

CAE[®]
SHIFTING TECHNOLOGY
RACE THE ORIGINAL

Installation Manual

📍 10080

Suzuki Swift AZ
6-speed gearbox



WWW.CAE-RACING.DE

PLEASE NOTE

SAFETY FIRST!

- ⚠ 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.
- ⚠ It is essential to leave the ignition switched off when the plugs are disconnected.
Do not leave the car key in the vehicle.
- ⚠ 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)
- ⚠ All screws and nuts that are not self-locking or are fitted with tooth lock washers glue in during assembly!
- ⚠ Never kink shift cables, please!

i 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

i 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!

Included in delivery

- ▶ 1x shifter completely monted, design depending on ordered variant (Picture A)
- ▶ 1x Shift knob incl. counter screw M6x20 V2A, design depending on ordered variant (Picture B)
- ▶ Accessories package (Bild C)



i The shifter is intended for vehicles with interior fittings. The center console itself does not need to be machined, the cover frame must be cut out appropriately for installation until the free movement for the shifter is guaranteed.

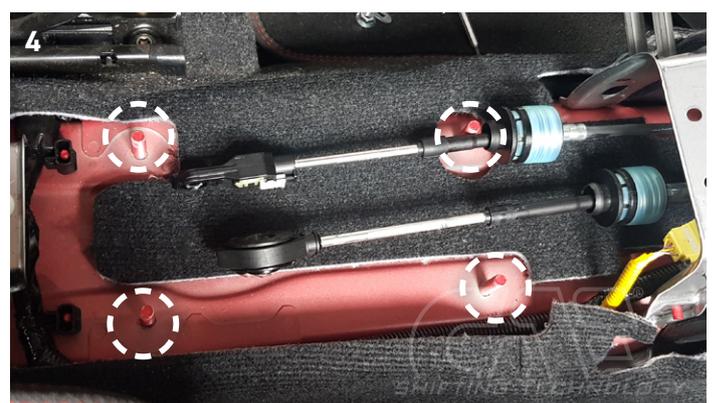
The Removal

- ▶ Unclip the cover frame upwards. (Picture 1)
- ▶ Push out the storage compartment / cup holder upwards. (Picture 1)
- ▶ Unscrew the 2 front screws.
- ▶ Unscrew one screw in the middle under the handbrake lever
- ▶ Unscrew one plastic plug on each side of the center console at the rear / pull out.
- ▶ Remove the front center console. (Picture 2)
- ▶ Dismantle the gearshift cables and remove the gearshift bracket. Unscrew the hexagon nuts SW12 of the gearshift bracket. (Picture 2)
- ▶ Lever off the shift cable socket from the lower ball of the shift lever.
- ▶ To release the selector cable, simply lever the cable end (black) off the L-lever, making sure that the rubber grommet remains in the eye and pull the selector cable off to the side.
- ▶ The shift cables can remain in the vehicle. (Picture 4)
- ▶ To remove the shift cables, push the white/bluish plastic caps forwards, then pull the cables up and out of the bracket



The installation

- ▶ Place the 4 spacer bushes (15mm high) on the threaded bolts. (Picture 3, 4)



- ▶ Place the CAE shifter on the threaded bolts and insert the shift cables into the shifter housing.
- ▶ Screw on the shifter with the original nuts and push the white plastic caps forward to install the shift cables, then press the cables into the bracket. (Picture 5, 5a)
- ▶ Press the ball socket onto the shift cable, but not yet the adapter on the selector lever.

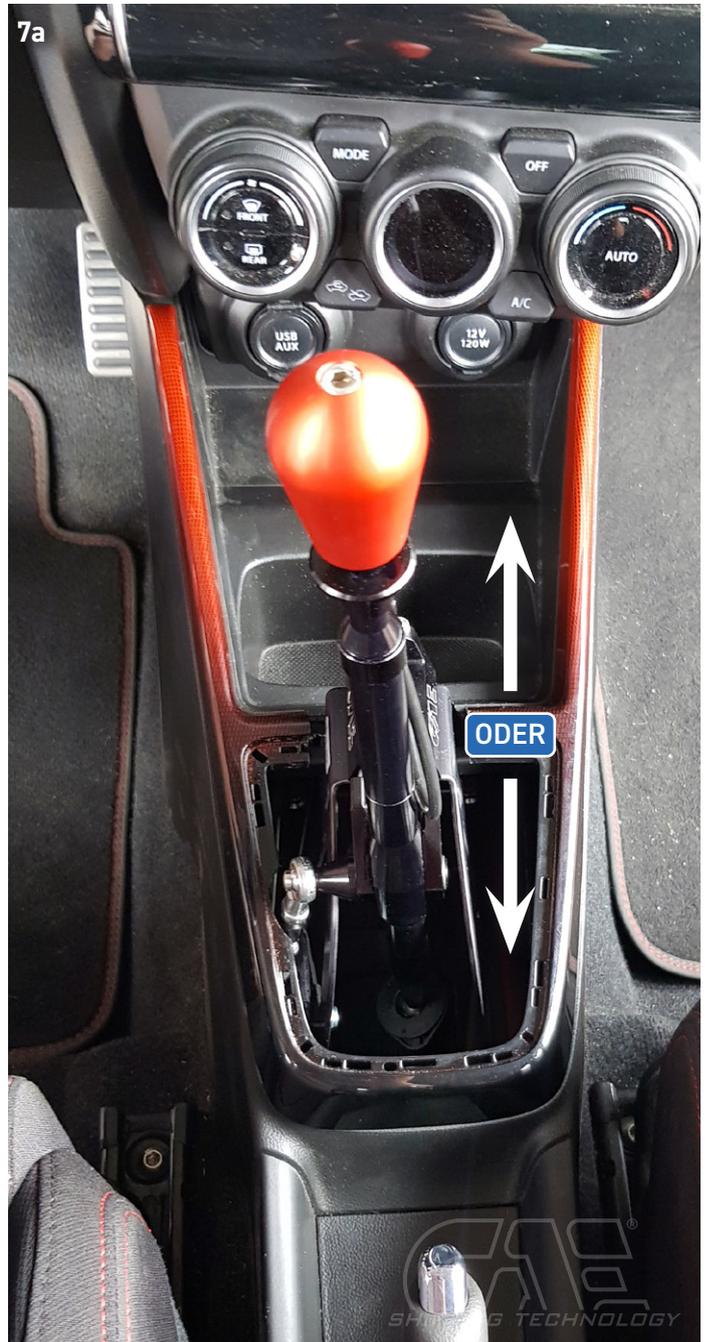


i Now first adjust the shifter completely.

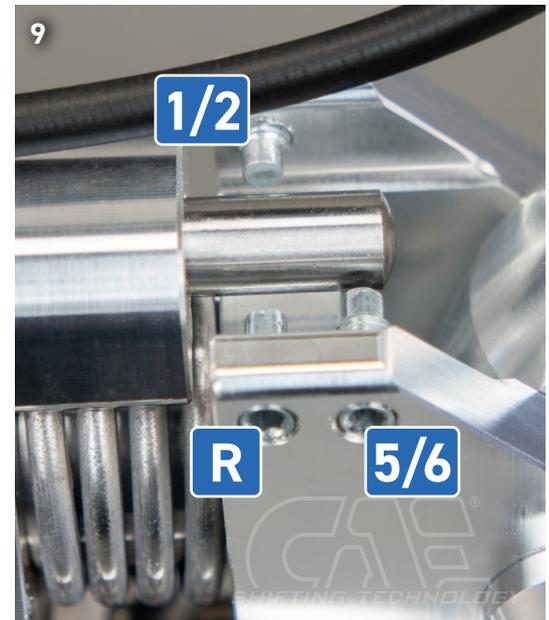
Adjust the shift range 6 speed gearbox

- ▶ Adjust / check the center position of the shift lever, it must be set slightly tilted to the left, this is the (neutral) position 3/4 (Picture 6).
- ▶ This setting of the 3/4 position may have to be readjusted if the large pan of the shift cable touches the housing on the left (R-gear) or right (1/2). The adjustment is made by moving the spring stop in the shifter housing. (Allen key 5mm) (Picture 7)
- ▶ Now shift the gearbox into 3rd or 4th gear. To engage it, simply move the shift lever forwards or backwards without moving it sideways. (Picture. 7a)
- ▶ Now adjust the lateral coupling rod (R/L THREAD) so that the eye of the selector cable fits EXACTLY on the pin on the L-lever. (Picture 8)
- ▶ Press the eyelet onto the L-lever (grease lightly) and ensure that the rubber grommet is seated correctly. (Picture 8)

i CHECK: With 3rd/4th gear engaged, the lateral play on the shift lever must be the same, otherwise readjust the coupling rod.



- ▶ Shift gearbox to level 1/2 using shift lever and adjust stop screw until gears can be changed cleanly. (min 0.5mm space from screw tip to stop bolt) (Picture 9)
- ▶ Shift gearbox to 5th / 6th gear using shift lever and adjust stop screw until gears can be changed cleanly. (approx. 0.5 mm space from tip of screw to stop bolt).
- ▶ Operate reverse gear lock via cable and shift gearbox to reverse-gear level. Screw in the stop bolt until reverse gear can be engaged cleanly.



- ⓘ After complete assembly of the shifter, lubricate all moving parts, we recommend Würth HHS 2000.
Glue in all nuts / screws during assembly!
Never kink shift cables!



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

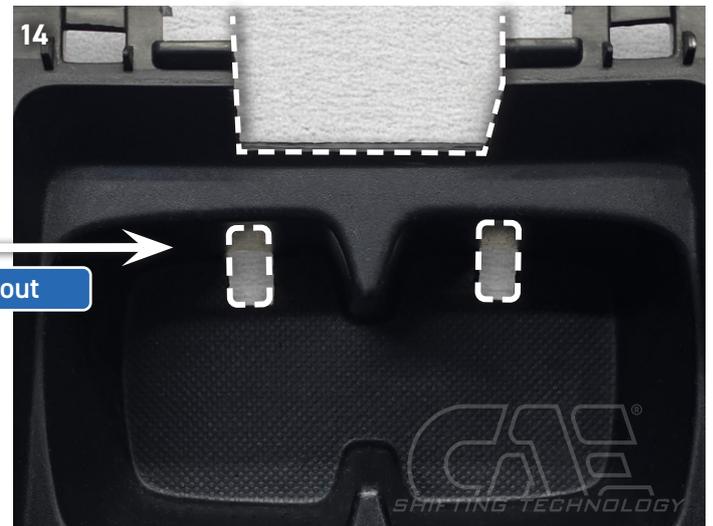
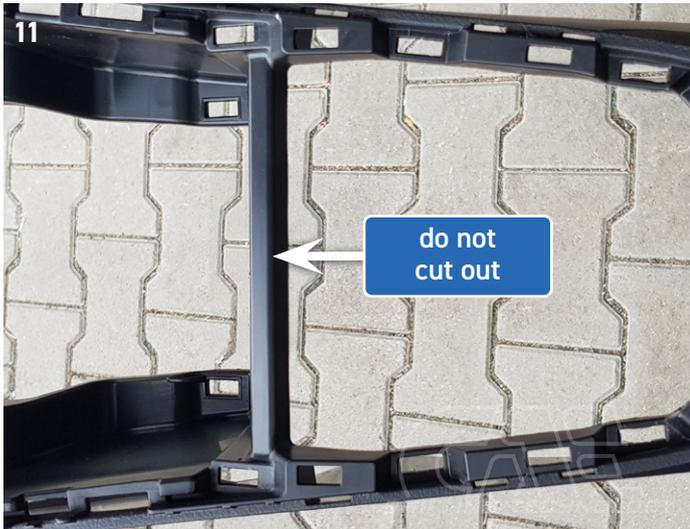
Incorrect or inaccurate settings can cause damage to the gear box and consequential damage!

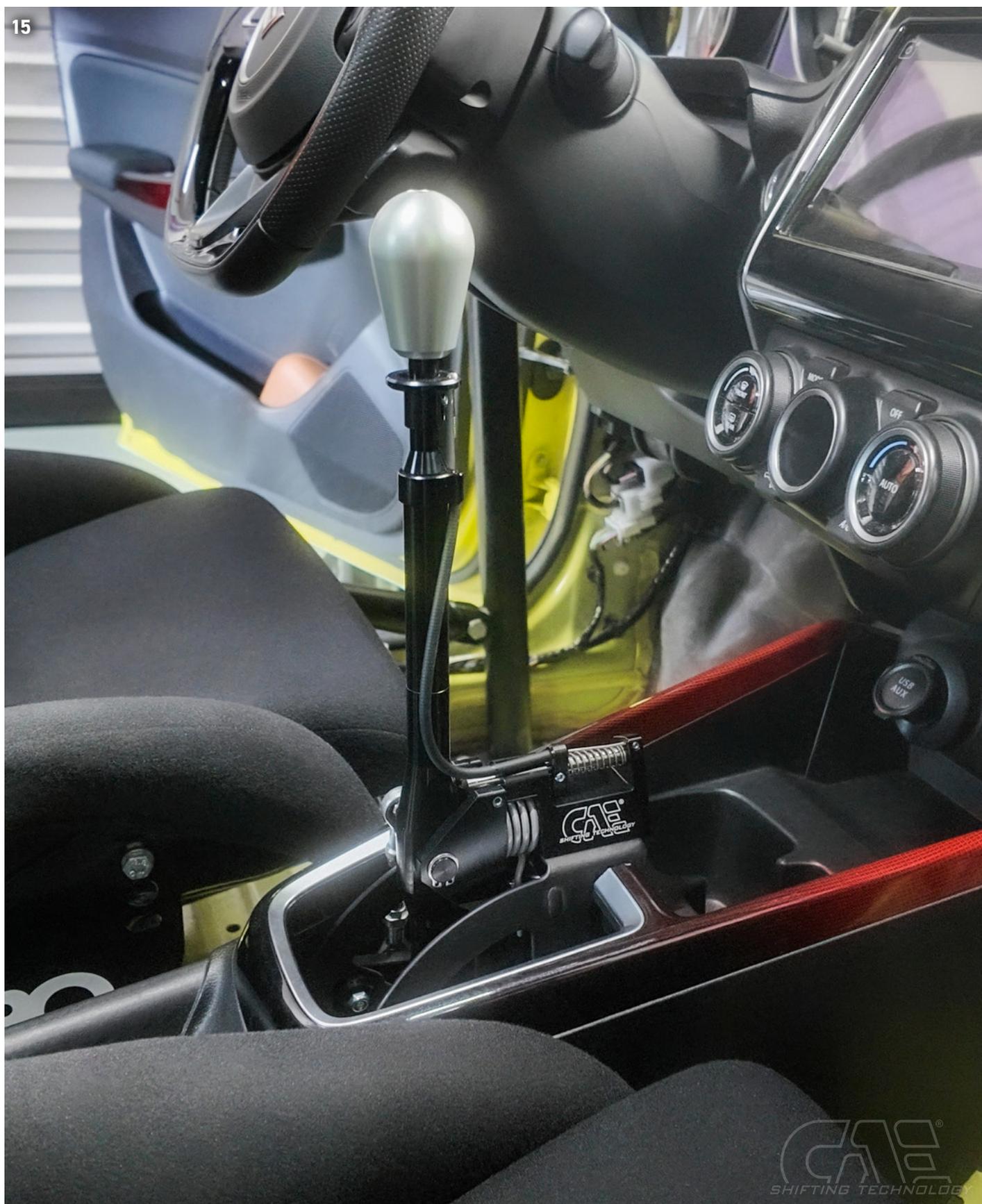
Machining and installation of the center console

i After the adjustment and test drive, the center console can be refitted.



► Process the two console frames and the cup holder according to the following pictures 11, 12,13,14:





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



RACE THE ORIGINAL



Alte Bottroper Strasse 103
D-45356 Essen
0049. 201. 8 777 802
service@cae-racing.de

WWW.CAE-RACING.DE