MORE THAN 20 YEARS EXPERIENCE

SHIFTING TECHNOLOGY

Installation instructions

10032

Peugeot 207 RC

5-speed BE4 gearbox

PEUGEOT 207 RC

WWW.CAE-RACING.DE

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)
- 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.

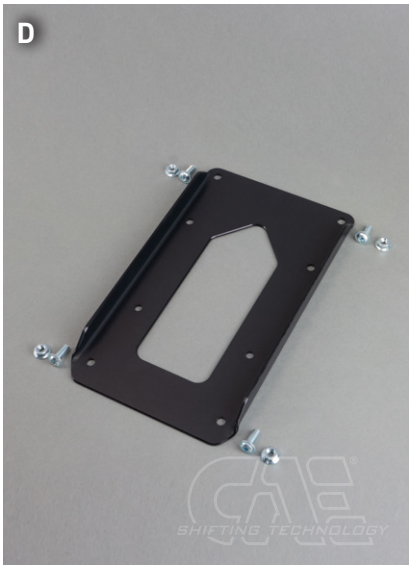
TIPS FOR GEAR SHIFTING

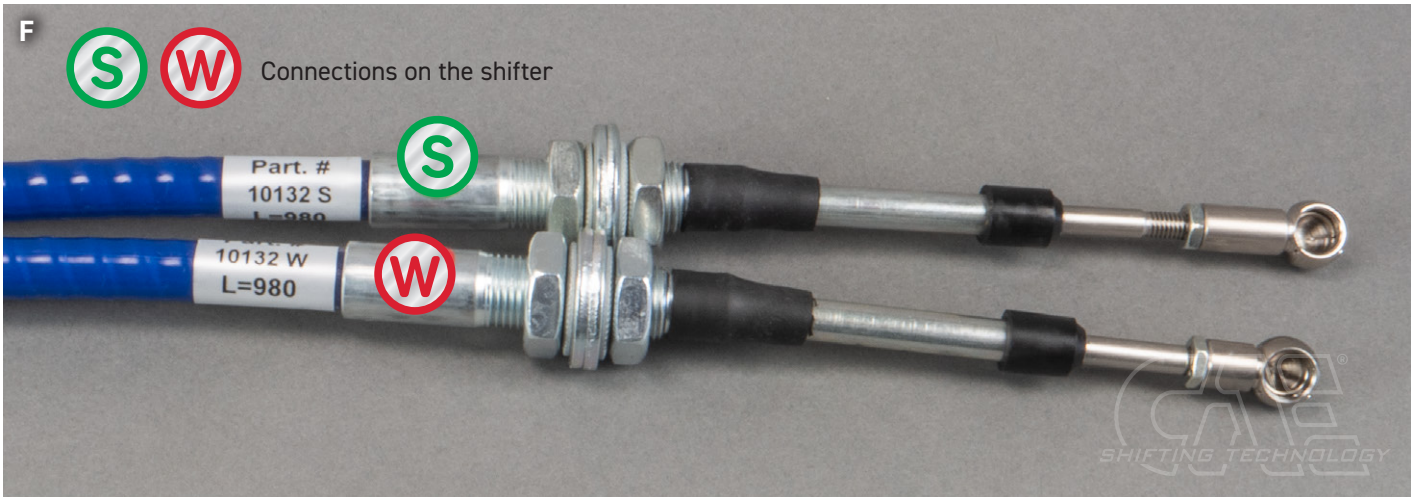
ⓘ FORCE DOESN'T MAKES YOU FASTER – IT ONLY HARMS THE TRANSMISSION

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 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 assembled,
  design depending on ordered variant (Picture A)
- 1x Shift knob incl. counter screw M6x20 V2A,
  design depending on ordered variant (Picture B)
- Accessories package (Picture C)
- Adapter bracket with associated screws (Picture D)
- 1x shift cable (S), 1x selector cable (W) (Picture E, F)



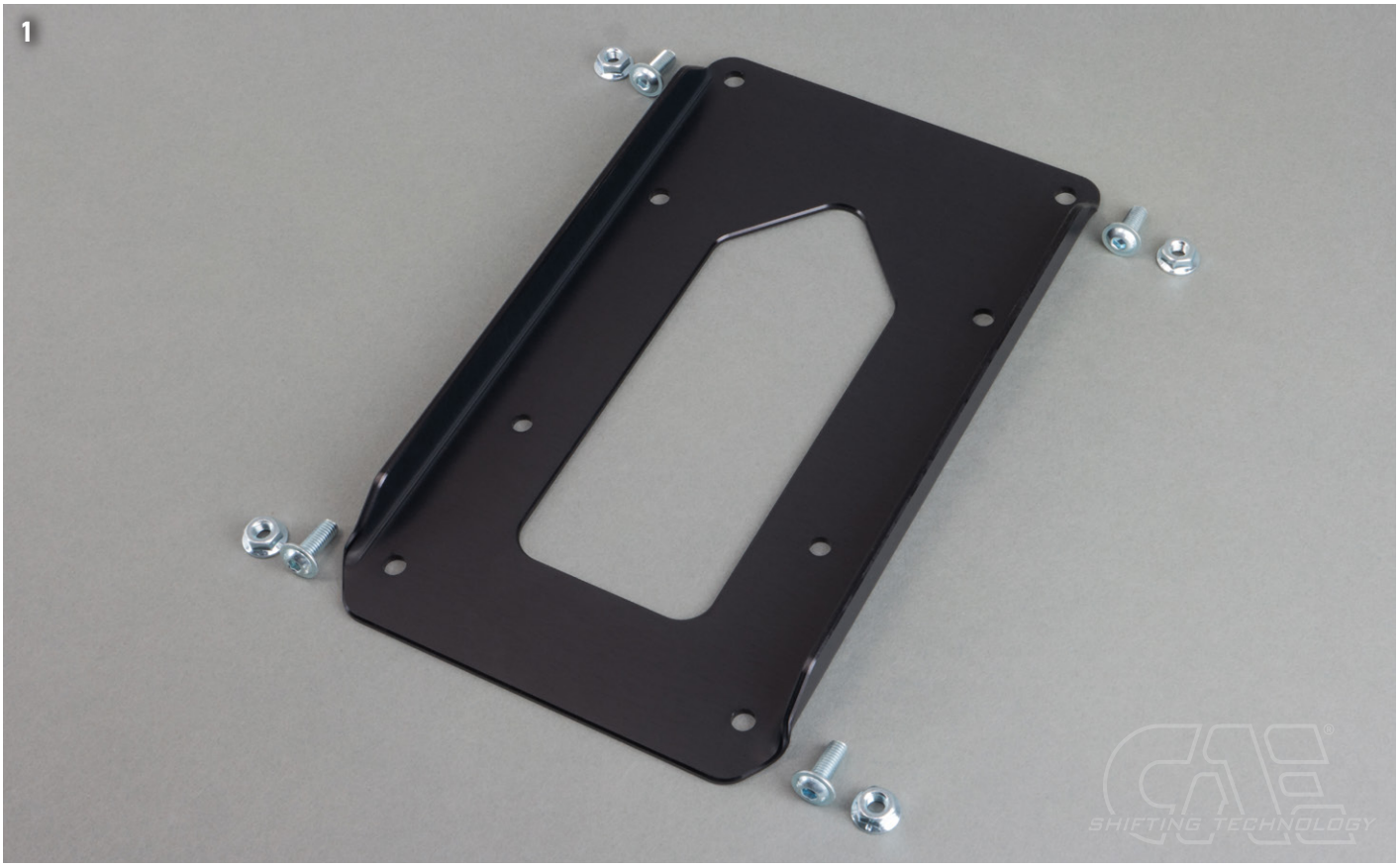


ⓘ The shifter is intended for vehicles without interior equipment. If the center console is installed, it must be removed or cut out until appropriate clearance is ensured.

The removal

- Completely remove the original gearshift lever including shift cables and cable seal.
- The original cable linkage on the gearbox is retained.
- The absorber weight on the gear lever CAN be removed.
- Mount the adapter bracket on the shifter. (Picture 1, 2)

1



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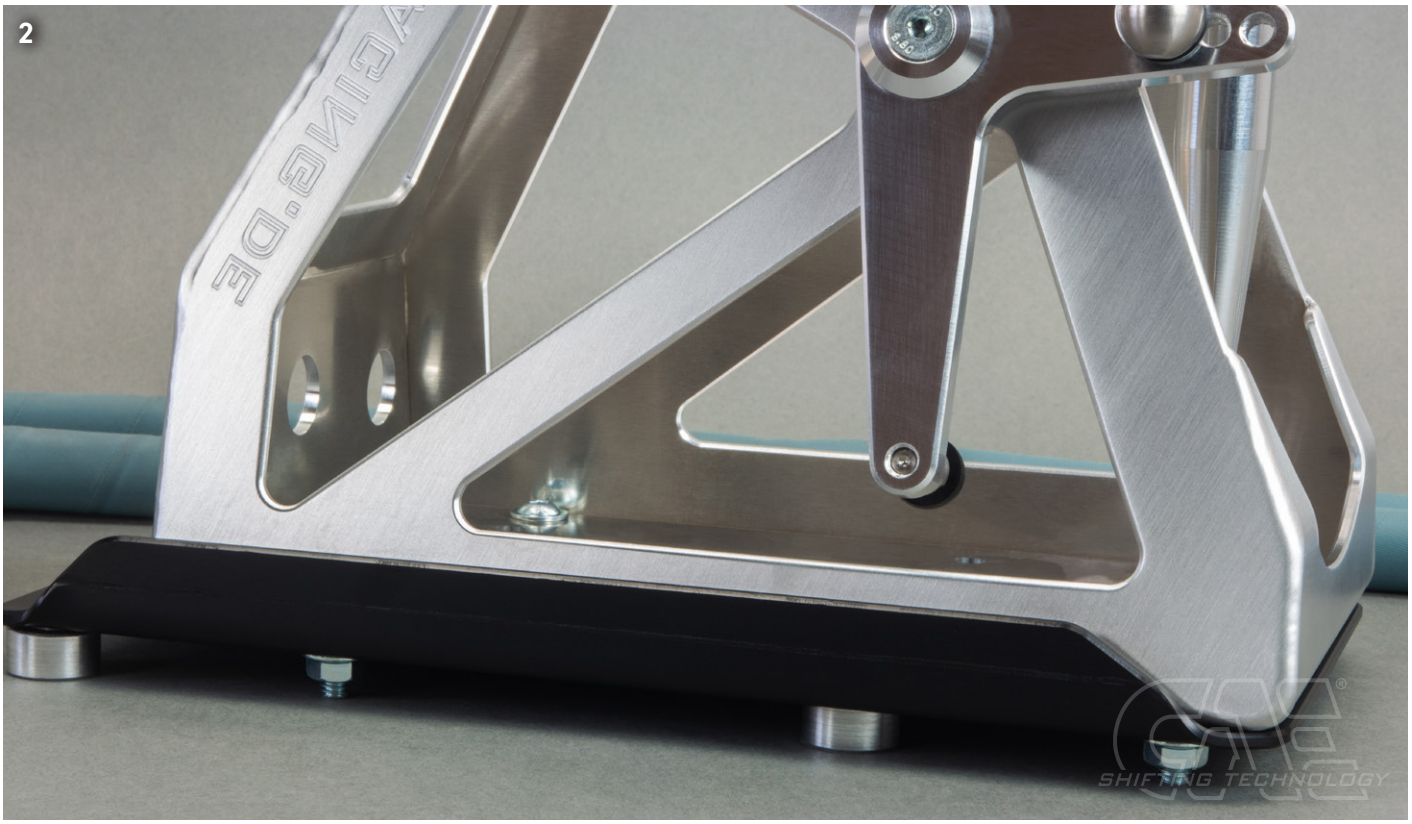
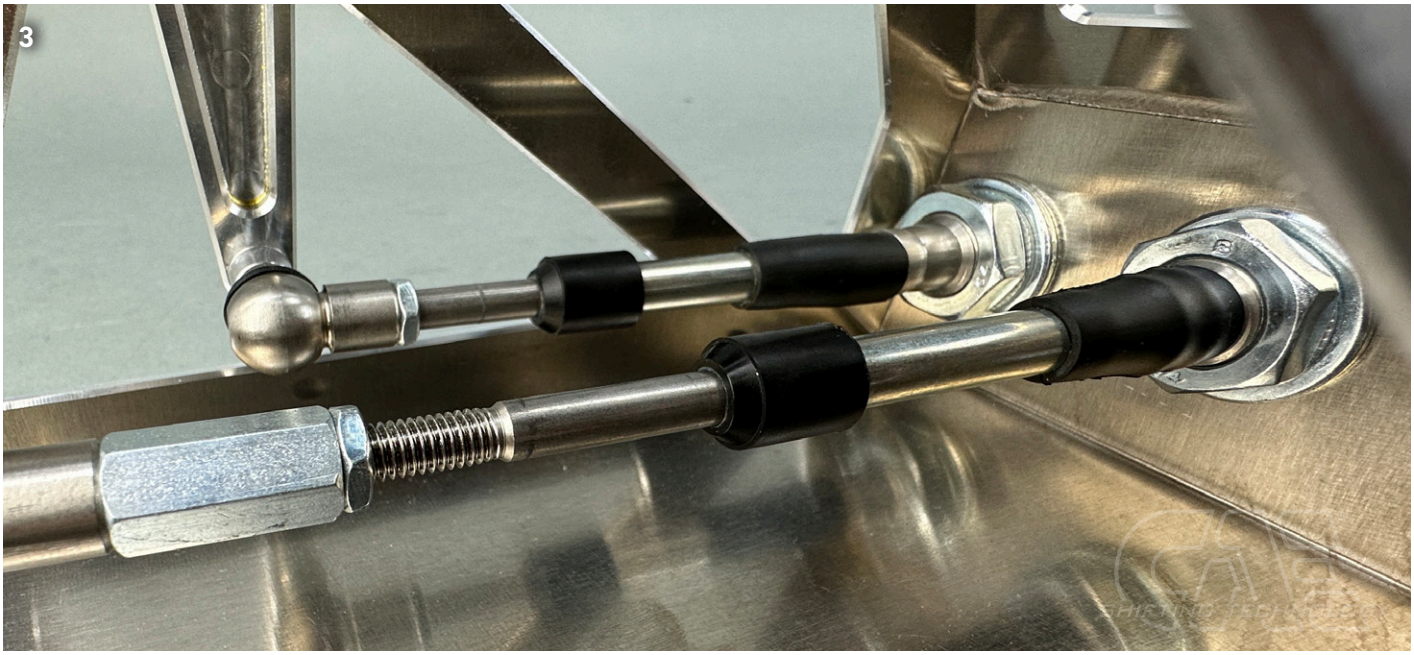
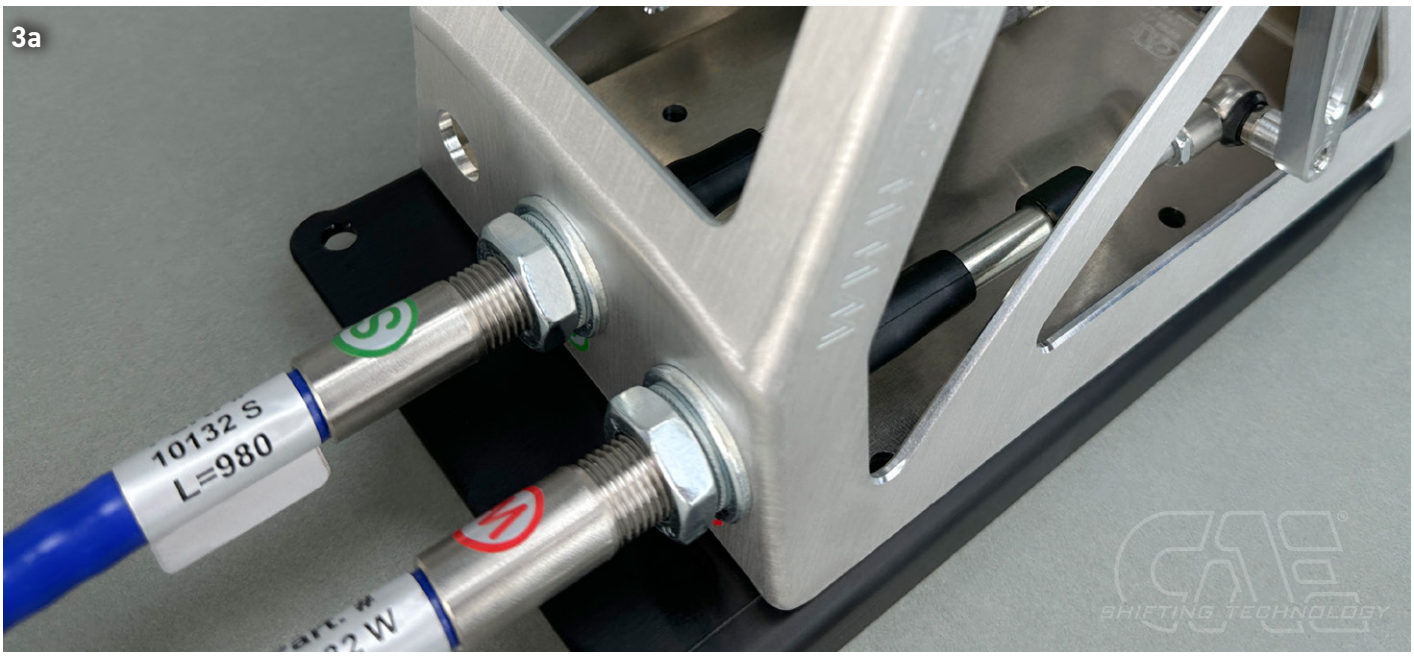


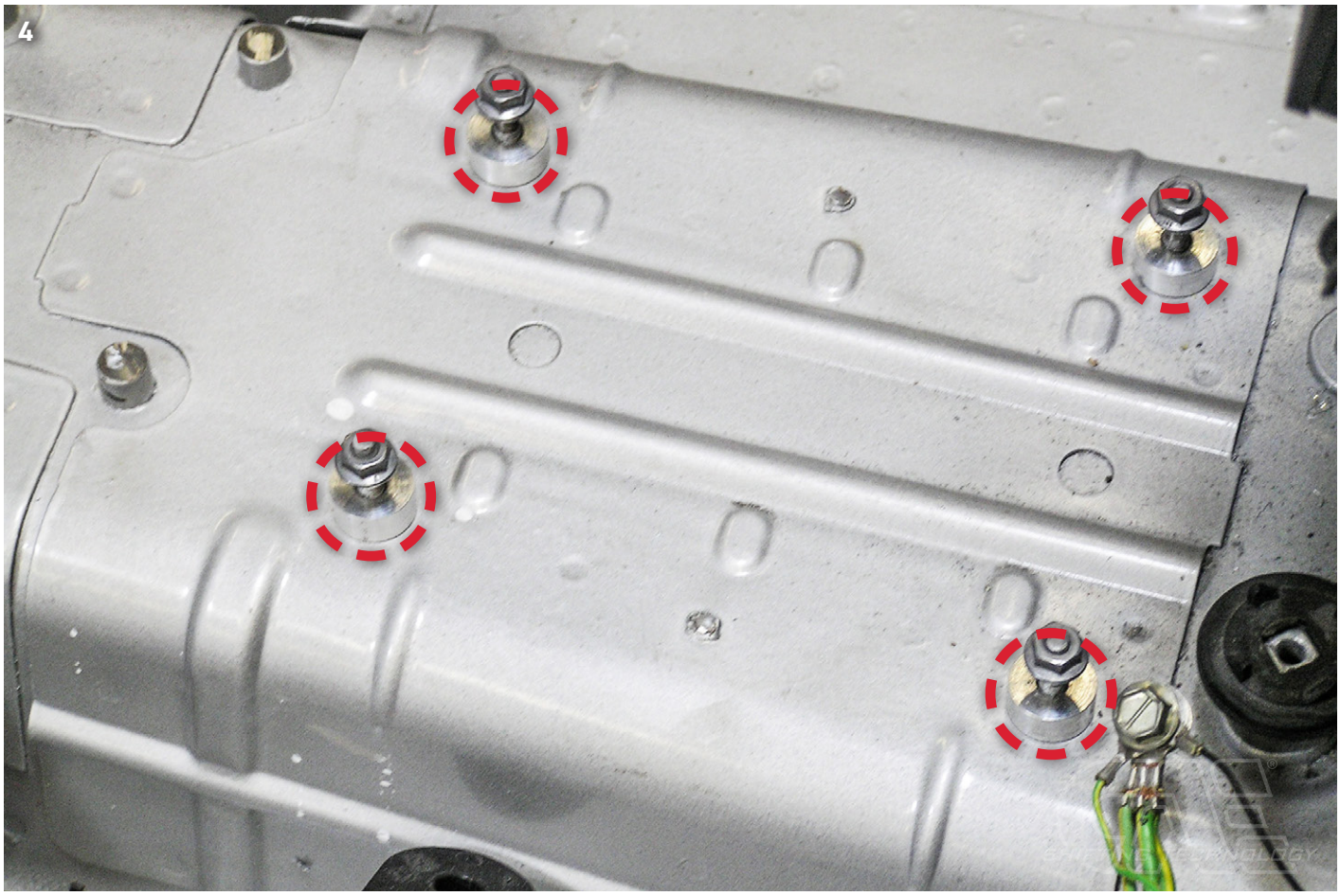
Installation CAE Shifter

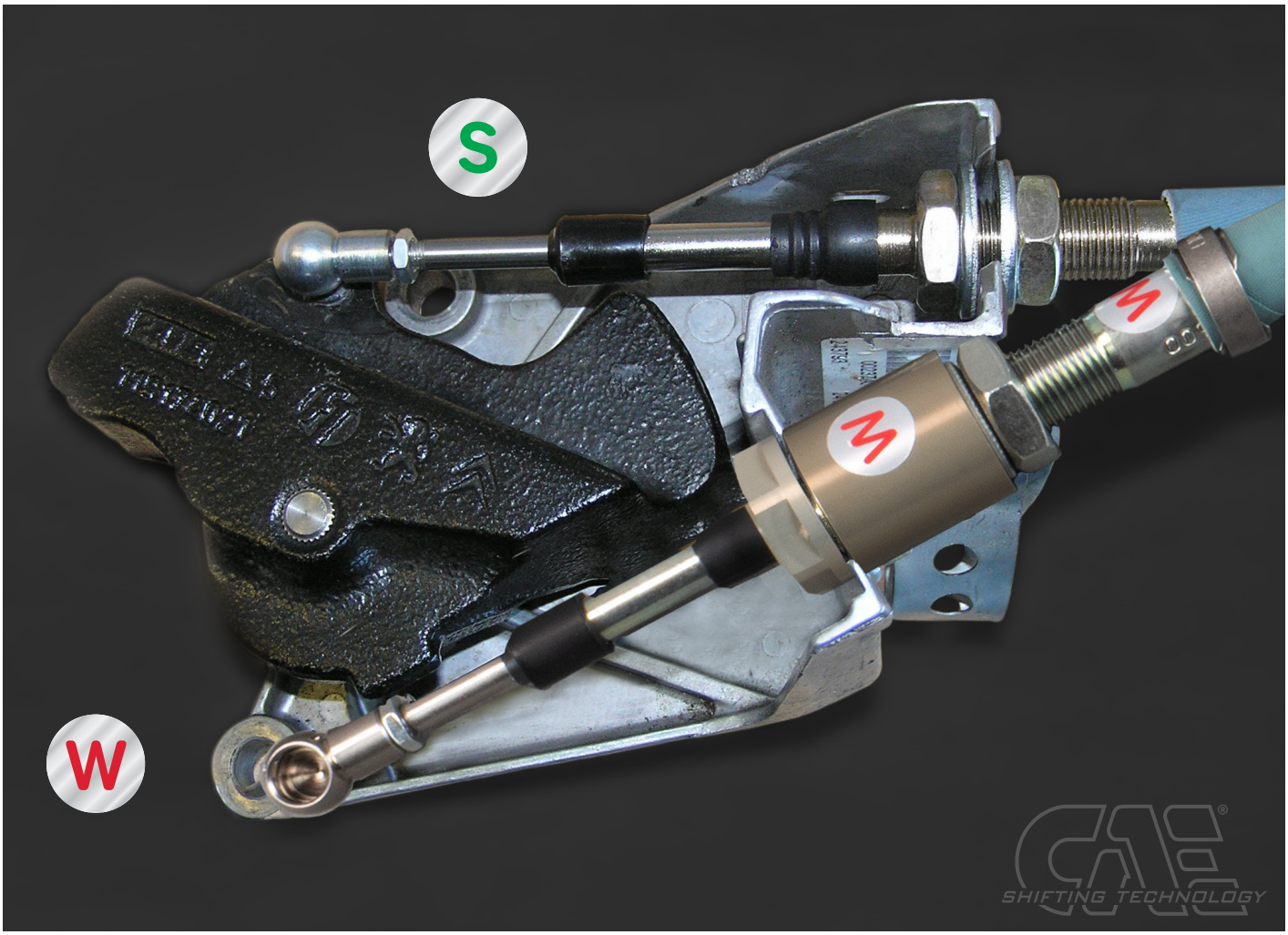
- Attach both shift cables to the shifter; short ball socket to the side selector lever. (W) (Picture 3, 3a)
- Remove the ball sockets, M6 nuts, sealing caps and the first M16 nut and washer from the shift and selector cables. Short socket = selector cable (W)
- Fasten the cables to the shifter with M16 nuts, no thread from the M16 thread is visible in the shifter
- Attach the shifter and insert the shift cables into the feed-through hole in the tunnel.
  If possible, insert the cables directly into the gear cable holder.
- Tighten the shifter; tighten the cables on the gear cable holder and press on the ball heads on the inside and outside. (Picture 4)





- A Place the 4 spacer bushes on the threaded pins; they serve as height compensation for the base plate. (Picture 4) Remove any interfering threaded bolts on the tunnel.





HEAT PROTECTION FOR SHIFT CABLES
(FOR ALL VEHICLES WITH CAE SHIFT CABLES)

Exhaust systems generate incredible temperatures, which can be several 100 degrees, especially under full load! Therefore, the shift cables must be absolutely protected with the blue-gray protective hoses against the strong heat effect!
Also the protected shift cables must not be in contact with the exhaust. For turbo engines please take additional measures should be taken, e.g. aluminum honeycomb sheets, heat protection tape or foils.

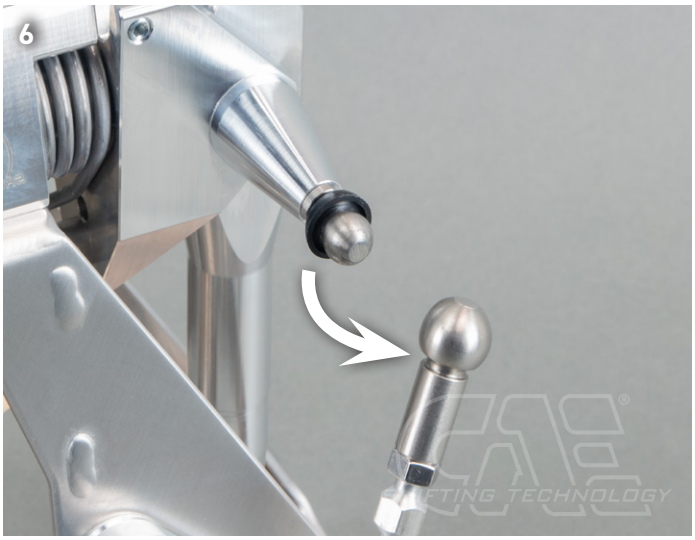
EXCESSIVELY HIGH TEMPERATURES PERMANENTLY DAMAGE THE SHIFT CABLES! ESPECIALLY IN MOTORSPORTS, THE HEAT DEVELOPMENT IS ENORMOUS!

Adjusting the shifting travel

- Unhook coupling rod to L lever on one ball. (Picture 6)
- Jetzt die Mittellage (3./ 4.ter Gang) des Schalthebels einstellen. Hiefür unter dem Schaltbock mit einem 5mm Inbusschlüssel den unteren Federanschlag einstellen. (Bild 7)

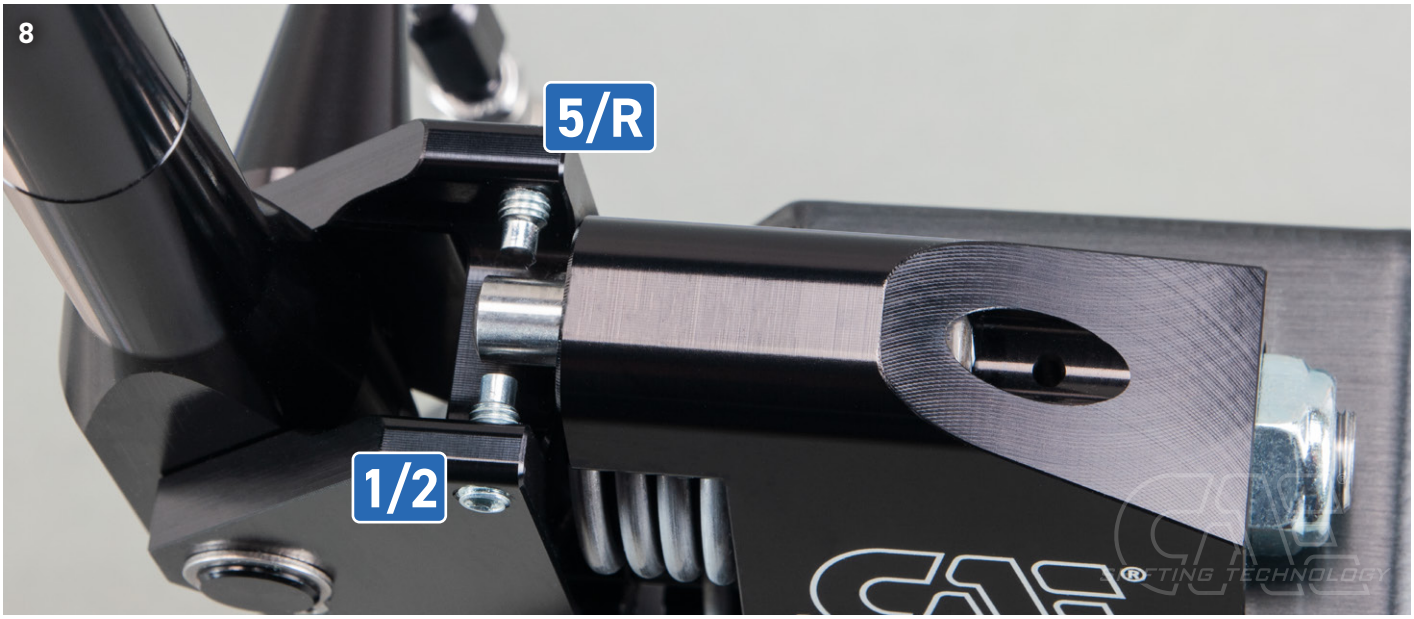
ⓘ **CHECK: The shift lever should be exactly vertical in the center position.**

- Shift the gearbox to 3rd gear. To do this, push the shift lever forward.
- Adjust the length of the coupling rod so that it can be pushed on without lateral movement of the shift lever.



ⓘ **CHECK:** When 3rd/4th gear is engaged, the lateral clearance on the shift lever must be the same on both sides, otherwise readjust the spring stop again. (Picture 7)

- Shift the gearbox to level 1 / 2 using the shift lever and screw in the stop screw until the gears in level 1 / 2 can be changed cleanly. (Picture 8)
- Now shift gearbox to 5th gear level using shift lever and screw in stop screw until 5th and reverse gears can be engaged cleanly.
- Note that the reverse gear can only be shifted from neutral (internal gearbox lock).



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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