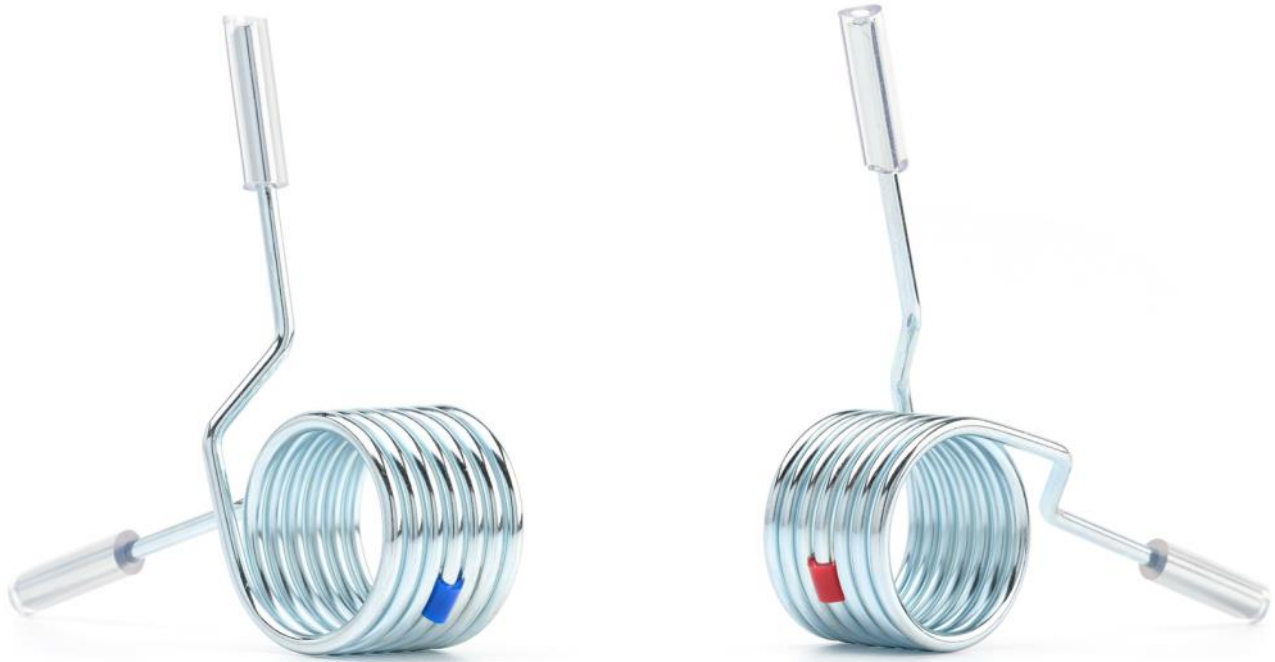


# ACUITY<sup>®</sup>



## 1981-S0x Centering Spring **Install Guide**

### Application:

- SKU 1981-LHD 4-Way Adjustable Performance Shifter
- SKU 1981-RHD 4-Way Adjustable Performance Shifter



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## TOOL LIST

- T25 Torx Driver
- Ratchet Wrench
- Torque Wrench Capable of **3.4Nm (2.5ft-lbs)**



## Skill Level: Intermediate

We recommend that only gearheads with a little experience attempt this install. If you've performed simple car maintenance operations, such as oil changes, air filter changes, and accessory belt replacements, you can handle this. If you have no experience working on cars, we recommend finding a more experienced friend or shop to help you with this install.



## Typical Install Time: 15-30min

*(assumes experience with similar tasks, plan for a longer install time if you do not have experience performing installations like this)*

**IMPORTANT:** Qualified technicians should perform installation. ACUITY LLC assumes no liability for issues arising from improper installation.



## Package Contents

Please inspect all of the parts that came with your kit before attempting installation. Your kit should include all of the components shown below:

- 1x Centering Spring (Low Preload OR High Preload)



## What to expect after installation:

### For SKU 1981-S01 (Low Preload Centering Spring):

Expect a modest but noticeable **decrease** in centering force, **around 15% less than the spring your 1981 shifter came equipped with**. Your shifter will still center effectively on its own, but you'll have to exert less force to reach the far left or right gears like 1,2, 5, 6, and R.

### For SKU 1981-S03 (High Preload Centering Spring):

Expect a modest but noticeable **increase** in centering force, **around 15% more than the spring your 1981 shifter came equipped with**. Your shifter will center more aggressively after installing this spring, and a small amount of additional force will be required to reach left/right for gears 1,2,5,6, and R.

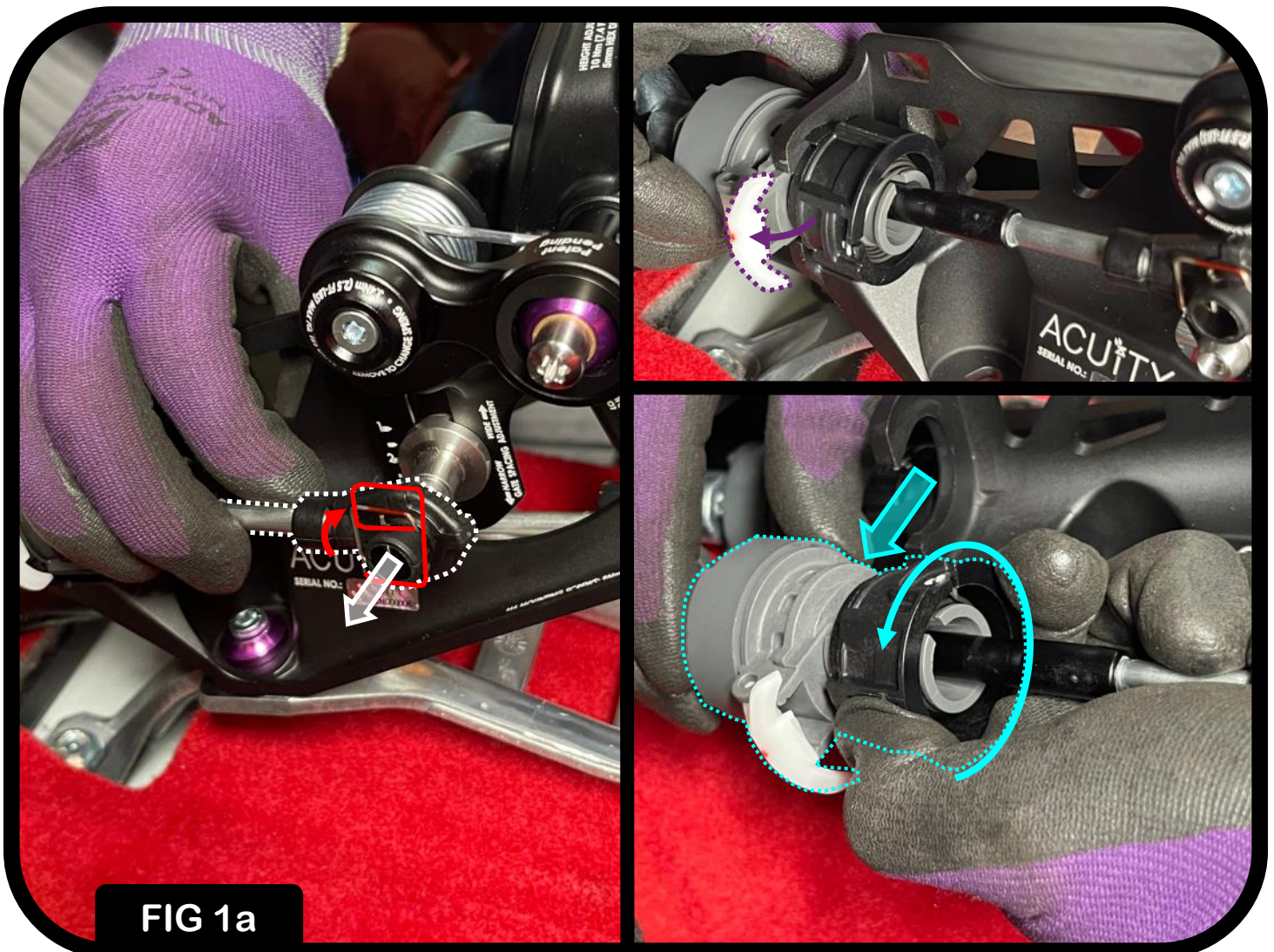
**IMPORTANT:** *Qualified technicians should perform installation. ACUITY LLC assumes no liability for issues arising from improper installation.*

## STEP 1 - Remove the Gate Rocker

*The replacement of your 1981 4-Way Adjustable Performance Shifter's Centering Spring can be done either with the shifter placed on a workshop table or installed in your vehicle.*

If you are replacing the Centering Spring after you installed your shifter, begin by disconnecting and removing the gate cable from the shifter. To do this, carefully rotate the retaining clip on the gate cable rod end 90° clockwise by hand (outlined in red), then pull the rod end off the Gate Adjustment Pin, as shown in Figure 1a. Then, rotate the retaining clip back into place on the gate cable rod end.

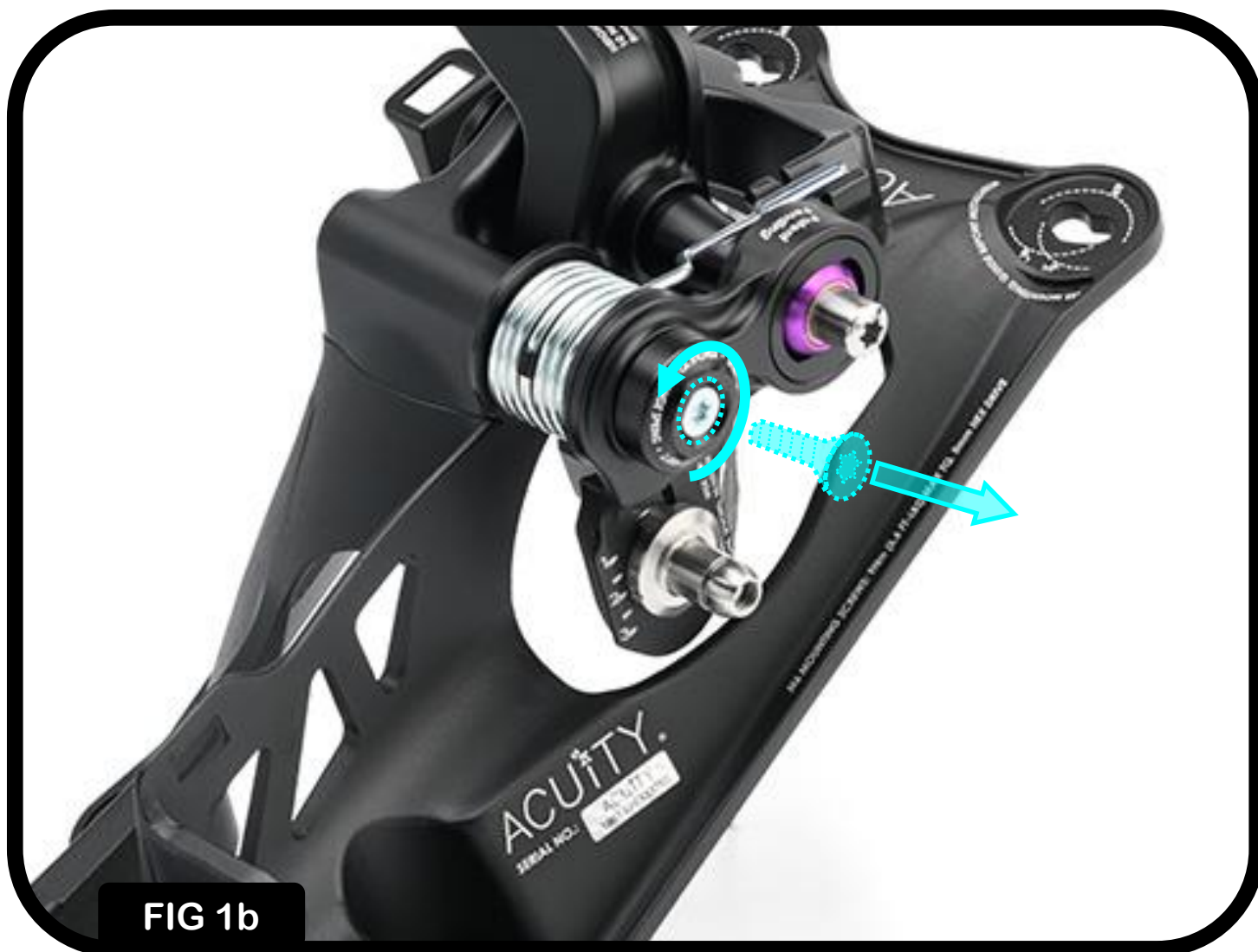
Next, remove the cable base by unlatching the white clip (outlined in purple). Then, twist the cable base (outlined in blue) apart until the gap between its two halves becomes wide enough for it to slide out of its mounting slot on the side of the shifter frame. Allow the cable base to rewind itself together, and set the gate cable aside.



## STEP 1 Cont. - Remove the Gate Rocker

Use a T25 torx driver and ratchet wrench to remove the M5 flathead screw located on the pivot point of the Gate Rocker, as shown below in Figure 1b (outlined in blue).

**Important:** Use the correct torx driver size to avoid stripping the head of the mounting screw.





## STEP 1 Cont. - Remove the Gate Rocker

Remove the Rocker Retaining Washer on the front of the Gate Rocker's pivot point (outlined in blue) and set it aside, as shown in Figure 1c.



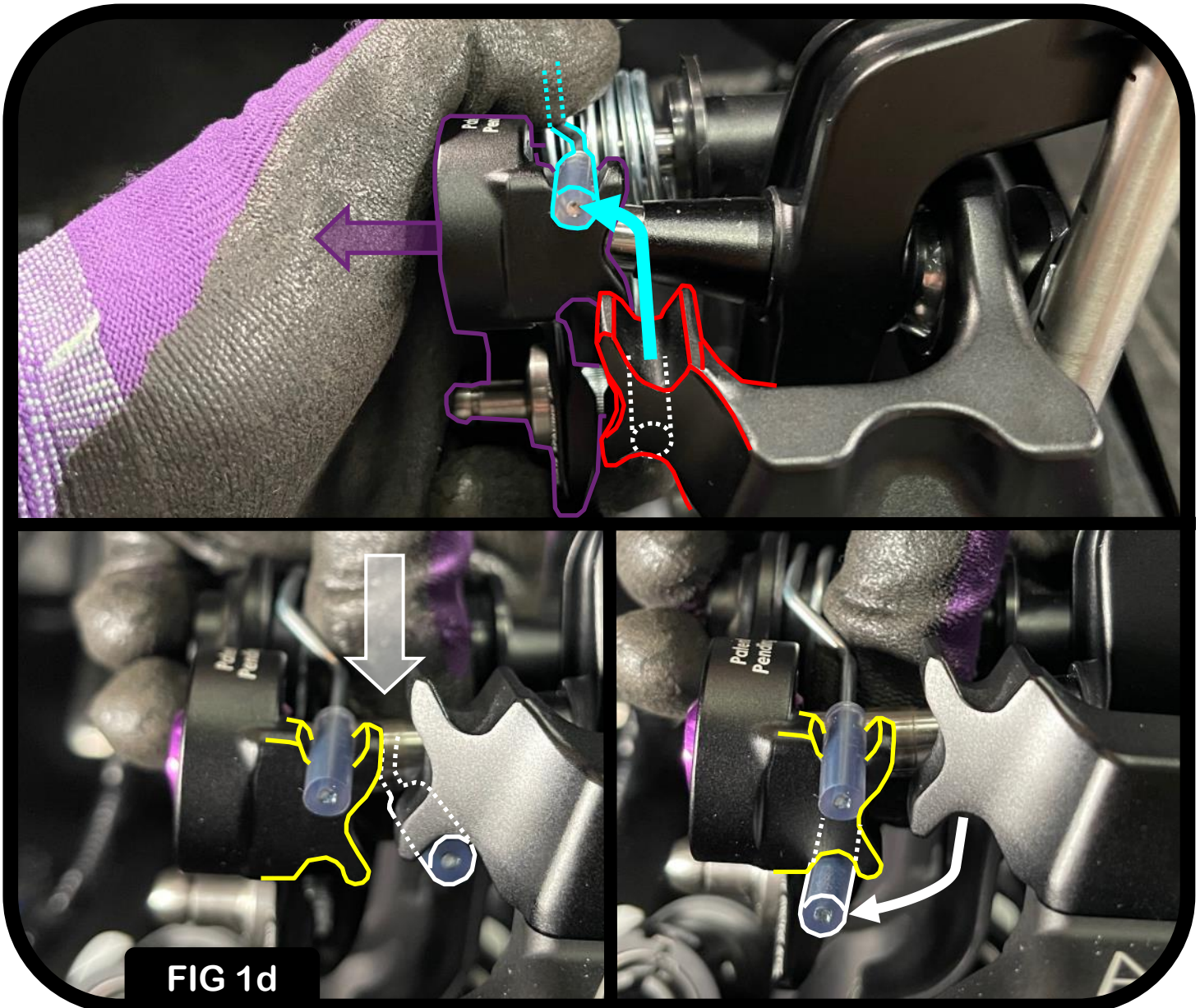
FIG 1c

## STEP 1 Cont. - Remove the Gate Rocker

As shown in Figure 1d, pivot the Gate Rocker up so that the upper leg of the Centering Spring (outlined in blue) lifts off the spring leg perch on the shifter frame (outlined in red). Next, carefully slide the Gate Rocker approximately 0.5 cm away from the side of the shifter (outlined in purple). At this point, the lower leg of the Centering Spring will still be seated on the spring leg perch on the shifter frame (outlined in white).

Insert your thumb or index finger between the Rocker Pivot Pin and the Rocker Spherical Pin (thick white arrow), then push the lower spring leg off its perch on the shifter frame (thin white arrow) and move it over to the bottom groove on the Gate Rocker's spring leg perch (outlined in yellow), as shown in Figure 1d.

**Important:** Use caution when removing the Gate Rocker and Centering Spring, as the spring is under load and can become a projectile if mishandled.





## STEP 1 Cont. - Remove the Gate Rocker

Slide the Gate Rocker with the factory Centering Spring off from the side of the shifter, as shown in Figure 1e below.



## STEP 2 - Remove the Centering Spring

Firmly hold the Gate Rocker with your thumb on the upper leg of the Centering Spring and your index and middle fingers on the Centering Spring coil, as shown in Figure 2a (outlined in purple). Then, using your free hand, move the lower leg of the Centering Spring off the bottom groove of the Gate Rocker's spring leg perch, allowing it to unwind to its unloaded position (outlined in blue).

**Important:** Use caution when working with the Centering Spring, as it can become a projectile if mishandled while under load.

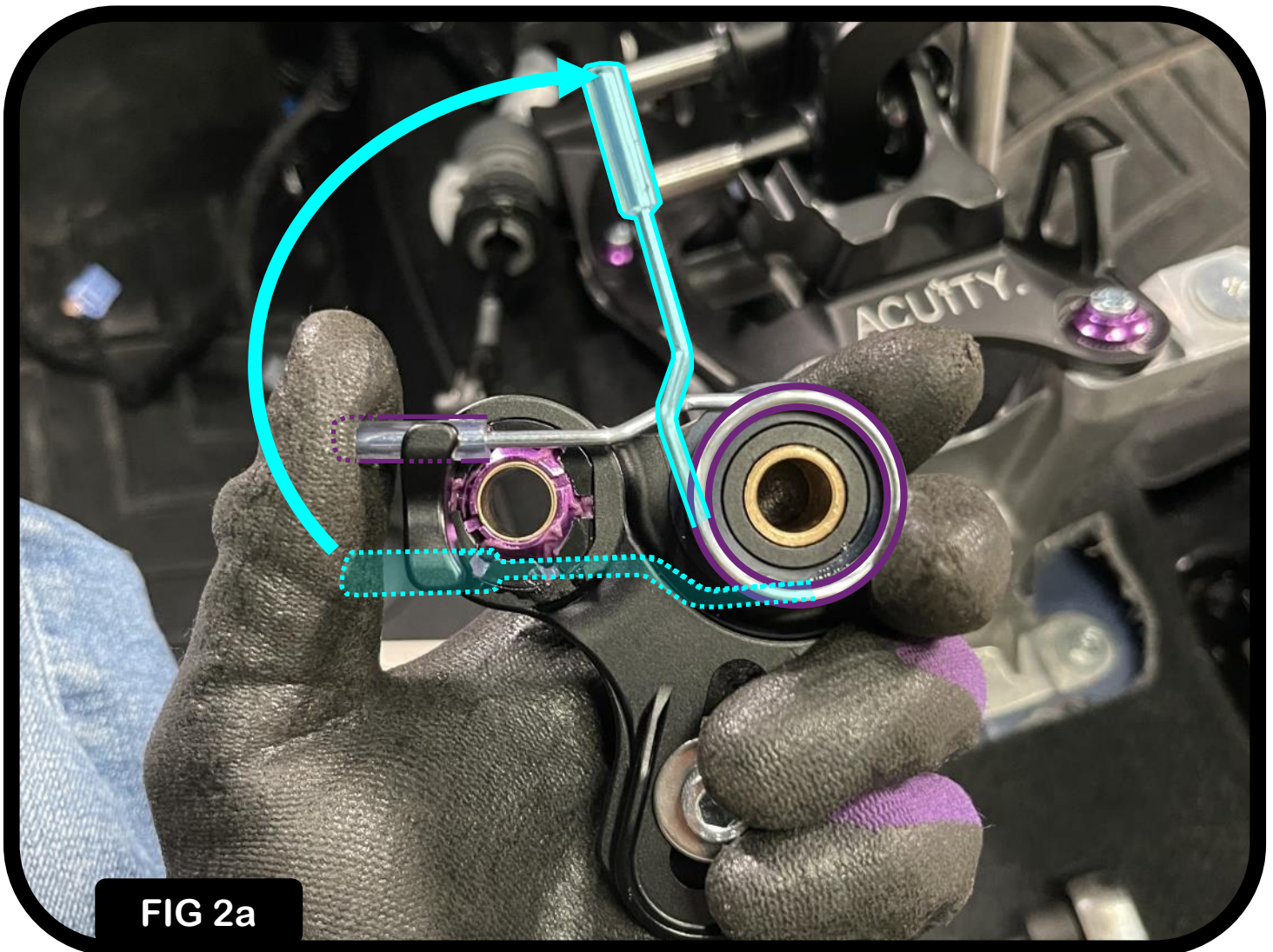


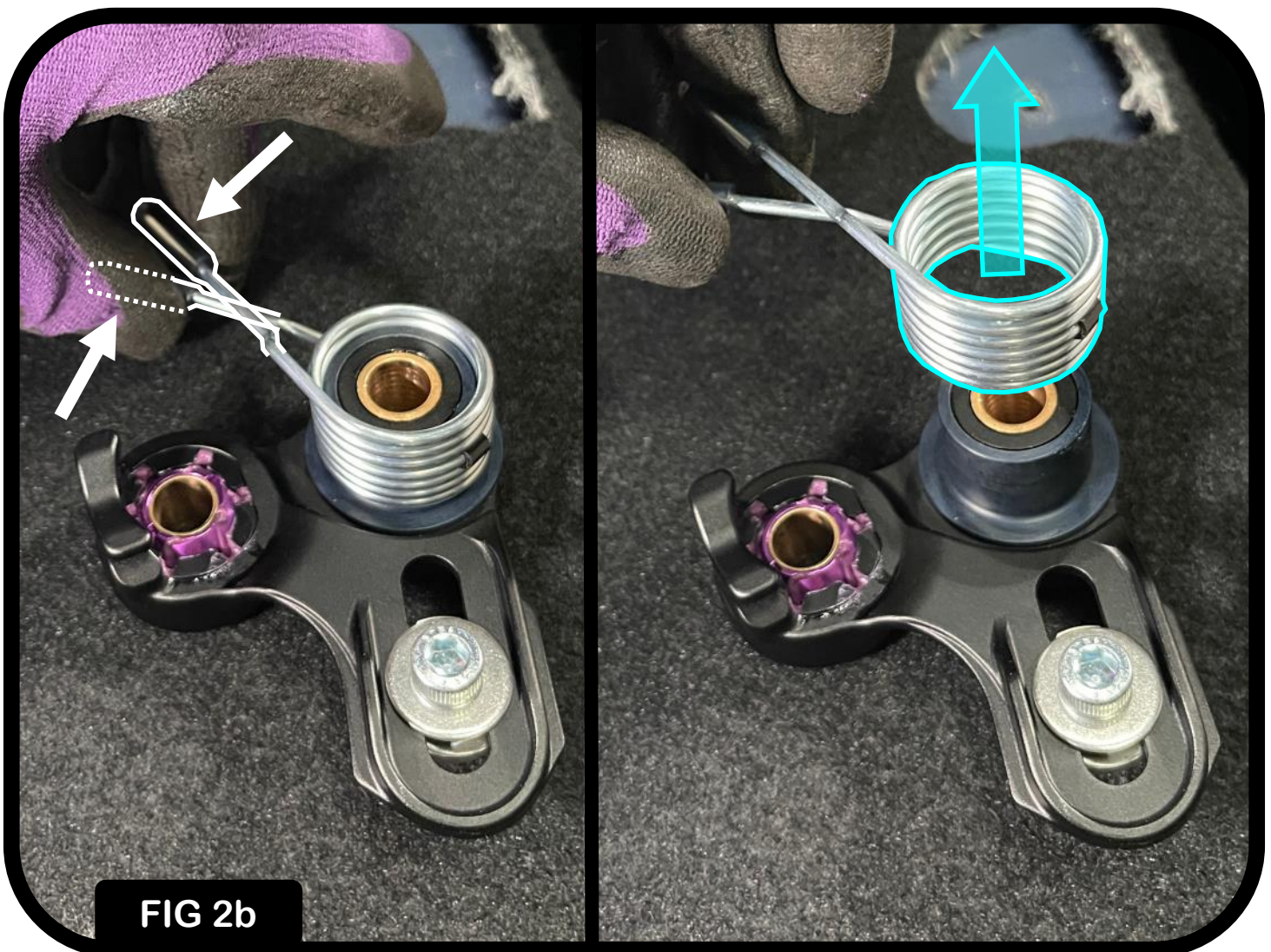
FIG 2a



## STEP 2 Cont. - Remove the Centering Spring

Squeeze the legs of the Centering Spring together (outlined in white) to expand the Centering Spring coil, as shown in Figure 2b. Once this spring coil expands enough to loosen its grip on the Gate Rocker (outlined in blue), remove the Centering Spring and set it aside.

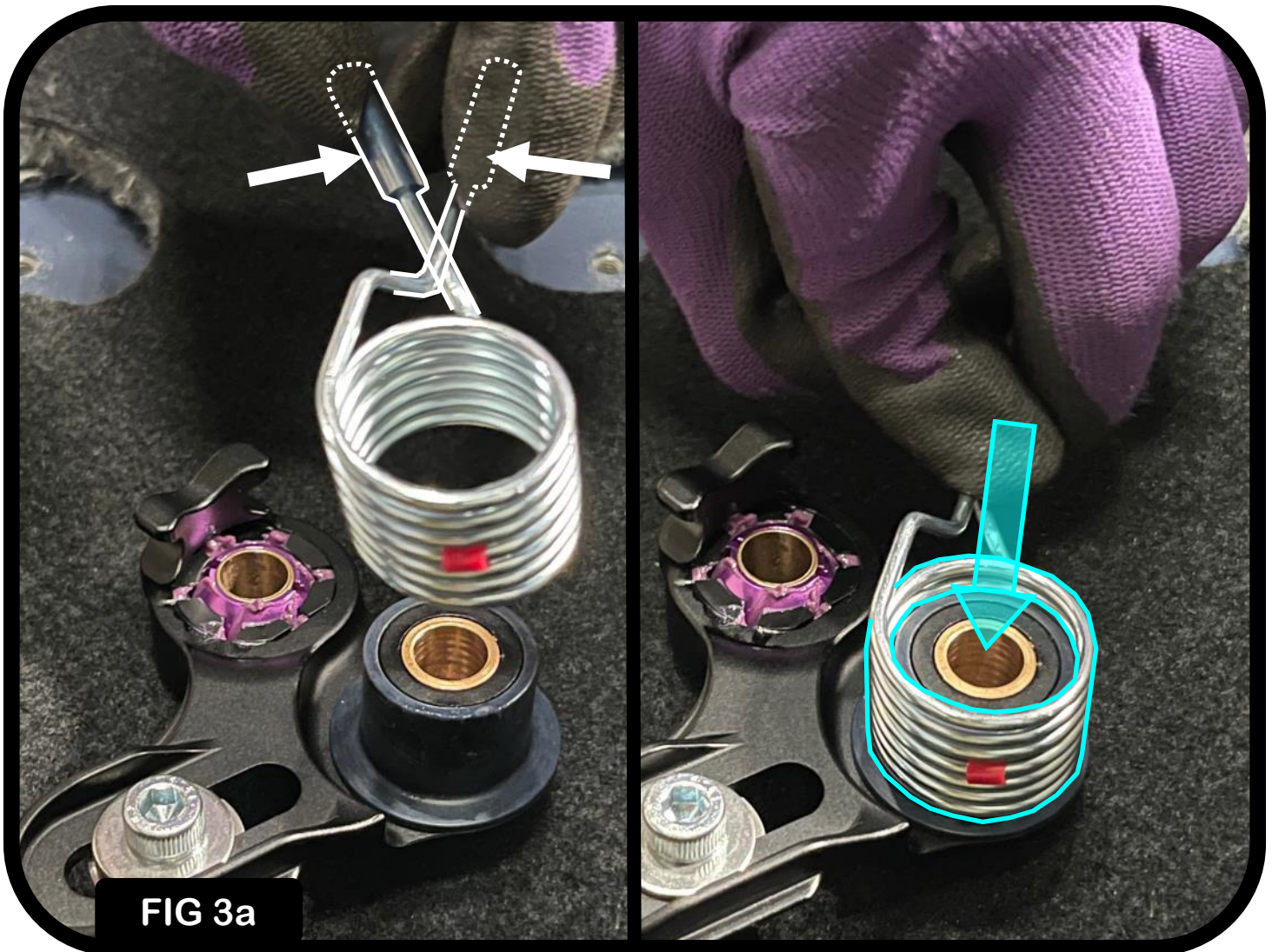
***Important:*** Use caution when squeezing the legs of the Centering Spring together, as it can become a projectile if mishandled while under load.



## STEP 3 - Install the New Centering Spring

Installing your new spring follows the same instructions as Step 2, but in reverse. Take your new Centering Spring and squeeze the spring legs together (outlined in white) to expand the spring coil (Figure 3a). Then, install the spring coil onto the Gate Rocker (outlined in blue).

***Important:*** Use caution when squeezing the legs of the Centering Spring together, as it can become a projectile if mishandled while under load.



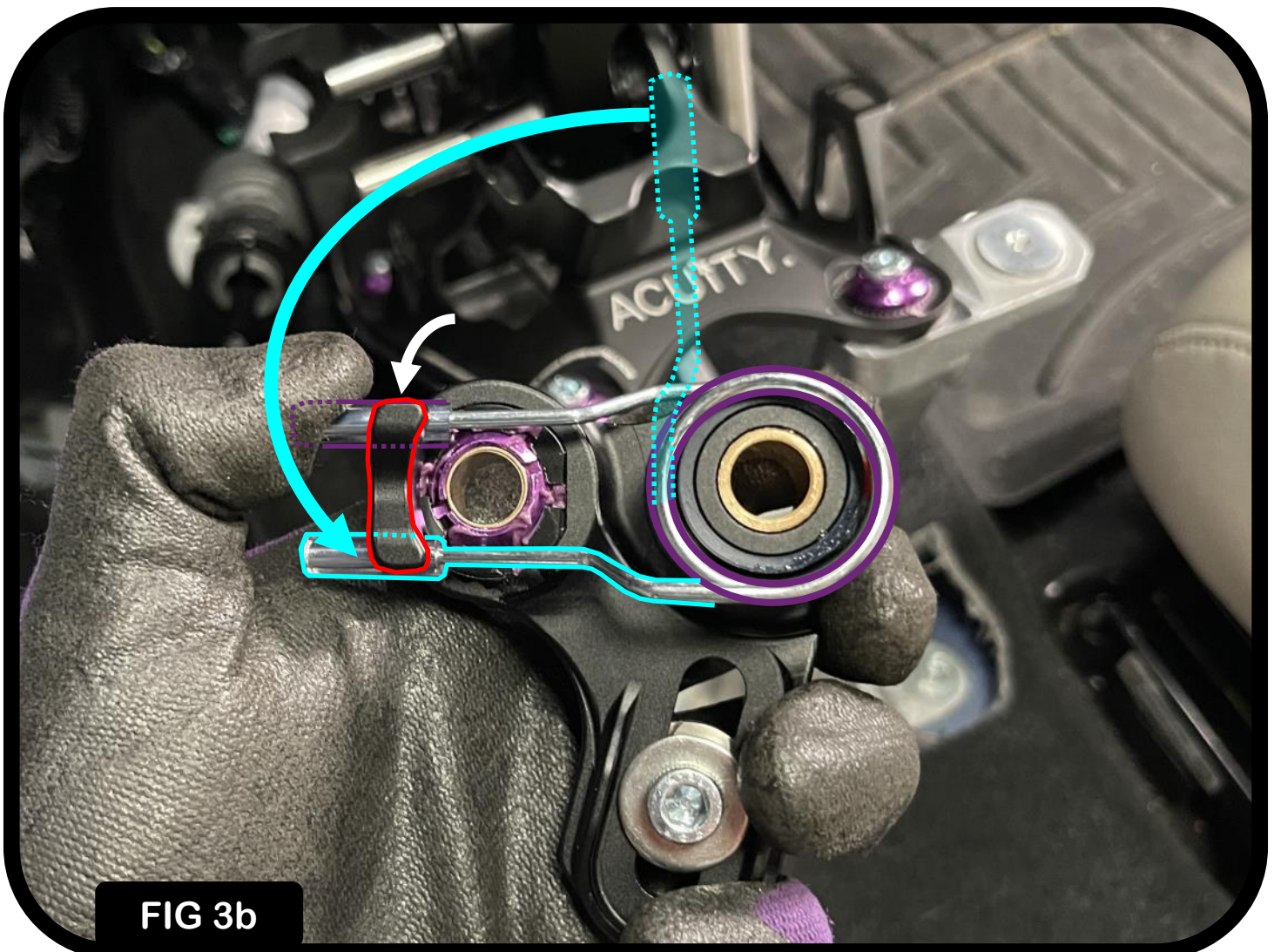


## STEP 3 Cont. - Install the New Centering Spring

Adjust the upper spring leg so it is seated into the upper groove on the Gate Rocker's spring leg perch (indicated by a white arrow in Figure 3b).

Firmly hold the rocker with your thumb on the upper leg of the Centering Spring and your index finger and middle fingers on the Centering Spring coil (outlined in purple). Then, using your free hand, move the lower leg (outlined in blue) over the Gate Rocker's spring leg perch (outlined in red) and set it in place into the bottom groove of the spring leg perch.

***Important:*** Use caution when working with the Centering Spring, as it can become a projectile if mishandled while under load.



## STEP 4 - Install the Gate Rocker

Before you install the Gate Rocker and new Centering Spring back onto the side of the shifter, ***make sure that the black Spring Washer is installed onto the Rocker Pivot Pin and is oriented as shown in Figure 4a (outlined in red).***

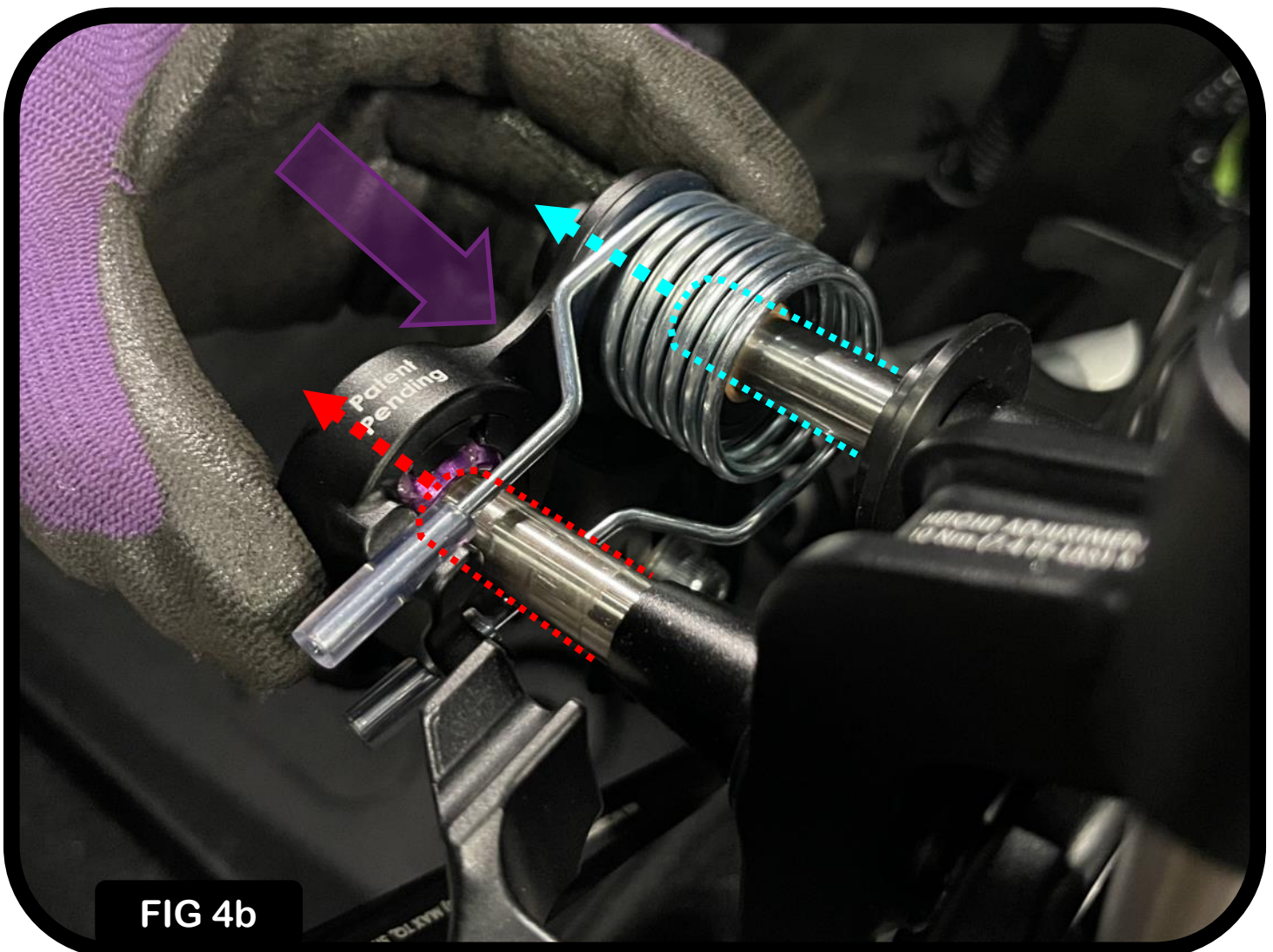


FIG 4a



## STEP 4 Cont. - Install the Gate Rocker

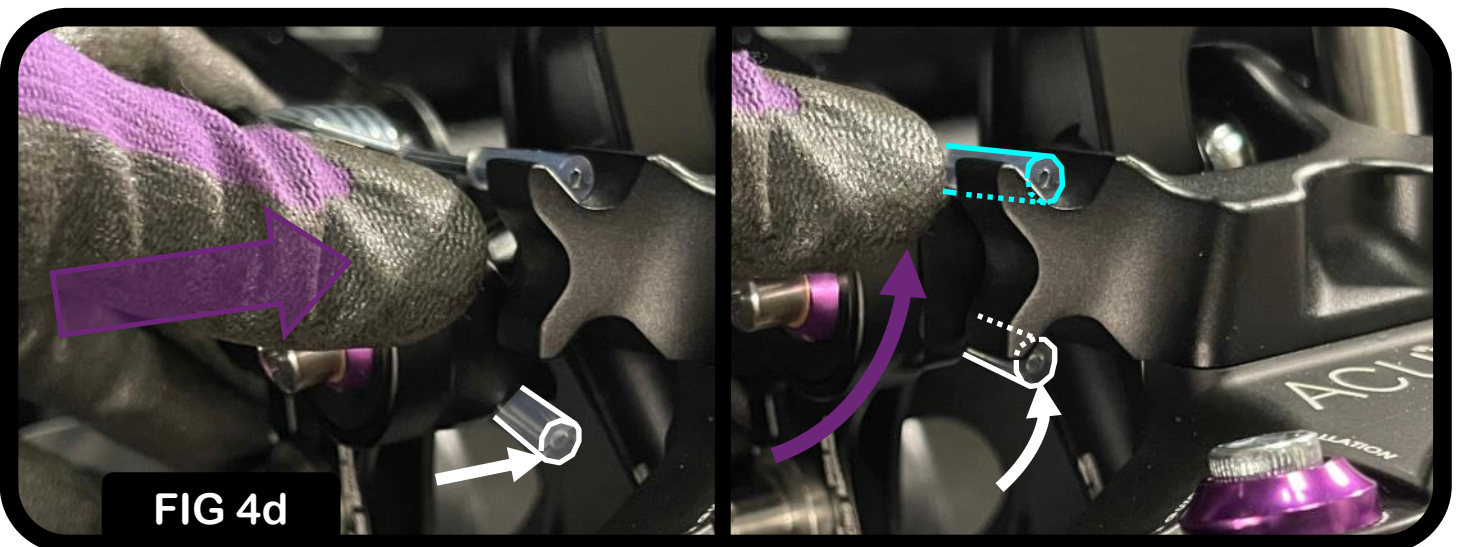
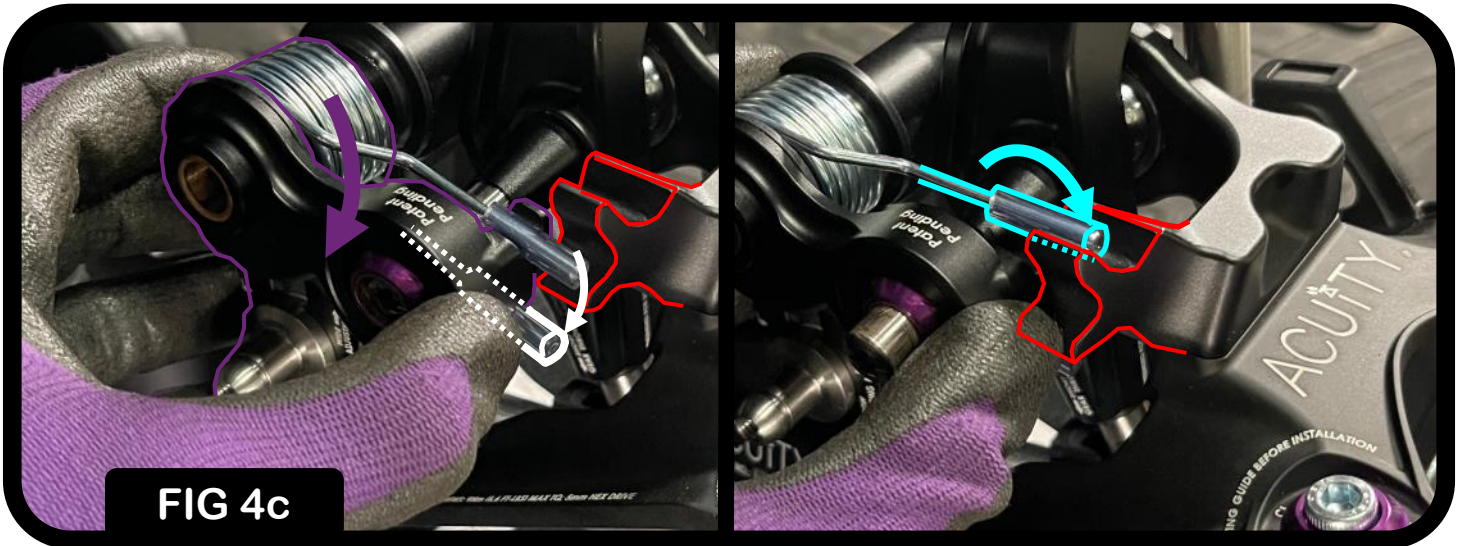
Slide the Gate Rocker with your new Centering Spring onto the side of the shifter, as shown in Figure 4b (purple arrow). Ensure that the Rocker Spherical Pin on the side of the adjustment body (outlined in red) inserts through the purple spherical bearing on the Gate Rocker and that the Rocker Pivot Pin (outlined in blue) inserts through both the Centering Spring coil and the Gate Rocker's pivot point.



## STEP 4 Cont. - Install the Gate Rocker

As you slide the Gate Rocker into place (outlined in purple), pivot it so the lower Centering Spring leg moves downward, as shown in Figure 4c (outlined in white). Hold this position with one hand, then use your free hand to pull the upper Centering Spring leg (outlined in blue) up and over onto the top groove on the shifter frame's spring leg perch (outlined in red).

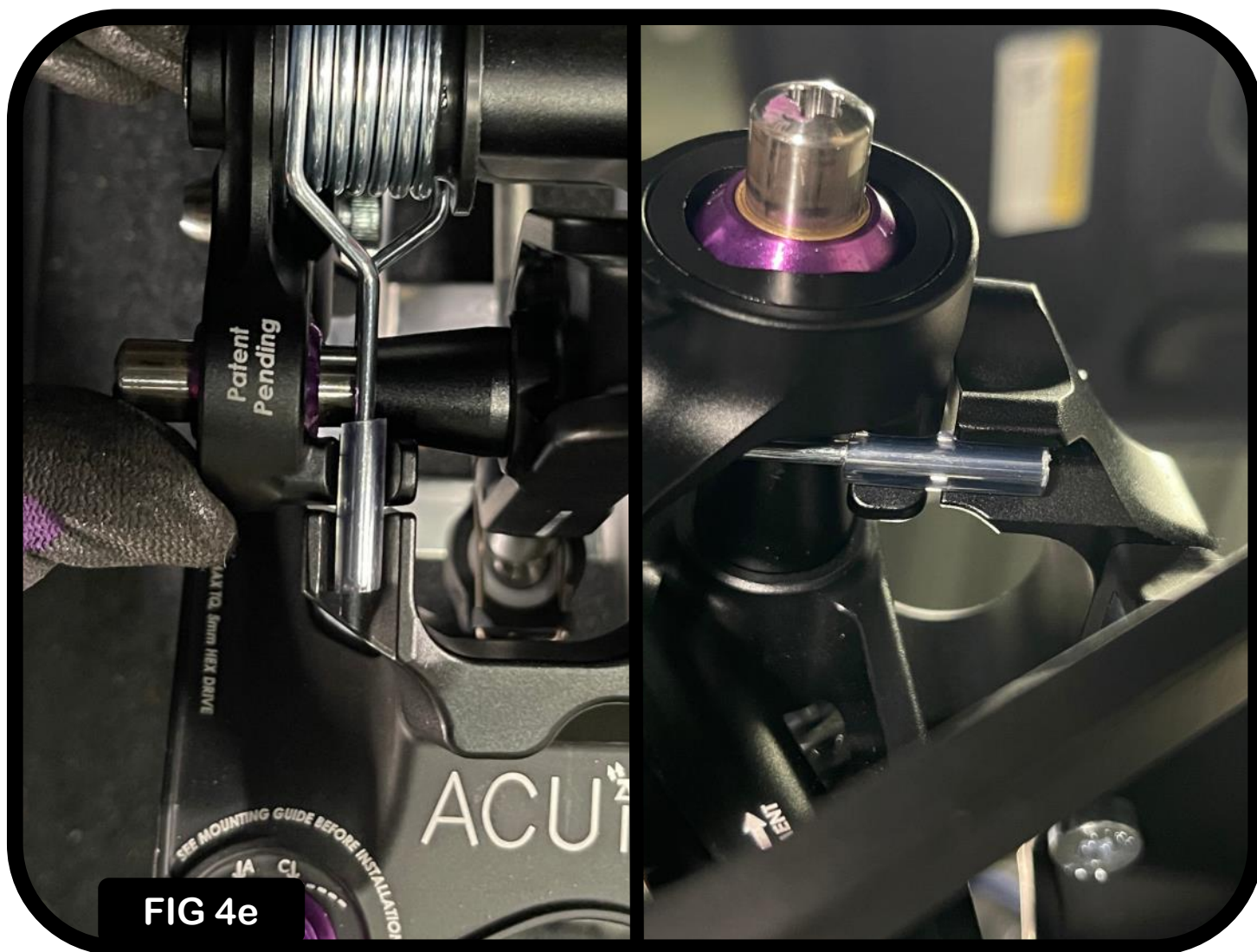
Next, with the Gate Rocker still pivoted downward, slide it fully onto the side of the shifter. If done correctly, the lower spring leg should move beneath the shifter frame's spring leg perch as the Gate Rocker slides into place. Pivot the Gate Rocker up until the lower Centering Spring leg is fully seated into the bottom groove of the shifter frame's spring leg perch, as shown in Figure 4d.





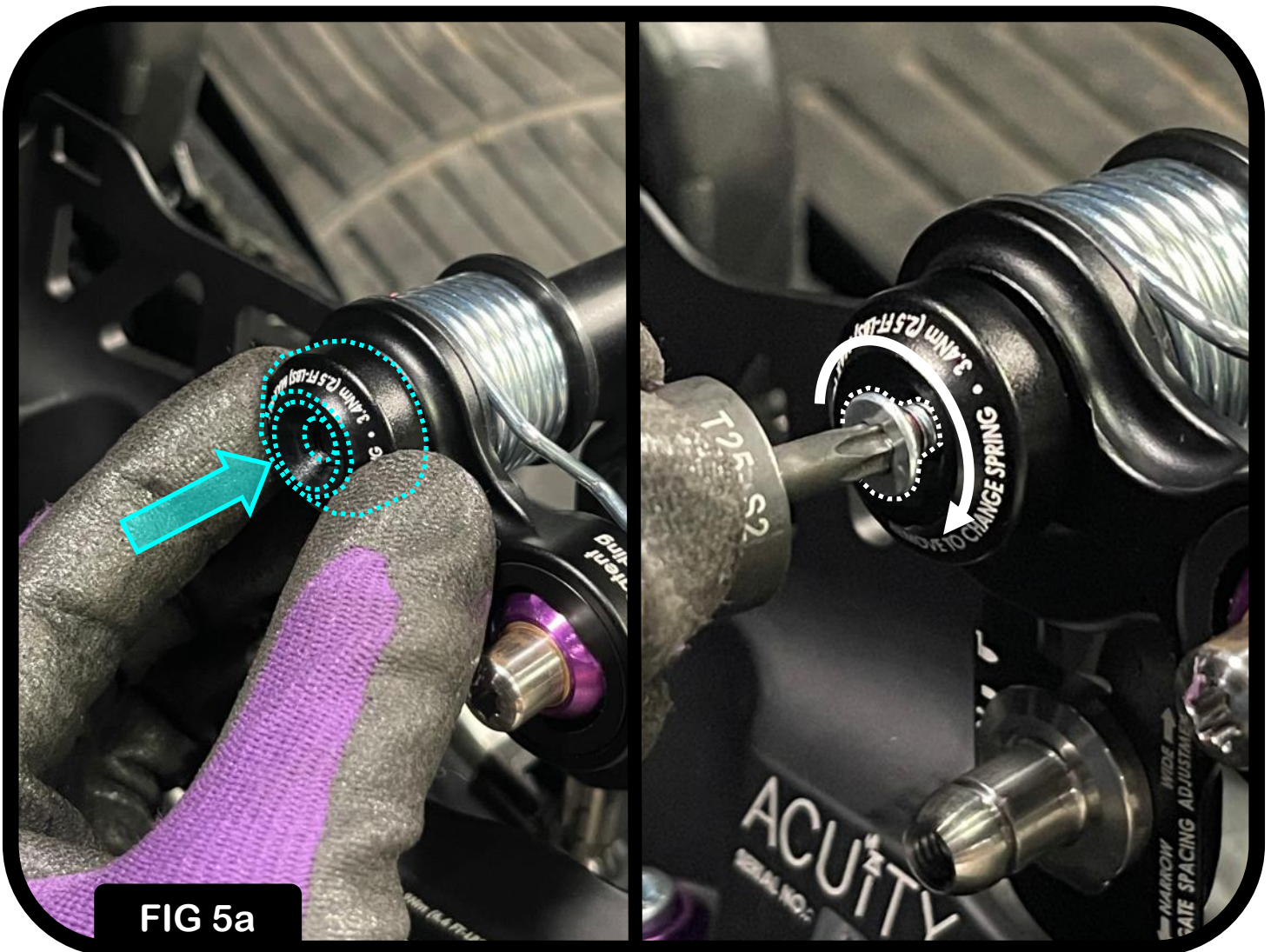
## STEP 4 Cont. - Install the Gate Rocker

Figure 4e below illustrates what the Centering Spring legs should look like when properly seated on the spring leg perches of the Gate Rocker and shifter frame.



## STEP 5 - Torque the Gate Rocker Mounting Screw

Install the Rocker Retaining Washer (outlined in blue) onto the front of the Gate Rocker, as shown in Figure 5a. Thread the M5 flathead screw (outlined in white) through the Rocker Retaining Washer and into the Rocker Pivot Pin, and tighten it to **3.4 Nm (2.5 ft-lbs)** using a T25 Torx driver and a torque wrench.





## STEP 6 - Reassemble the Factory Components

Reinstall the gate cable in reverse order following Step 1, and then reassemble your factory center console components.

If you haven't installed the shifter in your vehicle yet and need guidance on the installation process, follow our dedicated installation guide for the 1981 4-Way Adjustable Performance Shifter, available on our website at [www.acuityinstruments.com/install](http://www.acuityinstruments.com/install). Congratulations! You've completed the installation of your new Centering Spring.

***Helpful Tip:*** Before you reassemble the center console, check that the base mounting screws and all adjustment hardware are tightened down to their respective torque specifications (which are laser etched on the shifter).



FIG 6a

## Revision History

**Rev 1.0**

**Date:** June 9th, 2025

**Change:** Document Published

*This product is eligible for a 1 year warranty against manufacturer defect with valid proof of purchase.*