# DMS INSTRUCTIONS VW SUPERSTOCK CLUTCH

version 3.1

INSTALL INSTRUCTIONS FOR DQ250

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# INSTRUCTION NOTES

Any use of a traction control system or launch system will accelerate wear or even damage the clutch and transmission

## Kit contents

2 x K1 large steel plate 1.2mm

4 x K1 large steel plate 1.6mm

6 x K1 large friction plate 1.8mm

1 x K1 large top plate 2.0mm

3 x K2 small steel plate 1.2mm

4 x K2 small steel plate 1.0mm

7 x K2 small friction plate 1.6mm

1 x K2 small top plate 1.2mm

1 x Seal guide tool

1 x Clutch installation tool

7 x K1 large circlips (1.3mm, 1.5mm, 1.7mm, 1.9mm, 2.1mm, 2.3mm, 2.5mm)

6 x K2 small circlips (1.4mm, 1.6mm, 1.8mm, 2.0mm, 2.2mm, 2.4mm)

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# INSTRUCTION METHOD – CLUTCH REMOVAL

## STEP 1

Turn gearbox on its' end so that clutch cover is facing up. Remember to either have the oil drained first or block off the breather so it doesn't spill out. Remove the large clutch cover circlip.

## STEP 2

Remove the clutch cover, being careful not to damage the inner lip seal. Do not touch seal with fingers.

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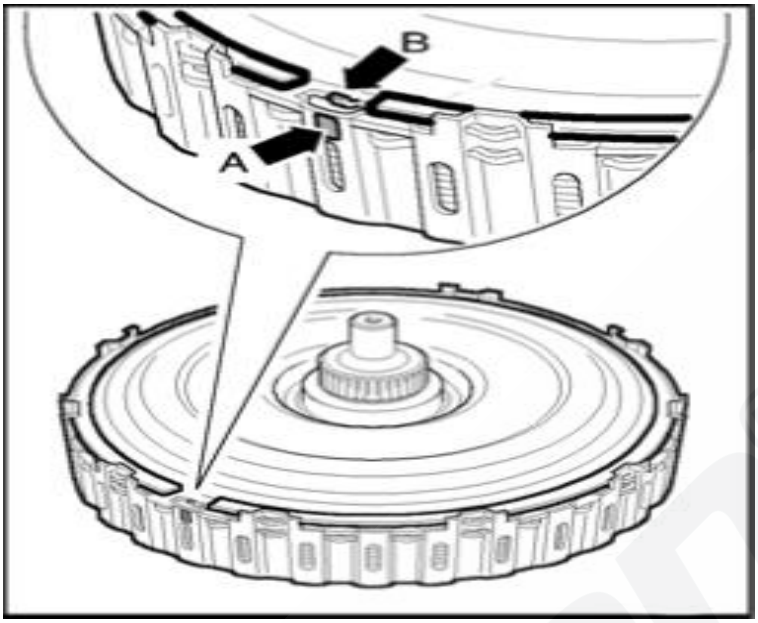
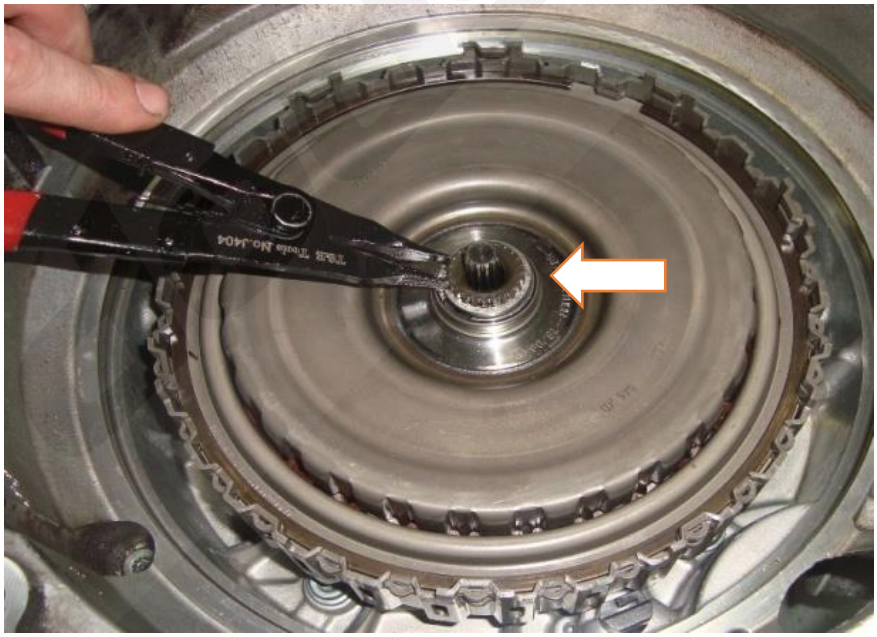
## STEP 3

Remove circlip and mark position as shown in the diagram. Remove drive plate and set aside.




## STEP 4

Remove clutch retaining circlip from the centre.





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## STEP 5

Hold clutch unit firmly and lift straight upwards. When setting clutch unit down be careful of the green seals and spud area. These can damage easily if dropped.

## STEP 6

Remove oil pump drive shaft.

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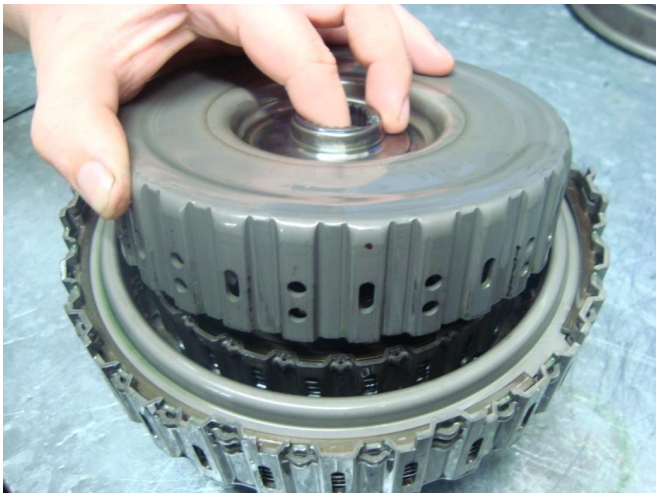
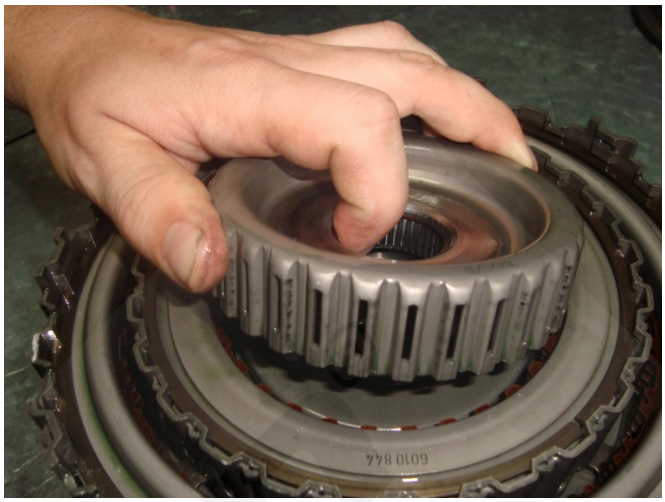
## STEP 7

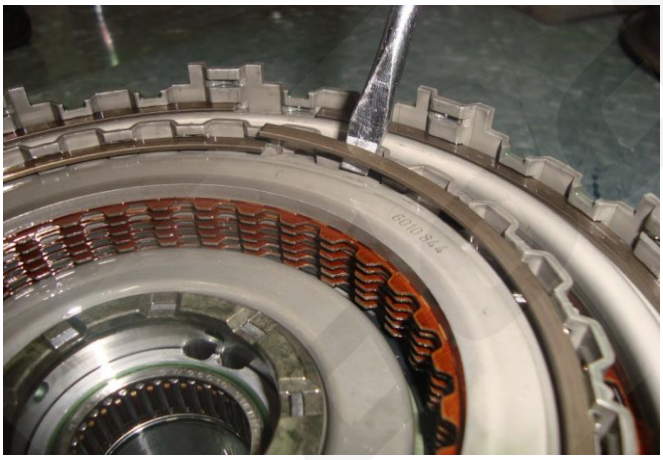
Remove K1 and K2 baskets.

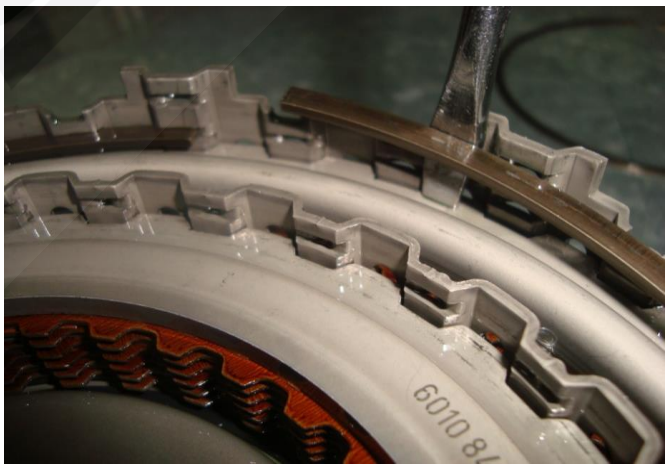




## STEP 8

Remove K1 and K2 circlips. Flip the entire assembly upside down to tip out all frictions and steels.







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# CLUTCH ASSEMBLY

## STEP 1

Fit the small basket in the clutch housing and install the small clutch. After checking the clearances on the small clutch fit the large basket and clutch. Attention all frictions are directional, therefore must be installed as specified in the image below and pre-soaked in transmission oil.

## STEP 2

Using the callipers to check clearance on both clutches. Fit the 1.7 small clip and the 2 mm large clip. Press down on the clutch stack and zero the callipers. Now lift the clutch stack and check the reading. This should be between 2.9 and 3 mm. The clearance can be altered by changing the circlips with the range provided with the clutch kit.

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## STEP 3

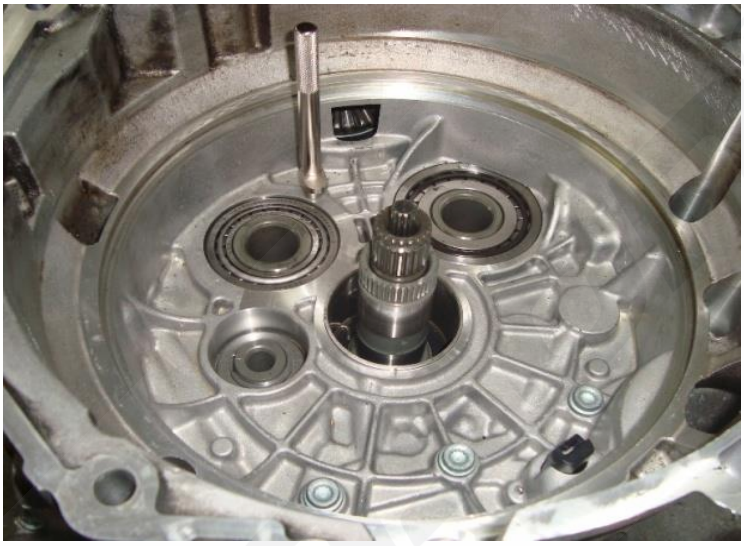
After the clearances are set the clutch can be replaced in the trans.

If you are fitting the clutch into a different or new gearbox, please refer to the Step 8 first.

Align the marks of the cover and fit the large circlip

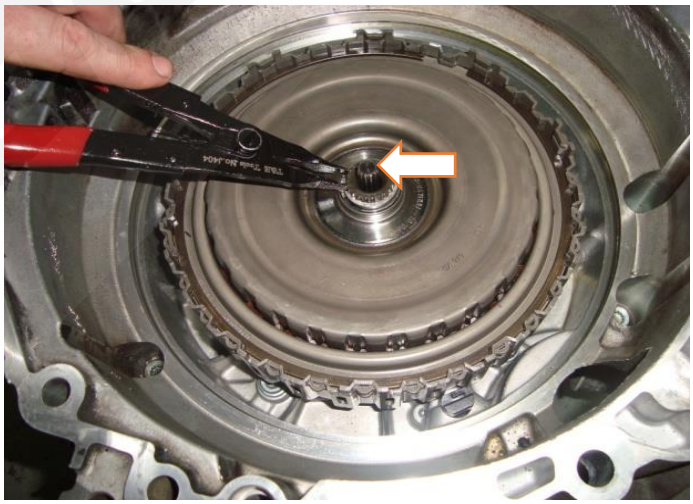
## STEP 4

Place DMS VW tool into housing. Lower the clutch assembly into housing. Do not drop into housing. It is important to have a second technician hold the VW DMS tool in place as it can spin and let the clutch drop. If this happens you will have to disassemble the clutch and start again.



## STEP 5

Refit the centre circlip and the oil pump drive shaft.





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## STEP 6

Reinstall the drive plate, aligning the marks. Fit the drive plate circlip. You can now remove the VW DMS tool.

## STEP 7

Fit the seal guide tool and fit the clutch cover. Do not touch the lip seal with your hands. Fit circlip.

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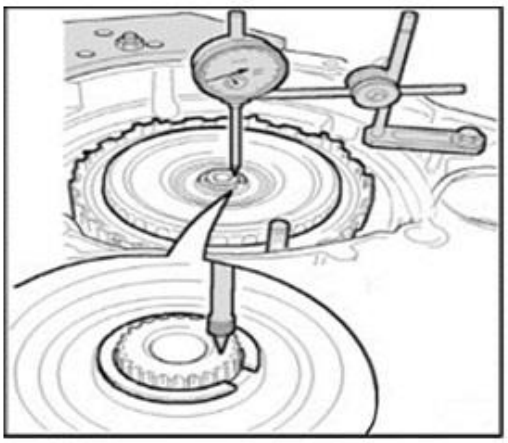
## STEP 8

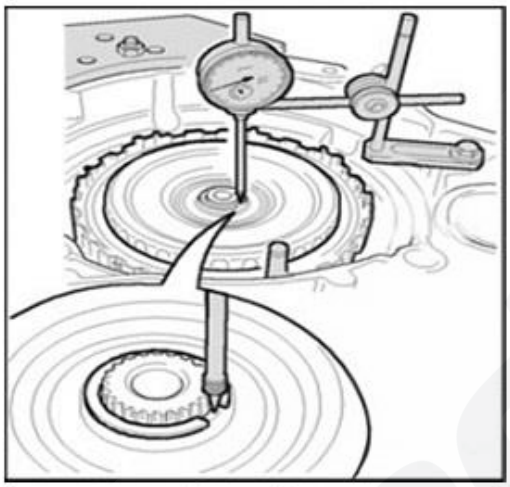
These instructions are only for fitting the clutch to a different or new gearbox. If you are installing the clutch to the same gearbox it came from, ignore these steps.

1



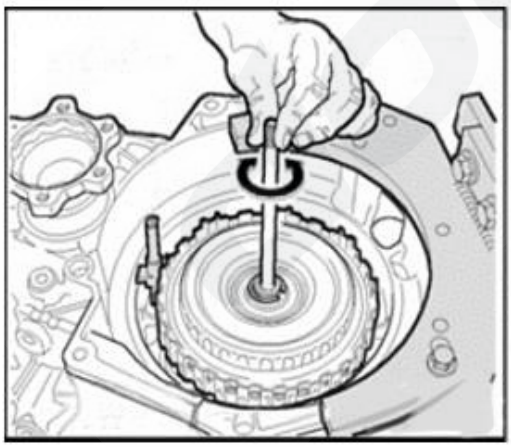
**First measurement:**
**DMS VW Clutch Tool** remains installed!
Fit appropriate dial gauge
Place plunger of dial gauge on to transmission input shaft.
Set dial gauge to "0" with pre-load.
Lift clutch upward until it stops and note the measurement result.

2



**Second measurement:**
**DMS VW Clutch Tool** remains installed!
Place gauge plunger onto tab of large clutch pack carrier.
The plunger must not sit on the circlip.
Reset dial gauge to "0" with pre-load.
Lift clutch upward again to stop and note this result as well.
The calculation will be made to determine which of the remaining nine circlips will be finally installed:
- For this, use this formula:
Second measurement minus first measurement plus 1.85mm = thickness of circlip to be installed.
note this result.
The nine remaining securing circlips are stepped in 0.1mm increments.
Measure all circlips then determine the circlip which matches your result.
Remove the 2mm thick circlip & replace with the determined circlip.

3



Install input shaft for transmission oil pump, turn slightly in direction of arrow - when doing this.



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# CLUTCH TEACH-IN (with VCDS)

## STEP 1

Turn the car on. Shift from N to D and back to N, staying in each mode for 2 seconds. Do this multiple times, this lets the system bleed all the air out as the solenoids actuate.

## STEP 2

Transmission must have fluid temperature between 30-100C (86-210F). The car must be in Park, with the engine running. The brake pedal must be depressed for the entire procedure, and the throttle must not be operated.

## STEP 3

**[Select]**
**[02 - Transmission]**
**[Basic Settings - 04]**

## STEP 4

Transmission Tolerances (Engaged Calibration). Type in group 061, then select [Go!]. The transmission will begin making noises and the numbers on screen will move around. When the numbers stop moving, the transmission goes quiet and the 'Basic Settings' switches from 'Off' to 'On', the process has completed.

## STEP 5

Transmission Tolerances (Sync. Point Measurement). Type in group 060, then select [Go!]. The transmission will begin making noises and the numbers on screen will move around. When the numbers stop moving, the transmission goes quiet and the 'Basic Settings' switches from 'Off' to 'On', the process has completed.

## STEP 6

Clutch Adaptation. For Control modules with a software version <0800, select Group 062, [Go!]. Activate the Basic Setting [ON/OFF/NEXT]. For Software Version >=0800, select Group 067, [Go!]. Activate the Basic Setting [ON/OFF/NEXT].

## STEP 7

Reset Values (Clutch Safety Function). Type in Group 068 and press [Go!]. Activate the Basic Setting [ON/OFF/NEXT].

## STEP 8

Reset Values (Pressure Adaptation). Type Group 065 and press [Go!]. Activate the Basic Setting [ON/OFF/NEXT].

STEP 9

Reset Values (Steering wheel paddle installation). Type Group 063 and press [Go!]. Activate the Basic Setting [ON/OFF/NEXT].

## STEP 10

Reset Values (ESP & Tip Cruise control Installation). Type Group 069 and press [Go!]. Activate the Basic Setting [ON/OFF/NEXT].



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## STEP 11

Press [Done, Go Back]. Switch IGN OFF for 10 seconds and switch back ON again. Clear [Fault Codes – 02].

## STEP 12

Take the car for a short drive. During this drive, do not apply full throttle or feather the throttle. Make sure the car shifts through all gears up and down through the range at least 6 times. The drive should only be a few kilometres long. When completed, repeat the entire teach in process from Step 2. After this is completed again, the Defined Test drive must be carried out.

## DEFINED TEST DRIVE

Fluid temperature between 30C and 100C. Do not use cruise control. Drive in Tiptronic Mode from stand still up to 6th Gear. While doing that make sure to drive in Gears 3 or 5 for approx. 5 minutes and also in 4 or 6 for approx. 5 minutes. The engine speed window for all gears is 1200 - 3500 RPM (for clutch calibration). Perform one sharp braking followed by a full throttle acceleration (oil return check) while in Drive, not Tiptronic Mode. Evaluate creep and starting-off points. Check for leaks.

## NOTES

- Some modules do not require the use if the [ON/OFF/Next] button. If an Error is displayed after clicking the button, or the Basic Settings status does not switch to On, let the selected group and procedure finish on its own.
- It is normal for the transmission to make noise while the tolerances are adapting. Do not exit or abort the Basic Settings sequence prematurely if you hear clacking noises.
- Customers with TDI's have reported that an RPM range of 2000-2500 rpm is sufficient.
- For Step 5 on Teach-In, when found in the early software level (0627/0628) (8N) Audi TT:
  - *Basic Settings group 062 may take several minutes to complete. The final values may report: [18 | 18 | .285 | .24] and Basic Settings will report ON when finished.*
  - *If Basic Settings group 062 reports ERROR:| Group 062| Not | Available, try test driving the vehicle and repeating at normal operating temp.*



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