

dodson[®]


CALIBRATION INSTRUCTIONS

PDK PIWIS 3 CLUTCH CALIBRATION

DMS-00-0079 REV 001

02 OCTOBER 2023

**PREPARED BY: JAN PISL
DATE: 05SEP2023**

**RELEASED BY: 
DATE: 02OCT2023**

REVISION UPDATE NOTES:

The following table indicates the changes we have made in either the disassembly or assembly of the product you have received. All changes are indicated by a revision bar in the margin.

If you have any questions email us at technical@dodsonmotorsport.com

Revision	Date	Description
REV.001	02OCT2023	- Broke out a separate document from PDK clutch install instructions.



READ FIRST

These instructions must be followed exactly.

PLEASE NOTE, IF THE CAR HAS AFTERMARKET INTAKE OR EXHAUST OR ANY OTHER MODIFICATIONS, THEN THE PRESSURE TO THE CLUTCH NEEDS TO BE ALTERED. THIS CAN BE DONE BY AFTERMARKET SOFTWARE (TUNE).

We have seen great results when using our clutch kits with a suitable transmission tune. When choosing an aftermarket tune, the important aspects that need to be considered are:

- Increasing clutch pressure to ensure that the clutch is fully clamped when power is applied.
- Modifying the torque tables, as a modified car will be applying far more torque at lower RPM than the TCU is tuned for. The TCU may also intentionally slip the clutch at low RPM for a more comfortable drive, but with engine and transmission modifications, this can burn the clutch.
- Since the "comfort mode" allows the clutch to slip, it is important to make sure this isn't a default setting on start up, if possible.
- Moving the shift points so the car doesn't hold 2nd gear at low RPM (or even at a stop). Heavy torque applied in 2nd gear at low RPM can burn the small stack.
- Not every off-the-shelf transmission tune will resolve this, and so it's important that the aspects mentioned above have been considered and that they have been discussed with your tuner.
- CONFIRM REQUIRED CHANGES HAVE BEEN DONE TO VEHICLE PRIOR TO CLUTCH CALIBRATION PROCEDURE.

**ALWAYS DRIVE THE CAR IN SPORT OR SPORT+
MODE**

PDK CLUTCH CALIBRATION PROCEDURE

STEP 1

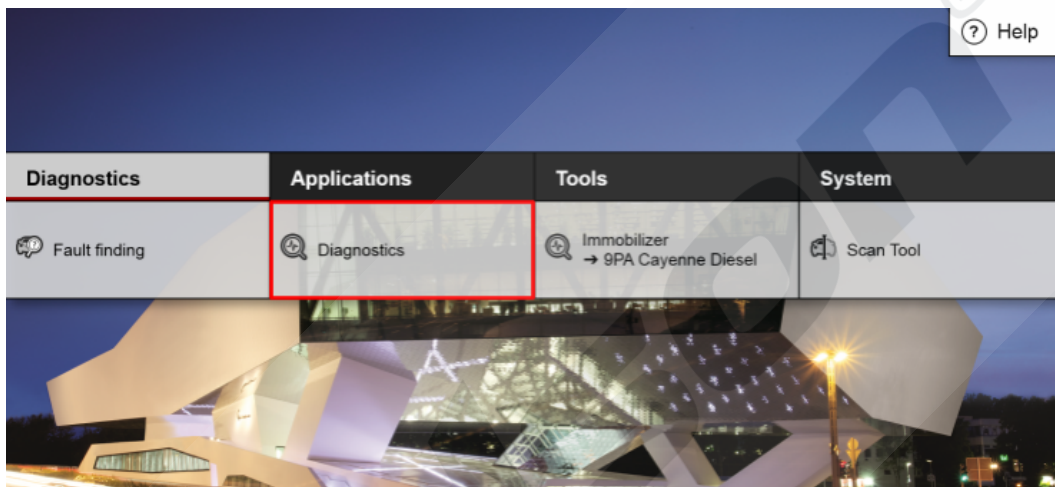
Start the vehicle up and put the transmission into neutral position, then turn engine off and turn ignition on. Only put the transmission in park when instructed by the calibration process. If left in park position the transmission can burn the clutch plates during the calibration process.

STEP 2

Connect a suitable battery charger and ensure the computer is plugged into a power source.

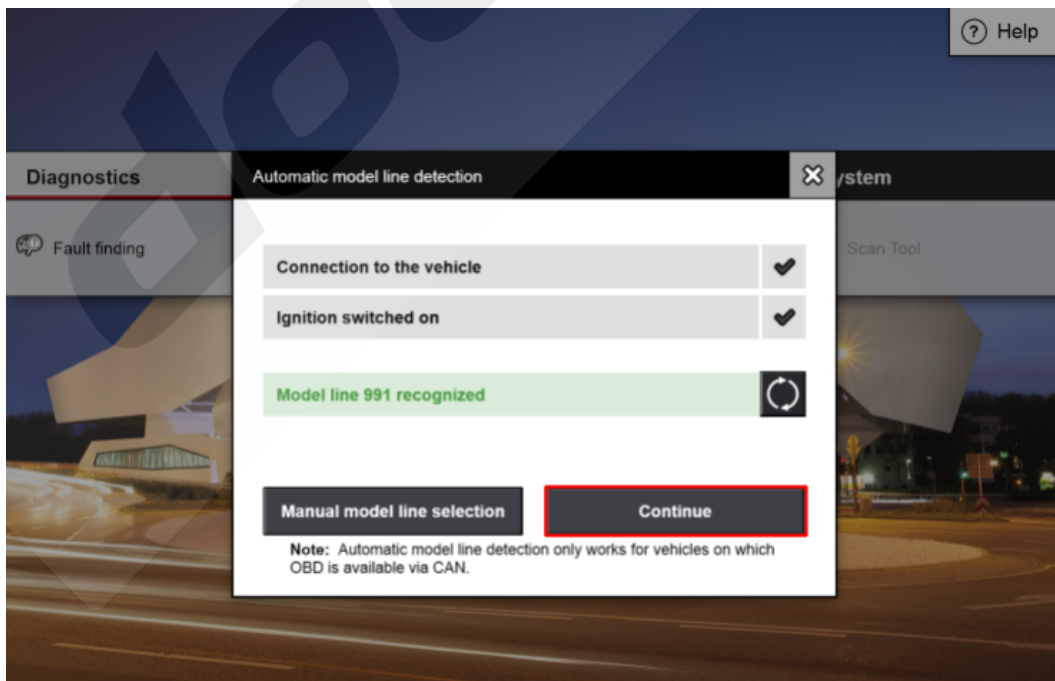
STEP 3

Connect the scan tool to the OBD2 port and select “Diagnostics” in the PIWIS 3 software.



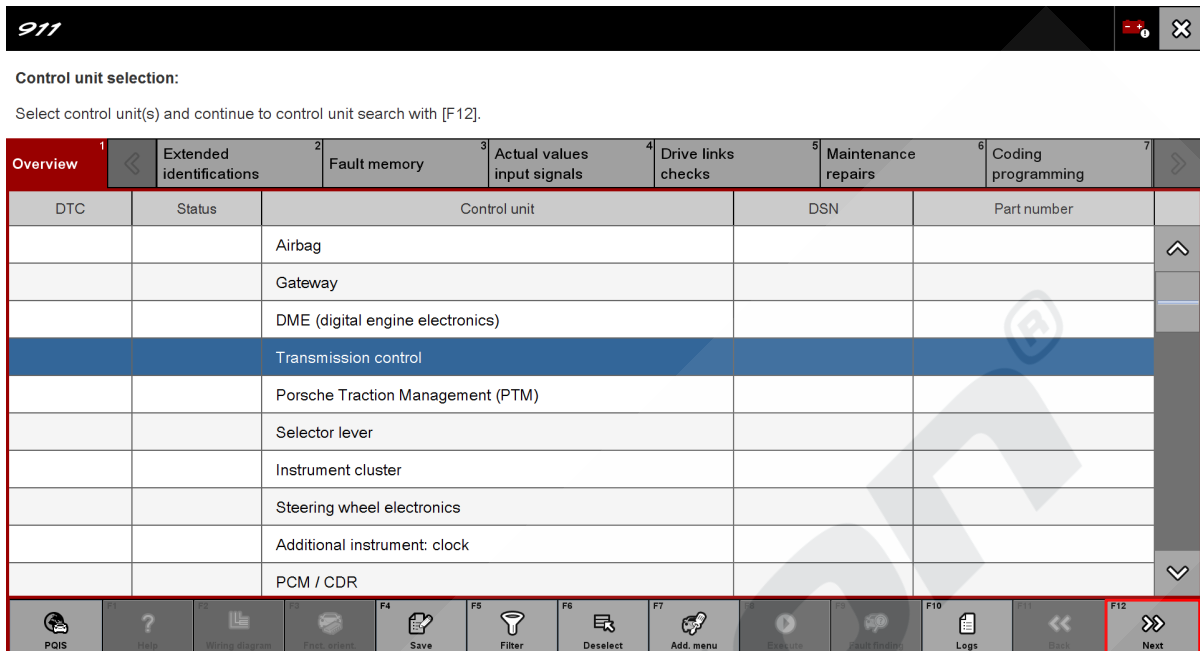
STEP 4

Once the model is detected automatically, select “Continue”, otherwise select the correct model manually before continuing.



STEP 5

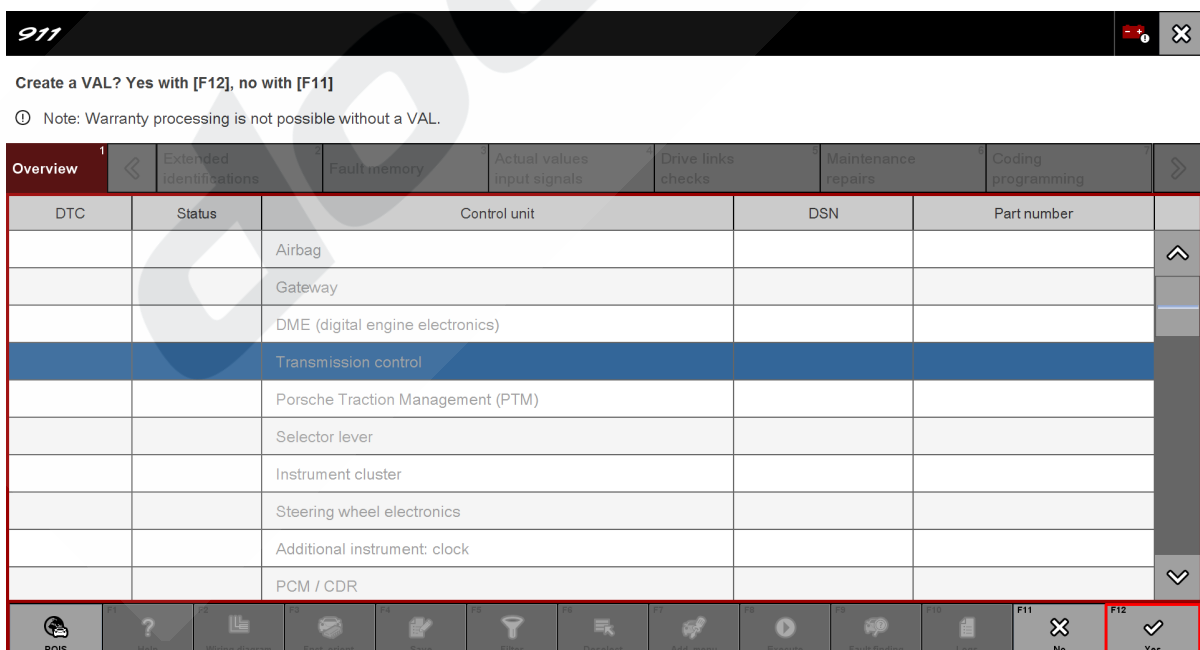
Select “Transmission control” or in older versions “PDK/Tiptronic” and press “Next”.



STEP 6

Next the software will ask you to create a “VAL”, press “Yes” to continue.

You may need to confirm the VIN number during the VAL creation process. Make sure there are no error codes stored in the transmission. Clear the stored codes if there are any. If you had to clear codes, turn the car off and start this procedure again, including creating a new VAL.



BY OPENING AND USING THIS DOCUMENT YOU AGREE TO ABIDE BY THE FOLLOWING CONDITIONS. INFORMATION CONTAINED IN PART OR IN WHOLE REMAINS WITH DODSON MOTORSPORT. DODSON MOTORSPORT ACCEPTS NO RESPONSIBILITY FOR ANY REASON WHATSOEVER. DO NOT COPY / REPRODUCE IN ANY FORM OR MAKE PUBLIC WITHOUT THE PERMISSION OF DODSON MOTORSPORT.

STEP 7

Once completed, select the “Maintenance repairs” tab, then select “Calibration” and press “Next”.

IMPORTANT NOTE:

If not done prior to this point, carry out the “Oil filling” procedure **before** carrying out the calibration procedure, this will ensure the oil level is correct.

911 991451 / 2017

Maintenance/repairs

Please select a function. Continue with [F12].

Control unit	Function
PDK A4	Calibration (complete process)
	Read permanent fault memory
	Oil filling
	Control unit replacement

Function key bar: PQIS, Help, Feedback, Data logger, Save, Filter, Deselect, Add menu, Execute, Fault finding, Logs, Back, Next (F12)

STEP 8

Select “Calibration after part replacement” and press “Next” to continue.

911 991451 / 2017

Transmission calibration

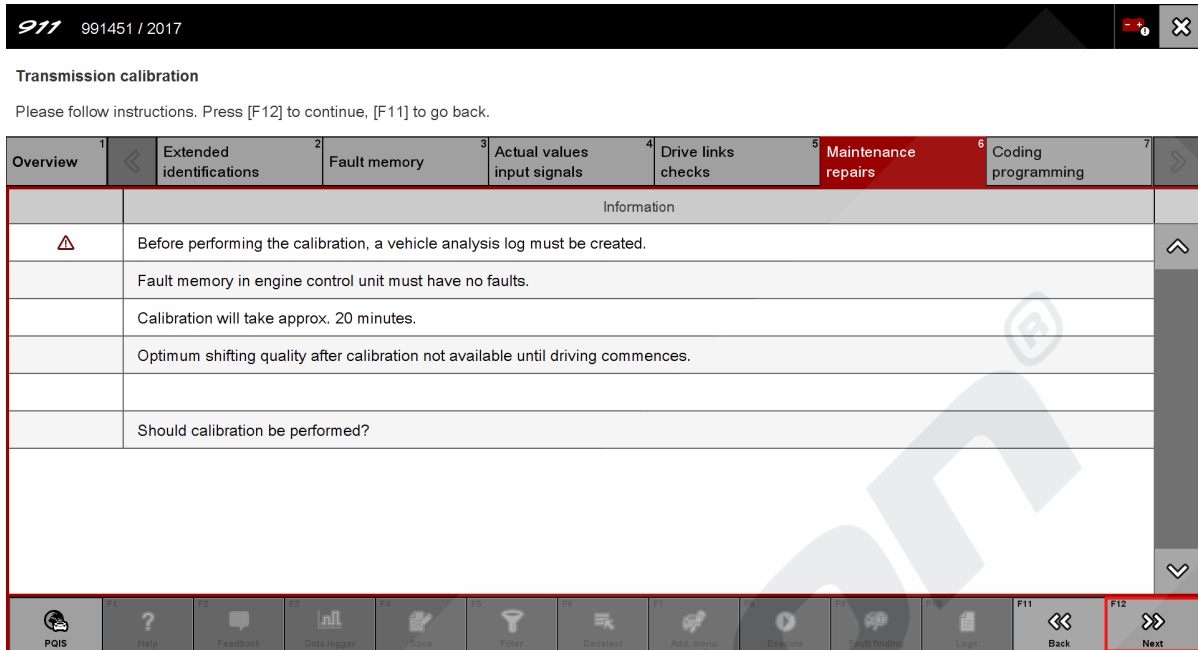
Select calibration process. Continue with [F12]. Back with [F11].

Information	Function
Calibration without previous part replacement	
Calibration after part replacement	

Function key bar: PQIS, Help, Feedback, Data logger, Save, Filter, Deselect, Add menu, Execute, Fault finding, Logs, Back, Next (F12)

STEP 9

Confirm the instructions on screen and press “Next” to continue.



911 991451 / 2017

Transmission calibration

Please follow instructions. Press [F12] to continue, [F11] to go back.

Overview	Extended identifications	Fault memory	Actual values input signals	Drive links checks	Maintenance repairs	Coding programming
Information						
⚠	Before performing the calibration, a vehicle analysis log must be created.					⬆
	Fault memory in engine control unit must have no faults.					
	Calibration will take approx. 20 minutes.					
	Optimum shifting quality after calibration not available until driving commences.					
	Should calibration be performed?					

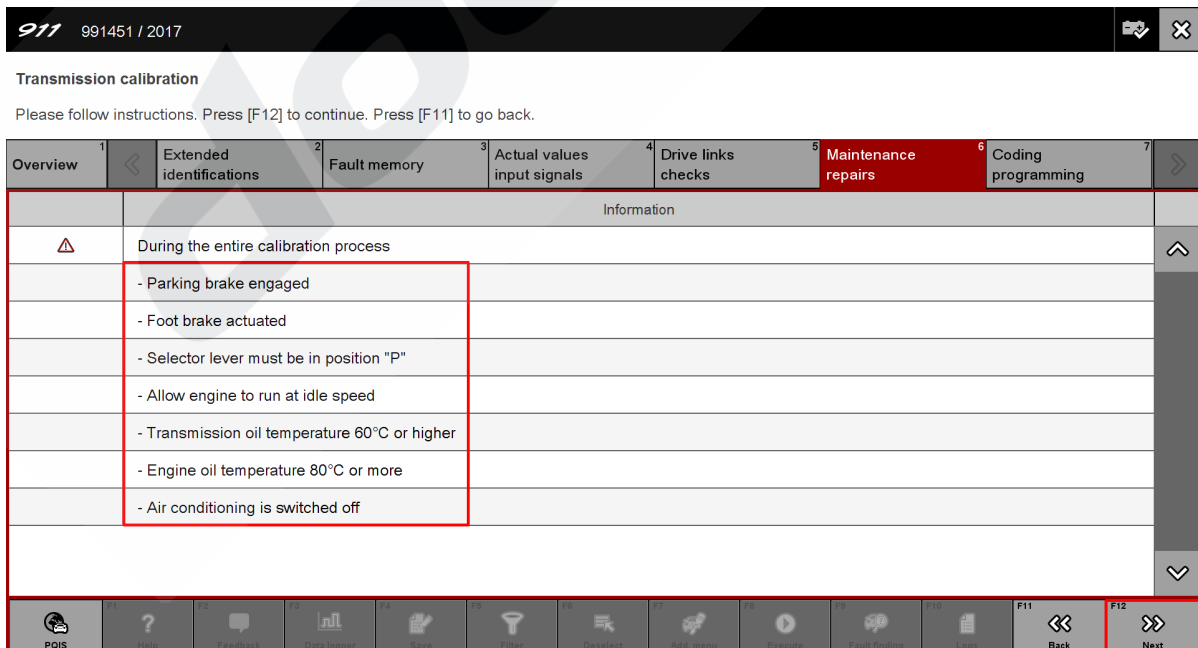
POIS Help Feedback Data Logger Alerts Filter Diagnostics Add-ons Execute Fault Finding Logs Back Next

STEP 10

Ensure all the conditions listed are met before pressing “Next”.

- Actuate the **parking brake**, start the engine and let it idle.
- **Actuate the foot brake pedal during the entire calibration process.**
- **DO NOT PUT THE SELECTOR INTO “P” POSITION UNTIL STEP 12!**

(The transmission oil temperature will be checked and the value shown in the next step)



911 991451 / 2017

Transmission calibration

Please follow instructions. Press [F12] to continue. Press [F11] to go back.

Overview	Extended identifications	Fault memory	Actual values input signals	Drive links checks	Maintenance repairs	Coding programming
Information						
⚠	During the entire calibration process					⬆
	- Parking brake engaged					
	- Foot brake actuated					
	- Selector lever must be in position "P"					
	- Allow engine to run at idle speed					
	- Transmission oil temperature 60°C or higher					
	- Engine oil temperature 80°C or more					
	- Air conditioning is switched off					

POIS Help Feedback Data Logger Alerts Filter Diagnostics Add-ons Execute Fault Finding Logs Back Next

STEP 11

Unless the transmission temperature is already at **60°C** or more, remain on this screen until the correct temperature is reached, the scanner will then allow you to press “**Next**” to continue.

911 991451 / 2017

Transmission calibration

Press [F12] to continue, [F11] to go back.

Control unit	Parameters	Value	Unit
PDK A4	Transmission oil temperature actual value	48	°C

POIS Help Feedback Data logger Save Filter Deselect Add menu Execute Fault finding Logs Back Next

STEP 12

Once ready, put the selector into **Park** and select “**Execute**” to begin the calibration process.

911 991451 / 2017

Transmission calibration

Please observe notes. Start with [F8], back with [F11].

Information

Do you want to start the calibration?

POIS Help Feedback Data logger Save Filter Deselect Add menu Execute Fault finding Logs Back Next

STEP 13

If prompted, carry out the programming sequence, select “Execute”. You will have to cycle the ignition during this process.

911 991451 / 2017

Programming
Start programming with [F8] or abort with [F11].

Control unit	Data record	Target status	Status
PDK A4		99161897000	

POIS Help Feedback Data logger Save Filter Deselect Add menu **Execute** Fault finding Logs Back Next

STEP 14

The next step is the pressure sensor calibration during which the engine needs to be OFF.

Wait for the process to complete and press “Next”.

911 991451 / 2017

Transmission calibration
Back with [F11].

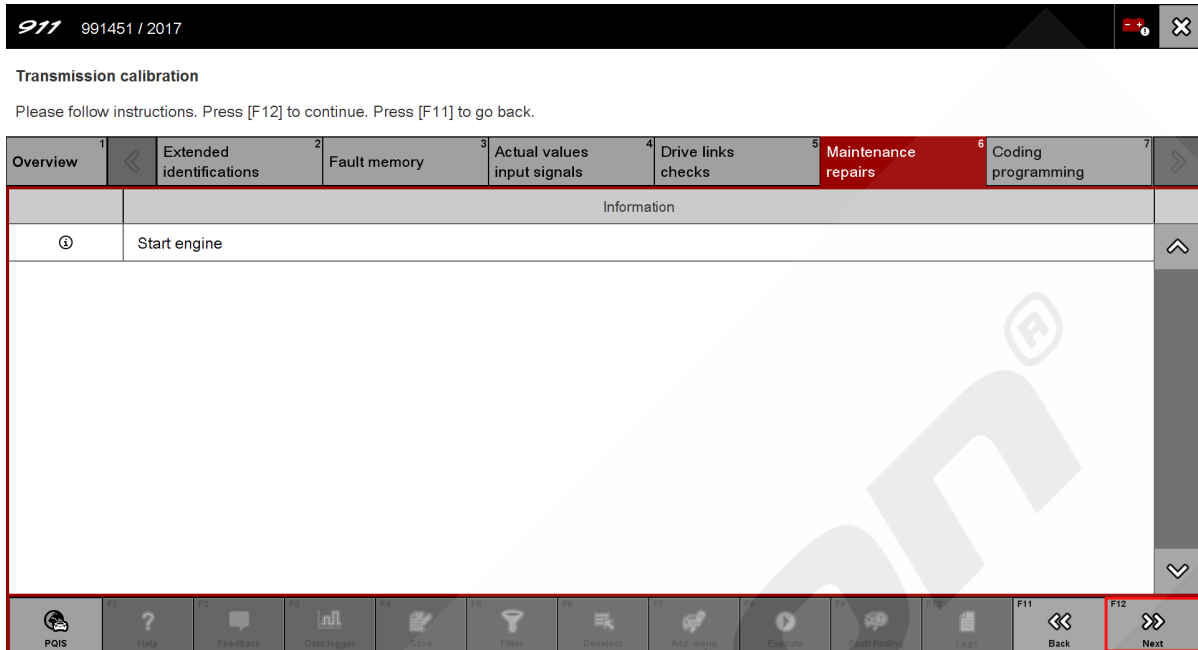
Information
Pressure sensor calibration running. Please wait 30 seconds. Please do not start engine during this time!

40 %

POIS Help Feedback Data logger Save Filter Deselect Add menu Execute Fault finding Logs Back **Next**

STEP 15

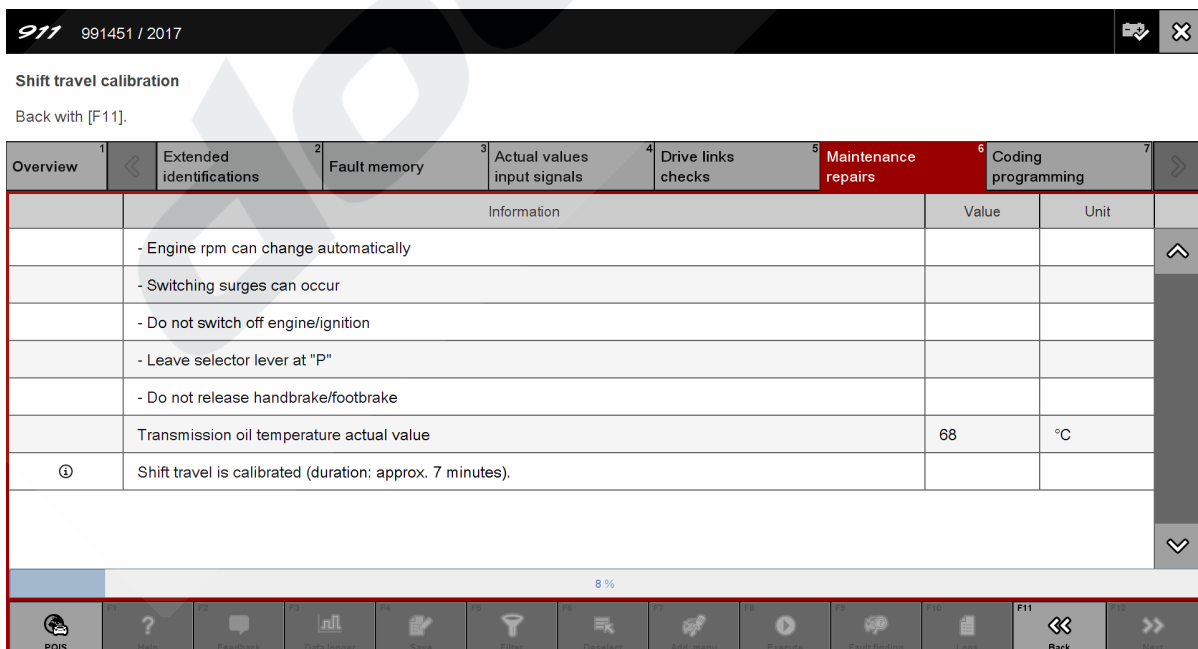
Start the engine and let it idle, then press “Next”.



STEP 16

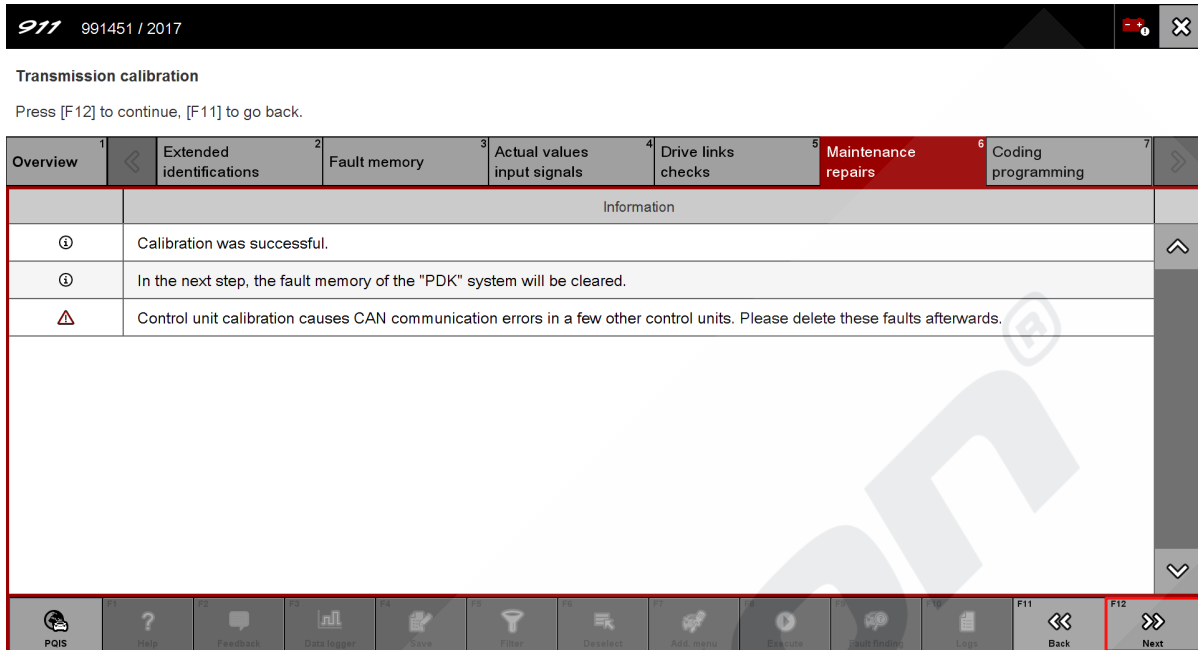
The transmission will now go through the “Shift rod, Hydraulic and Clutch” calibration steps which may take up to 20 min. The progress bar is shown on the bottom of the screen.

Note: Unusual noises and vibrations may be observed during the procedure, this is normal. Also, the RPM can change automatically during the calibration process.



STEP 17

Once prompted, the fault memory will need to be cleared, continue by pressing “Next”.



911 991451 / 2017

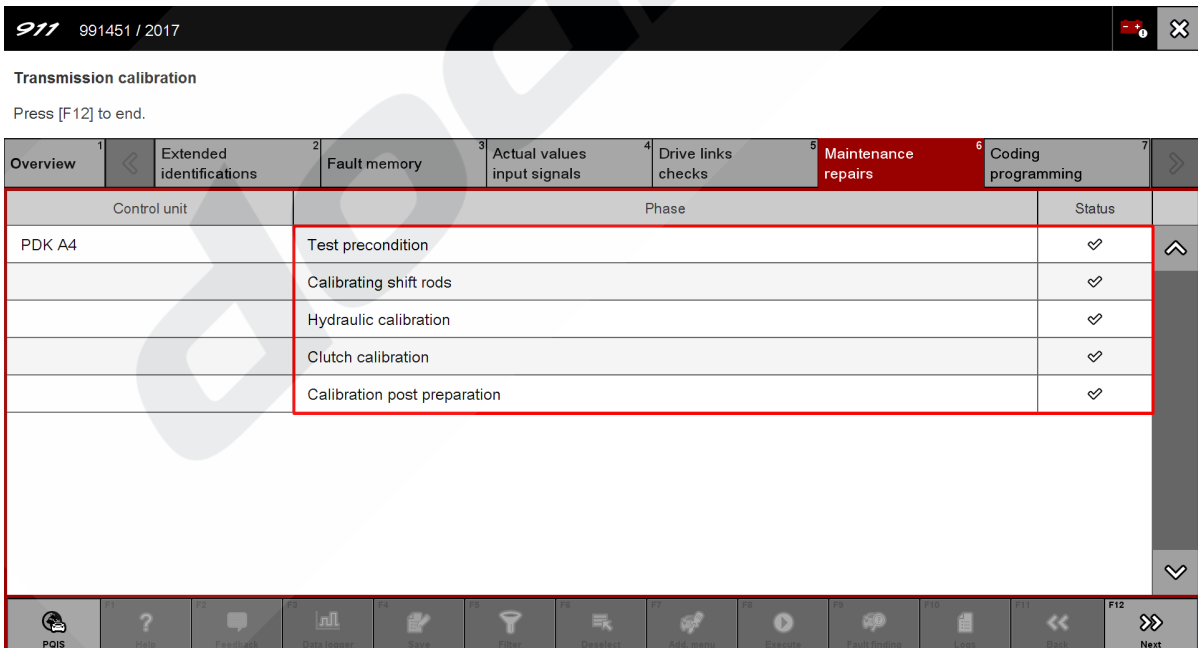
Transmission calibration
Press [F12] to continue, [F11] to go back.

Overview	Extended identifications	Fault memory	Actual values input signals	Drive links checks	Maintenance repairs	Coding programming
Information						
ⓘ	Calibration was successful.					⬆
ⓘ	In the next step, the fault memory of the "PDK" system will be cleared.					
⚠	Control unit calibration causes CAN communication errors in a few other control units. Please delete these faults afterwards.					

Bottom toolbar: PQIS, Help, Feedback, Data logger, Save, Filter, Deselect, Add menu, Execute, Fault finding, Logs, Back (F11), Next (F12)

STEP 18

If you see “ticks” on all “Phases” on this screen, then the calibration was successful. Press “Next”, then turn off the car and disconnect the computer.



911 991451 / 2017

Transmission calibration
Press [F12] to end.

Control unit	Phase	Status
PDK A4	Test precondition	✓
	Calibrating shift rods	✓
	Hydraulic calibration	✓
	Clutch calibration	✓
	Calibration post preparation	✓

Bottom toolbar: PQIS, Help, Feedback, Data logger, Save, Filter, Deselect, Add menu, Execute, Fault finding, Logs, Back (F11), Next (F12)

STEP 19

Take the car for the first test drive.

- Avoid full throttle or extremely light throttle for the first **50-100 km**.
- **We recommend to recalibrate after this distance.**
- After **further 50-100 km** full power of the vehicle can be used.

NOTE: Any vacuum leaks in the system could damage the clutch or transmission.

IMPORTANT NOTE

**ALWAYS DRIVE THE CAR IN SPORT OR SPORT+
MODE**

If you have any questions email us at technical@dodsonmotorsport.com