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CALIBRATION INSTRUCTIONS

PDK PIWIS 3 CLUTCH CALIBRATION

DMS-00-0079 REV 001

02 OCTOBER 2023

RELEASED B DATE: 020CT2/02

PREPARED BY: JAN PISL DATE: 055EP2023

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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.





× 6

STEP 5

911

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

Control unit selection:

Select control unit(s) and continue to control unit search with [F12].

Overview	Extended identifica	d ² ations	Fault memory	³ Actual value input signal	es ' s	Drive links	5	Maintenance repairs	6	Coding programming	7
DTC	Status		Co	ontrol unit			D	SN		Part number	
		Airbag									\diamond
		Gatew	ay								
		DME (digital engine electron	ics)							
		Transı	nission control							V	
		Porscl	ne Traction Manageme	ent (PTM)							
		Select	or lever								
		Instrur	nent cluster								
		Steeri	ng wheel electronics								
		Additio	onal instrument: clock								
		PCM /	CDR								\otimes
PQIS F1	P2 P Help Wiri	ing diagram Fro	t orient.	F6 Filter	Deselect	F7 Add. menu	F8 Execute	F9 Fault finding	F10	F11	F12 SS 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.

911				= • ×
Create a VAL?	Yes with [F12], no anty processing is n	with [F11] ot possible without a VAL.		
1 Overview	Extended identifications	2 Fault memory 3 Actual values 4 Drive links input signals checks	s ⁵ Maintenance repairs	e ⁶ Coding 7 programming
DTC	Status	Control unit	DSN	Part number
		Airbag		~
		Gateway		
		DME (digital engine electronics)		
		Porsche Traction Management (PTM)		
		Selector lever		
		Instrument cluster		
		Steering wheel electronics		
		Additional instrument: clock		
		PCM / CDR		~ ~
PQIS	? Le Wiring diagr	am Fret orient.	F8 F9 F9 Execute Fault finding	F10 F11 F12



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 99	91451 / 2	2017											= 🔀
Maintenand	ce/repai	rs											
Please sele	ect a fund	ction. Continue v	ith [F12	2].									
Overview	1	Extended identifications	:	Fault m	nemory	³ Actual v input sig	alues Inals	⁴ Drive links checks	5	Maintenance repairs	⁶ C pi	oding rogramming	7
	Contro	l unit						Functio	n				
PDK A4			Ca	libration	(complete pro	ocess)							
			Re	ad perm	anent fault m	emory							
			Oil	filling									
			Co	ntrol unit	t replacement	:						×	
	FI	F2	F3		F4	# 0	76	F7	F8	FS	F10	F11	F12
PQIS	? Hel	p Feedback	Da			Filter	Deselect	Add. menu	Execute	Fault finding	Logs	Back	>>> Next

STEP 8

Select "Calibration after part replacement" and press "Next" to continue.

911 99	01451 / 2017						= • ×
Transmissi	on calibration						
Select calib	ration process. Continue w	ith [F12]. Back with [F11].					
Overview	Extended identifications	² Fault memory	³ Actual values input signals	⁴ Drive links checks	⁵ Maintenance repairs	⁶ Coding programming	7
			Information				
Calibration	without previous part repla	acement					\diamond
Calibration	after part replacement						
							\otimes
PQIS	F1 F2 F2 Feedback	F3 F4	F6 Filter	F7 F8 Add. menu Ex	F9 F10	F11 Logs Back	F12



8

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.

1 Overview	\triangleleft	Extended identifications	Fault memory	³ Actual values input signals	⁴ Drive links checks	⁵ Maintenance repairs	⁶ Coding programming	7
				Inform	ation			
⊿	В	efore performing the cali	bration, a vehicle analy	sis log must be created.				\diamond
	F	ault memory in engine co	ontrol unit must have no	faults.				
	С	alibration will take appro	x. 20 minutes.					
	0	ptimum shifting quality a	fter calibration not avail	able until driving comm	ences.		V	
	s	hould calibration be perf	ormed?					
								\sim
	194	F0 F0	Les Les					×
PQIS	Н	rz F3 Ip Feedback Dat	alogger Save	Filter	Add. menu	te Fault finding	Logs Back	SSS 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

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

1 Overview	Extended identifications	Fault memory	³ Actual values input signals	⁴ Drive links checks	⁵ Maintenance repairs	⁶ Coding programming	7
			Inform	nation			
Δ	During the entire calibration	process					\diamond
	- Parking brake engaged						
	- Foot brake actuated						
	- Selector lever must be in p	osition "P"					
	- Allow engine to run at idle	speed					
	- Transmission oil temperatu	ire 60°C or higher					
	- Engine oil temperature 80°	C or more					
	- Air conditioning is switched	d off					
							\otimes
PQIS	F2 F3 Help Feedback	P4 I Agger Save	Filter	F7 Add. menu Ext	F9 F10	Logs F11 F12 Back	Next

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Transmission calibration



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 9914	51/2	017						Ēţ	* *
Transmission	calib	ration							
Press [F12] to	contir	nue, [F11] to go back.		3	4	5	6		7
Overview	\langle	identifications	Fault memory	input signals	checks	repairs	progra	g amming	\sim
Control unit				Parameters			Value	Unit	
PDK A4	Tra	ansmission oil temperati	ure actual value				48	°C	\diamond
									8
PQIS	? Help	F2 F3 Feedback Date	nl F4 F5	5 F6 F6 F6 Fk Deselect	F7 F8 Add. menu E	Execute F3	F10 F11 Logs	Back	>>> Next

STEP 12

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

911 9914	51/2017						8
Transmission	calibration						
Please observ	e notes. Start with [F8], bac	k with [F11].					
¹ Overview	Extended identifications	² Fault memory	³ Actual values input signals	⁴ Drive links checks	⁵ Maintenance repairs	⁶ Coding ⁷ programming	\gg
			Info	rmation			
0	Do you want to start the	calibration?					\diamond
							\otimes
PQIS	P2 F3 Help Feedback	Data logger Save	F5 F6 F6 F6 F6 Filter Deselect	Add. menu	F0 F10	Logs F11 F12	ext



If prompted, carry out the programing sequence, select "**Execute**". You will have to cycle the ignition during this process.

<i>911</i> 99	91451 / 2017								* *
Programmi	ing								
Start progra	amming with [F8] or abort with [F	11].							
Overview	¹ Extended ² identifications	Fault memory	³ Actual values ⁴ input signals	Drive check	links (s	⁵ Maintenance repairs	⁶ Coding program	nming	7
	Control unit		Data record			Target status		Status	
PDK A4					99161897000				\diamond
									\$
PQIS	F1 F2 F3 Help Feedback Dat	alogger Save	Filter	F7 Add. m	F8 Execute	F9 Fault finding	F10 F11	Back F2	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".

911 991	451 / 2	017						≅> 🔀
Transmissio	n calib	ration						
Back with [F1	1].							
1 Overview	«	Extended identifications	2 Fault memory	³ Actual values ⁴ input signals	Drive links checks	⁵ Maintenance repairs	⁶ Coding programming	7
				Informa	tion			
	Pr	essure sensor calibratio	on running. Please wait :	30 seconds. Please do r	ot start engine during	this time!		\diamond
								\sim
				40 %				
PQIS	FI ? Hei,	F2 F3 F3	TA LOgger Save	Filter	F7 F8 Add. menu Execut	F9 Fault finding	F10 F11 Logs Back	F12 >>> Next



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

911 991	451 / 2017						** 🔀
Transmissio	on calibration						
Please follow	v instructions. Press [F12] to continue. Press [F11]	to go back.				
1 Overview	Extended identifications	² Fault memory	³ Actual values input signals	⁴ Drive links checks	⁵ Maintenance repairs	⁶ Coding programming	7
			Infe	ormation			
(i)	Start engine						\sim
							\sim
PQIS	F1 F2 Help Feedback	F3 F4 Data logger Save	F5 F 6	F7 F4	E Fault finding	F11 Logs Back	F12 SSS 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.

911 99	1451 / 20 ⁻	17										i 😵 😣
Shift travel	calibratio	n										
Back with [F	11].											
Overview		Extended dentifications	² Fault r	memory	³ Actual v input sig	alues Inals	⁴ Drive links checks	5	Maintenance repairs	6 P	Coding rogramming	7
					Informatio	n				Value	: U	nit
	- En	gine rpm can cha	ange automa	tically								~
	- Sw	itching surges c	an occur									
	- Do	not switch off er	gine/ignition								oding rogramming Unit Unit C C C C	
	- Lea	ave selector leve	r at "P"									7 >> iit
	- Do	not release han	dbrake/footbr	ake								
	Tran	smission oil tem	perature actu	ial value						68	°C	
i	Shift	travel is calibra	ed (duration:	approx. 7 mi	nutes).							
												\sim
						8 %						
PQIS	F1 ? Help	F2 Feedback	F3	F4 Save	F5 Filter	F6	F7 Add. menu	F8 Execute	F9 Fault finding	F10	F11 Back	F12 Next



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

911 9914	51/2	017						
Transmission	calib	ration						
Press [F12] to	contir	nue, [F11] to go back.						
¹ Overview	\langle	Extended ² identifications	3 Fault memory	Actual values 4 input signals	Drive links checks	⁵ Maintenance repairs	⁶ Coding programming	7
				Informa	tion			
i	Ca	libration was successfu	Ι.					\diamond
٩	In	the next step, the fault n	nemory of the "PDK" sys	stem will be cleared.				
Δ	Co	ntrol unit calibration cau	ses CAN communicatio	on errors in a few other o	ontrol units. Please d	elete these faults after	wards.	
							V	
								\otimes
PQIS F1	? Help	F2 F3 Feedback Date	nl F4 F5	Filter	F7 F8 Add. menu	F9 F10	F11	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.

Transmission calibration						•
Press [F12] to end.						
overview 1 Extended identifications	2 Fault memory	³ Actual values input signals	⁴ Drive links checks	⁵ Maintenance repairs	⁶ Coding programming	7
Control unit			Phase		Status	
PDK A4	Test precondition				8	1
	Calibrating shift rods				Ø	
	Hydraulic calibration				8	
	Clutch calibration				×	
	Calibration post prepa	ration			Ø	
						- 1



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