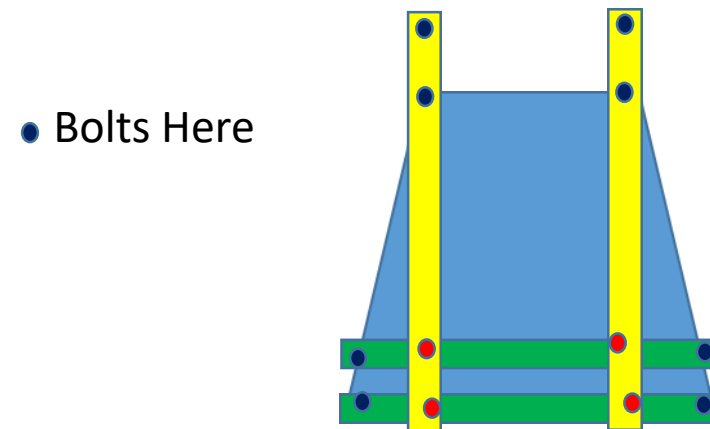
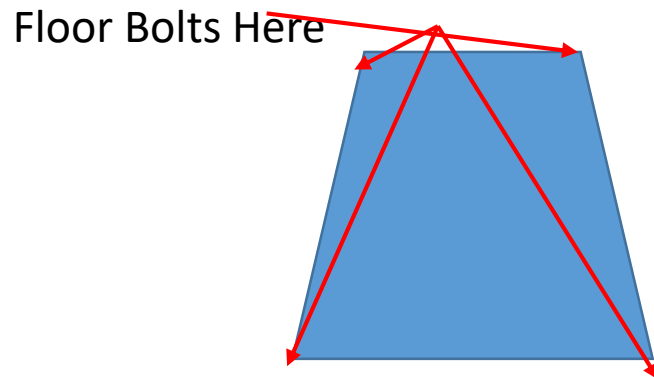
- Longitudinals (mirror images)
- Horizontals (may be duplicates)



Lengths determined by your measurements. 1" spacing on ends to prevent steel cracks in bolt holes

Seat layout and Extension Frame format

- The seat is bolted in a truncated triangle pattern.
- The frame will have two longitudinals going from the front bolt holes straight back.
- And two cross pieces at right angles.



• Weld (or Bolts) Here

Preparation, Parts and Tools

- Buy your parts first, you can't drive with the seat out.
- Don't buy \$teel at local home \$tore\$. Find a metal supply place.
- Use $\frac{1}{2}$ " x 2" wood to make templates of the longitudinals and cross pieces.
- Thin wall square or rectangular tubing is not sturdy enough.
- $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " x $\frac{3}{16}$ " C channel is what I used
~\$40/20' 
- The metal supply co. will cut it for you, two 6's and an 8' will fit your truck bed.
- Find a farm supply for Grade 8 bolts sold by the pound.
- You need drill and bits, thread lock, visegrips, metal cutting tools, wrenches/sockets...

Seat removal

- If/when you have your parts, raise the seat as high as it will go and remove the headrest.
- Move the seat as far back as it goes and unbolt the front two bolts. Move the seat as far forward as it goes and remove the two rear bolts.
- Lay the seat on its back IN THE TRUCK and unplug the big electrical cable coming out of the floor under the seat. DO NOT PULL ON THE CABLES!
- The cable fitting probably has a red locking tab on one side...pull it back (1/4"??).
- On the other side of the plastic fitting, it has a small raised box that looks like it might hold another locking tab. You can stick a small screwdriver in there and GENTLY lever up to slide the two halves of the fitting apart.
- You should be able to remove the seat now. All of the connections are loose.

Seat Preparation and measuring for templates

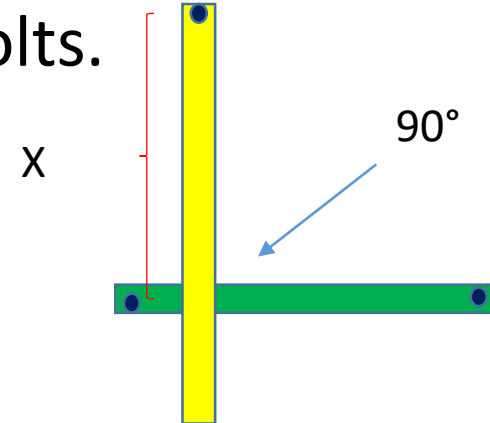
- Place the seat on a bench with the back down and the seat bolt frame sticking over the edge and tie the seat back securely to the table so it doesn't fall while you work on it.
- You'll see the truncated triangle shape of the bolt holes and be able to fit your templates before you cut your steel.
- In the truck, measure the distance across the front and rear bolt holes. Make sure to get good readings from the hole center to the other hole center. Check them, on the bench, against the seat bolt holes. You want the side-to-side distances. The front-to-back distance is irrelevant at this point.

Templates

- Make the first template by cutting a $\frac{1}{2}$ " thick x 2" wide board two inches longer than the distance from the centerlines of the back bolt holes. Drill holes (original seat bolt size) on the longitudinal center of the board to fit the spacing of the seat frame. Check before you drill to the size of the bolts you removed.



- Install the 1st template across the rear. Make duplicate if fit ok.
- For the 2nd template, measure "X" from the front of the front bolt platform on the floor (1" or 1+") to the centerline between the rear bolts.

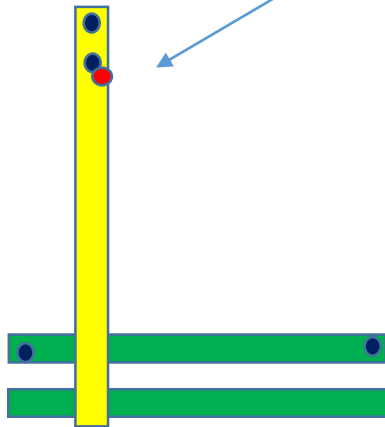


Templates

- The distance X is used to determine how long the total longitudinal template will be.
- 1" back from the end of a ½" x 2" board, drill a hole on the centerline to fit the bolt you removed from the floor. Measure back from the centerline of the hole, another 3" and drill another hole the same size. (3" is how much the seat will be moved back).
- You can move it less than 3" without problems. You can move it more, but check carefully.
- Measure an additional distance X (equal to the distance you measured on the floor in the previous diagram) on the 2nd template board and add another inch plus. (check it against the width of the steel you intend to use). So, 1" + 3" + X + 1" should be long enough to mount a cantilevered cross piece behind the original mounting locations.
- Cut the first longitudinal to that length, bolt it in place on the floor using the first bolt hole and see if it is long enough for the cantilevered crosspiece (3" back). If it is, make a second template like it.

Now the first hard part

- The longitudinal templates will be long enough, but you have to add the seat locating pin holes behind the second bolt hole.



- Transfer your templates to the seat and you'll see where to place the locating pins. Double check before you drill.
- When you're satisfied that the templates will bolt up square to the seat and to the floor. Bolt the longitudinals to the seat and a cross piece to the truck and try fit the seat in the truck.

The second hard part

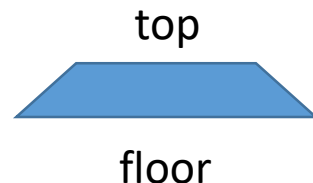
- In the truck, you need to get the wooden longitudinal templates to line up and bolt to the floor in front
- Then you need to get the longitudinals at 90 degrees square to the cross piece in the rear where the seat was originally fastened. Hold them in place with vice grips and mark the locations on both sides.
- Next bolt the cantilevered cross piece all the way in back to the seat.
- Plug the seat back in and move it all the way forward and back, move it all the way down and move it forward and back again.
- **CHECK TO SEE IF THERE IS ANY INTERFERENCE. GO SLOW, CHECK THE WIRING AND SIDES OF THE SEAT. IT SHOULD NOT RUB.**
- If it fits, you can cut your steel.
- Don't forget to disconnect the electrical connector before you take the seat back out.

Cut and drill your steel

- Since the cross pieces and the longitudinals have to be either welded or fastened, it works better and is less likely to stress crack if the flats fit against each other upon assembly.
- Drill the longitudinals' holes so that the legs will be up when installed. Use a 2" long piece of steel to line the channel between the legs. A poor substitute would be a stack of washers between the legs.
- The cross piece between the rear bolt holes in the floor should be installed with the legs down and the 2" steel liners between them. The longitudinals' flats will rest upon the flat of the cross piece.
- The second cross piece will be cantilevered on the bottom of the longitudinals.
- Drill the end bolt holes for both pieces. Leave any other holes for later after trial fitting.

Prep the steel and trial fit them

- The steel that you cut will have sharp edges. Use a grinder and/or a file to smooth and knock down the rough edges around the cuts and drilled holes.
- Consider grinding a 45 degree angle on both of the ends of the longitudinals' legs and smoothing them.
- Bolt the longitudinals to the seat frame and the first cross piece to the truck floor. (You'll have to clearance cut the [front] plastic skirts on the seat frame) Put the seat in the truck, bolt the back piece up and trial fit it. Lock the longitudinal/cross piece junctions with visegrips and test it up/down/forward/back again.
- Mark it up, carefully disassemble it.

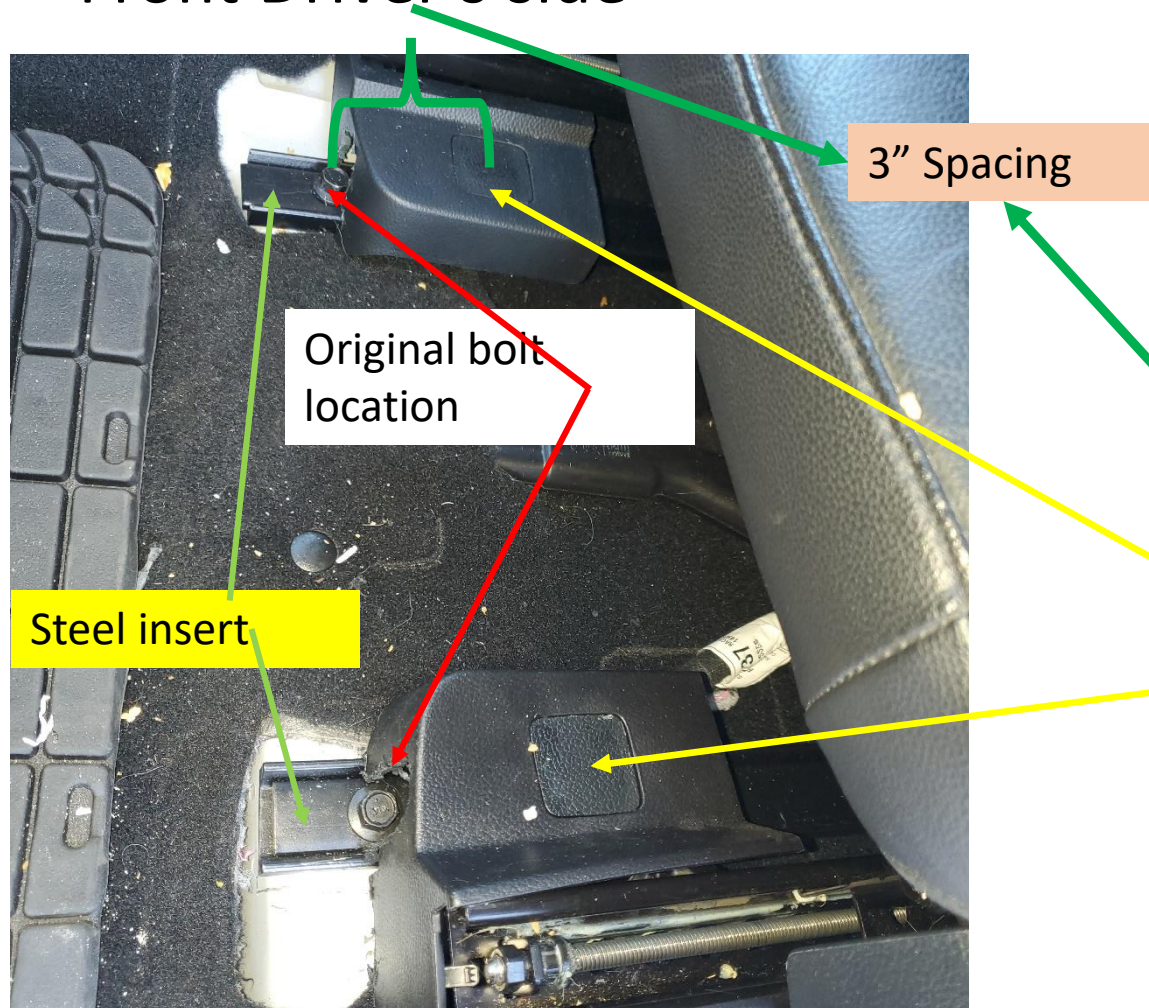


The next hard part

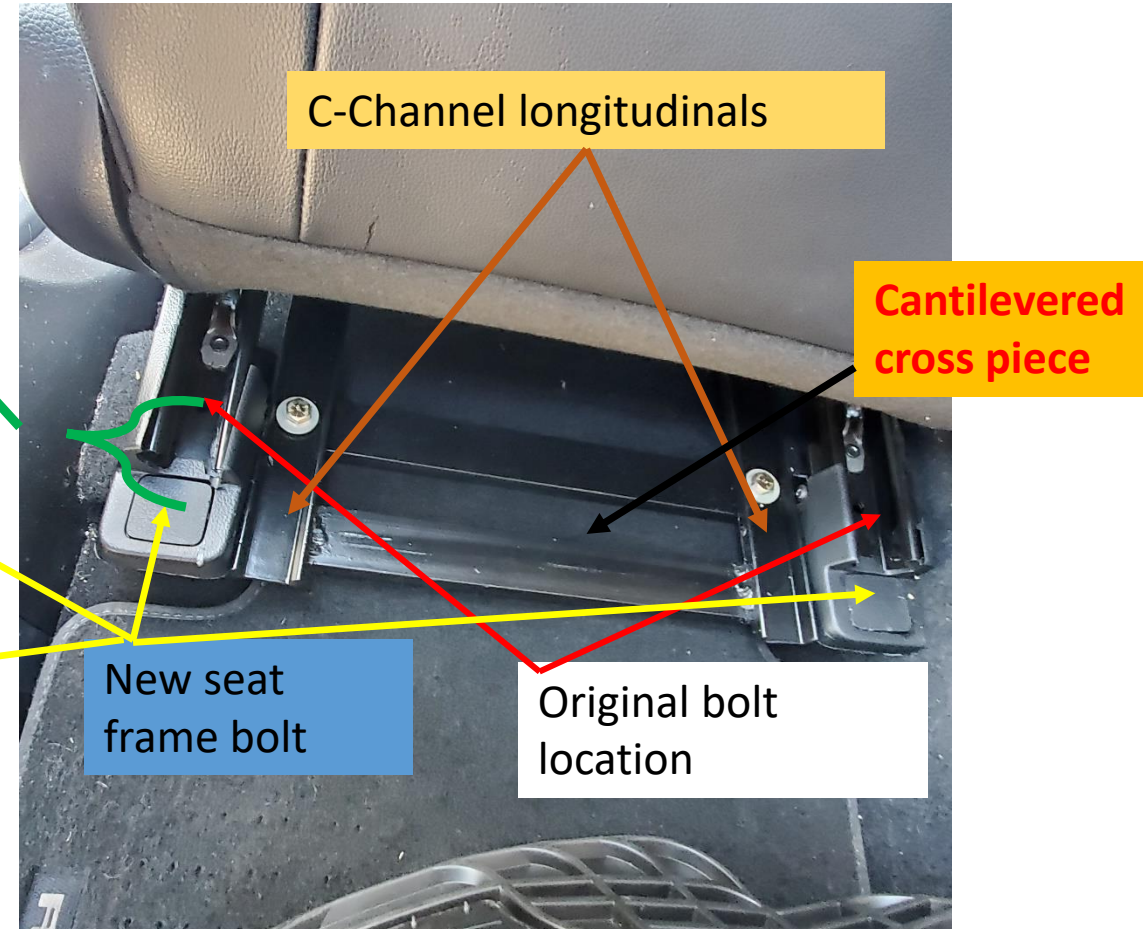
- Decide if you want to bolt it up or weld it. I chose to weld the after crosspiece and bolt the crosspiece that fits the truck floor.
- TACK WELD the pieces you intent to weld. Drill the pieces you intend to bolt.
- Refit the seat in the truck. Retest the seat in the truck.
- If that works, remove the seat and disassemble the extension (leave the tack welds!).
- Finish weld the parts you tack welded. I should have welded a nut to the bottom of the longitudinals' to front crosspiece's bolt holes to make assembly easier. Forewarned is forearmed.
- Deburr, Clean and Prep the steel again.
- Prime and paint the steel frame extension and the steel channel liners.
- Deburr the plastic where you cut it for clearance.

Photos of the bolted in frame

- Front Driver's side



- Rear compartment behind driver



The final hard part

- Loosely bolt the U-shaped frame to the seat, bolt and tighten the crosspiece to the truck floor.
- Put the seat in the truck.
- Install the seat's electrical connection.
- Loosely bolt the front of the frame to the truck floor.
- Bolt the longitudinals through the crosspiece (You did weld those nuts on the bottom of the crosspiece?).
- Check and tighten all the bolts.
- Check the electrical connection lock.
- Test the seat slowly to see if there is any interference.
- Take it for a ride. Push the seat back, you earned it.
- If the seat bounces, you didn't get a bolt tight. (yeah, it happens) tighten that bolt.

KingsPoint75