### SB-10052226-6724

### PORSCHE'

## **Technical Information**

Service

10/13 ENU WD08

### 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 2013 up to 2014 Vehicle Type: Boxster (981)/Boxster S (981) Cayman (981)/Cayman S (981) Equipment: 6-speed manual transmission (I-no. 480) 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

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**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.

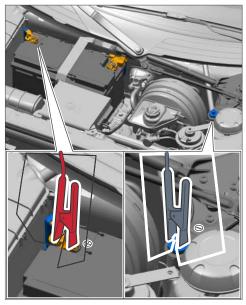
- An unstable Internet connection can interrupt communication between PIWIS Tester II and the vehicle communication module (VCI). As a result, control unit programming may be aborted.
- ⇒ During control unit programming, always connect PIWIS Tester II to the vehicle communication module (VCI) via the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

1 On the PIWIS Tester start screen, call up the  $\Rightarrow$  'Diagnostics' menu and select the vehicle type  $\Rightarrow$  'Boxster/Cayman'  $\Rightarrow$  '981'.

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

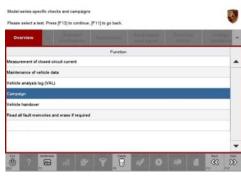
2 In the control unit selection screen ( $\Rightarrow$  'Overview' menu), press • F7<sup>#</sup> to call up the  $\Rightarrow$  'Additional menu' ( $\Rightarrow$  Control unit selection).

| Ov  | erviev | - Territory Partment         |     |                     | 1 |
|-----|--------|------------------------------|-----|---------------------|---|
| DTC | Status | Centrol unit                 | DSN | Perache part number | T |
|     |        | Airbag                       |     |                     |   |
|     |        | Gateway                      |     |                     |   |
|     |        | DME                          |     |                     |   |
|     |        | POK (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.

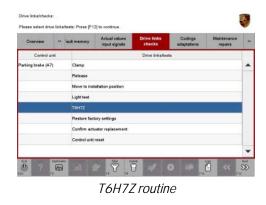
In the control unit selection screen (⇒ 'Overview' menu), select the "Parking brake" control unit and call up the ⇒ 'Drive links/checks' menu ⇒ Control unit selection - Parking brake.

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

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



Control unit selection - Parking brake



 $\Rightarrow$  T6H7Z routine.

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**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<br>identifications | Faultmemory | Actual values<br>input signals | Drive links<br>checks | Codings<br>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<br>identifications | Fault memory                  | Actual values<br>input signals | Drive links<br>checks | Codings<br>adaptations | 2 |  |
|--------------------|-----------------------------|-------------------------------|--------------------------------|-----------------------|------------------------|---|--|
| Control unit       |                             |                               | Drive links/tests              |                       |                        |   |  |
| Parking brake (A7) | Clamp                       | Clamp                         |                                |                       |                        |   |  |
|                    | Release                     | Release                       |                                |                       |                        |   |  |
|                    | Move to installe            | Move to installation position |                                |                       |                        |   |  |
|                    | Light test                  |                               |                                |                       |                        |   |  |
|                    | TGH7Z                       | тентг                         |                                |                       |                        |   |  |
|                    | Restore factory             | Restore factory settings      |                                |                       |                        |   |  |
|                    | Confirm actuato             | Confirm actuator replacement  |                                |                       |                        |   |  |
|                    | Control unit rese           | et .                          |                                |                       |                        |   |  |

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           |    | tual values<br>put eignals | Drive links<br>checks | Codings<br>adaptations | Maintenance<br>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<sup>#</sup> 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<sup>#</sup> 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 •>>" to confirm  $\Rightarrow$  *Erasing fault memories*.

The fault memories of the control units are read out.

| Madel.series.specific checks and campaigns<br>Please select a test. Press (#12) to continue. (#11) to ge back. |                    |        |          |              |      |   |          | 3  |
|--|--------------------|--------|----------|--------------|------|---|----------|----|
| Overview   |                    |        |          | And and pass |      | - | Control  |    |
|  |                    |        | Function |              |      |   |          | 4  |
| Measurement of close   | ed-circuit current |        |          |              |      |   |          |    |
| Maintenance of vehic   | le data            |        |          |              |      |   |          |    |
| Vehicle analysis log (   | VAL)               |        |          |              |      |   |          |    |
| Campaign   |                    |        |          |              |      |   |          |    |
| Vehicle handover   |                    |        |          |              |      |   |          |    |
| Read al faut memori  | es and erase if re | quired |          |              |      |   |          |    |
|  |                    |        |          |              |      |   |          |    |
|  |                    |        |          |              |      |   |          |    |
|  |                    |        |          |              |      |   |          | *  |
| 10   |                    | # 9    |          | 4            | 0 11 |   | 43<br>43 | 33 |

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*.

| ov     | erviev |                        |             |     |                     | 8 |
|--------|--------|------------------------|-------------|-----|---------------------|---|
| DTC    | Ratur  | c                      | entrol unit | DSN | Persche part number |   |
| Airbag |        |                        |             |     |                     |   |
|        |        | Gateway                |             |     |                     |   |
|        |        | DME                    |             |     |                     |   |
|        |        | POK (Porsche Doppel    | (kupplung)  |     |                     |   |
|        |        | PDK selector lever     |             |     |                     |   |
|        |        | Instrument cluster     |             |     |                     |   |
|        |        | Steering wheel electro | mica        |     |                     |   |
|        |        | Stopwatch              |             |     |                     |   |
|        |        | PCM / CDR              |             |     |                     | 2 |

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"

### 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<br>Job Creatior<br>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 <b>me:</b><br>nming electric parking brake control unit  | Labor time: <b>25 1</b>  |
| Includes:                                  | Connecting and disconnecting battery charger   |                          |
|  | Connecting and disconnecting PIWIS Tester  |                          |
|  | Performing routine function for electric parking brake   |                          |
|  | control unit   |                          |
|  | Moving to installation position  |                          |
|  | <b>o</b>   |                          |
|  | Checking basic parking brake settings<br>Calibrating electric parking brake  |                          |

### Troubleshooting

Scope:

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

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

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|  | campaign number again and start programming. |
|--|--|
|--|--|

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| Dealership              | Service Manager | <br>Shop Foreman    | <br>Service Technician | <br> | <br> |
|-------------------------|-----------------|---------------------|------------------------|------|------|
| Distribution<br>Routing | Asst. Manager   | <br>Warranty Admin. | <br>Service Technician | <br> | <br> |

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