MORE THAN 20 YEARS EXPERIENCE

SHIFTING TECHNOLOGY

Installation instructions

10023

Ford Escort Cosworth
MT 75
5-speed gearbox

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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!

ⓘ 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 (often seen on various YT channels), which looks "important", but in no way makes it faster - but it 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 mounted, design depending on the ordered variant (Picture A)
- 1x shift knob incl. counter screw M6x20 V2A, design depending on ordered variant (Picture B)
- Shift rod & accessories package (Picture C)
- Cover plate (Picture D)

ⓘ The shifter is designed for racing vehicles without interior equipment. If the center console is installed, it must be removed or cut out until the appropriate clearance is ensured. The shifter must be screwed onto the sheet metal of the center tunnel. A perfect engine mounting, as usual in motorsport; is a condition for the optimal function.

ⓘ **PLEASE NOTE: Glue in all nuts / screws during mounting!**
Use spirit to clean all aluminum parts. Occasionally lubricate all moving parts with spray grease with good creeping properties.

The removal

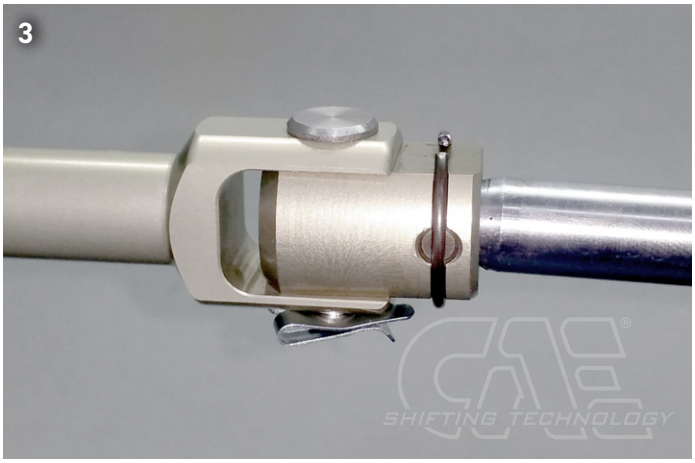
- Shifting the transmission to neutral.
- Completely remove the original gearshift including all attachments. Now only the ball end of the shift rod connection should protrude from the gearbox.
- For removal, the exhaust and the cardan shaft may have to be removed and the gearbox lowered slightly at the rear.

The Installation

- Remove the lower part of the shift lever from the shift lever. To do this, unscrew the fixing screw completely (only turn the nut) and pull the lower part out of the shift lever.
- Secure the lower part to the fork using a bolt and spring clip before installing the shift rod. (Grease bolt well)
- The bolt sits tightly in the fork, use plastic hammer for installation.

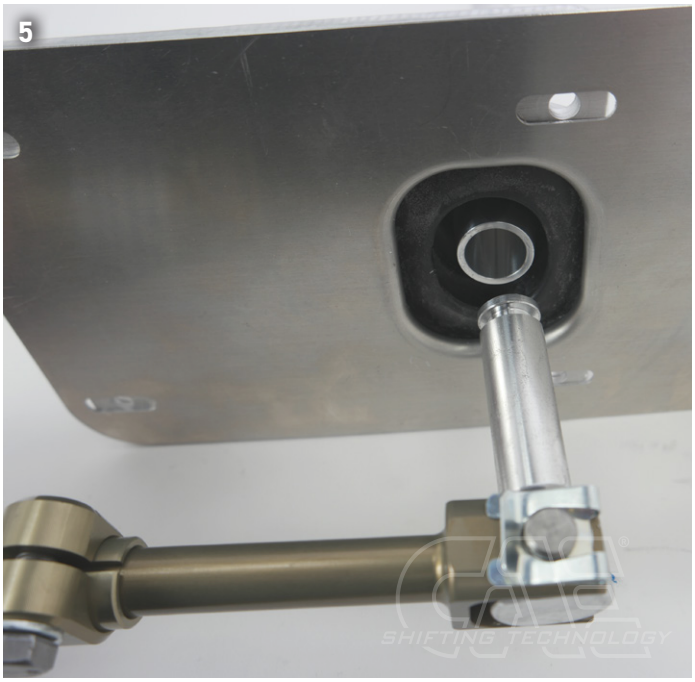
ⓘ **Regularly spray penetrating oil into the lubrication hole Ø2.5mm above the fixing screw.**
This is absolutely necessary for proper necessary.

- Mount the shift rod, after inserting the original 6mm bolt push the circlip out of the "parking position" into the notch.



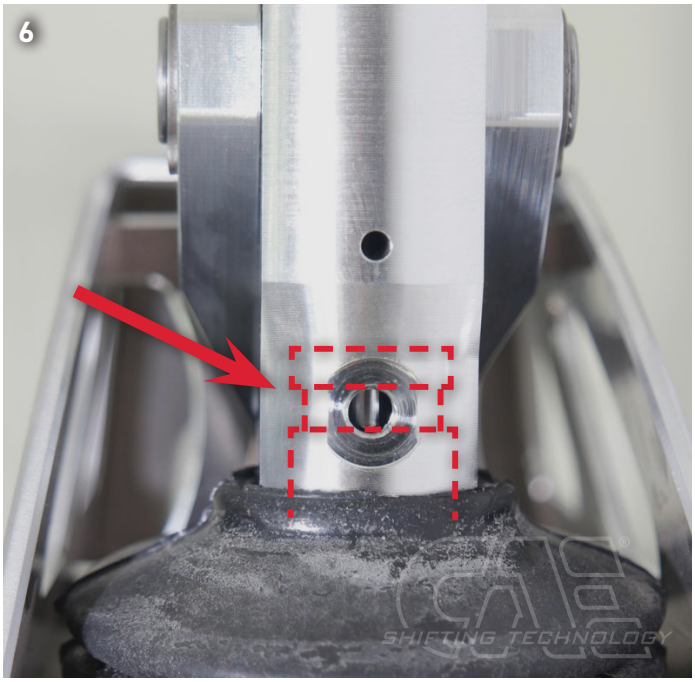
- Make sure that the circlip is in the correct position:

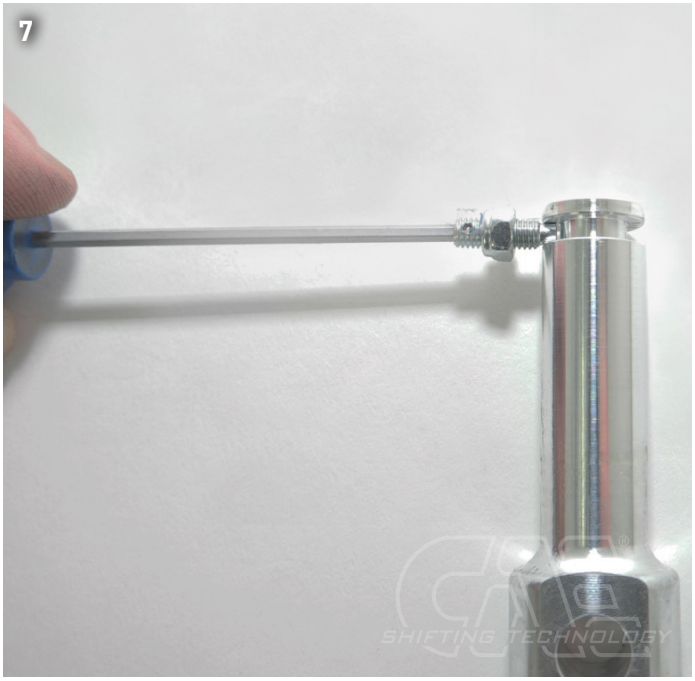
- Mount the rubber bellows on the cover plate (free of grease).
- Mount the rubber bellows incl. plate on the shifter. The upper bead of the rubber bellow must fit into the circumferential groove on the shifter, use a few drops of brake cleaner as a lubricant, the lower collar of the bellow snaps into the shifter housing.
- Place the complete shifter unit on the tunnel, insert the lower part of the shifter and screw the fixing screw into the shifter.
  Make sure that the pin of the screw is threaded into the groove of the lower part of the shifter.
- Tighten the shifter.



It must be possible to rotate the lower part of the shift lever without resistance in the shift lever. This is a condition for proper functioning.

- The basic setting for the fixing screw:
  Carefully screw in until the pin tip rests on the bottom of the groove, then turn back ¼ turn.
  Now hold the grub screw with a 2.5 mm Allen key and tighten the nut.





Be sure to secure the grub screw at the end of assembly with the wire supplied.

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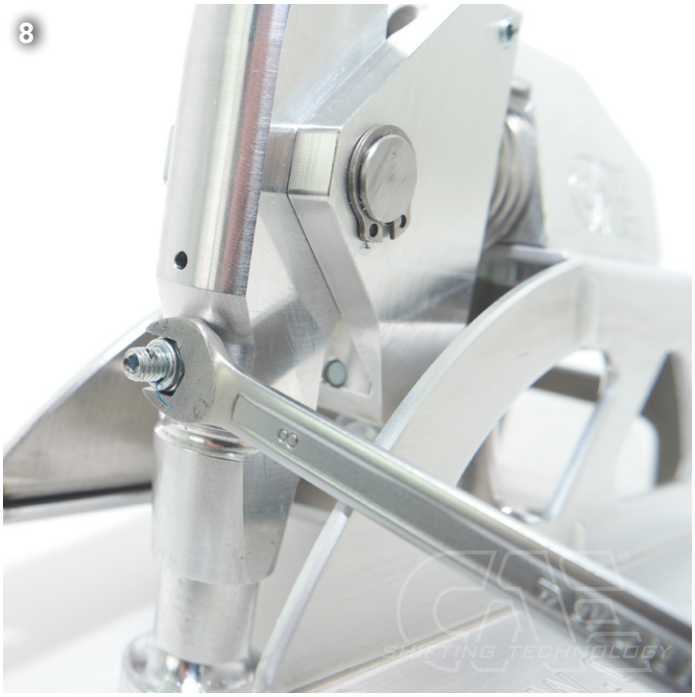

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- Set the desired position V/H of the shift lever and align the tunnel cover plate accordingly. Shift lever should be approximately vertical in neutral. If not, watch for possible collision of shift lever; then tighten shifter on tunnel.
- The lower part of the gearshift lever must be exactly centered in the opening of the cover plate on which the bellows is mounted. Align the cover plate accordingly.

Adjustment of shifting travel MT75 gearbox

- **Clamp of shift rod is loose**
- Loosen the spring stop under the gearshift bracket with a 5mm Allen key.
- Align shift lever, it should be exactly vertical.
- Tighten spring stop again.
- Tighten the clamp of the gearshift rod (max. 25Nm), make sure that the lower part of the gearshift lever is centered in the cover plate in neutral.
- It must now be possible to change gears 3 & 4 without problems Check: When 3rd or 4th gear is engaged, there must be the same amount of play on the shift lever to the right and left, otherwise readjust the spring stop or shift rod.
- Shift gearbox to 1st/2nd gear level using shift lever and screw in right-hand stop screw until 1st and 2nd gear can be shifted cleanly. When the gear is engaged, the screw must not touch the bolt, approx. 0.5 mm clearance is required.
- Now shift gearbox to 5th (R) gear level and screw in left stop screw until 5th & (R) gear can be engaged cleanly. When the gear is engaged, the screw must not touch the bolt, approx. 0.5mm clearance is required.

ATTENTION: Reverse gear and 5th gear are on the same level on the MT 75 gearbox, so the reverse gear lock is omitted.

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!

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

CAE wishes you a good trip.

SHIFTING TECHNOLOGY

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