

Tools

Required tools for changing dual clutch

- DSG Clutch exchange tool kit
- Soft hammer
- Plier for snap rings

Removal and installation of dual clutch

Application

The 7 speed dual clutch gearbox 0AM (DQ250) in Audi, Seat, Skoda and Volkswagen

Brief instruction:

- 1 Remove the dual clutch by pulling it out of the gearbox with the tool
- 2 Replace old clutch assembly with new parts
- 3 Adjust position of the thrust bearings with correct shims
- 4 Push the new clutch into correct position with the tool
- 5 Check the clearance on both clutches
- 6 Install the gearbox in the car
- 7 Perform an adaptation of the clutch with a diagnosis instrument

Important information

The breathing holes on the gearboxes must be plugged to avoid leakage. If the mechatronic oil leaks out the complete mechatronic unit must be changed. If the gearbox oil leaks out a complete oil exchange needs to be performed.

A clutch can only be installed once since removal of the clutch damages the clutch. A removed clutch can therefore never be used again.

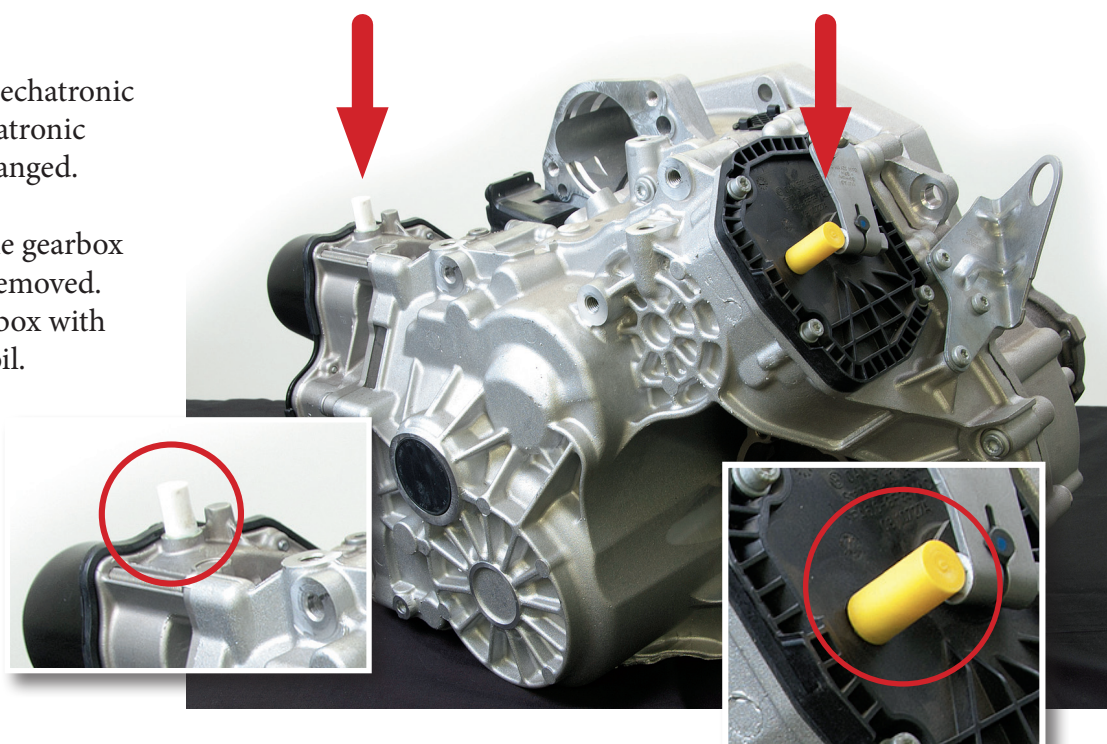
When changing the clutch it is recommended to check the dual mass fly wheel. Change it if necessary. Also the bearings need to be checked and changed if necessary.

A clutch must not under any circumstances fall out of place. Any shocks on the clutch may damage the adaption mechanism.

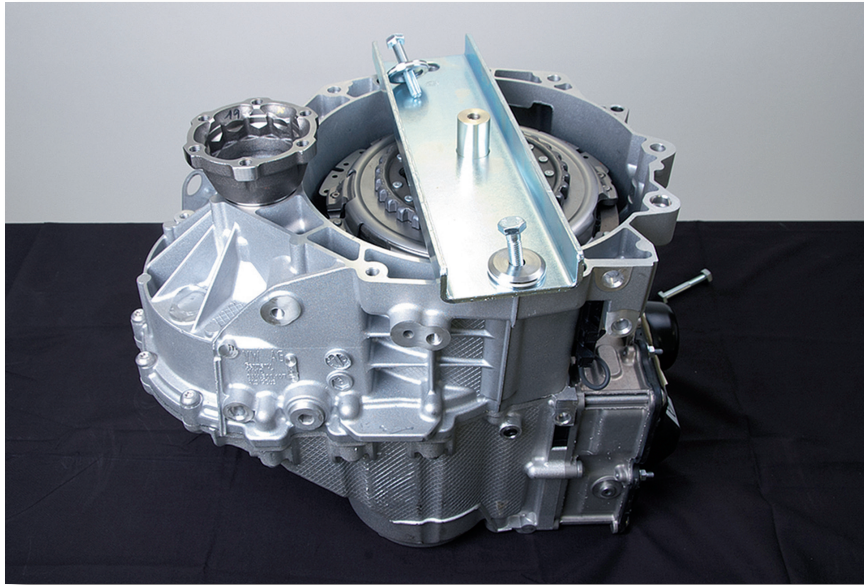
Plug both the breathing holes with plastic caps

If oil leaks out of mechatronic the complete mechatronic unit needs to be changed.

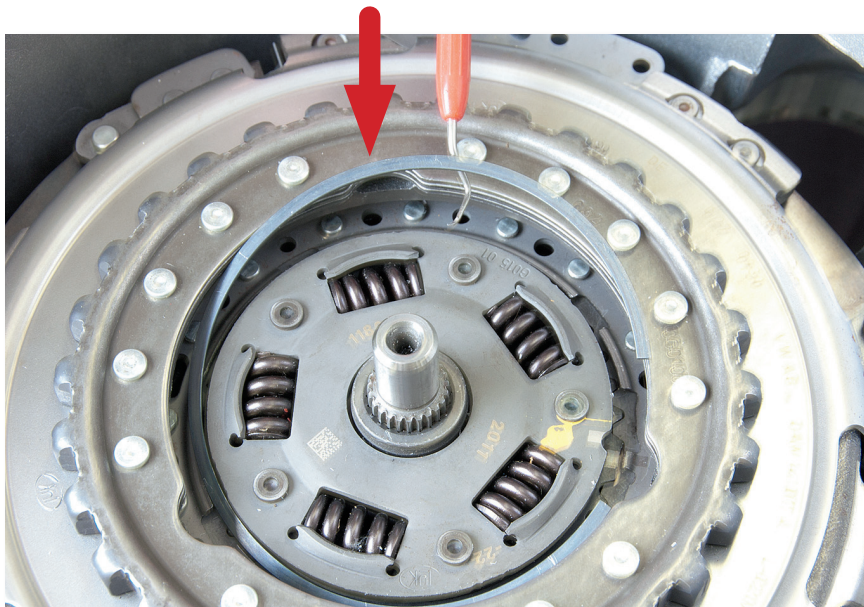
If oil leaks out of the gearbox all oil needs to be removed. Then refill the gearbox with correct volume of oil.



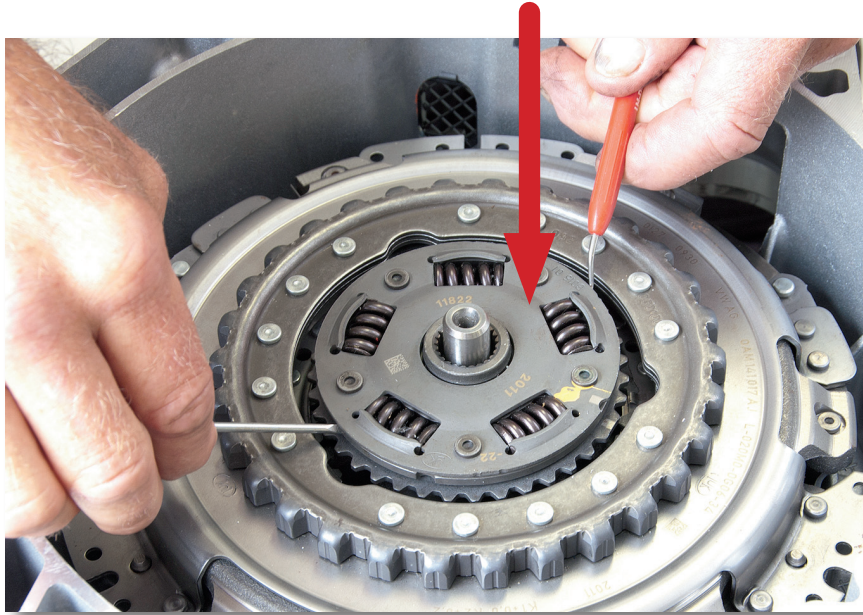
**Turn the transmission clutch side up.
Use an support below to keep it steady.**



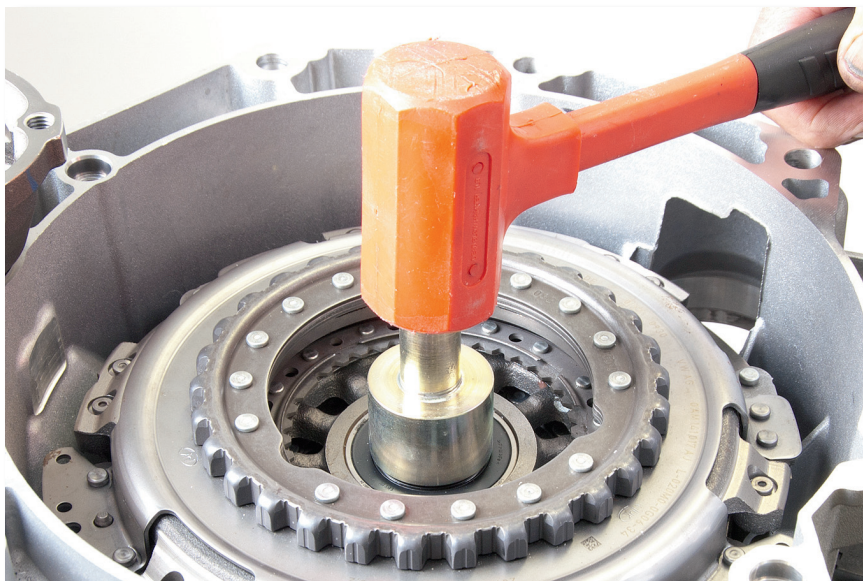
Take out the snap ring.



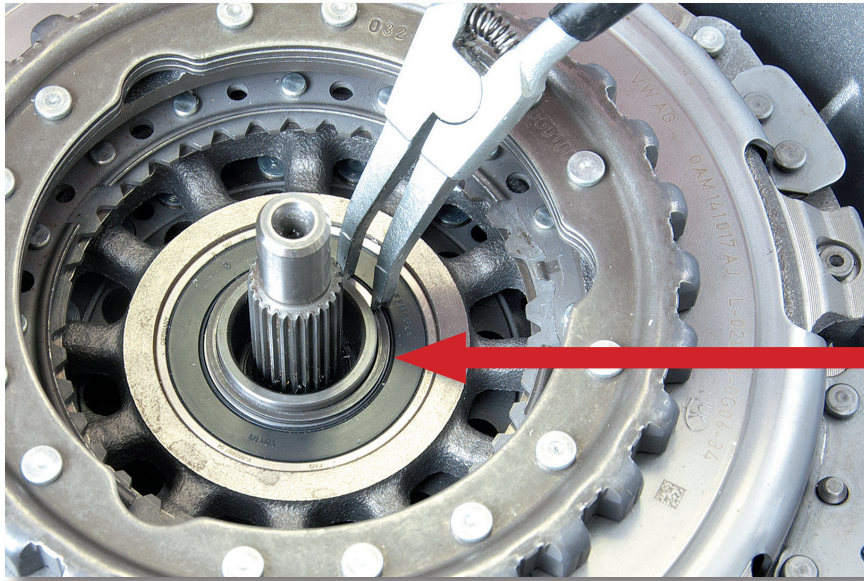
Take out the hub for K1



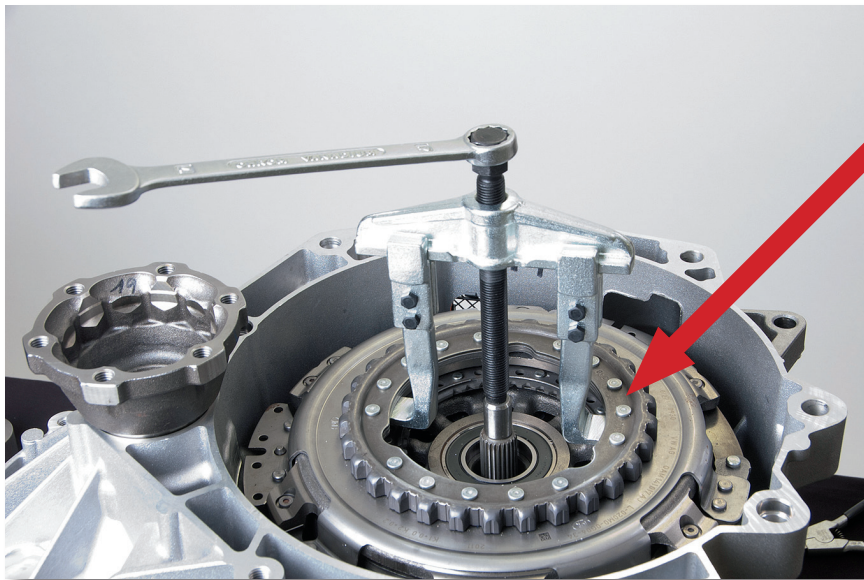
Shock with tool and soft hammer in order to ease up the snap ring for clutch pack.



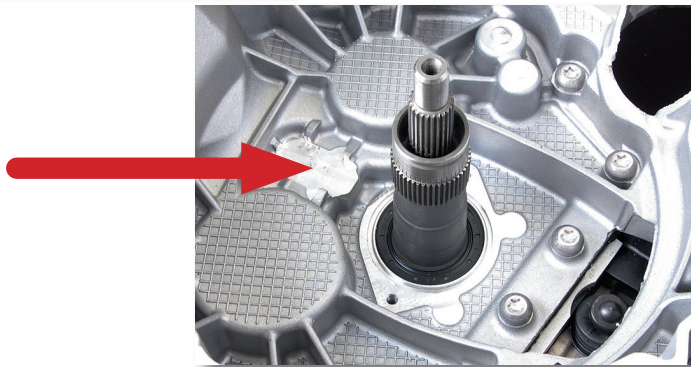
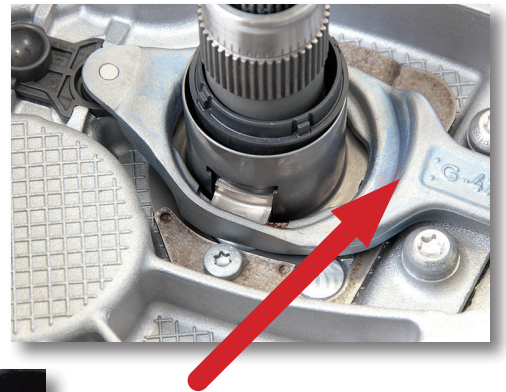
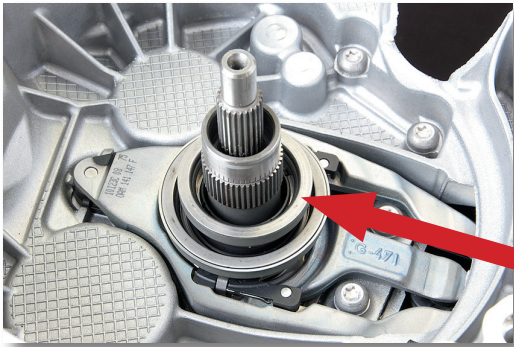
Take out snap ring



Pull out the old clutch pack



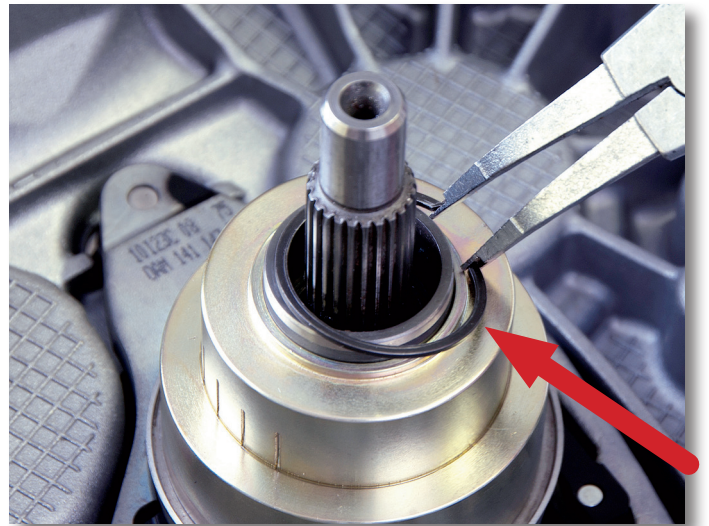
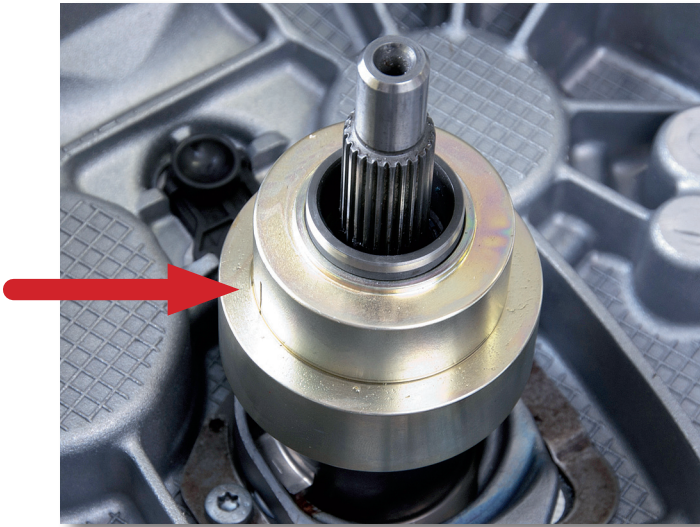
Take out the old forks, thrust bearings and plastic fork seat



Mount the new fork seat and the small fork (K2) and the K2 thrust bearing Without shim



Mount the tool on the shaft, and mount the snap ring

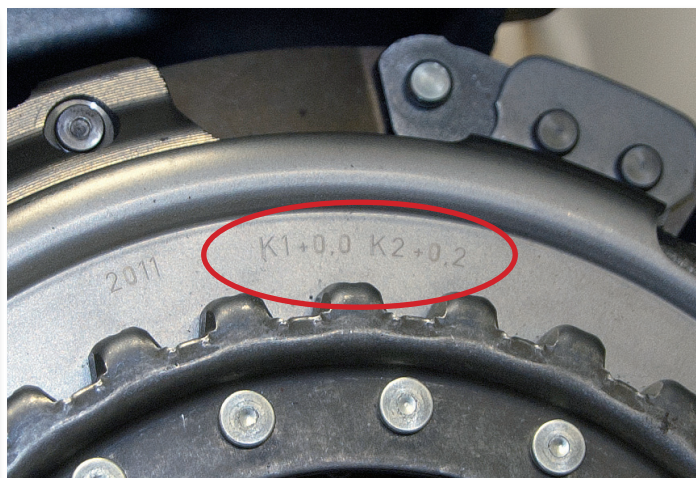


Twist apart the tool parties till lightly tightened, and test, which shim will fit in the slot



Measure the thickness of the shim, read on the new clutch pack, how much to add/subtract on the measured shim thickness, and choose a shim.

Example: measured shim thickness 2,20 mm, reading on clutch pack "C2 +0,20". Shim to be used: 2,40mm



Put aside a small (K2) shim 2,40 mm

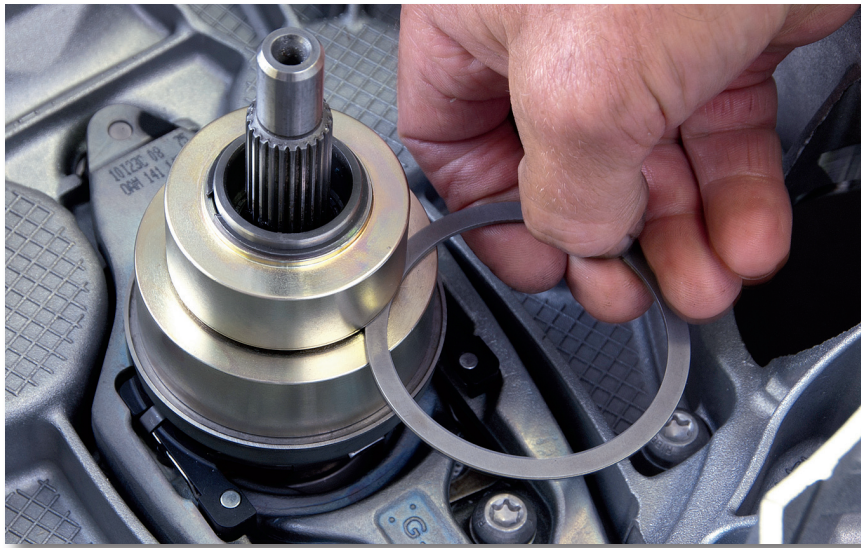
Take out the tool and K2 thrust bearing

Mount the new K1 fork with the K1 thrust bearing WITHOUT shim



Mount the tool again, and twist as earlier for K2

Choose a shim to fit in slot, add/subtract as for K2 earlier. Example: measured shim 3,00 mm, reading on clutch pack "K1 -0,40. Shim to be used; 2,60mm



Put aside a K1 shim of proper thickness.
Take out the tool

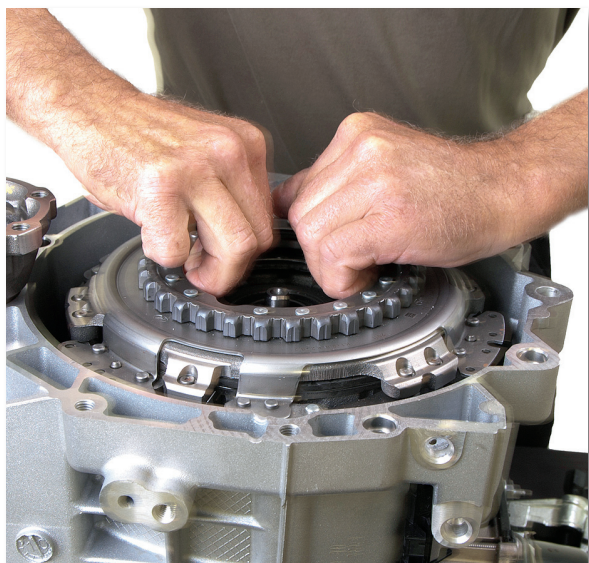
Mount the chosen shim for K1



Mount the K2 shim and the K2 thrust bearing

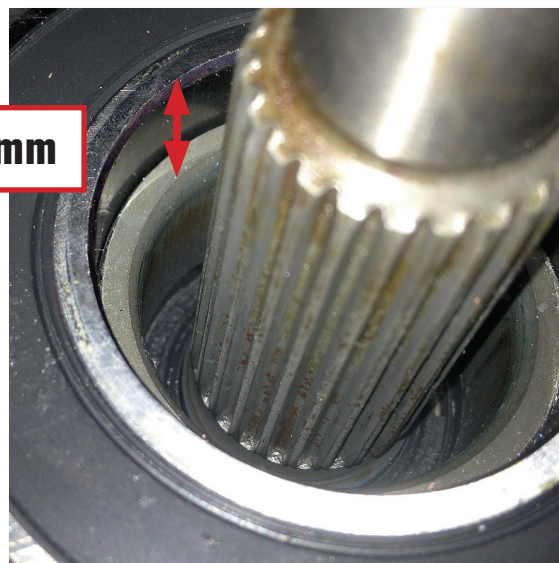


Place the new dual clutch pack carefully in place. It has to be fit into the larger splines (on the outer input shaft).

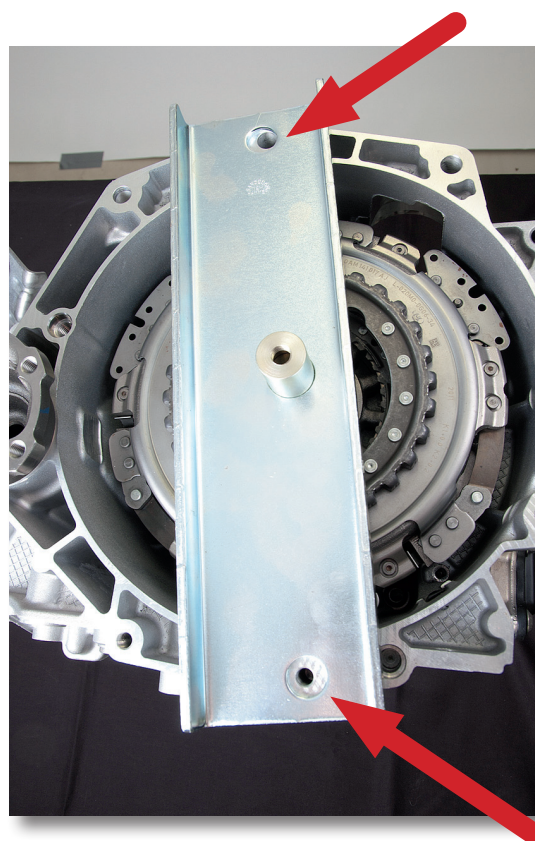
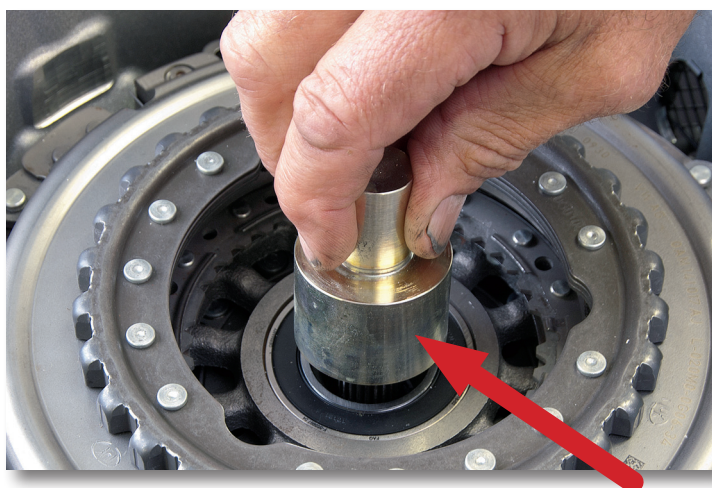


Check that the dual clutch pack is correctly in place by checking the distance between the upper edge of the outer (hollow) input shaft and the upper bearing edge. The distance must be less than 8 mm (normally approximately 7 mm).

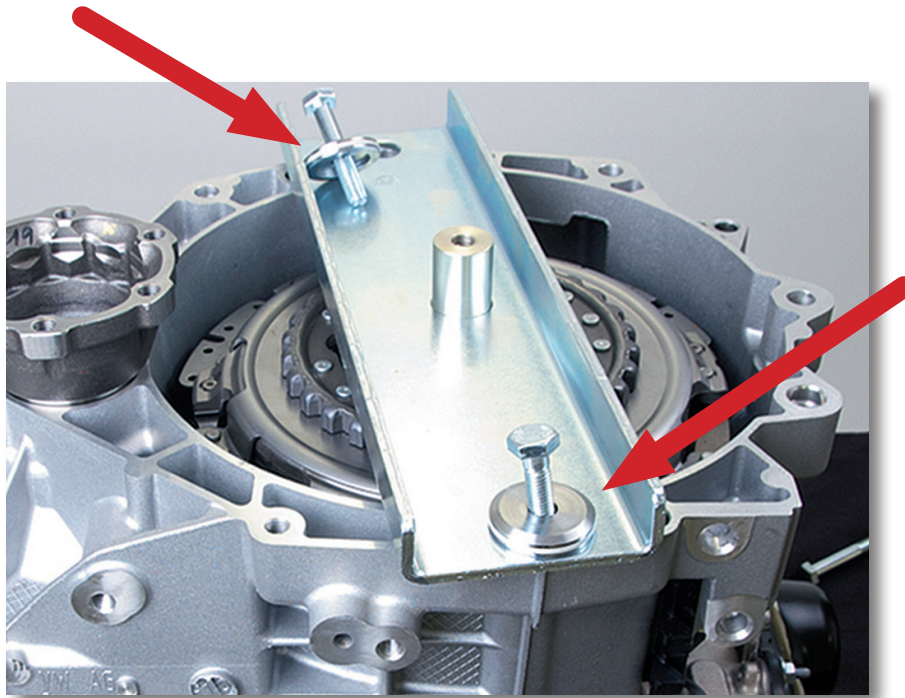
Max 8 mm



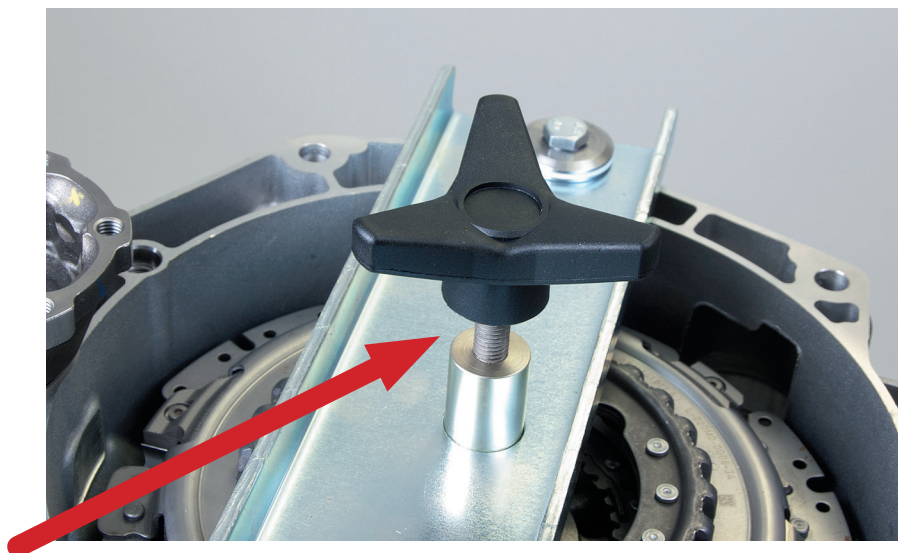
Install the pushing tool and the bar.



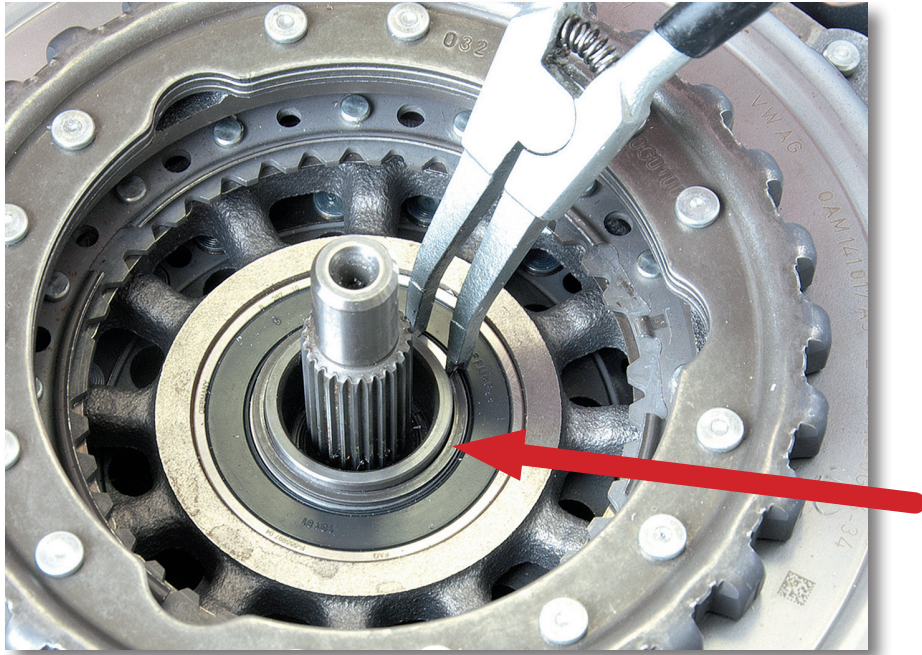
Bolt on the bar with washers and 10 mm bolts and nut(s) – tighten by hand



Screw on the pushing wheel, and screw it in till the clutch pack touch the bottom

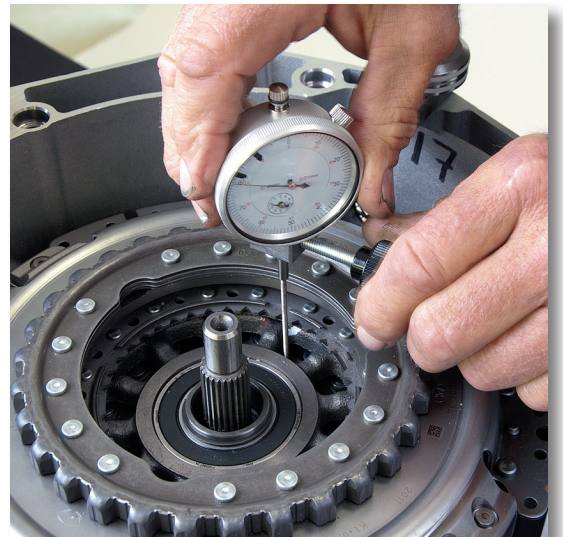


Install the snap ring

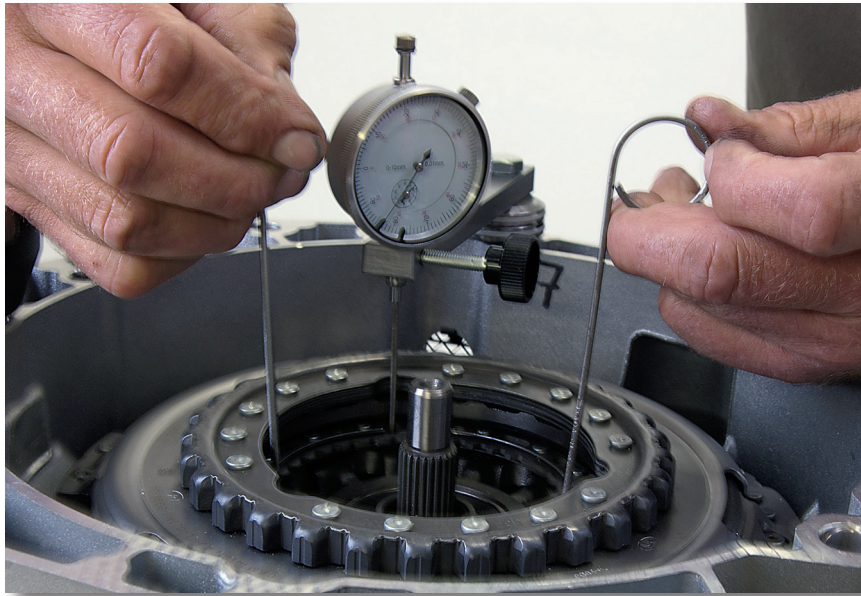


 Pointed side of snap ring upwards.

Install the dial indicator with bar by attaching the dial indicator holder and then attaching the dial indicator to the holder. The dial indicator tip shall hit the K2 clutch plate.

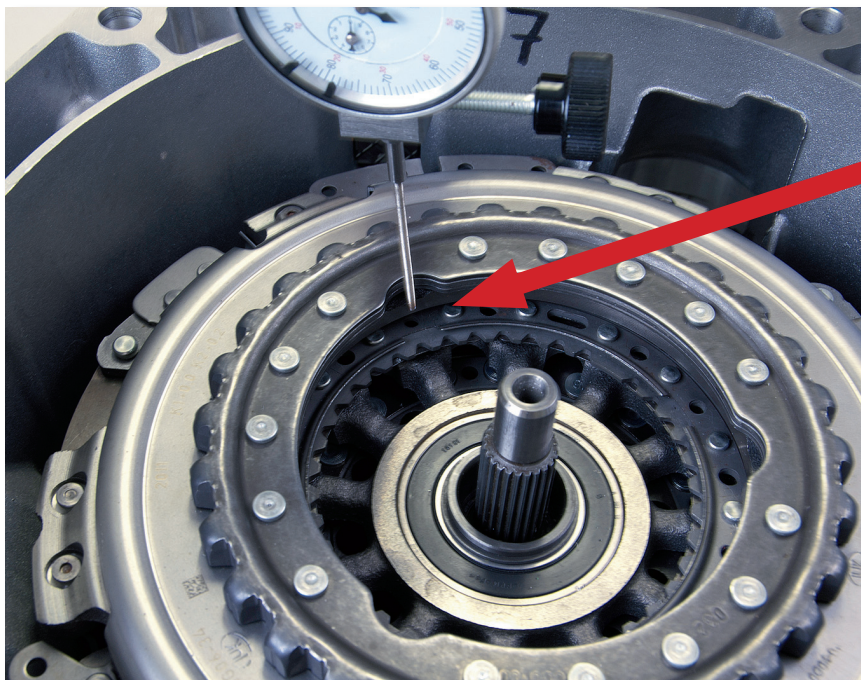


Measure the clearance of K2 by lifting the clutch plate with 2 hooks. The clearance must be 0.3 – 1,0 mm. If less, the dual clutch needs to be changed* and reinstalled.

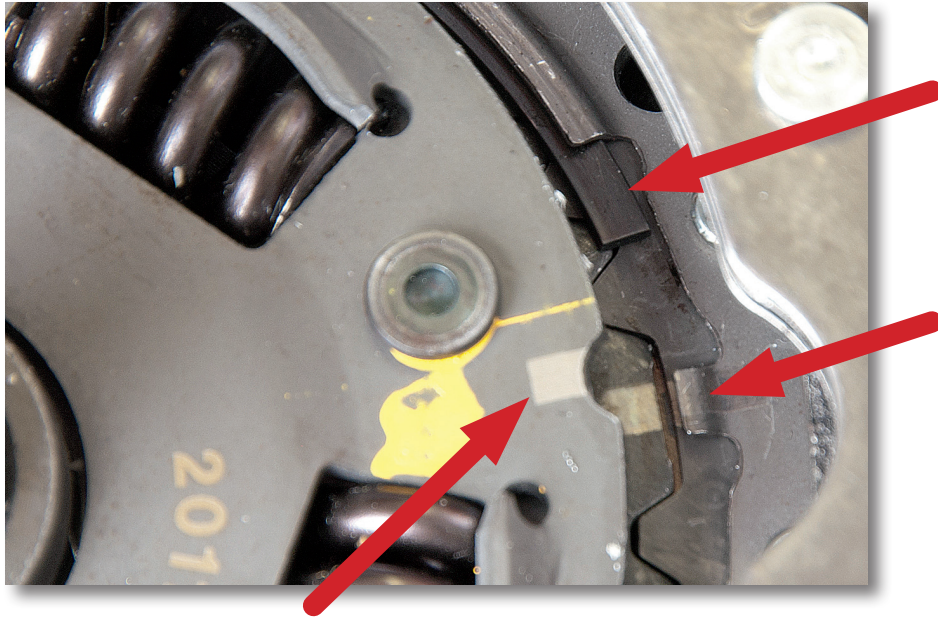


* The dual clutch is damaged when removed. A removed clutch can therefore not be reinstalled.

Install the dial indicator to measure clearance for K1 (must be 0,3 – 1,0 mm)



**Install the K2 hub and snap ring as shown in picture.
Align marking for index in at snap ring stopper.**



Turn the transmission and remove the breathing caps before installing gearbox in the car

