

📍 10064

Porsche 964 & 993
5 & 6-speed gearbox



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.

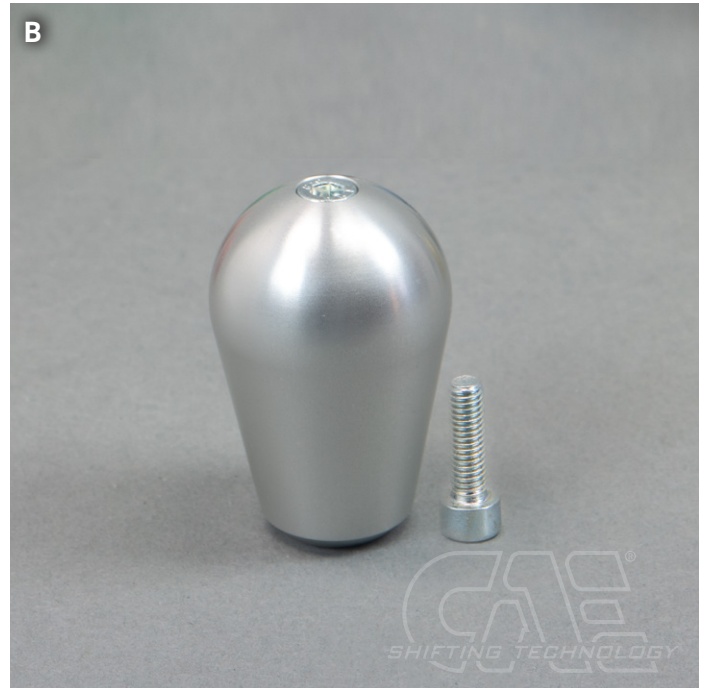
TIPS FOR GEAR SHIFTING

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 mounted, design depending on ordered variant (Picture A)
- ▶ 1x Shift knob incl. counter screw M6x20 V2A, design depending on ordered variant (Picture B)
- ▶ Accessories package, cover plate & shift rod (Picture C)



- i** The shifter is designed for racing cars with interior equipment. The center console must be cut out so that a corresponding clearance for the shifter is guaranteed.
(see center console machining)
- i** The shifter must be screwed directly onto the sheet metal of the center tunnel.
- i** Glue in all nuts / screws during mounting! To avoid flash rust, rub all steel parts with maintenance oil from time to time. Use spirit to clean all aluminum parts.
Regularly lubricate the pilot bolt of the shift rod and all joints to ensure proper functioning in the long term.

Removal of center console

- ▶ Pull off the shift bag and remove it together with the shift knob from the shift lever. (Picture 1, 2)
- ▶ Remove center console. (Picture 3, 4, 5)
- ▶ Unscrew rubber sleeve with retaining frame. (Picture 2)

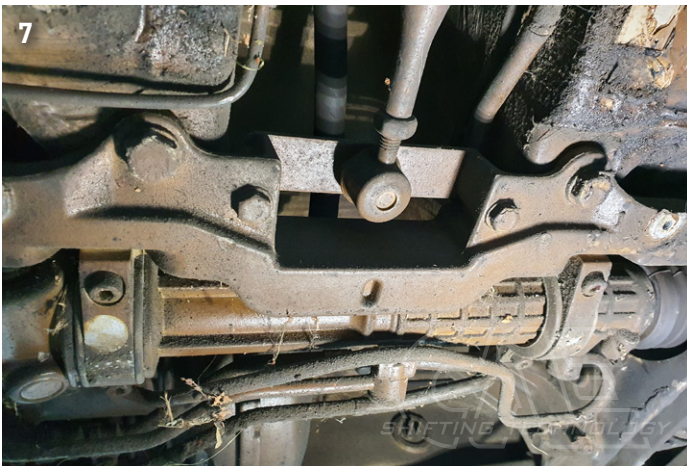


Removing the standard shift linkage

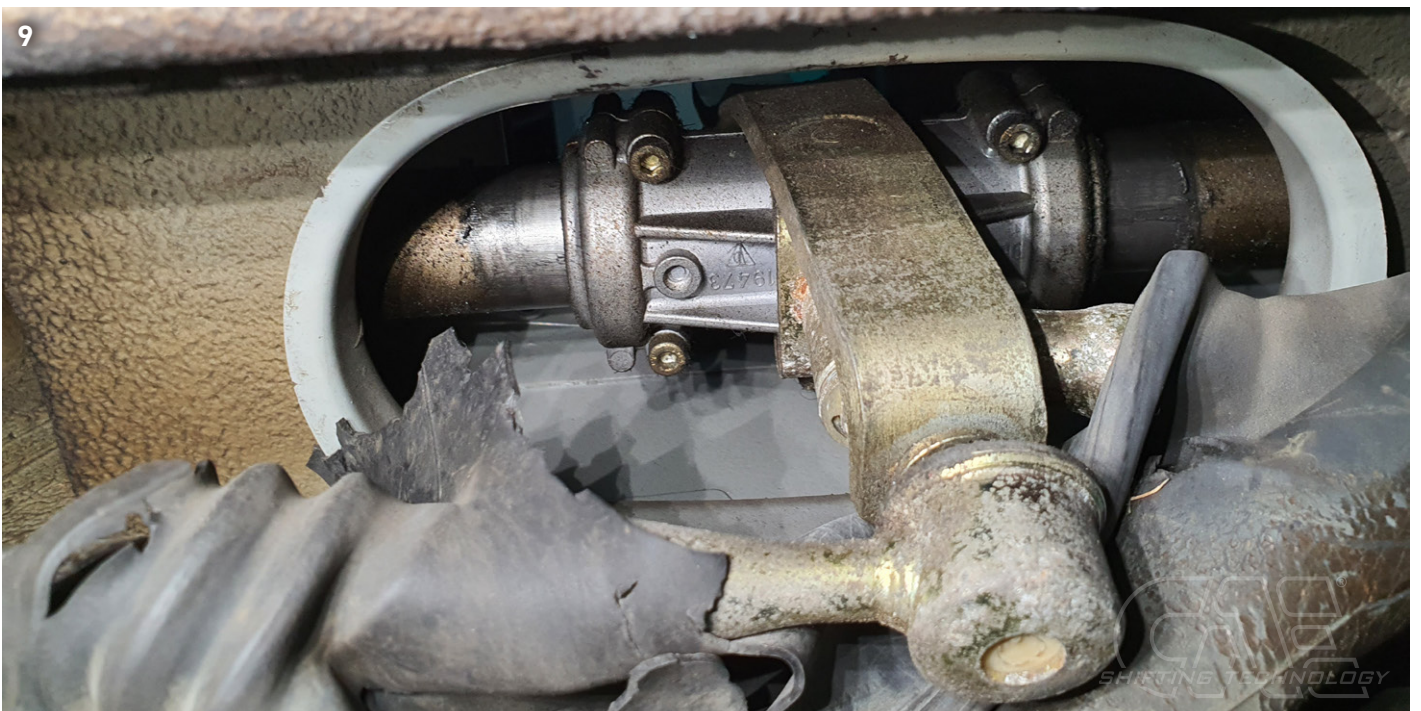
- ▶ Now lift the vehicle safely on a lifting platform, remove the total of 4 underbody covers to gain access to the shift linkage. (Picture 6)



- ▶ Remove front support and shift rod linkage. (6-kt SW13) (Picture 7, 8)



- ▶ Reuse the clamping screw for the shift rod joint and the rubber boot.
- ▶ Unscrew the 4 Allen screws SW4 of the shift lever bearing and remove the complete shift linkage downwards. (Picture 9)



Sheet metal work

- ▶ Remove the clip (Picture 10) and dismantle the tube. (Picture 11)



- ▶ Mill out the tunnel reinforcement in the rear area for the shift rod as shown in the photo. (Picture 12, 13, 14, 15)



Installing the CAE shift rod

- ▶ Insert the shift rod into the tunnel from the interior with the universal joint first.
(If the tunnel reinforcement has already been cut out extensively, this can also be done from below).
- ▶ Remove the original rubber boot for covering the shift rod before mounting the shift rod onto the gearshift shaft over the gearshift rod.
- ▶ Fasten the shift joint to the gearbox shift shaft using the original clamping screw, then slide the rubber boot over it. (Picture 16)

ⓘ BE SURE TO SECURE THE CLAMPING SCREW WITH LOCTITE!

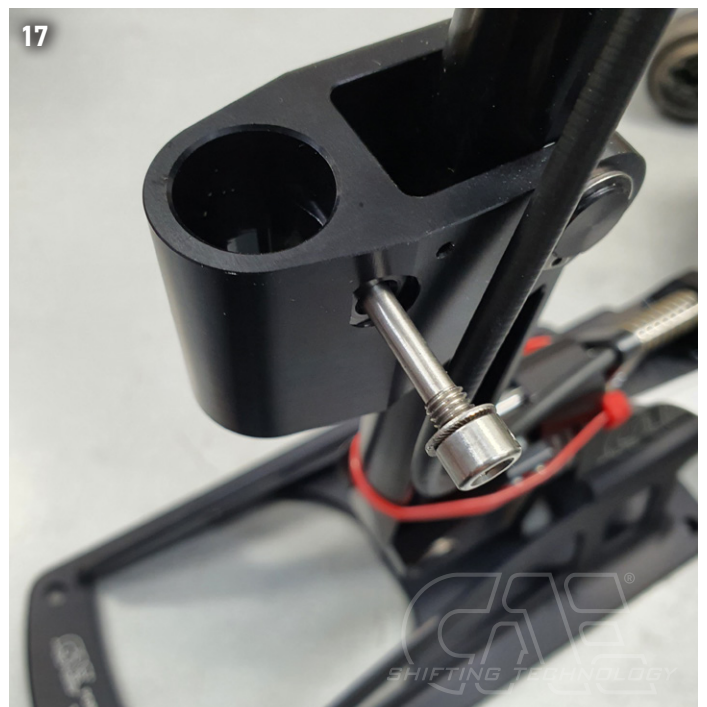


Installing the CAE shifter

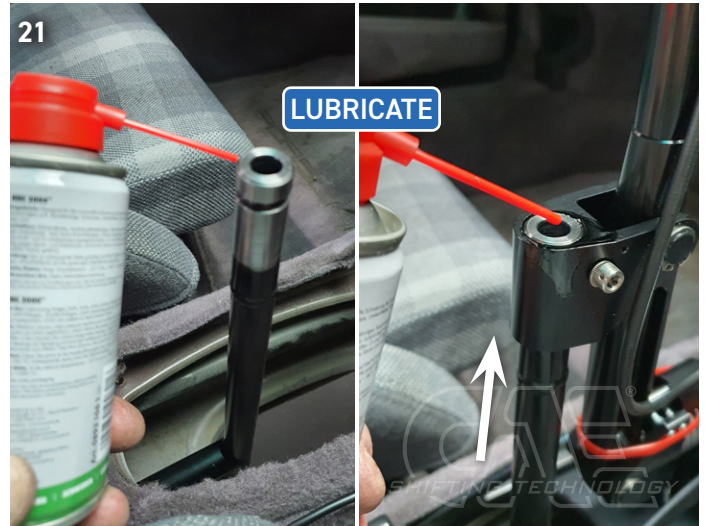
- ▶ Unscrew the radial locking screw from the fork (Allen key 4mm) (Picture 17).
- ▶ Place the cover plate with mounted rubber sleeve on the shifter rod. (Picture 18)
- ▶ Loosen the spring stop in the shifter with a 5mm Allen key so that it can be moved sideways. (Picture 19)

ⓘ DO NOT UNSCREW THE SCREW COMPLETELY!

ⓘ GREASE THE PILOT BOLT AND THE FITTING HOLE WELL BEFORE ASSEMBLY! (Picture 21) Make sure that neither the bore nor the bolt are damaged during assembly!



- ▶ Now place the CAE shifter on the center tunnel (Picture 20) and insert the pilot bolt of the shift rod into the fitting hole. (Picture 21)



- ▶ Then screw the CAE shifter to the center tunnel with the supplied M6x16 screws and washers.
- ▶ These photos illustrate the principle of the rotating pilot bolt. (Picture 22)
- ▶ The fixing screw engages in the groove of the pilot bolt and thus secures it vertically. (Picture 23)
- ▶ Slightly tighten the fixing screw with 1 toothed lock washer, max. 3Nm. We recommend to secure the screw additionally with the supplied wire, because the loss of the screw means a total failure of the shifter. (Picture 24)

ⓘ The pilot bolt must remain rotatable!



Regularly spray penetrating oil into the collar at the tip of the pilot pin. (Picture 13)
This is absolutely essential for proper function.
We recommend Würth HHS2000

ⓘ It is essential to ensure absolute cleanliness. Dirt and grinding dust will cause the shifter to fail.



Adjusting the shifting travel 5 & 6 gear gearbox

- ▶ Shift the gearbox to 3rd or 4th gear. (Middle gear level) To do this, move the shift lever forwards or backwards without moving it sideways.
- ▶ The shift lever is now slightly tilted to the right (approx. 5 degrees).
- ▶ Now tighten the spring stop again. (Picture 26)
- ▶ **Check:** With 3rd or 4th gear **engaged**, the lateral play in the aisle must be the same.
 - ❗ **To check, press the shift lever slightly to the right and left. This is the basic setting of the shifter. It must be done very carefully.** Next, shift the gearbox to the level (1/2).
- ▶ Adjust the stop screw until the gears can be changed cleanly in this plane. The screw must not be tight against the bolt approx. 0.5mm air is OK. (Picture 27)
- ▶ Now shift to 5/6 gear using the shift lever and screw in the stop screw until 5/6 gear can be engaged cleanly. (Picture 27)
- ▶ RW Pull up lock on gearshift lever and shift into shift into reverse gear. Also adjust this stop screw accordingly until reverse gear can be engaged cleanly.



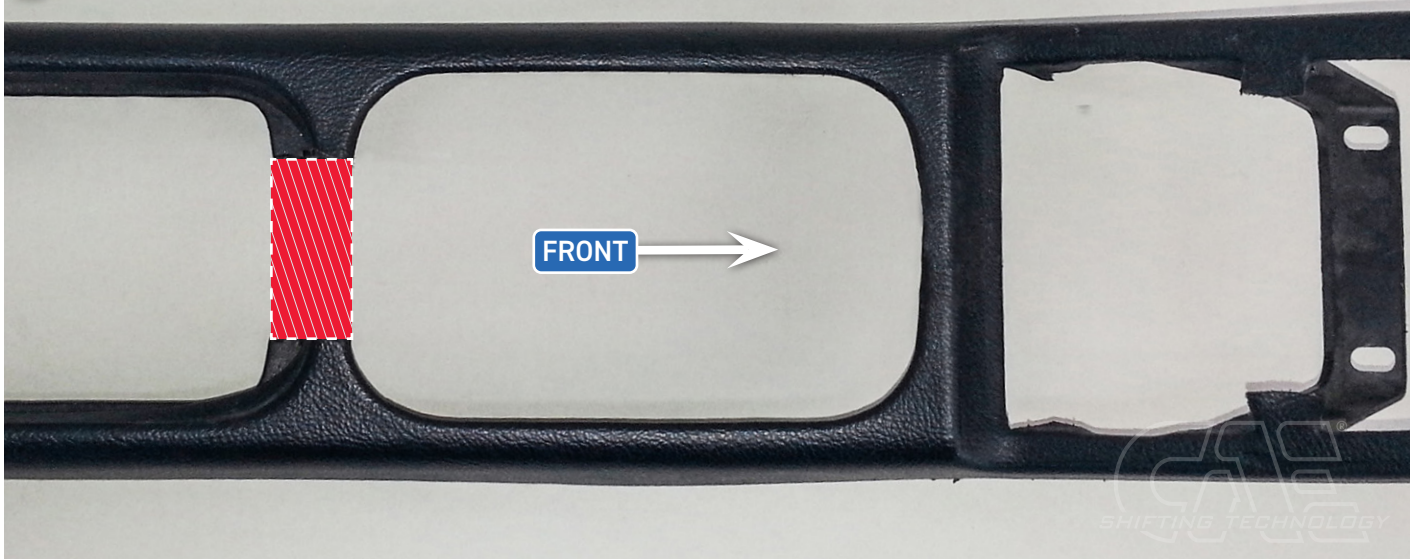
FINALLY! Check all functions and settings during the test drive and readjust if necessary!

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

Machining and installation of the center console

- ▶ Reinstall all underbody panels
- ▶ Please process the center console according to the pictures and then reinstall it. (Picture 16, 17)

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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**



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