SB-10052179-8575

PORSCHE

Technical Information

Service 10/13 ENU

WD08 4

WD08 - Re-programming Electric Parking Brake Control Unit (Workshop Campaign)

Important: **CRITICAL WARNING** — THIS CAMPAIGN INCLUDES STEPS WHERE SEVERAL CONTROL UNITS IN THE VEHICLE WILL BE PROGRAMMED WITH THE PIWIS TESTER. IT IS CRITICAL THAT THE VEHICLE VOLTAGE BE BETWEEN 13.5 VOLTS AND 14.5 VOLTS DURING THIS PROGRAMMING. OTHERWISE, THE PROGRAMMING COULD FAIL RESULTING IN DAMAGED CONTROL UNITS. CONTROL UNITS DAMAGED BY INADEOUATE VOLTAGE WILL NOT BE COVERED UNDER WARRANTY. THE TECHNICIAN MUST VERIFY THE ACTUAL VEHICLE VOLTAGE IN THE INSTRUMENT CLUSTER OR IN THE PIWIS TESTER BEFORE STARTING THE CAMPAIGN. IT IS ALSO ADVISABLE TO MONITOR THE VEHICLE VOLTAGE DURING THE PROGRAMMING VIA THE INSTRUMENT CLUSTER. PLEASE REFER TO EQUIPMENT INFORMATION EQ-1105 FOR A LIST OF SUITABLE BATTERY CHARGERS/POWER SUPPLIES WHICH SHOULD BE USED TO MAINTAIN VEHICLE VOLTAGE. Model Year: As of 2012 up to 2013 Vehicle Type: 911 Carrera (991)/911 Carrera S (991) 911 Carrera 4 (991)/911 Carrera 4S (991) Equipment: 7-speed manual transmission (I-no. 487) Concerns: Electric parking brake control unit Information: This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles. Implausible fault entries can be stored for the electric parking brake control unit on the affected vehicles because the monitoring function is too sensitive. This can cause the yellow warning message "Fault Electric parking brake" to appear on the multi-function display although there is no system fault present. The warning message disappears when the ignition is switched off and on again. Action Re-program electric parking brake control unit. Required: Information It takes about 3 minutes to program the electric parking brake control unit. Affected The VIN(s) can be checked by using PIWIS Vehicle Information link to verify if the campaign affects the Vehicles: vehicle. This campaign is scope specific to the VIN! Failure to verify in PIWIS may result in an improper repair. This campaign affects 2,440 vehicles in North America. Tools: 9818 - PIWIS Tester II with software version 11.600 (or higher) installed

AfterSales

Battery Charger/Power Supply- Suitable for AGM Type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V. Refer to Equipment Information EQ-1105.

Work See Attachment "A". Procedure:

Claim See Attachment "B". Submission:

Attachment "A": Work Procedure

Preliminary work

NOTICE

Fault entry in the fault memory and control unit programming aborted due to low voltage.

- Increased current draw during diagnosis or control unit programming can cause a drop in voltage, which can result in one or more fault entries and the abnormal termination of the programming process.
- ⇒ Before starting control unit programming, connect a suitable battery charger or power supply, suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V to the vehicle.

NOTICE

Control unit programming will be aborted if the Internet connection is unstable.

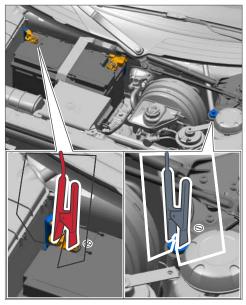
- An unstable Internet connection can interrupt communication between PIWIS Tester II and the vehicle communication module (VCI). As a result, control unit programming may be aborted.
- ⇒ During control unit programming, always connect PIWIS Tester II to the vehicle communication module (VCI) via the USB cable.

NOTICE

Control unit programming will be aborted if the vehicle key is not recognized

- If the vehicle key is not recognized in vehicles with Porsche Entry & Drive, programming cannot be started or will be interrupted.
- ⇒ Switch on the ignition using the original vehicle key. To do this, replace the original vehicle key in the ignition lock with the plastic key fob if it was previously removed at the start of this procedure.

1 Connect a battery charger/power supply suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V. Refer to Equipment Information EQ-1105. First connect the positive cable of the charger to the positive terminal of the battery and then connect the negative cable of the charger to the ground point for jump-lead starting \Rightarrow *External power supply*.



External power supply

- 2 Switch on the ignition using the **original driver's key**. On vehicles with "Porsche Entry & Drive", do this by replacing the control panel in the ignition lock with the original driver's key if necessary.
- 3 9818 PIWIS Tester II with software version 11.600 (or higher) installed must be connected to the vehicle communication module (VCI) via the USB cable. Then, connect the communication module to the vehicle and switch on the PIWIS Tester.

Re-programming and re-coding electric parking brake control unit



Information

The procedure described here is based on the PIWIS Tester II software version **11.600**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed. A discrepancy may arise with later software versions for example.

Procedure: NOTE: VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.

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1 On the PIWIS Tester start screen, call up the \Rightarrow 'Diagnostics' menu and select vehicle type \Rightarrow '911' \Rightarrow '991'.

The diagnostic application is then started and the control unit selection screen is populated.

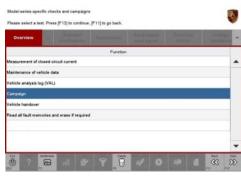
2 In the control unit selection screen (\Rightarrow 'Overview' menu), press • F7[#] to call up the \Rightarrow 'Additional menu' (\Rightarrow Control unit selection).

Ov	erview	- Destation Partness			8
DTC	Status	Centrol unit	DSN	Persche part number	
		Airbag			
		Cateway			
		DME			
		PDK (Porsche Doppelkupplung)			
		PDK selector lever			
		Instrument cluster			
		Steering wheel electronics			1
		Stopwatch			
		PCM / CDR			

Control unit selection

- 3 When the question "Create Vehicle Analysis Log (VAL)?" appears, either press •>>" to create a VAL or press •F11" if you do not want to create a VAL.
- 4 Press •>>" to acknowledge the message informing you that campaigns for the vehicle are stored in the PIWIS information system.
- 5 Select the ⇒ 'Campaign' function and press
 >> " to confirm your selection ⇒ Additional menu Campaign.

You are then prompted to enter a programming code.



Additional menu – Campaign

6 To enter the programming code, click in the relevant text box so that the cursor starts to flash → Programming code input field.



Programming code input field

7 Enter the programming code **T6H7Z** and press • Enter" to confirm.

The text box turns blue. Press $\bullet >>$ " to start the guided programming sequence.

Information

Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence.

The electric parking brake control unit is re-programmed and is then automatically re-coded.

Do not interrupt programming and coding.

If an **error message** is displayed after starting programming (e.g. "Campaign does not exist", "No suitable programming rules found" or "Vehicle data could not be read", etc.), follow the appropriate instructions provided under \Rightarrow *Technical Information 'WD0800 Troubleshooting'*.

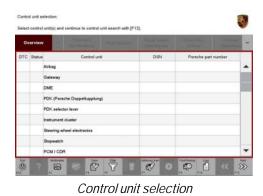
If programming is interrupted (e.g. due to a voltage drop or if communication is aborted, etc.) or if programming could not be carried out successfully (error message "Programming unsuccessful"), programming must be **repeated** by entering the programming code **T6H7Z** again (Additional menu > Campaign >> Enter campaign number).

It is **not** possible to program the control unit manually.

Once the control unit has been programmed and coded, the PIWIS Tester will prompt you to switch the ignition off and then back on again after a certain waiting time.

Once programming is completed successfully (message "Campaign was carried out successfully"), carry out the steps described below.

- 8 Once control unit programming and coding has been completed successfully, press •>>" to return to the start page of the Additional menu.
- 9 Press •<<" to return to the control unit selection screen \Rightarrow Control unit selection.



Carrying out routine function for parking brake control unit

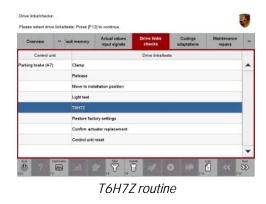
- Procedure: NOTE: VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.
 - In the control unit selection screen (⇒ 'Overview' menu), select the "Parking brake" control unit and call up the ⇒ 'Drive links/checks' menu ⇒ Control unit selection Parking brake.

Select the menu item \Rightarrow 'T6H7Z' in the \Rightarrow 'Drive

links/checks' menu and press •>>" to confirm



Control unit selection - Parking brake



2

 \Rightarrow T6H7Z routine.

AfterSales

3 Press • F8" to start the 'T6H7Z' routine function.

Once the routine function is carried out successfully, the message "Function has been executed" appears. The status "Request accepted" appears in the status display \Rightarrow Routine successful

Overview	Extended identifications	Faultmemory	Actual values input signals	Drive links checks	Codings adaptations	
	Paramete	-		Value	Unit	
Parameters cann	dt be sat					1
	Results			Value	Unit	
ControlState				Request accepted		

Routine successful

4 Press •<<" to return to the start page of the \Rightarrow 'Drive links/checks' menu.

Moving to installation position

- Procedure: NOTE: VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.
 - Select the menu item ⇒ 'Move to installation position' in the ⇒ 'Drive links/checks' menu and press •>>" to confirm ⇒ Moving to installation position.

Overview	Extended identifications	Fault memory	Actual values input signals	Drive links checks	Codings	1	
Control unit			Drive links/tests				
Parking brake (A7)	Clamp	Clamp					
	Release	Release					
	Move to installe	Move to installation position					
	Light test	Light test					
	TGH7Z	тентг					
	Restore factory	Restore factory settings					
	Confirm actuato	Confirm actuator replacement					
	Control unit rese						

Moving to installation position

2 Press • F8" to start the 'Move to installation position' process.

Once the function has been completed, the message "Function has been executed" appears. "Yes" appears under "Success" in the status display.

3 Once the process is complete, press •<<" to return to the start page of the \Rightarrow 'Drive links/checks' menu.

Checking basic parking brake settings

- 1 Switch to the \Rightarrow 'Maintenance/repairs' menu.
- 2 Select the menu item ⇒ 'Check parking brake basic setting' and press •>>" to confirm ⇒ Checking basic parking brake setting.

Overview		ctual values put eignals	Drive links checks	Codings adaptations	Maintenance repairs	Programming	
Control u	nt			Function			
Parking brake (A7)		Bedding-in					-
		Calibration					
		Check basic	setting of parking-b	rate.			
		Centrol unit	replacement				
		Centrol unit	replacement				

Checking basic parking brake setting

Read the instructions displayed for the "Check parking brake basic setting" function and press
 >> " to confirm.

The basic parking brake settings are checked during the test. The parking brake is automatically tensioned and then released again.

Once the parking brake settings have been checked successfully, the message "Basic parking brake settings are correct" is displayed.

Information

Once the basic settings have been checked successfully, the electric parking brake can be calibrated directly (see next step).

There is **no need** to **grind down the brakes** – contrary to any other instructions displayed on the PIWIS Tester – **in this case** both for vehicles with steel brakes and for vehicles with PCCB.

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Information

If the basic parking brake settings are not correct (message: "Brake shoe clearance out of tolerance"), the parking-brake shoes must be adjusted \Rightarrow Workshop Manual '468316 Setting and calibrating parking-brake shoes'.

The work required for this **cannot** be invoiced under the workshop campaign number.

4 After successfully checking and setting the parking brake if necessary, press $\cdot >$ " to return to the start page of the \Rightarrow 'Maintenance/repairs' menu.

Calibrating electric parking brake

1 Select the menu item \Rightarrow 'Calibration' in the \Rightarrow 'Maintenance/repairs' menu and press •>>" to confirm \Rightarrow Electric parking brake calibration.

Read the displayed information and requirements and press $\bullet >>$ " to confirm.



Electric parking brake calibration

2 Press • F8[#] to start calibrating the electric parking brake.

The message "Calibration running" appears during the calibration process. The status "Processing request" appears in the status display.

Once calibration is carried out successfully, the message "Calibration has been completed" appears.

The status "Request complete" appears in the status display \Rightarrow *Calibration successful*.



Calibration successful

- 3 Press •>>" to return to the start page of the \Rightarrow 'Maintenance/repairs' menu.
- 4 Select the \Rightarrow '**Overview'** menu to return to the control unit selection screen.

Reading out and erasing fault memories

 In the control unit selection screen (⇒ 'Overview' menu), press • F7[#] to call up the ⇒ 'Additional menu' (⇒ Control unit selection).



Control unit selection

2 Select the function \Rightarrow 'Read all fault memories and erase if required' and press $\cdot >>$ " to confirm \Rightarrow *Erasing fault memories*.

The fault memories of the control units are read out.

Overview					-
		Functio	in		
leasurement of close	d-circuit current				
faintenance of vehicl	e data				
eticle analysis log (/AL)				
ampaign					
shicle handover					
lead all fault memorie	es and erase if requ	red			
					1
					-

Erasing fault memories

- 3 Once you have read out the fault memories, delete the fault memory entries by pressing F8".
- 4 Press •>>" ("Yes") in response to the question as to whether you really want to delete all fault memory entries.

The faults stored in the fault memories of the various control units are deleted.

Information

If individual control units (e.g. parking brake, instrument cluster) still contain fault memory entries relating to the electric parking brake, press the clutch pedal and start the engine briefly and then switch it off again. Release the clutch pedal. Wait for approx. 10 seconds before switching the ignition on again and re-establish the connection between the PIWIS Tester and the vehicle. Then read out and erase the fault memories of the affected control units again separately.

If the fault memory entries are still present, proceed as follows:

- Switch on ignition.
- Press the clutch pedal.
- Apply the electric parking brake.
- Release the electric parking brake.

- Release the clutch pedal.
- Switch off the ignition and wait approx. 10 seconds before switching it back on again.
- Re-establish the connection between the PIWIS Tester and the vehicle.
- Read out the fault memory again and erase it.

If the control units are found to have other faults, which cannot be erased and are **not caused by control unit programming**, these faults must be found and corrected. This work **cannot** be invoiced under the workshop campaign number.

5 Once you have erased the fault memories, select the \Rightarrow '**Overview'** menu and press •<<" to return to the control unit selection screen \Rightarrow *Control unit selection.*

04	erview:						
DTC	Retue	Control un	a .	DSN	Persche part	number	
	Airbag						-
	Gateway						
	DME						
	PDK (Porsc	he Doppelkupplun	90				
	PDK selects	or lever					
	Instrument of	luster					
	Steering wh	eel electronics					
	Stopwatch						
	PCM / CDR						

Control unit selection

Subsequent work

- Procedure: NOTE: VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.
 - 1 Switch off ignition.
 - 2 Disconnect the PIWIS Tester from the vehicle.
 - 3 Switch off and disconnect the battery charger.
 - 4 On vehicles with Porsche Entry & Drive, replace the original driver's key in the ignition lock with the control panel again.
 - 5 Enter the workshop campaign in the Warranty and Maintenance booklet.

Attachment "B":

i Information

The specified working time was determined specifically for carrying out this campaign and includes the time required for programming the electric parking brake control unit as well as all necessary preliminary and subsequent work.

The working time may differ from the working times published in the Labor Operation List in PIWIS.

Dpen campa Job Creatior Labor, parts	, and sublet will be automatically inserted when Technician is he required part numbers will need to be manually entered int	selected in WWS/PQIS. If
Working t	i me: nming electric parking brake control unit	Labor time: 25 1
Re-progran	Connecting and disconnecting battery charger	
	Connecting and disconnecting PIWIS Tester	
	Performing routine function for electric parking brake	
	control unit	
	Moving to installation position	
	o	
	Checking basic parking brake settings Calibrating electric parking brake	

Troubleshooting

Scope:

Procedure:	Error message after entering campaign number	Possible causes	Remedial action
	Specified campaign does not exist.	 PIWIS Tester software is not up-to-date. 	Update PIWIS Tester software to the software version specified in the Technical Information (or a higher software version). Then enter the campaign number again and start programming.
		Wrong vehicle type selected.	Close the diagnostic application. Select the correct vehicle type and restart the diagnostic application. Then enter the campaign number again and start programming.

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	Incorrect programming code entered or programming code not entered correctly.	Enter the programming code specified in the Technical Information correctly.
No suitable programming rules found. Cause: Part number of the control unit is not in the	Campaign must not be carried out on the vehicle or campaign was already carried out.	 Check vehicle assignment to the campaign in PIWIS > Vehicle Information.
programming rules.	Replacement control unit with up-to-date software version was installed.	Read out the Porsche part number and software version of the electric parking
	Software version of the installed control unit is already up-to-date.	brake control unit using the PIWIS Tester by selecting 'Parking brake' control unit ⇒ 'Extended identification'
	Software version of the control unit is a version that is not intended for carrying out the campaign.	 Extended identification menu. Current Porsche part number of electric parking brake control unit: 99161814503 Current software version of electric parking brake control unit: 1600
No suitable programming rules found. Cause: Current vehicle	Campaign must not be carried out on the vehicle.	Check vehicle assignment to the campaign in PIWIS > Vehicle Information .
equipment is not shown in the programming rules. Please check vehicle order and change it if necessary.	Vehicle order is wrong.	 Check vehicle order and correct it if necessary (PIWIS Tester > Additional menu >> Maintenance of vehicle data).
Vehicle data could not be read.	Ignition not switched on.	• Switch on ignition and close and restart the diagnostic application. Then enter the

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	campaign number again and start programming.
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