SHIFTING TECHNOLOGY

NOT JUST FOR RACING
MADE IN GERMANY

# Installation Manual

10FL5

Honda Civic
Type R FL5
6-speed gearbox

CIVIC TYPE R FL5



# SAFETY FIRST!

- Raise the vehicle safely with a vehicle lift for installation. Improper lifting can cause damage to the vehicle and/or personal injury or even death!
- Please only do the installation if you have appropriate experience in the automotive sector and have the right tools! An incorrectly installed Shifter can seriously damage the transmission or make the vehicle undriveable or not shiftable and lead to serious accidents!
- If work on the electrical system is necessary, please follow the manufacturer's specifications.
- Carry out all work with care and cleanliness! For the professional assembly of a shifter is no force required. All parts are designed to fit your vehicle.
- If you are unsure, please contact your trusted workshop about the installation!

# BASICALLY

- Use ethyl alcohol/brake cleaner to clean all aluminum parts.
- Occasionally lubricate all moving parts with spray grease, which has good creeping properties. Our recommendation: Würth HHS 2000 (WD-40 or similar is unsuitable because it is too thin)
- Generally attach a sealing sleeve to all ball heads (if available on the model). Lift sealing sleeve very slightly to lubricate.
- All screws and nuts that are not self-locking or are fitted with tooth lock washers glue in during assembly!
- After installing the shifter, secure all ball heads (if available on the model) with the cotter pins provided!
- If CAE shift cables are included in the scope of delivery, please never kink them!

## ⓘ SURFACES AND THEIR CARE

Please note that an untreated aluminum surface (ALU) is sensitive to aggressive Liquids to which i.a. Hand sweat also counts. Especially the high-strength 7075 aluminum we use has a tendency to form black spots of corrosion due to its high copper content. Under special circumstances, very salty air near the sea and coast can lead to corrosion. The surfaces should therefore be cleaned regularly and treated with care to prevent this. For this purpose, e.g. ethyl alcohol or brake cleaner. Only spray these onto a cloth and wipe the shifter with it, NEVER spray the shifter directly. If stains have already formed, they can be removed with commercially available aluminum polish, but that is also not allowed get into the movable parts of the shifter. The anodized versions of our shifters (EXS, EXGR) are more resistant to corrosion. The steel parts have to be also cared in all variants.

# TIPS FOR GEAR SHIFTING

## ⓘ FORCE DOESN'T MAKES YOU FASTER – IT ONLY HARMS THE TRANSMISSION

The question arises again and again: "Does a CAE shifter puts more strain on a gearbox than a standard gear lever?" The answer is clear: “No!” The things that are most stressful for a synchronizer ring in a transmission are excessive shifting forces or a wrong shift in gear. Basically, the shift travel with a CAE Shifter is significantly shorter than with the standard lever. We achieve 30 - 55 % reduction depending on the vehicle and transmission type. This can only be achieved by using the appropriate gear ratio on the shift lever. You can feel it through the precision of a CAE shifter engaging the gears is much better than with a standard gear lever designed for comfort. The force for this decreases in the same proportion - we put in the gears with significantly less load for the synchronizer rings. In addition, with a correctly adjusted CAE shifter put in the gears is very precise and shifting into the wrong gear is extremely rare. Even in motorsport, fast, precise, but still sensitive shifting leads to the goal! Everything else is pure tugging and tearing which puts a disproportionately high strain on a transmission and in the worst case causes a fatal wrong shift in gear!

# Package Contents

- 1x Shifter, fully assembled,
  design depending on ordered variant (Picture A)
- 1x shift knob, including M6x20 V2A lock nut
  Design varies depending on the version ordered (Picture B)
- Base Bar
  1 x 110 mm, 1 x 80 mm
  Screws and nuts as shown (Picture C)

A



B



C

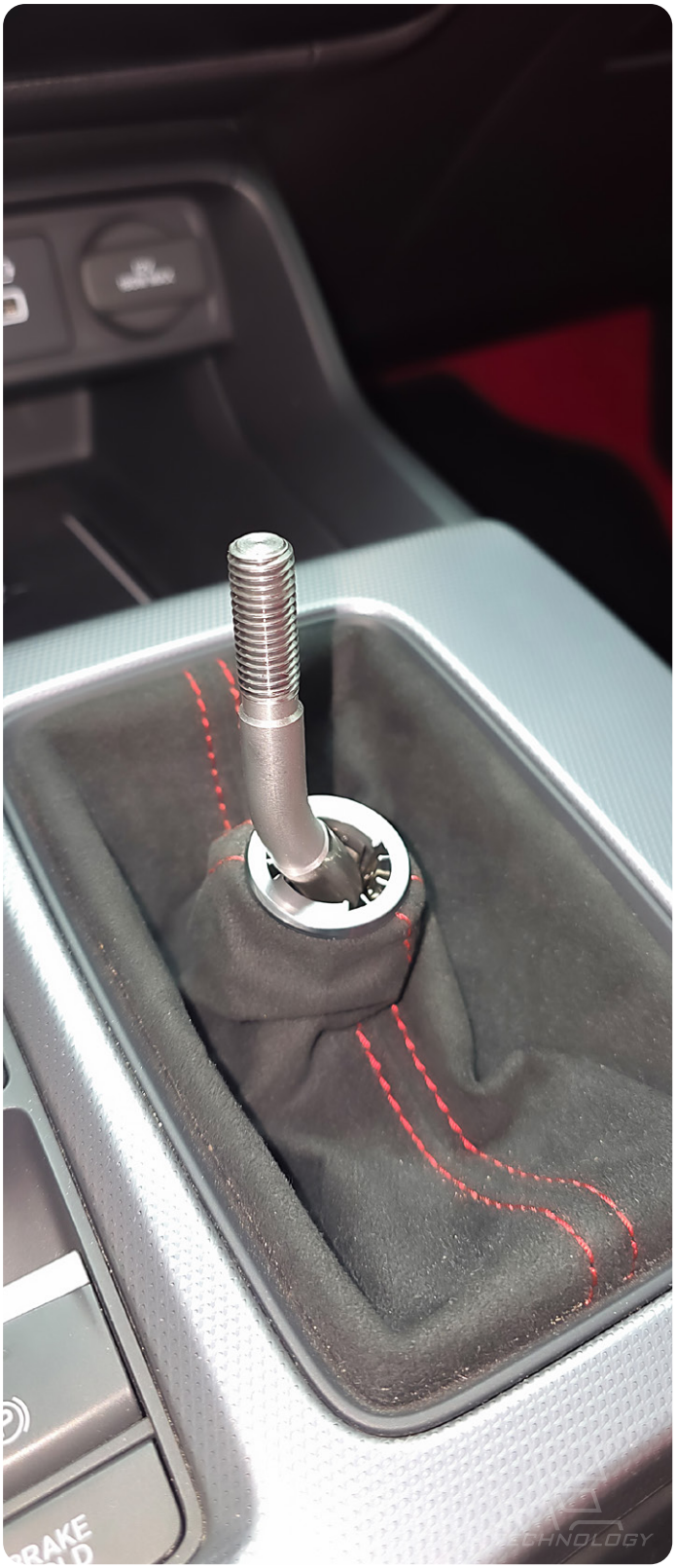


# CAE Shifter Installation

## Remove the Original Shift Knob

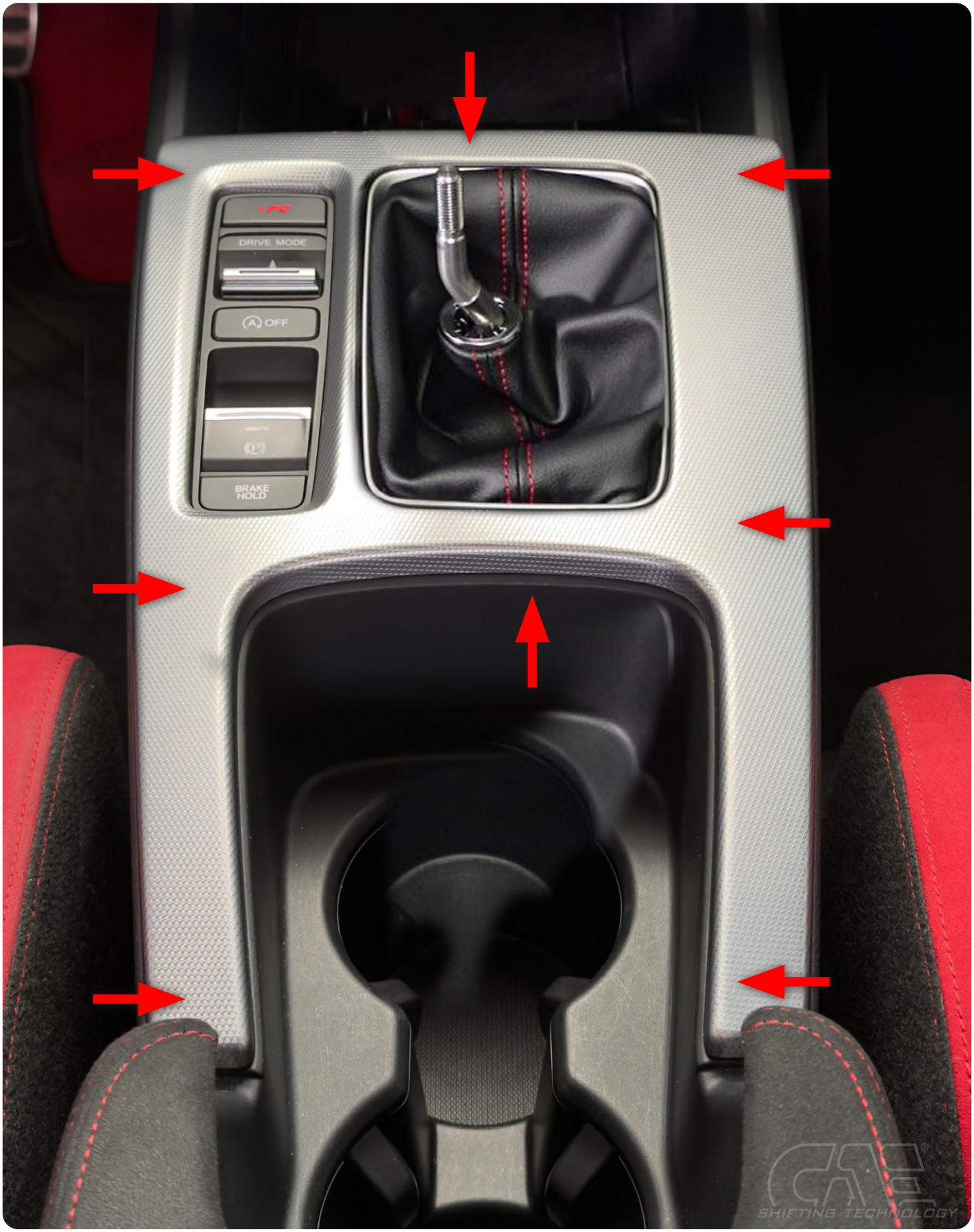
- To detach the shift boot from the shift knob, grasp the boot with both hands directly below the boot collar and pull it firmly downward. If the collar is difficult to pull off, slide a plastic trim removal tool between the collar and the mounting nut while pulling downward. Unscrew the original shift knob counterclockwise.
  The thread is self-locking, so it takes considerable force to unscrew the knob.





## Remove the trim around the gearshift lever

- Next, remove the trim around the gearshift lever.
  As shown in the illustration, this trim piece is attached to the upper console trim with several plastic clips.



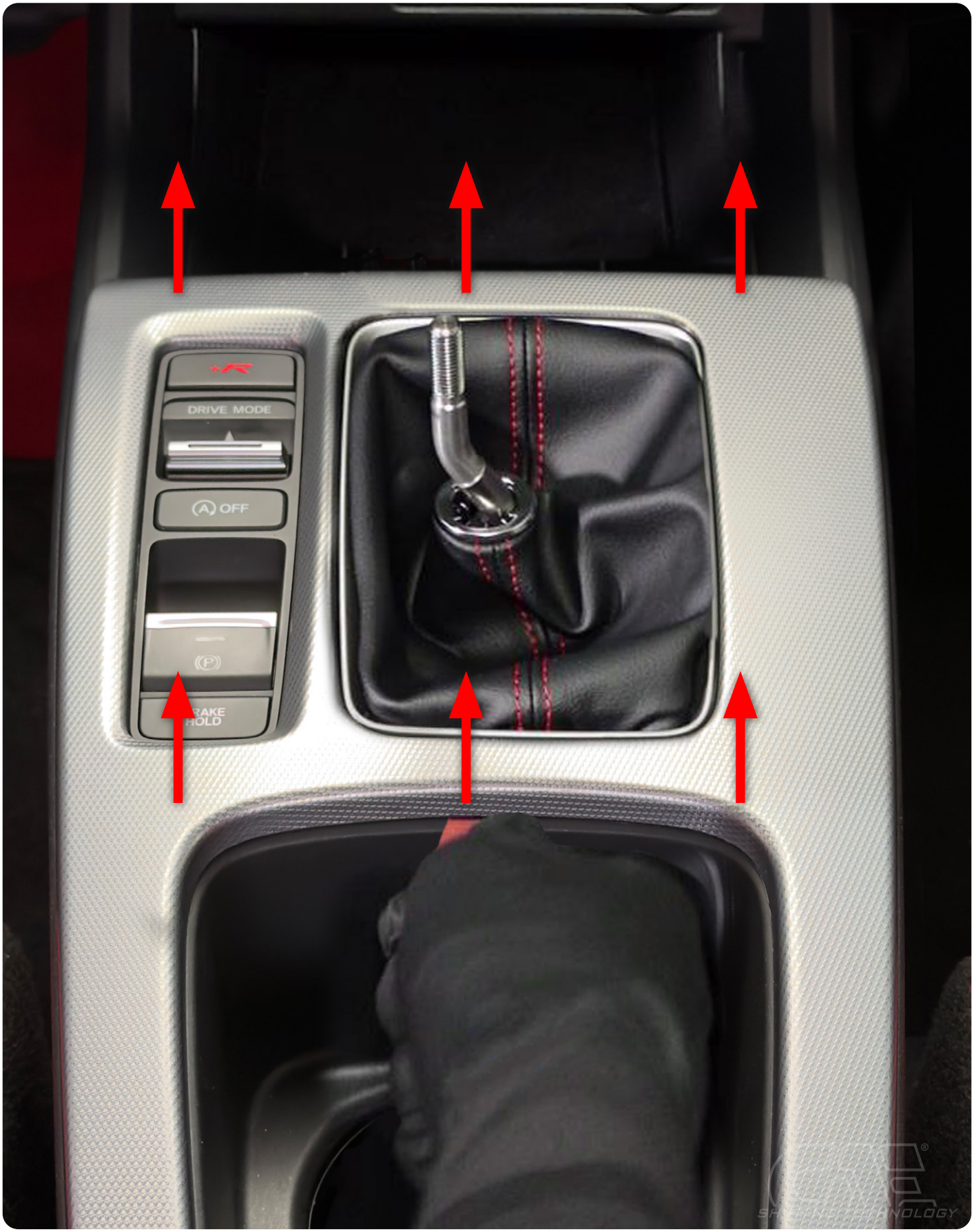
## Remove the trim around the gearshift lever

- Take a plastic removal tool and pry it under the clips securing the trim around the gearshift lever.



## Remove the trim around the gearshift lever

- Lift the trim around the gearshift lever further upward in the middle and upper sections to release the remaining clips from the top of the center console.



## Remove the trim around the gearshift lever

- Lift the trim around the gearshift lever; underneath are the two electrical connectors that supply power to the buttons on the lever.
  To remove each connector, press down on the locking tab on the connector and pull it out in the directions shown.



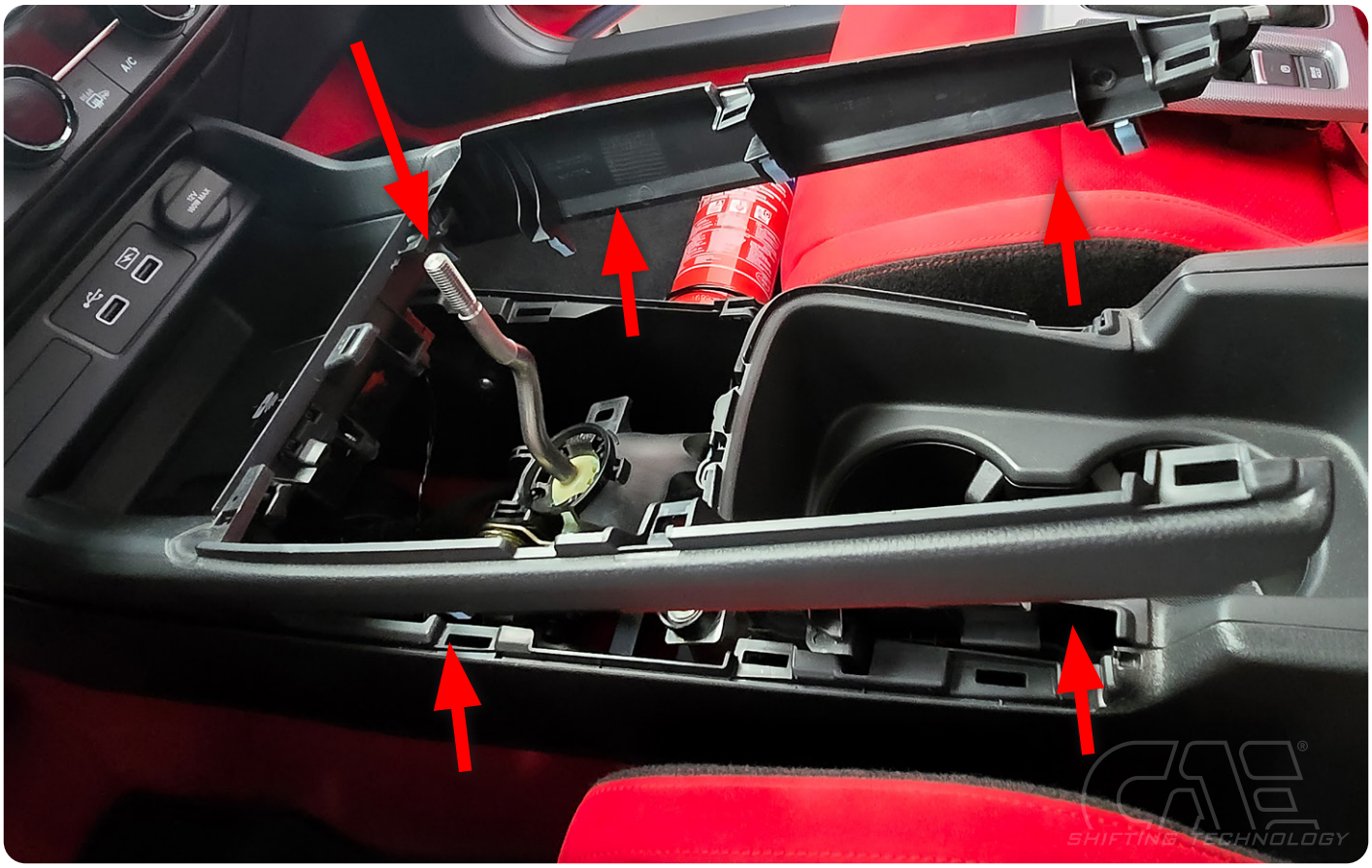
## Remove the trim around the gearshift lever

- Before you can remove the trim around the gearshift lever, you must first release a white clip that secures a wiring harness to the underside of the trim. Use a putty knife or a flathead screwdriver to press down on the two locking tabs on the clip to remove it.



## Removing the Upper Console Trim

- Shift into a neutral gear to create more space around the shift lever while you remove the upper console trim from the center console. Then pull the front part of the trim out from under the climate control panel.





## Removing the Upper Center Console Trim

- Lift the upper center console trim off the center console to expose the cable connectors. Disconnect the cable connectors behind the upper center console trim and set them aside. To remove each cable connector, press down on the locking tab and pull it out.



## Removing the Cup Holder

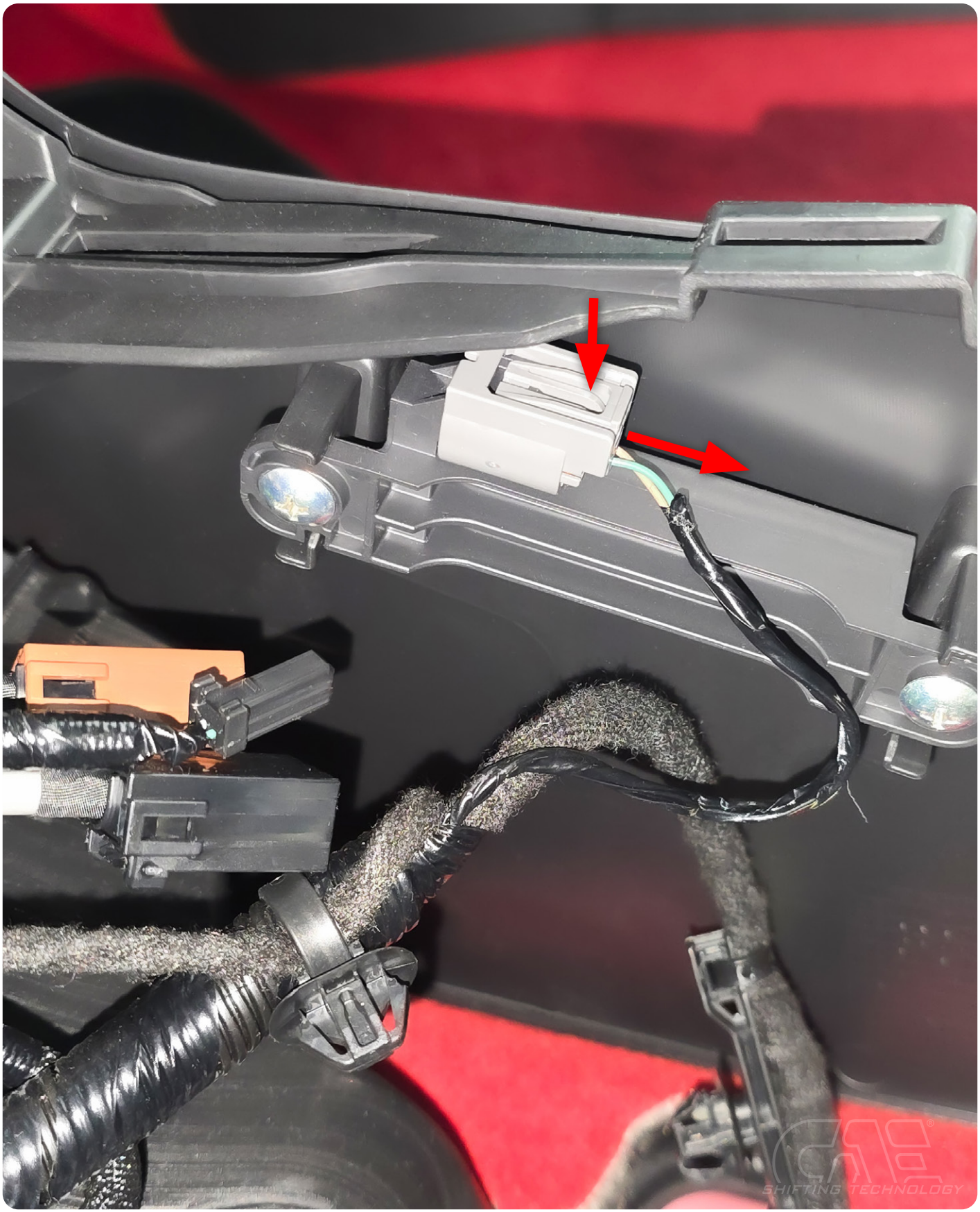
- Grasp the sides of the cup holder firmly and pull them upward to detach them from the center console.
  If the cup holder is difficult to remove, carefully pry it loose all around to detach it from the center console.
  **Important:** While prying the individual retaining clips out of the center console, it is essential to keep the entire assembly as parallel as possible to the center console to avoid damaging the mounting clips.





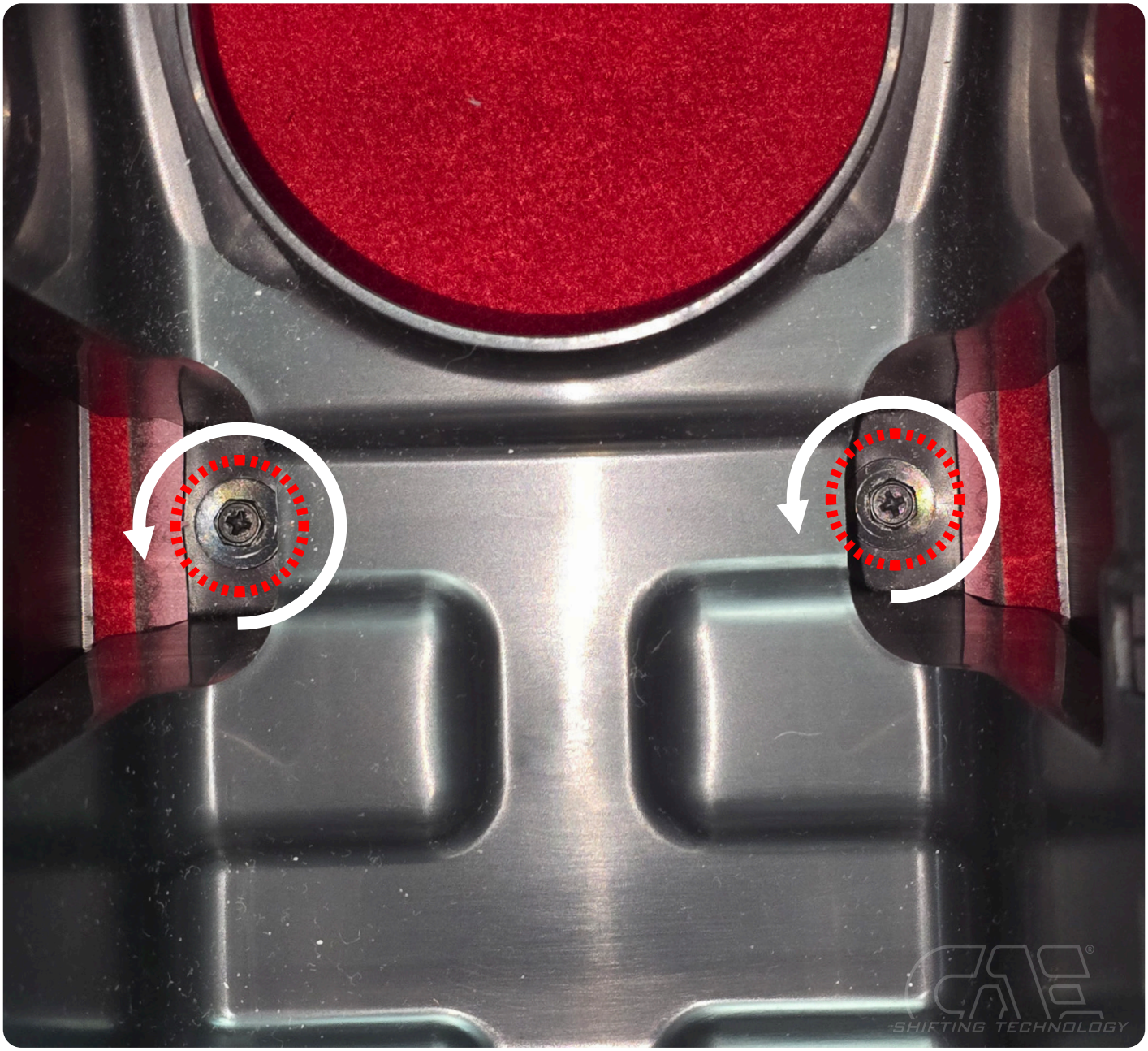
## Unplug the connector from the center console

- Locate the connector in the center console that supplies power to one of the proximity sensors for your car keys. Press down on the locking tab on this connector and pull it away from the sensor, as shown in the photo.



## Removing the Center Console

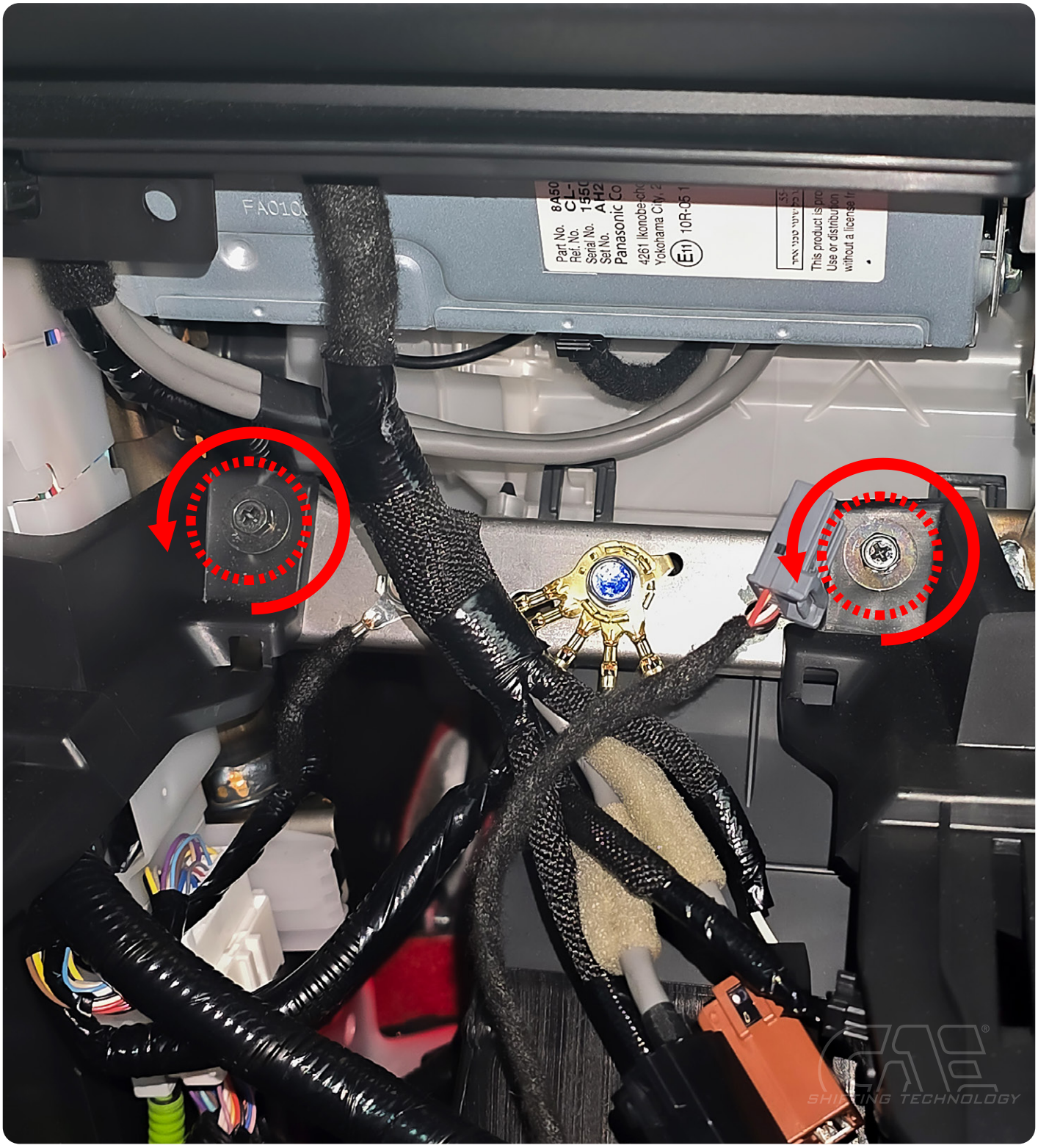
- The center console is secured to the vehicle's center tunnel with six mounting screws. Four of them are located at the bottom of the center console. (Only two are visible here.)



## Removing the Center Console

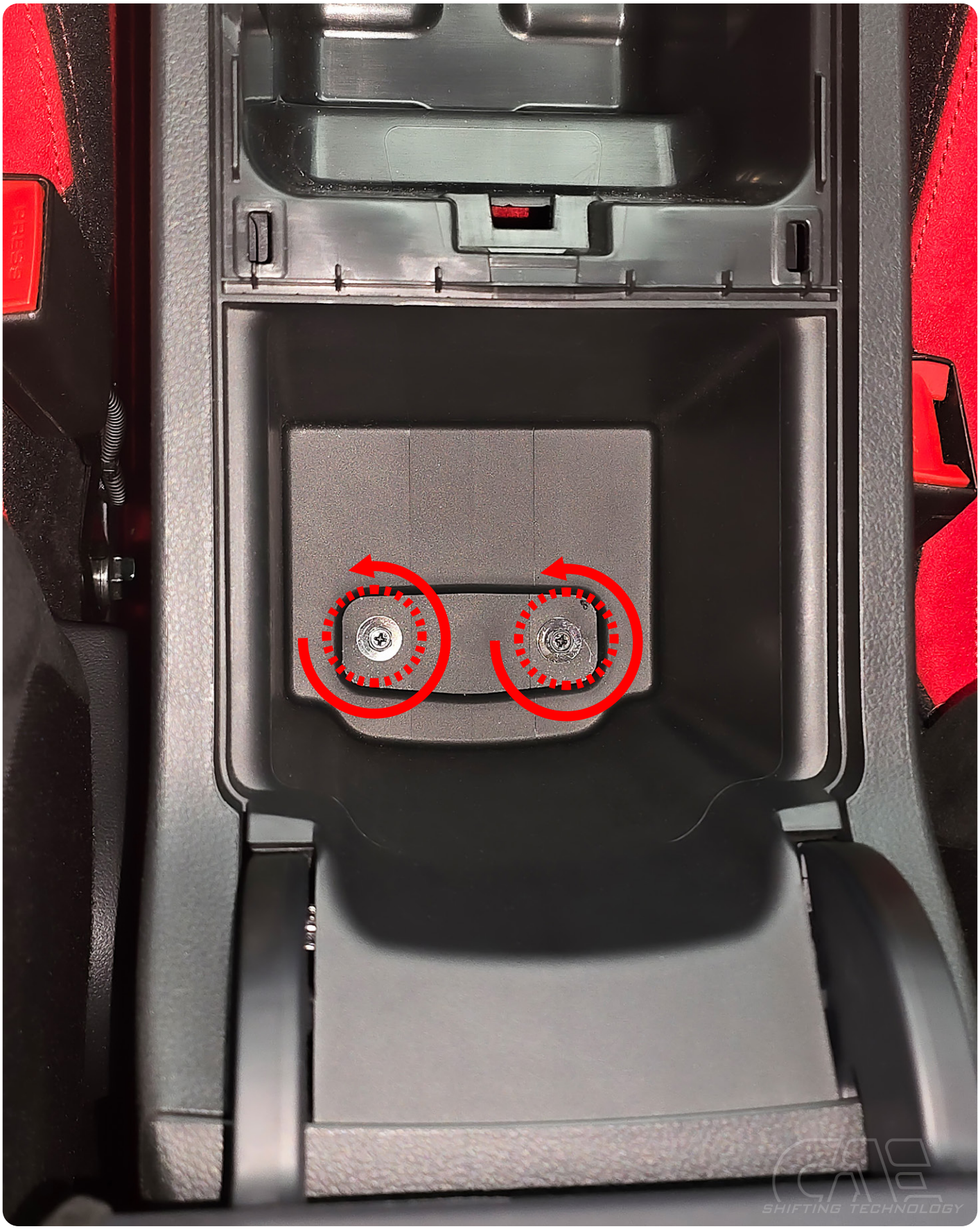
- The center console is secured with two screws. Both of them are located in the front section, under the dashboard.

Die Mittelkonsole ist mit zwei Schrauben befestigt. Beide befinden sich vorne, unter dem Armaturenbrett.



## Removing the Center Console

- Use a Phillips-head screwdriver to loosen the two mounting screws in the rear storage compartment of the center console.
  Note:
  Alternatively, you can use an 8-mm socket wrench, an extension, and a ratchet.



## Removing the Center Console

- Grasp the center console firmly and pull it backward to release it from its mounting on the dashboard. Then carefully lift the center console off the center tunnel and set it aside.





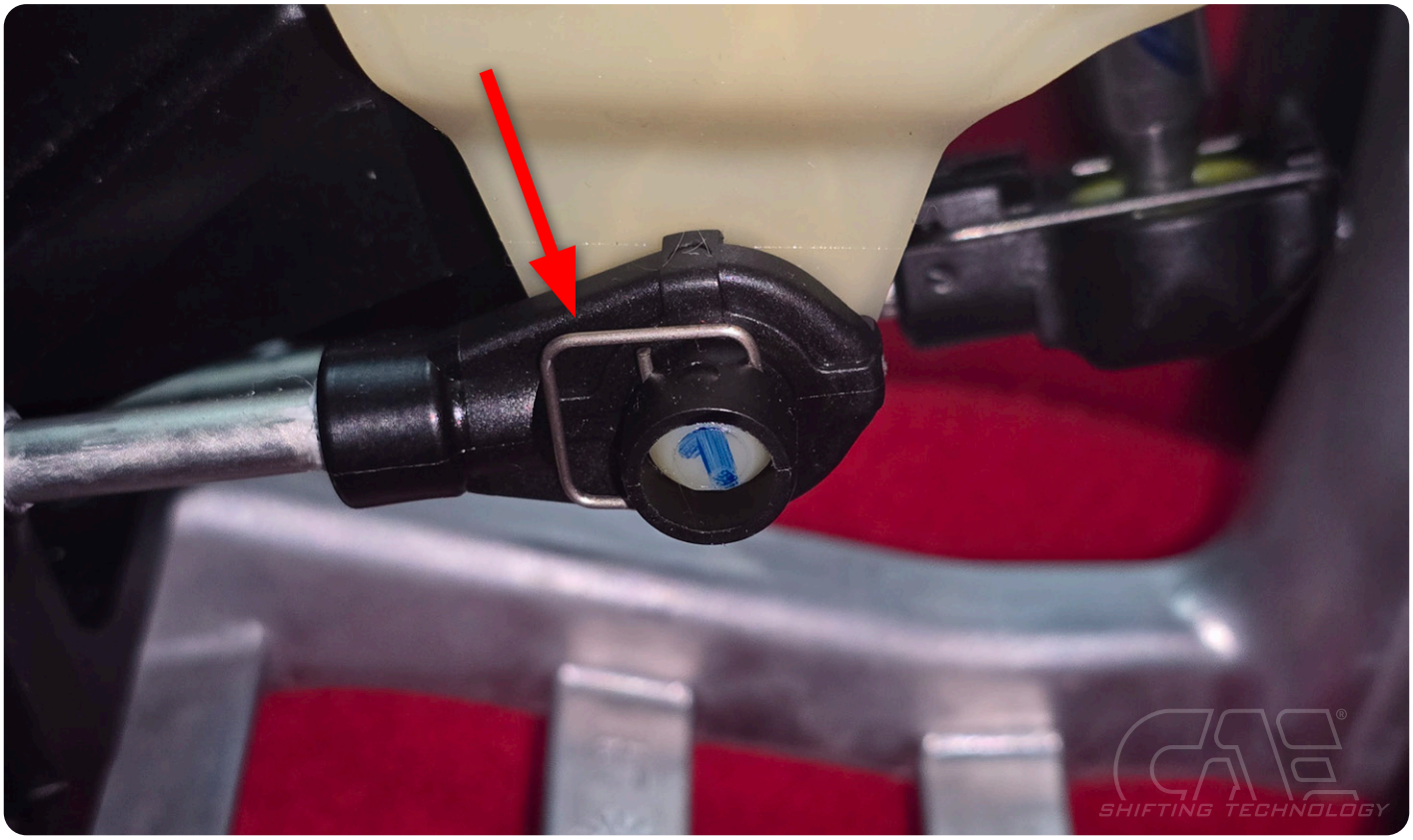
## Removing the Original Shift Lever

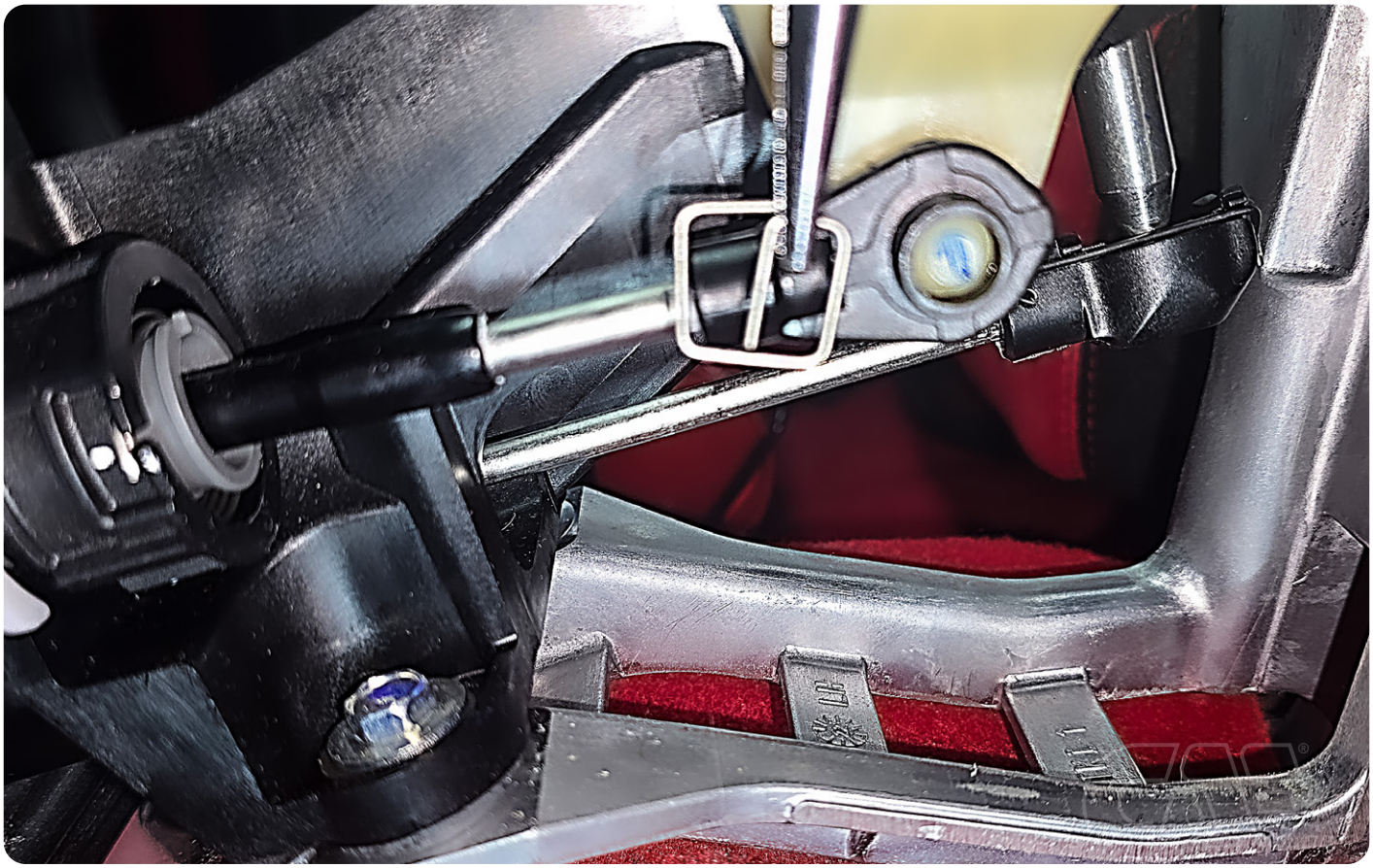
- You can see the locations of the four mounting screws, which we'll remove in the next steps.



## Removing the Shift Cables

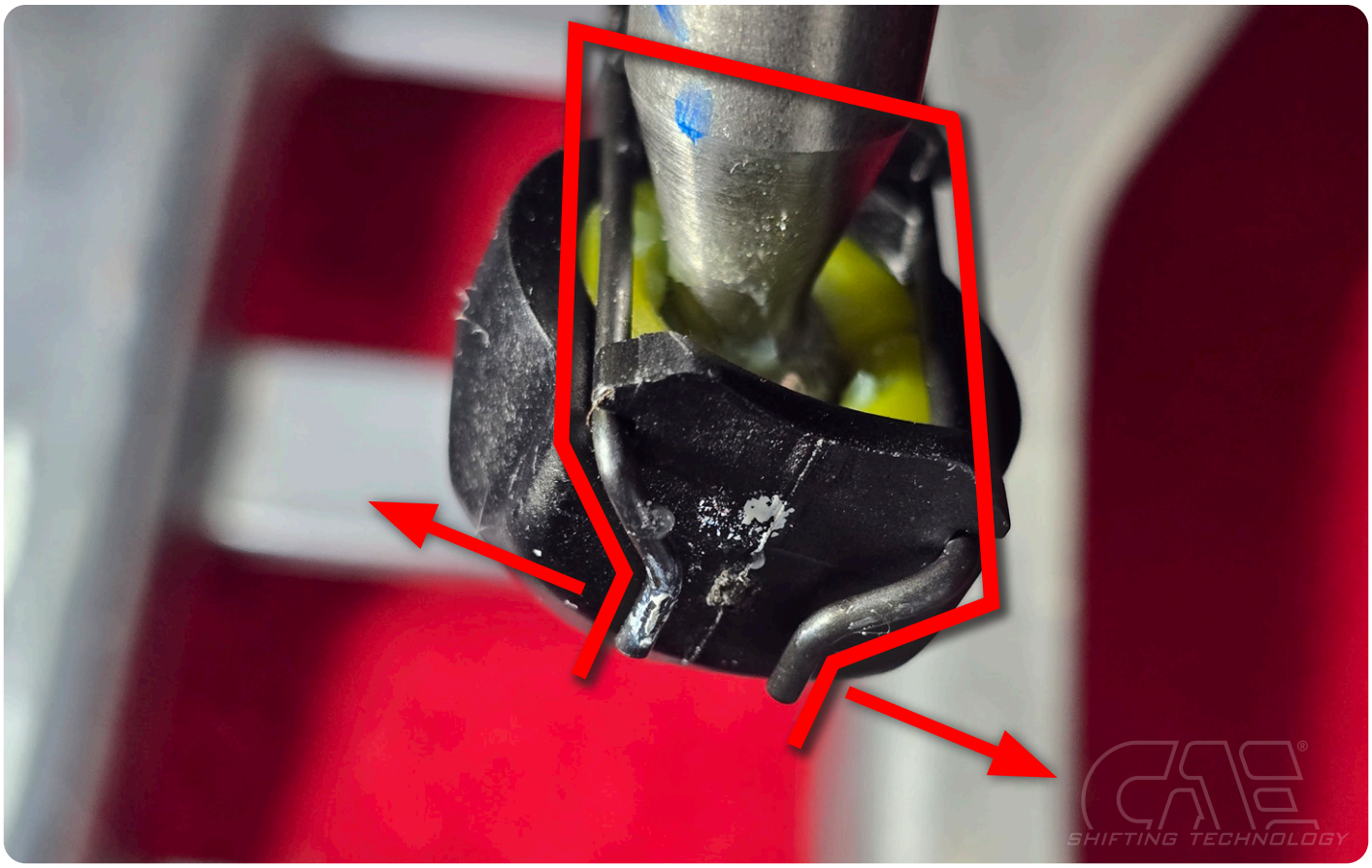
- The shift cables must be removed from the ball joints.
- The shift cable shown here has a metal clip that can be removed with needle-nose pliers.
- Then pull the eyelet off the pin.

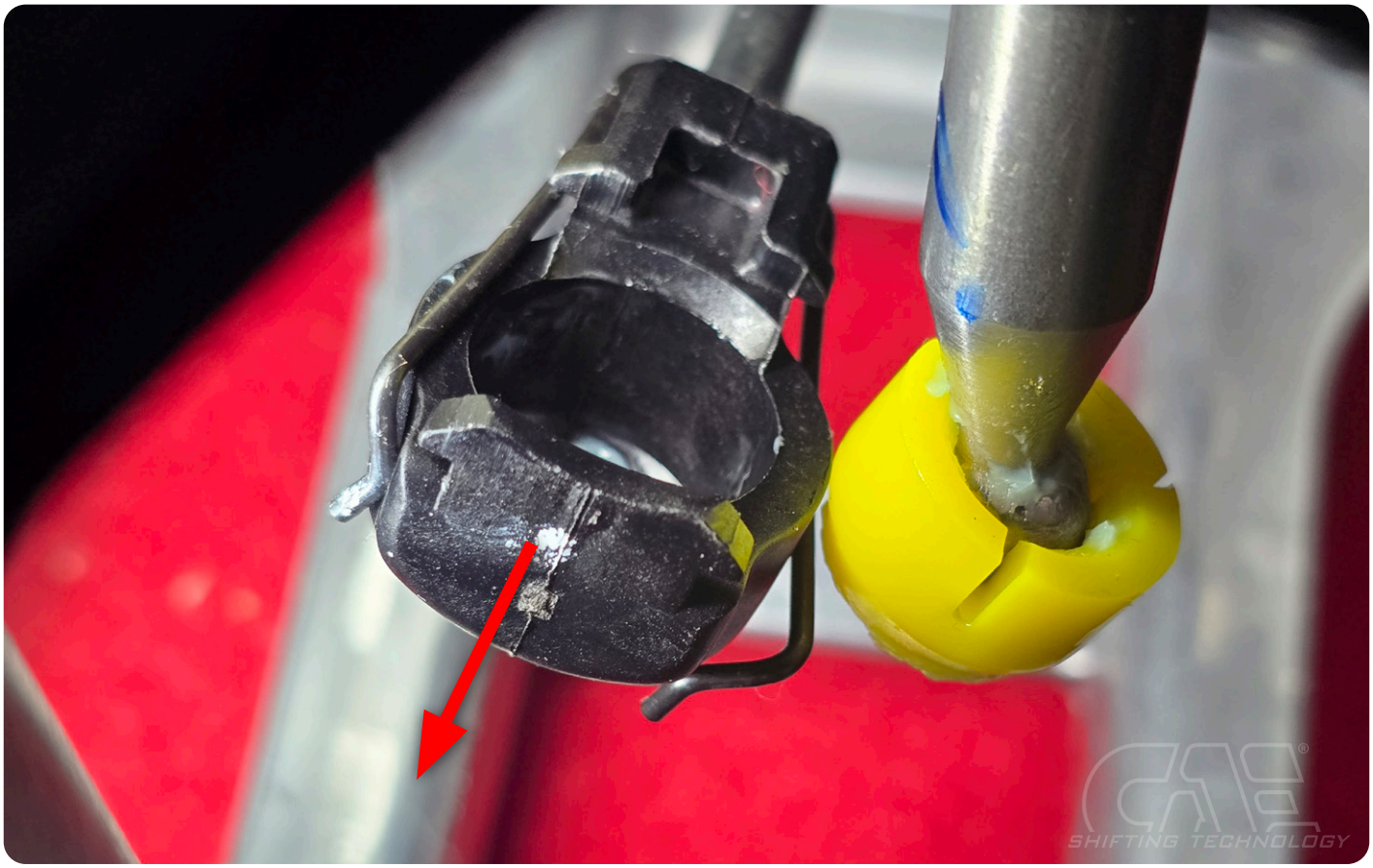


## Release the shift cable

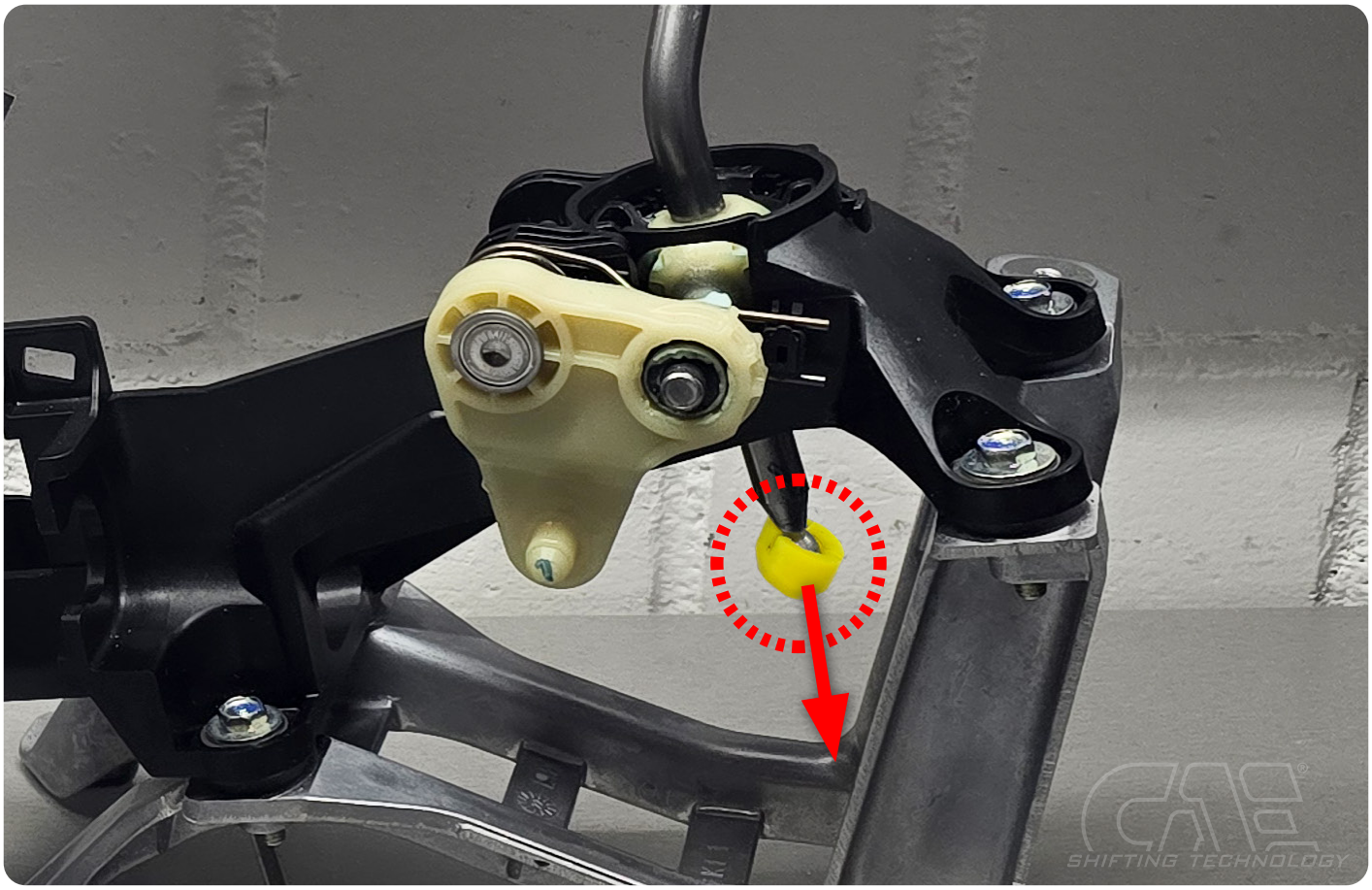
- Spread the retaining clip and pull the end of the shift cable off the lower shift lever.





## Modification of the Plastic Cap on the Shift Lever

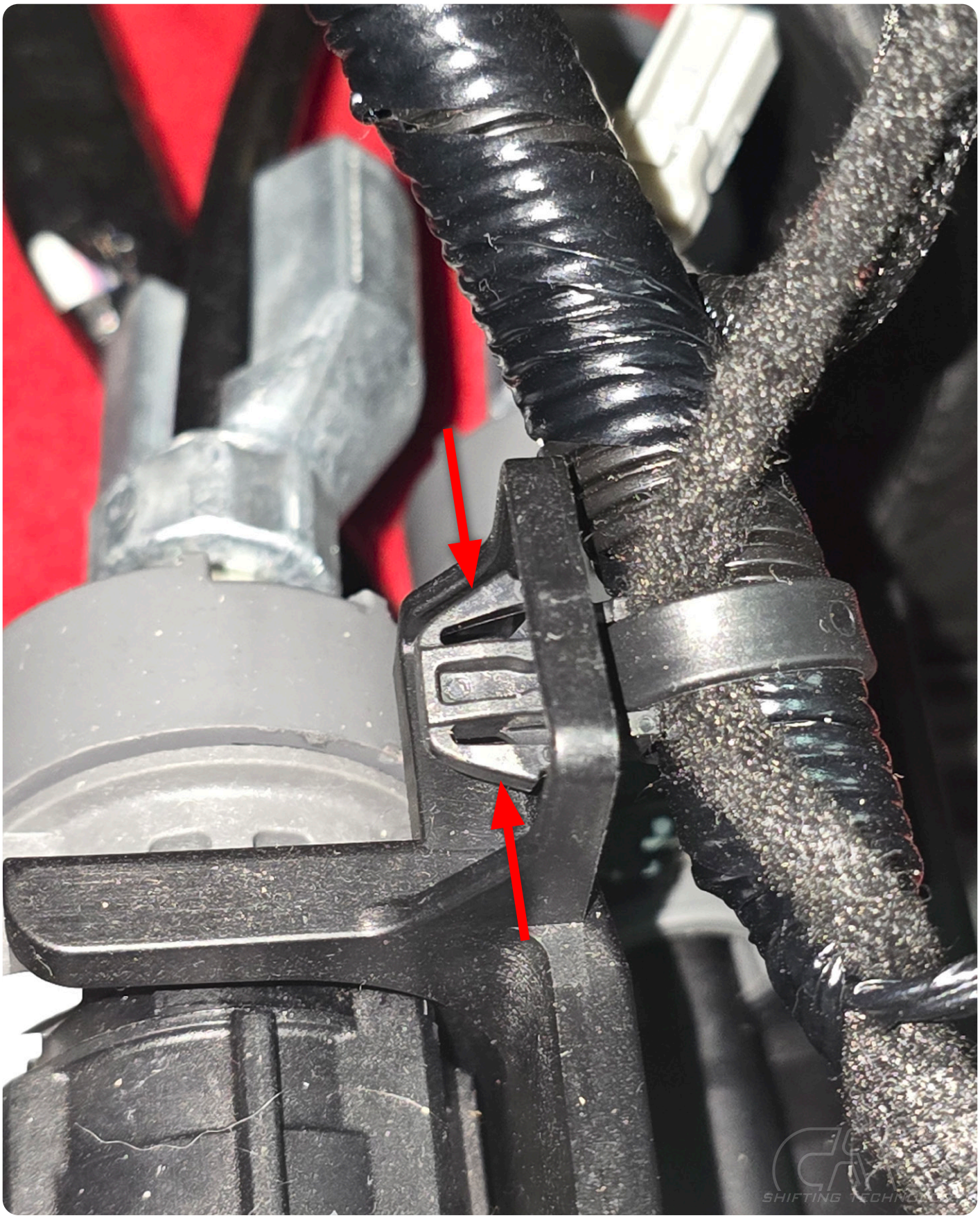
- Remove the plastic cap from the lower ball of the shift lever and install it later on the CAE shift lever.





## Removing the Original Shift Lever

- Next, disconnect the center console wiring harness from the stock shift lever at two points. Squeeze together the two locking tabs on each clip (indicated by the arrows) and pull them out of their respective mounting slots.



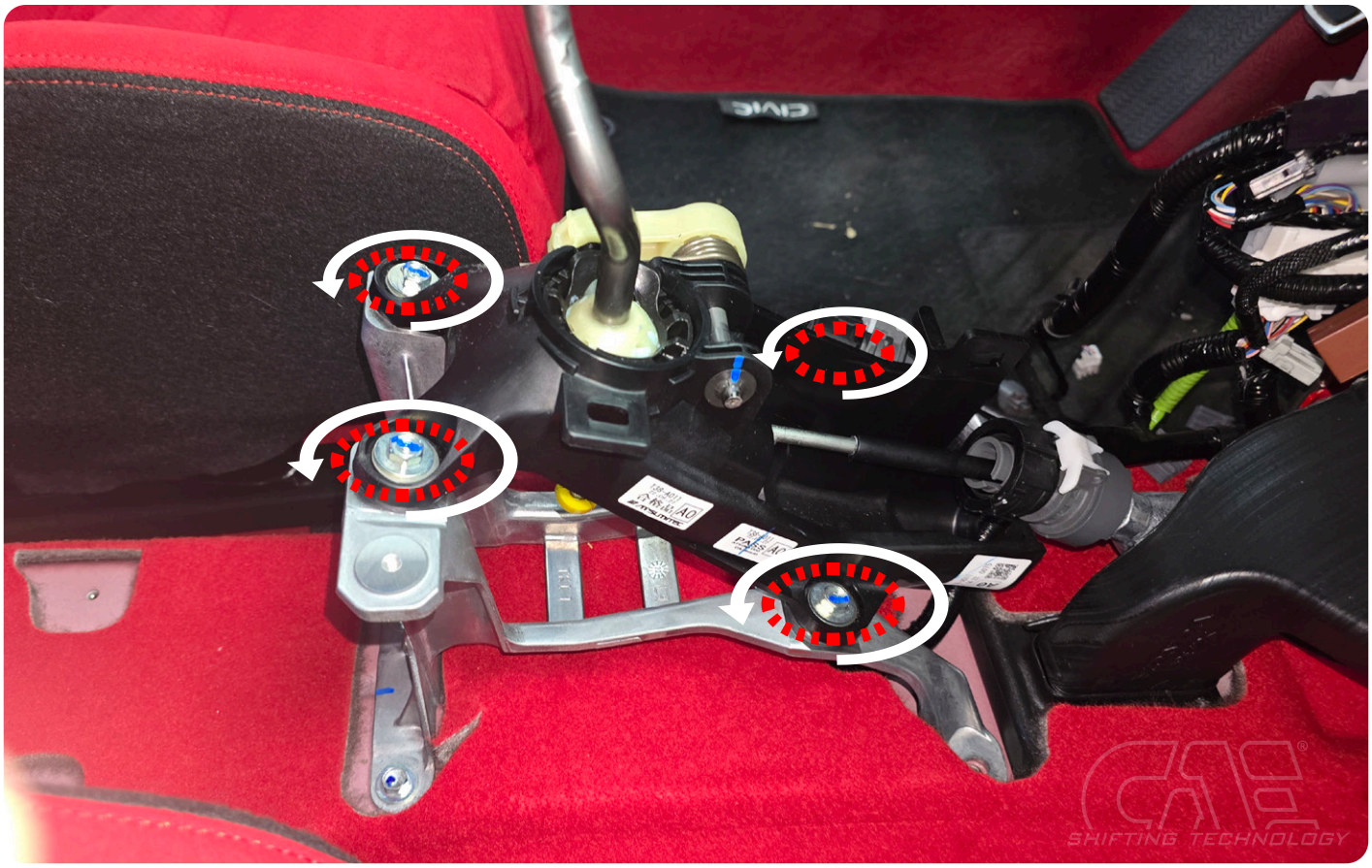
## Removing the Shift Cables

- To disconnect the shift cables from the shifter housing, first release the white clip.
  Then turn the front black cap on each cable to the left until the entire cable can be pulled out upward.
- Lock the black cap in place with the white clip. The cables are now ready to be reinstalled.



## Removing the Original Shift Lever

- Using a 10-mm socket wrench and a ratchet, remove the 4 original mounting screws from the shift lever bracket.





## Remove the ventilation tube (if present)

- If present, remove the ventilation tube before installing the CAE Shifter. Seal the resulting opening with suitable tape.



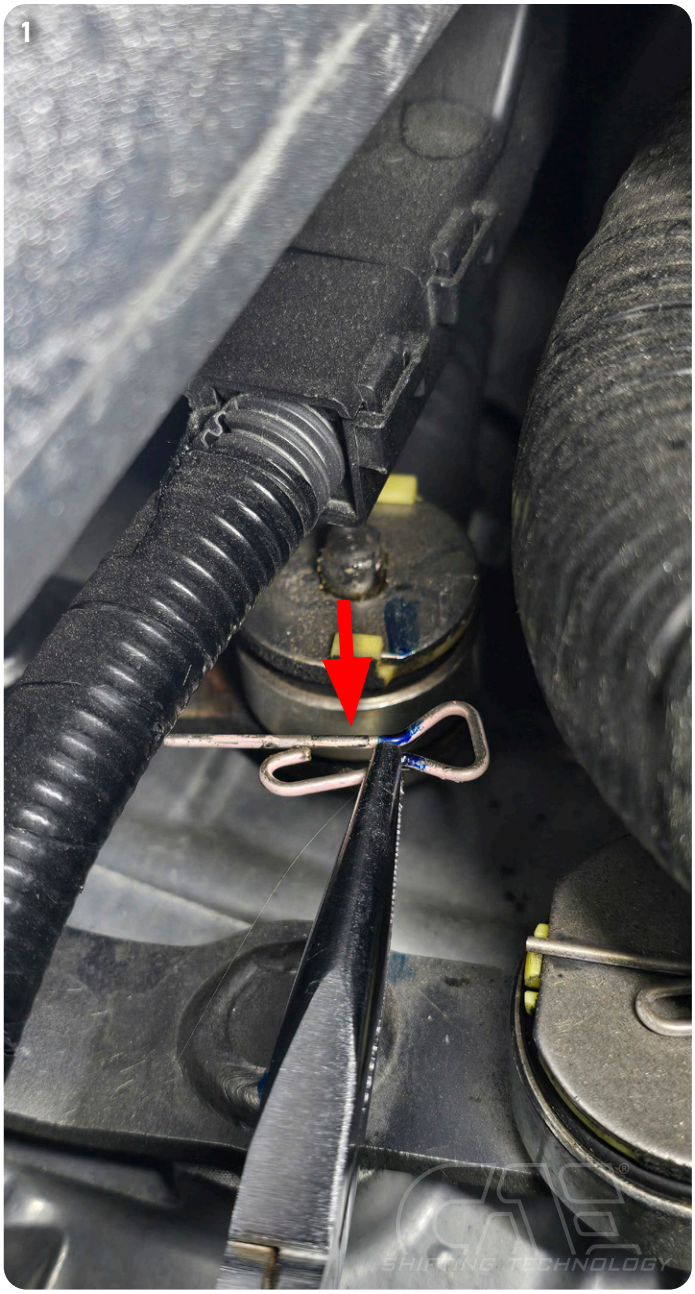
## Rotate the shift cable core 180 degrees

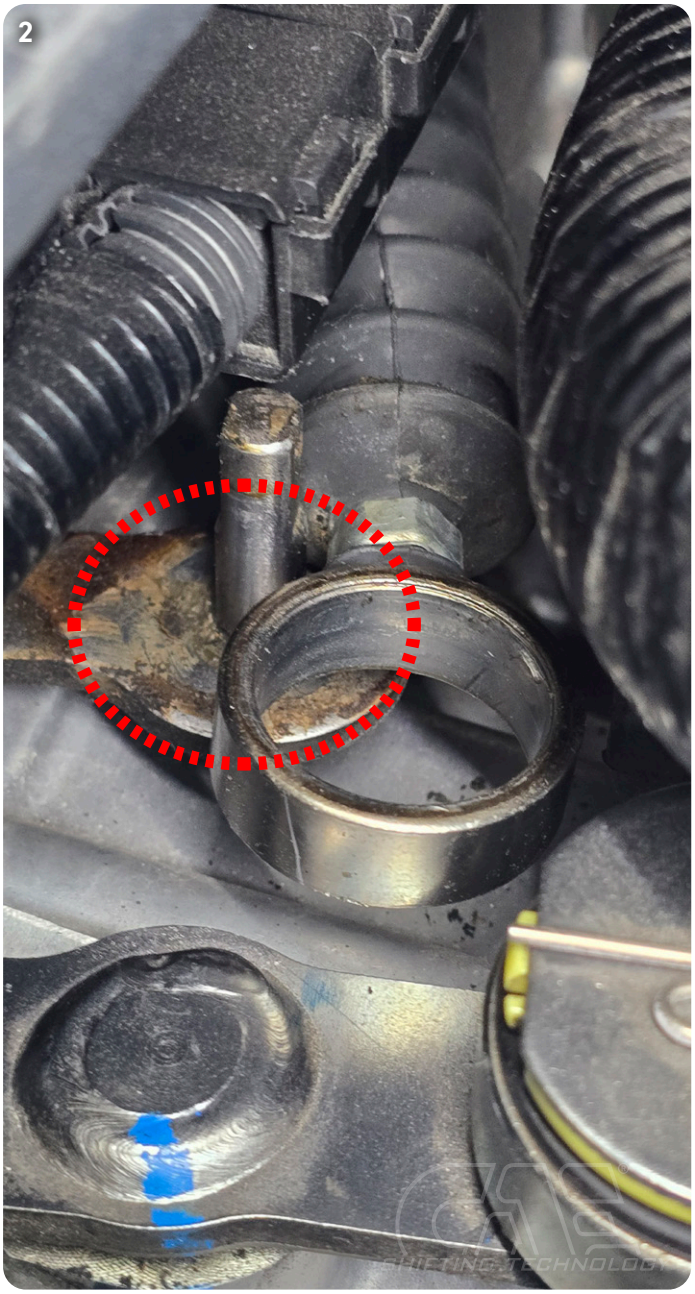
- To install the CAE shifter, the shift cable core must be rotated 180 degrees.
  To do this, remove the air filter in the engine compartment to access the cable head on the gearbox.



## Rotate the shift cable 180 degrees

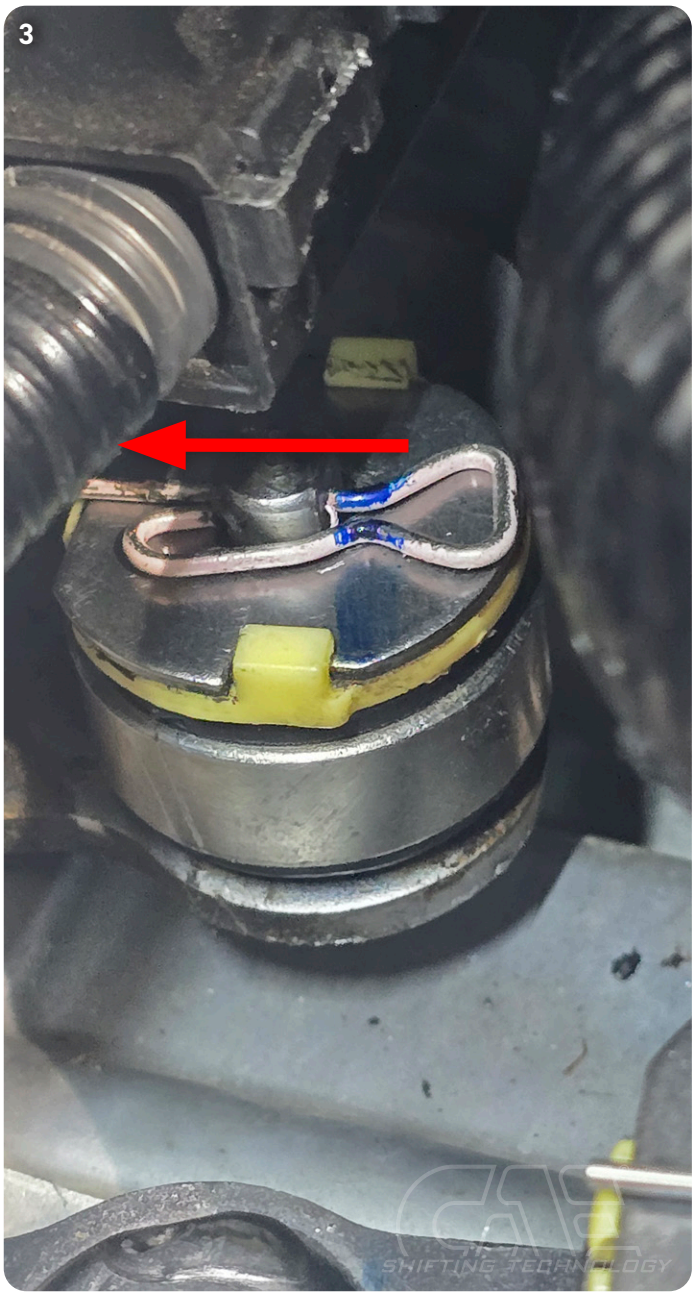
- Remove the split pin and washer (Picture 1) and take the cable end off the bolt. (Picture 2)
- Push the rubber bushing out of the steel ring, rotate it 180 degrees, and press it back into the steel ring. A little brake cleaner makes it easier to press the rubber back in.



**Rotate the shift cable 180 degrees**

- Reattach the completed cable end to the bolt and secure it with the split pin. (Picture 3)
- Inside the vehicle, the eye has now rotated 180 degrees. (Picture 4)







- Then reinstall the air filter.

## CAE Shifter Installation

- Place the two base bars over the threaded holes. Secure the rear bar (80 mm) to the tunnel with 2 countersunk screws. (Picture 1)
- To secure the front bar (110 mm), screw the 2 set screws into the threads (Picture 3); the right-hand nut can be screwed on at this point, but do not tighten it yet. (Picture 2)

We recommend applying a small drop of threadlocker to each screw.

- 110 mm front crossbar
- 80 mm rear crossba

Ensure that the main crossbars are properly aligned.



2

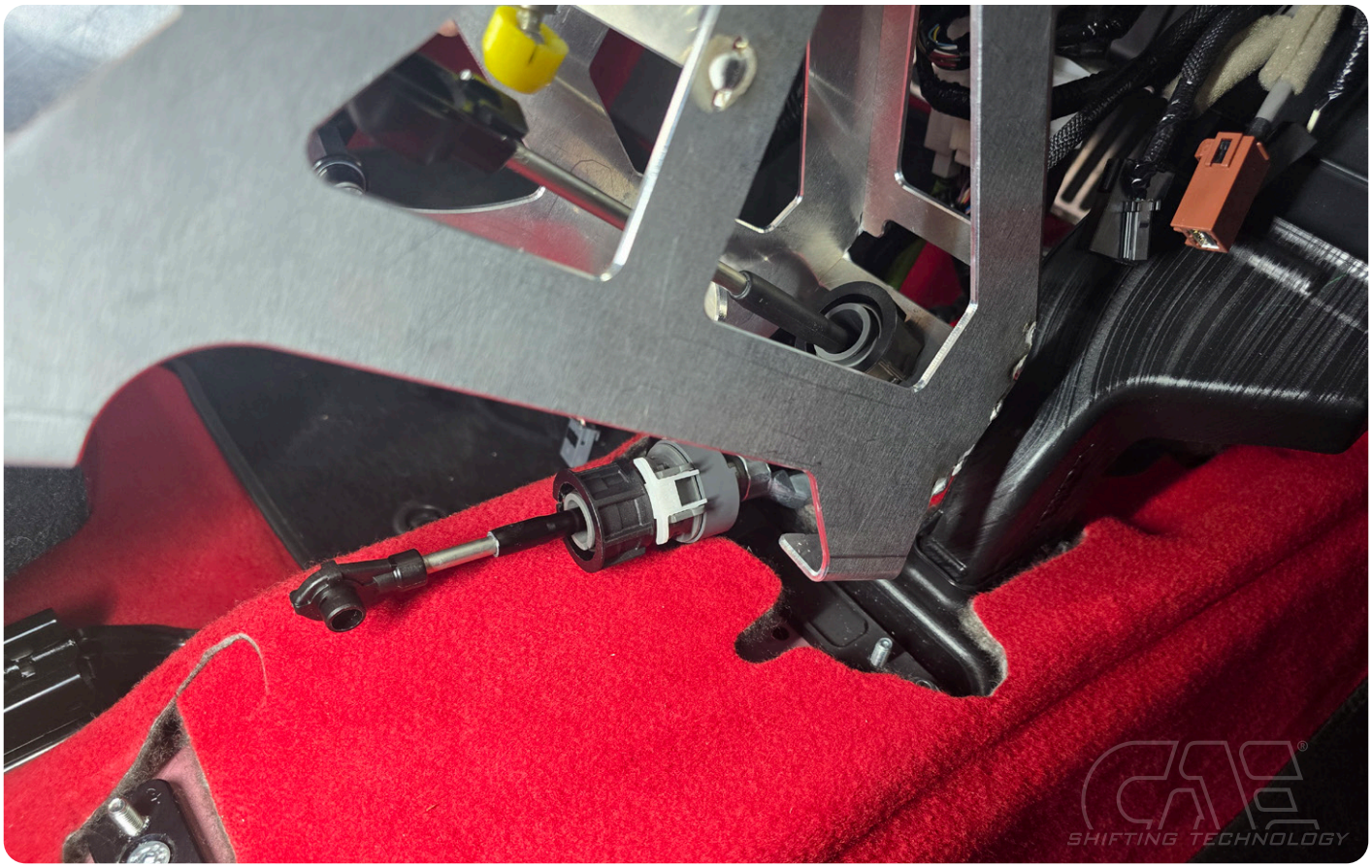


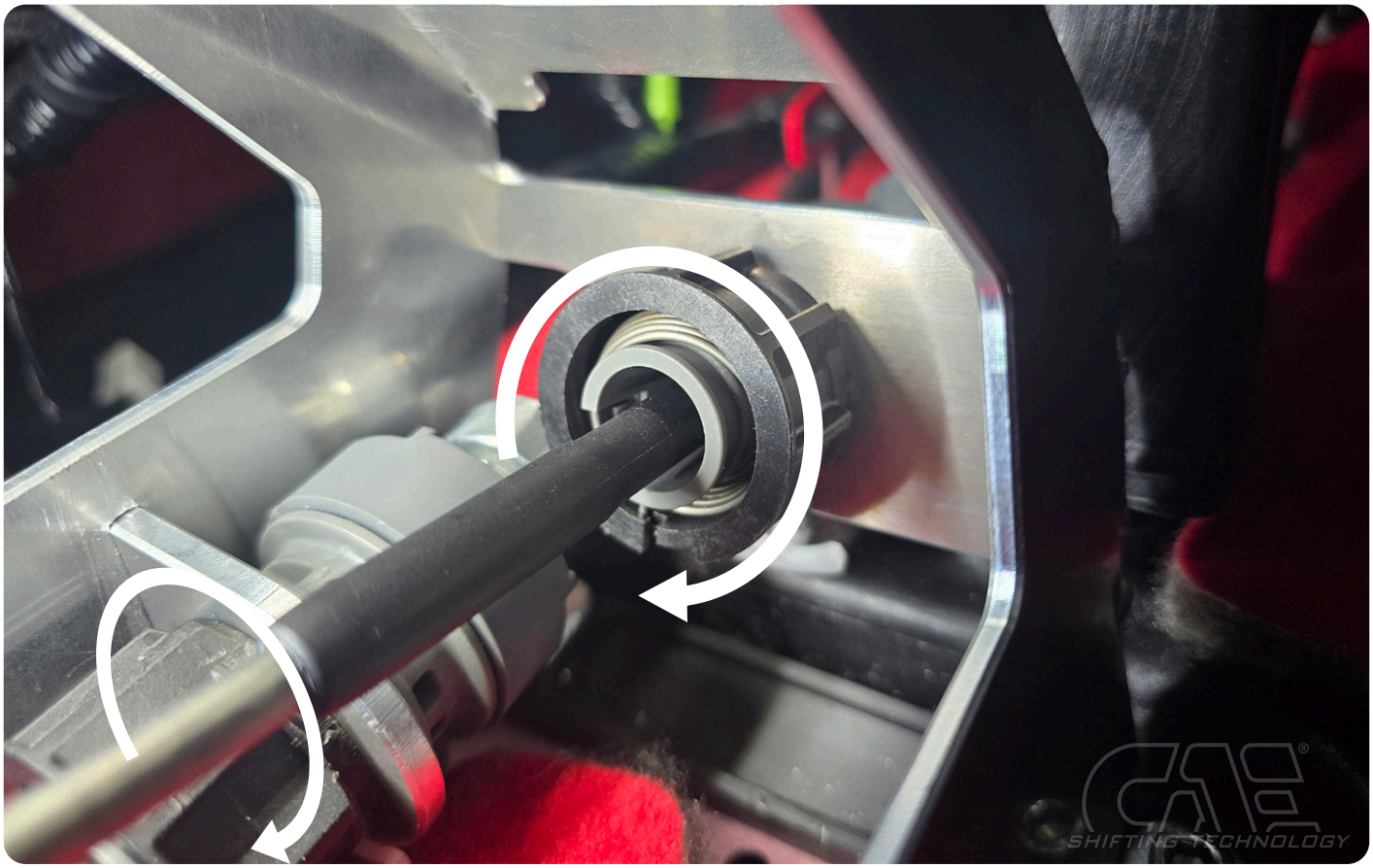
3



## CAE Installation

- Position the CAE shifter and feed the shift cables into the shifter housing; immediately slide the cables into their respective holders and secure them by turning them 90°.



- Then place the CAE shifter on the brackets and secure it with the 4 nuts. (Picture 11)
- Grease the ball sockets and press them onto the balls of the shift lever and selector lever.
- The ball socket for the “W” selector cable should fit without moving the lever or the cable; otherwise, readjust the spring stop or change the position of the ball socket on the selector cable. (see Adjusting Shift Travel)

ⓘ **In general, grease every ball socket, bearing pin, and bushing. Never kink the shift cables.**



## Adjusting the Shift Travel on a 6-Speed Gearbox

- Determine the desired neutral position of the shift lever and use a 5-mm Allen wrench to tighten the lower spring stop under the shift bracket.



ⓘ **The shift lever should be tilted slightly to the left in positions 3 and 4.**

ⓘ **CHECK: When 3rd and 4th gears are engaged, the lateral play on the shift lever must be the same. If this is not the case, the spring stop must be readjusted. (0.5 mm is already a significant amount here.)**
**This is the basic adjustment for the shifter and must be performed very precisely.**



- Now use the shift lever to shift the transmission to levels 1/2 and adjust the stop screw until the gears in levels 1/2 shift smoothly.
  When a gear is engaged, the screw does not make contact with the bolt (approx. 0.5 mm of play)
- Now use the shift lever to shift the transmission to the 5th/6th gear range and tighten the stop screw until 5th gear engages smoothly. When a gear is engaged, the screw does not touch the pin; the shifter returns as far as possible to 3rd/4th gear.
- Activate the reverse gear lock pin via the cable and shift the transmission into reverse.
  Tighten the corresponding stop screw until reverse gear engages smoothly.
  The screw does not make contact with the pin when the gear is engaged (approx. 0.5 mm of clearance)



**FINALLY! Check all functions and settings during the test drive and readjust if necessary!**

**Incorrect or inaccurate settings can cause damage to the gear box and consequential damage!**

ⓘ **For the test drives, we recommend connecting the switch console completely to avoid electrical malfunctions.**




If you have any questions or encounter any problems, please be sure to contact us; we look forward to your feedback so we can improve our products.

**CAE WISHES YOU A GOOD TRIP**

## Install the Center Console

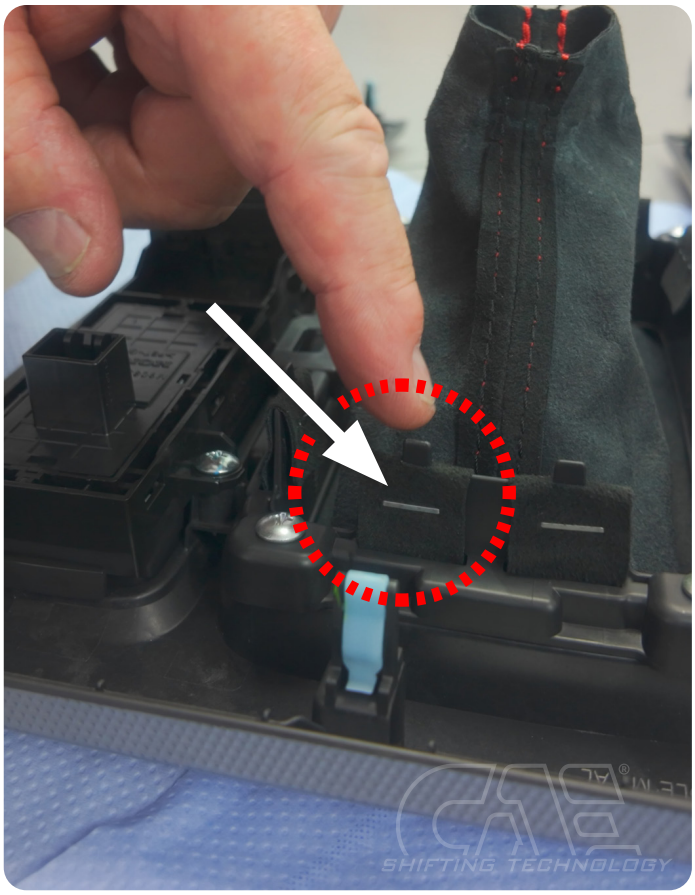
- After completing the test drive, reinstall the center console.






## Mounting the Shift Bag

- To mount the shift bag on the CAE Shifter, one of the tabs at the front must be trimmed.
- The shift bag can then be secured to the shift lever with a cable tie.










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