# SMT10-04-133-226 (41) Linear Actuator By Sterling Motion Block Replacement Manual



#### **Tools Needed**

- Standard size Phillips screwdriver
- Cordless drill with Phillips bit (optional but recommended)
- Silicone grease (optional but recommended)

### Removing the Assembly

The models pictured in the removal and reinstallation are not exactly the same as the instructions for replacing the block above. The installation for the entire assembly should be in the opposite order of how you safely removed it from the couch before. This is a general guide that should apply to all recliners.

- 1. Before removing anything, make sure to press the button to move the recliner to the reclined position. Regardless of the chair not operating, this will help to remove the block later. Unplug the couch from the wall after this.
- 2. Ensure the 2 power cables are unplugged from the motor. There are small clips that hinge onto them to prevent them from coming loose. Undo the clips and unplug the two cables.

3. Undo the ring pin that is holding the main pin in place. This is best done by rotating it like this to slide the ring off the top of the main pin.



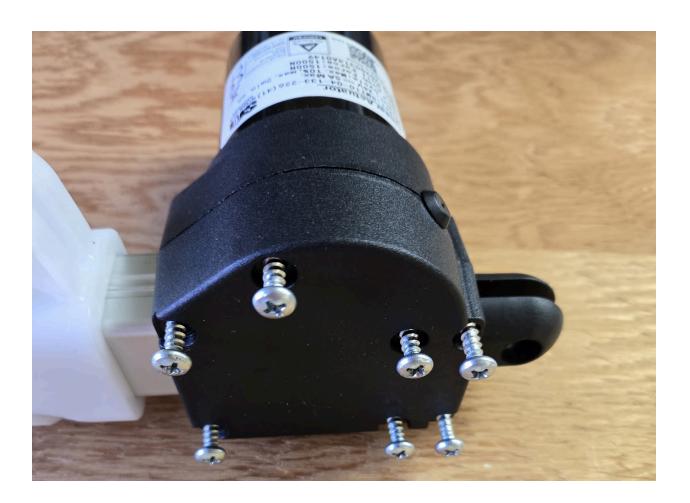




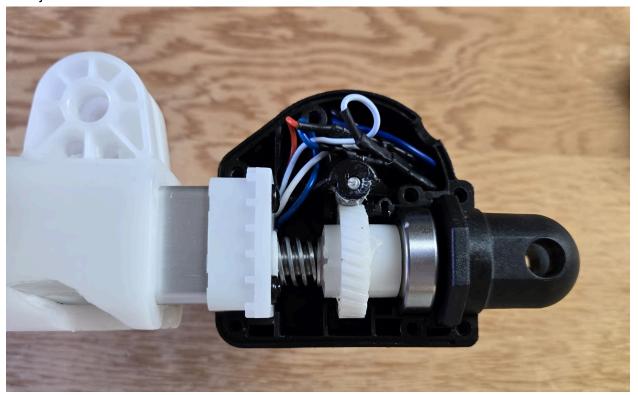
- 4. Pull the retaining ring pin out of the chair.
- 5. Assuming the block is broken, the front one will not be attached to the motor assembly. The same steps apply to remove the retaining pin and main pin.
- 6. Remove assembly from the chair.

## Removing the Old Broken Block

1. Remove 7 screws. These screws are quite long, I would recommend a cordless drill if it is available.

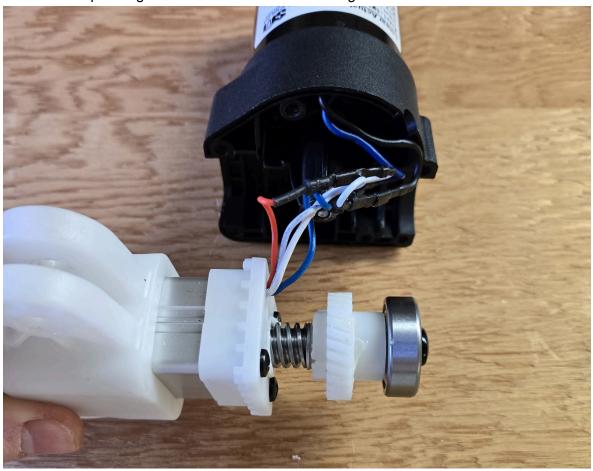


2. Remove gearbox cover. There are no clips holding it in place, only the fasteners that were just removed. Here is what that looks like:

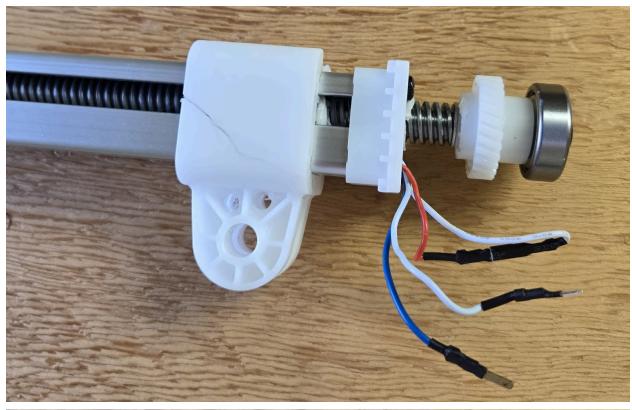


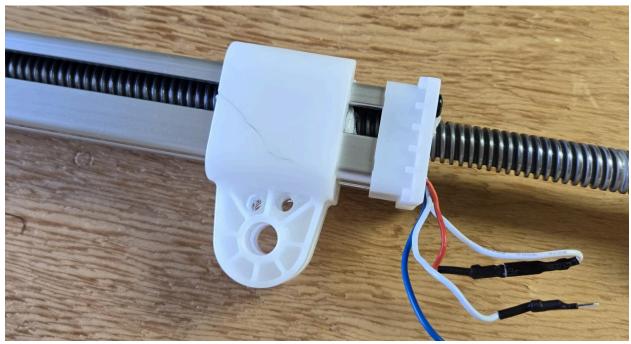
- 3. <u>Make sure the orientation of the aluminum rail remains in the same orientation throughout.</u> It may be worthwhile to mark it with a marker or tape to not lose the orientation.
- 4. Rotate the plastic gear off of the worm gear. <u>The wires will need to be disconnected, so be sure to take a picture of how they are plugged in BEFORE unplugging.</u> Pulling the

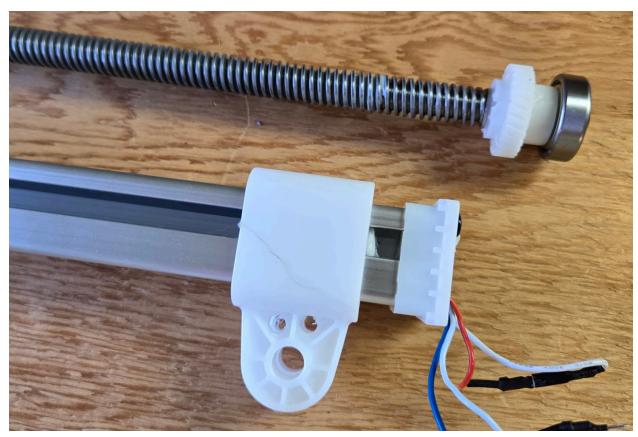
bottom of the plastic gear will rotate it off of the worm gear.



5. Twist the plastic gear counter-clockwise (the bearing pictured above is the top for reference). The block comes off of the rail at the motor end, so remove the lead screw from the assembly.

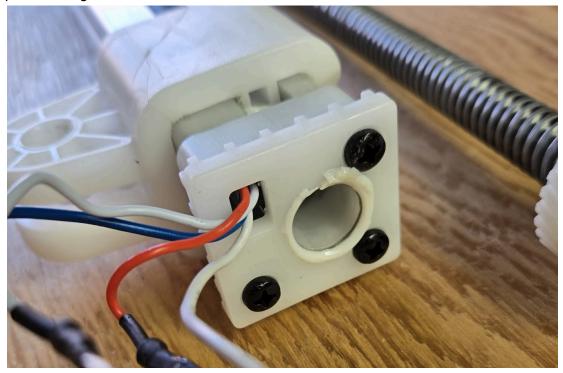




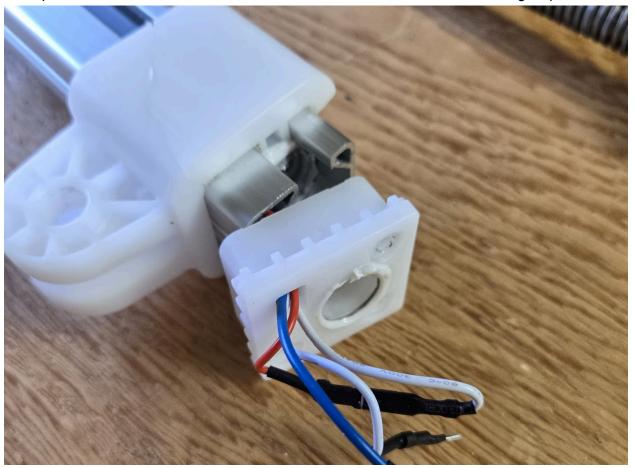


6. (Optional) At this time if you have some grease, you can apply it to the threads on the block so they will be spread around by the lead screw. It is a good idea to place the lead screw on a paper towel or on some material you don't mind getting grease on it, it is likely covered.

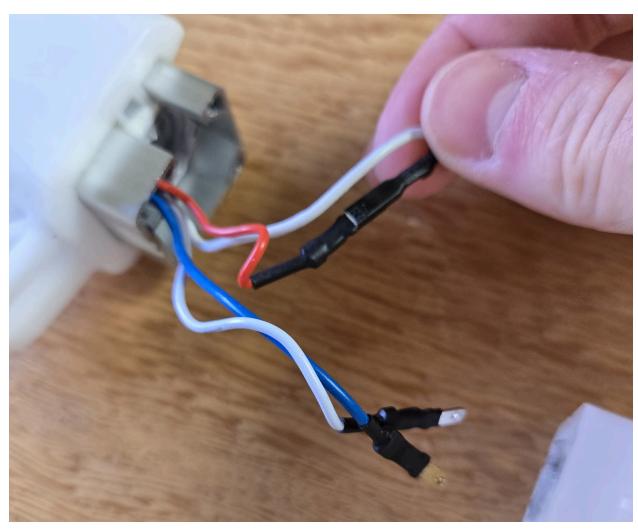
7. Now that the lead screw is off, you will need to remove the three screws from the plastic plate holding the rail end.



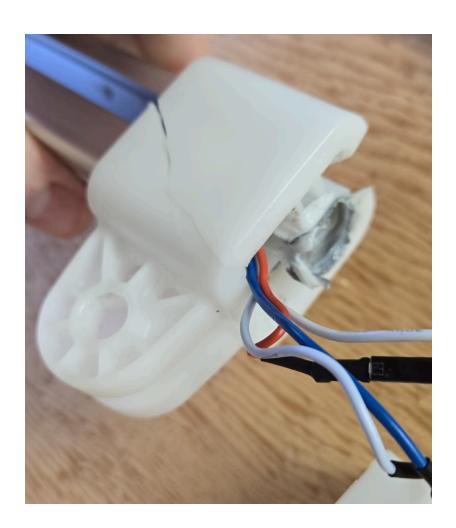
8. Slide the wires through the slot, careful not to damage them. As pictured below, it is best to keep the two connected wires connected, so there is no chance of later mixing it up.

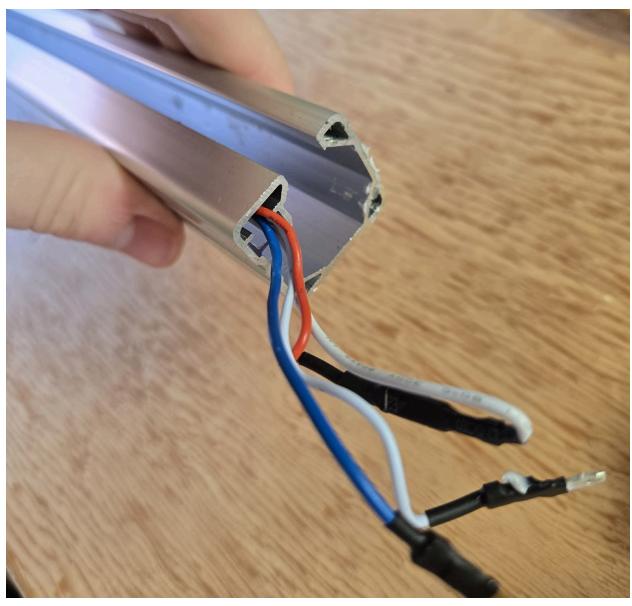


9. This is after the cap has been removed

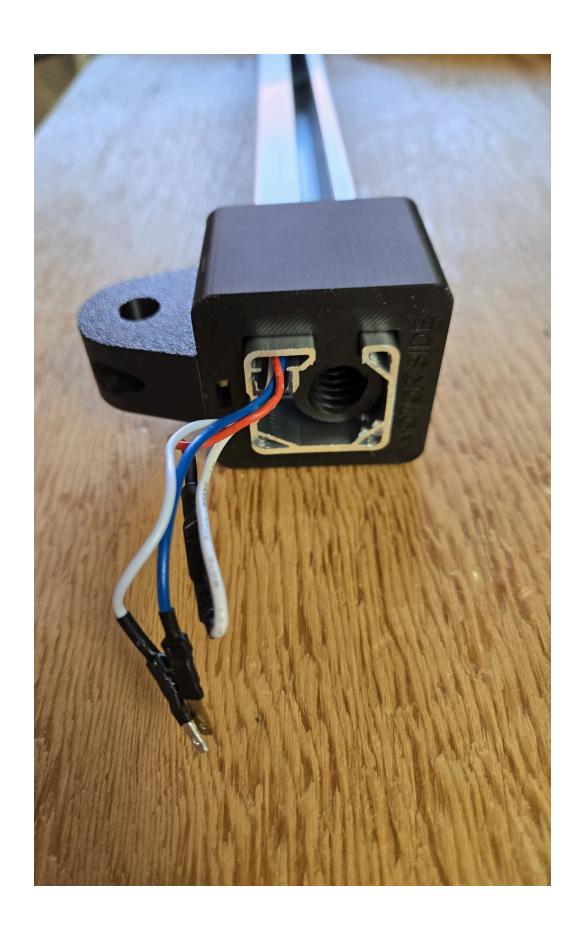


10. Slide the old broken block off of the aluminum rail.

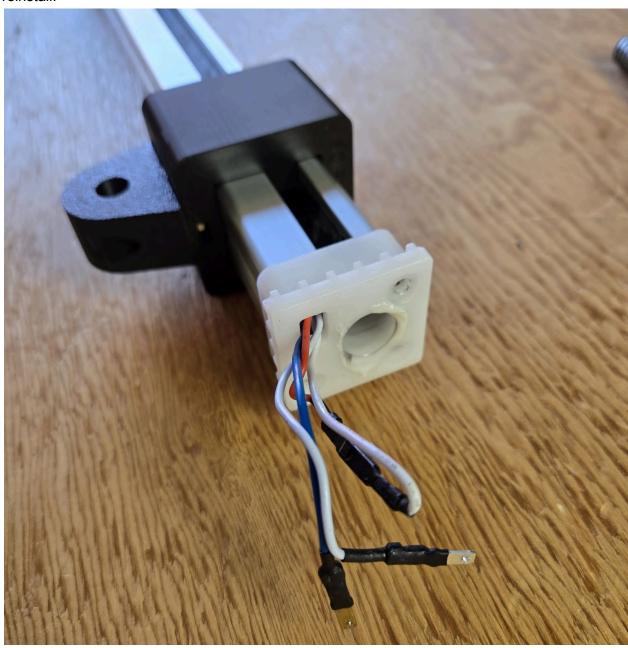




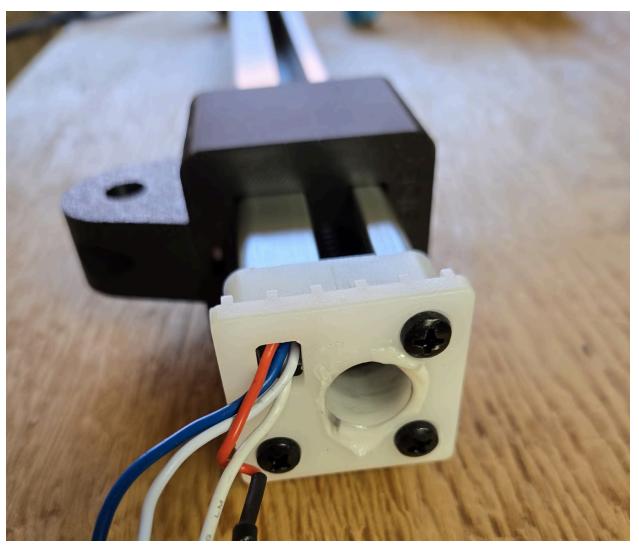
11. Place the new block on the aluminum rail, with the "MOTOR SIDE" text facing the motor.



12. Slide the block down the aluminum rail, then fish the wires through the cap again to reinstall.

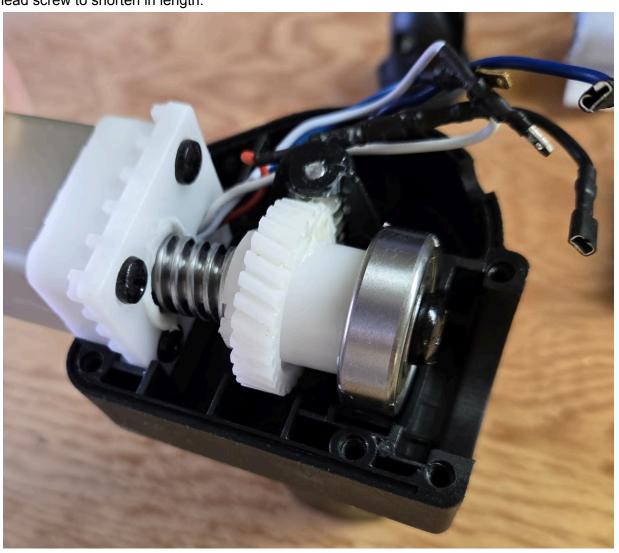


13. Screw the 3 screws holding the cap back into place

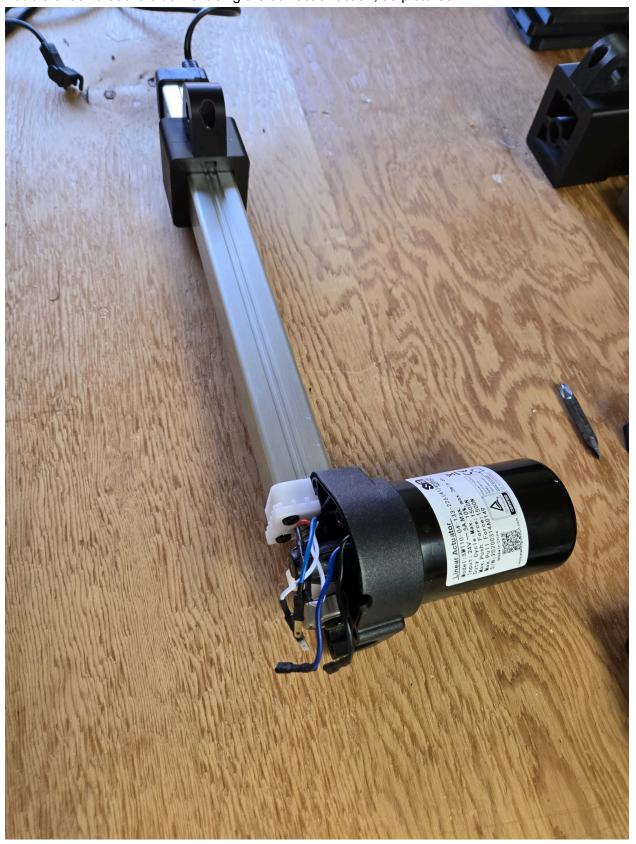


- 14. Install the lead screw, and get it threading into the new block. For easy installation back into the couch, ensure that the block is closer to the end away from the motor. This is the "reclined" position, so it will give you better access if you haven't tilted the couch on its back for repair.
- 15. Leave about an inch of screw between the plastic gear and the cap in the picture above. This will enable the rail to fit back into the motor housing, and the gear to roll into place on the worm gear. This part can be finicky due to the rotation of the gear causing the

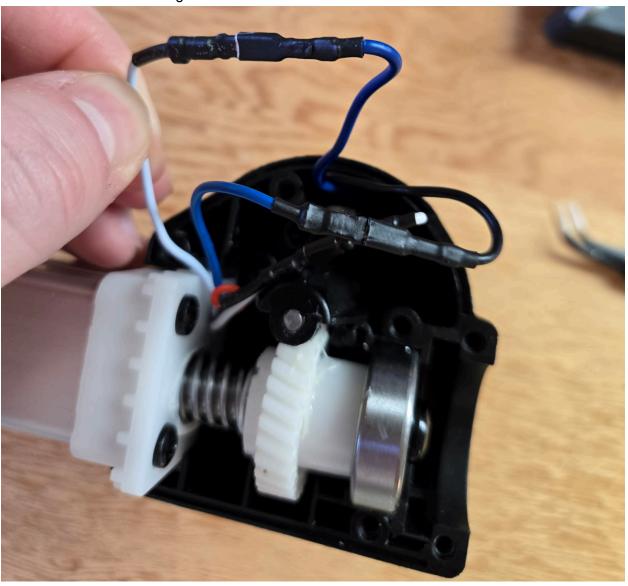
lead screw to shorten in length.



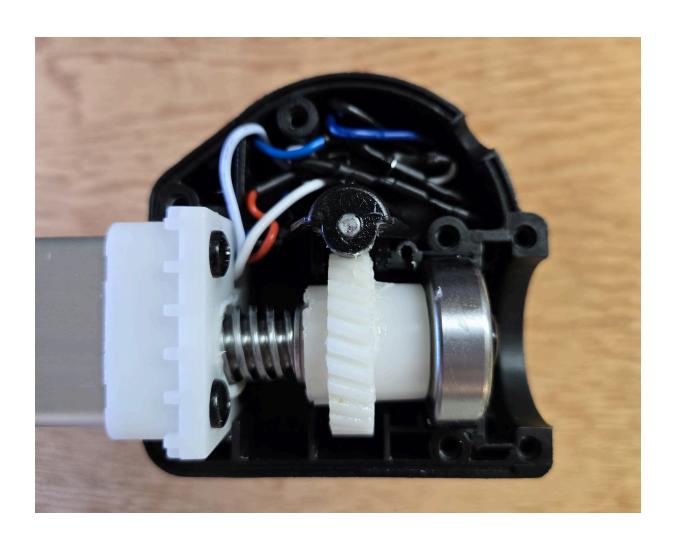
16. Double check that the block is facing the correct direction, as pictured:



#### 17. Reconnect the wiring like this:



18. Get the wiring to fit back into the empty space made for it, and ensure that there are no wires in the areas with moving parts.



19. Place the small plug, and the other hole piece into position pictured here:



20. <u>Do not pinch any of the cables in the gearbox housing.</u> Doing this can potentially damage the wires.

21. Place the housing cover back on and tighten all of the fasteners again. (Reverse of step 2)



22. Assembly has been fixed! Ready for install.

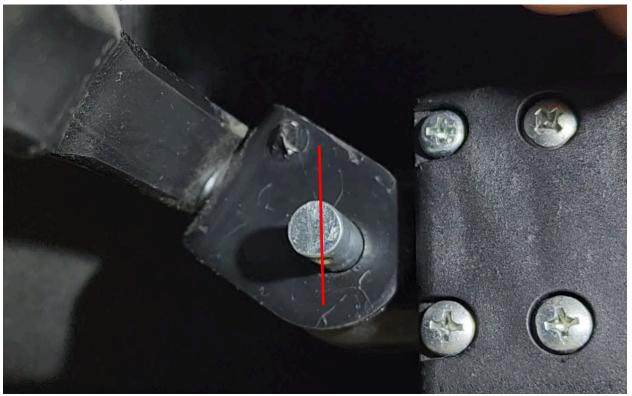


Reinstallation of the Motor AssemblyThe models pictured below are not exactly the same as the instructions for replacing the block above. The installation for the entire assembly should be in the opposite order of how you safely removed it from the couch before. This is a general guide that should apply to all recliners.

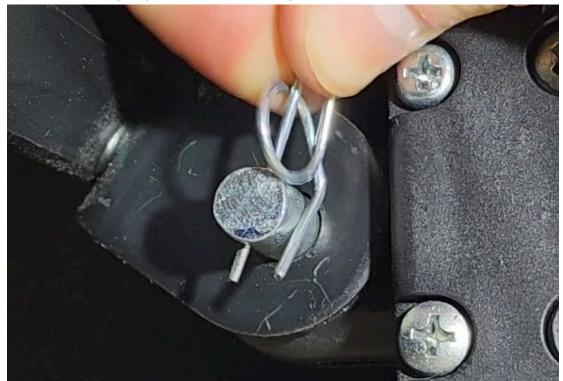
- 1. Before attaching either of the pins, the couch should still be unplugged from the wall.
- 2. Plug the two couch cables back into the motor.
- 3. Start with the rear pin, where the motor is. I found that resting the pin in the hole very shallowly helped with getting it through the two plates and assembly.



4. Make sure the hole in the main pin is roughly up/down so that the retaining ring pin can be pushed in easily.



5. Push the retaining ring pin in, flat side through the hole.



6. Twist the retaining ring pin so that the ring snaps into the locked position on the main pin. It should look like this when complete.



- 7. Plug the couch into the wall.
  - a. Due to the moving position of the recliner (assuming you are laying under it), the block will not line up with the couch recliner holes at all.
  - b. Use the recliner buttons to move the block to the correct position for inserting the main pin.







8. Repeat the same insertion steps as the back main pin.



- 9. Retract the recliner to the seated position to ensure the motor will stop at both ends.
- 10. Repair is complete! Sit back and relax, now that you can kick your feet up.