WC34 - Re-programming Front-end Electronics Control Unit and Rear-end Electronics Control Unit (Workshop Campaign)

Important: **CRITICAL WARNING 1: THIS CAMPAIGN INCLUDES STEPS WHERE SEVERAL CONTROL UNITS IN THE VEHICLE WILL BE REPROGRAMMED 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 INADEQUATE 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 EI-1105 FOR A LIST OF SUITABLE BATTERY CHARGERS/POWER SUPPLIES WHICH SHOULD BE USED TO MAINTAIN VEHICLE VOLTAGE.**

CRITICAL WARNING #2: As of PIWIS Tester Software version 11.250, it is necessary to have the ignition on (with the original vehicle key) prior to connecting the PIWIS Tester II to the vehicle. Failure to turn on the ignition first may result in corruption of the Maintenance of Vehicle Data if programming or coding operations are carried out. In the event this occurs, the Maintenance of Vehicle Data must be reentered. You may reference the PPN posting on Maintenance of Vehicle Data for further information.

Model Year: **As of 2010 up to 2012**

Vehicle Type: **Panamera/Panamera 4/Panamera S Hybrid**
Panamera S/Panamera 4 S/Panamera Turbo/Panamera Turbo S

Revision: **Revision 2** — January 17, 2013 – This revision amends WC34 to include a fourth "Information" paragraph under "Overview of new software versions".

Concerns: **Front-end electronics control unit**
Rear-end electronics control unit (only for model year 2012 vehicles)

Information: This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles.

New data records for the front-end electronics and rear-end electronics control units are available for the affected vehicles.

•   **Front-end electronics control unit:**

If the vehicle key is not inserted completely into the ignition lock and the ignition lock is then turned to the position "Ignition on", the ignition lock will be locked after removing the key and the vehicle key can no longer be inserted into the ignition lock.

Vehicles with Porsche Entry & Drive:

If the vehicle is locked using the locking button in the door handle, the key can be detected in some cases as being "inside the vehicle" if the vehicle key is too close to the vehicle.
As a result, the key will be disabled for the next keyless access. The doors can then only be unlocked by pressing the Open button on the driver's key.

To prevent this from happening, the front-end electronics control unit must be re-programmed with an updated data record.

- **Rear-end electronics control unit** (only for model year 2012 vehicles):

Due to a software error, there is a possibility that the rear-end electronics control unit will not switch to energy-saving mode after the vehicle is stopped in the event of specific user behaviour.
This can result in an increased closed-circuit current load and can thus cause the battery to become discharged.

To prevent this from happening, the rear-end electronics control unit must be re-programmed with an updated data record.

Action Required:	Re-program front-end electronics control unit. The rear-end electronics control unit is also re-programmed on model year 2012 vehicles.

i **Information**

The **total time** required for programming and coding is approx. **6-10 minutes**.

Affected Vehicles:	The VIN(s) can be checked by using PIWIS Vehicle Information link to verify if the campaign affects the vehicle. This Campaign is scope specific to the VIN! Failure to verify in PIWIS may result in an improper repair.

Tools:	**9818 - PIWIS Tester II** with software version **10.900** (or higher) installed. Battery Charger/Power Supply - Suitable for AGM Type batteries, recommended current rating of 70 A, fixed voltage 13.5V to 14.5V. Refer to Equipment Information EQ1105.

Work Procedure:	See Attachment "A".

Claim Submission:	See Attachment "B".

Attachment "A":

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 commencing work, connect a suitable battery charger with a current rating of at least 40 A to the jump-start terminals in the engine compartment.

⇒ Disconnect electric plug connection for the fan blower to prevent the blower from coming on during control unit programming.

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.

Information

If complaints are received or if warning messages indicating a fault in the Porsche Stability Management (PSM) system are displayed, these faults must be located and corrected before carrying out control unit programming.

This work **cannot** be invoiced under the workshop campaign number.

Important: **CRITICAL WARNING #2: As of PIWIS Tester Software version 11.250, it is necessary to have the ignition on (with the original vehicle key) prior to connecting the PIWIS Tester II to the vehicle. Failure to turn on the ignition first may result in corruption of the Maintenance of Vehicle Data if programming or coding operations are carried out. In the event this occurs, the Maintenance of Vehicle Data must be reentered. You may reference the PPN posting on Maintenance of Vehicle Data for further information.**

Procedure:

1 Disconnect electric plug connection for the fan blower ⇒ *Disconnecting electric plug connection* **-1-** (⇒ *Disconnecting electric plug connection* **-arrow-**) to prevent the blower from coming on during control unit programming.
Having the fan on and the associated increased current draw can cause a drop in voltage, which can result in abnormal termination of control unit programming.
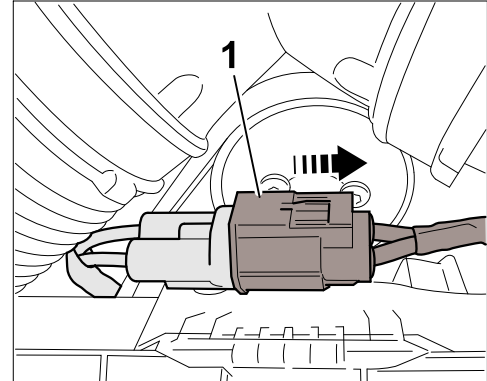
Disconnecting electric plug connection

2 Connect a battery charger with a current rating of **at least 40 A** to the jump-start terminals in the engine compartment.

3 Switch on the ignition using the **original vehicle key**. On vehicles with "Porsche Entry & Drive", do this by replacing the control panel in the ignition lock with the original vehicle key if necessary.

4 Move the windshield wiper lever to position 0 (= windshield wipers off) to prevent the windshield wipers from coming on during programming.

5 **9818 - PIWIS Tester II** with test software version **10.900** (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.

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

Carrying out control unit programming

Information

The procedure described here is based on the PIWIS Tester II software version **10.900**.

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.

Important: **CRITICAL WARNING #2: As of PIWIS Tester Software version 11.250, it is necessary to have the ignition on (with the original vehicle key) prior to connecting the PIWIS Tester II to the vehicle. Failure to turn on the ignition first may result in corruption of the Maintenance of Vehicle Data if programming or coding operations are carried out. In the event this occurs, the Maintenance of Vehicle Data must be reentered. You may reference the PPN posting on Maintenance of Vehicle Data for further information.**

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Procedure:

1   On the PIWIS Tester start screen, call up the ⇒ **'Diagnostics'** menu and select vehicle type ⇒ **'Panamera'**.

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

2   In the control unit selection screen (⇒ **'Overview'** menu), press •F7" to call up the ⇒ **'Additional menu'** (⇒ *Control unit selection*).
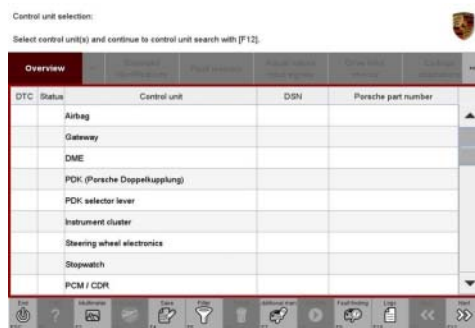
Control unit selection

3   When the question "Create Vehicle Analysis Log (VAL)?" appears, either press •F12" 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 number.
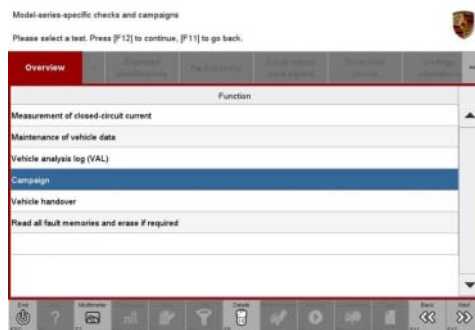
Additional menu – Campaign

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

Programming number input field

7   Enter the programming number **WC34_970** and press •Enter" to confirm.

The text box turns blue.
Press •>>" to start the guided programming sequence.

ℹ️ Information

Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. **Do not interrupt programming and coding.**
VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.

Programming and coding is performed in several steps:

•   The **gateway control unit is first re-coded** in **preparation for programming**.

•   Then, the **front-end electronics** control unit and for **model year 2012** vehicles, the **rear-end electronics** control unit is also re-**programmed** and then **automatically** re-**coded**.

•   The **gateway control unit is coded** again once programming is complete.

The **display in the instrument cluster is switched off** while the front-end electronics control unit is being programmed and will remain off during the entire programming procedure.
The message "Ignition key not removed" appears in the multi-function display.

The ignition is still active in the background.
Never switch the ignition off and then on again because if you do, programming will be interrupted and will then have to be restarted.

The display in the instrument cluster will be switched on again automatically as soon as programming is complete.

Overview of part numbers of data records to be programmed

Model year	Control unit	Porsche part number of new data record
2010 (A)	Front-end electronics	**7PP907064GG**
2011 (B)	Front-end electronics	**7PP907064GJ**
2012 (C)	Front-end electronics	**7PP907064GL**
	Rear-end electronics	**7PP907279AM**

The **Porsche part number** of the front-end electronics control unit and the rear-end electronics control unit if necessary, which can be read out in the ⇒ "Extended identification" menu using the PIWIS Tester, **will not change following control unit programming**.

The **software version** specified in the ⇒ "Extended identification" menu is decisive for checking whether the control unit software is up-to-date.

Overview of current software versions

Model year	Control unit	Software version of current data record
2010 (A)	Front-end electronics	**1580**
2011 (B)	Front-end electronics	**0960**
2012 (C)	Front-end electronics	**2090**
	Rear-end electronics	**2070**

i **Information**

If programming does not start, the campaign number must be entered again and programming must be restarted.

i **Information**

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 ⇒ *Technical Information 'WC3400 Troubleshooting'*.

i **Information**

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"), follow the **instructions provided under** ⇒ *Technical Information 'WC3400 Procedure after programming is aborted'* **to repeat** the programming procedure.

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

i **Information**

If **one or more control units are not coded successfully** (Step 10 of the guided programming sequence) once control unit programming is complete, the affected control units must be **re-coded again separately** once the guided programming sequence is complete.

To do this, select the control unit or control units for which coding could not previously be carried out successfully in the control unit selection screen ("Overview" menu) and press •>>" to confirm your selection. Once the control unit or control units have been found, select the **"Codings/adaptations"** menu and re-code the control unit or control units using the **"Automatic coding"** function.

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

Subsequent work

Important: **CRITICAL WARNING #2: As of PIWIS Tester Software version 11.250, it is necessary to have the ignition on (with the original vehicle key) prior to connecting the PIWIS Tester II to the vehicle. Failure to turn on the ignition first may result in corruption of the Maintenance of Vehicle Data if programming or coding operations are carried out. In the event this occurs, the Maintenance of Vehicle Data must be reentered. You may reference the PPN posting on Maintenance of Vehicle Data for further information.**

Procedure: 1   Plug in electric plug connection for the fan blower.

2   Read out and erase all fault memories.

i **Information**

If the fault memories of individual control units cannot be erased, start the engine briefly and then switch the ignition off and then on again. Then erase the fault memories of these control units separately.

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

3   Disconnect the PIWIS Tester from the vehicle.

4   Switch off and disconnect the battery charger.

5   On vehicles with Porsche Entry & Drive, replace the original vehicle key in the ignition lock with the control panel again.

6   Enter the workshop campaign in the Warranty and Maintenance booklet.

Attachment "B":

Claim Submission - Workshop Campaign WC34
Warranty claims should be submitted via WWS/PQIS.
Open campaigns may be checked by using either the PIWIS Vehicle Information system or through PQIS Job Creation.
Labor, parts, and sublet will be automatically inserted when Technician is selected in WWS/PQIS.
If necessary, the required part numbers will need to be manually entered into WWS by the dealer administrator.

Scope:

Working time:	
Re-programming front-end electronics and rear-end electronics if necessary	Labor time: **30 TU**
Includes: Disconnecting and connecting electric plug connection for fan blower Connecting and disconnecting battery charger Connecting and disconnecting PIWIS Tester Reading out and erasing fault memories	
⇒ **Damage code WC34 066 000 1**	

Troubleshooting

Procedure:

Error message after entering programming 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 programming 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 programming

		number again and start programming.
	• A programming number does not have to be entered in order to carry out the campaign.	• Carry out the campaign as described in the Technical Information.
No suitable programming rules found. Cause: **Part number of the control unit** is not in the programming rules.	• 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**.
	• Replacement control unit with up-to-date software version was installed	• Check software version of the control unit in the $\Rightarrow$ "Extended identification" menu. Current **software version**: – **Front-end electronics: 1580** (MY 2010) **0960** (MY 2011) **2090** (MY 2012) – **Rear-end electronics: 2070** (MY 2012 only)
	• Software version of the installed control unit is already up-to-date	
	• Software version of the control unit is a version that is not intended for carrying out the campaign.	
No suitable programming rules found. Cause: **Current vehicle equipment** is not shown in the programming rules. Please check vehicle order and change it if necessary.	• Campaign must not be carried out on the vehicle.	• Check vehicle assignment to the campaign in **PIWIS > Vehicle Information**.
	• 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 programming number again and start programming.

AfterSales

Procedure after programming is aborted

ⓘ   Information

If programming is aborted (the message "Programming was not completed successfully" is displayed on the PIWIS Tester screen), **always proceed in accordance with the procedure described below**.

Procedure: 1   If the message **"Programming was not completed successfully"** is displayed, **first press** •F11" **to cancel the programming procedure** and then go back to the **start page of the Additional menu**.

2   Actuate the central locking button in the centre console to "wake up" the gateway control unit and re-establish communication between the gateway control unit and the front-end electronics control unit.

ⓘ   Information

There may be **no response or reaction** from the vehicle after pressing the central locking button. Nevertheless, internal communication between the gateway control unit and the front-end electronics control unit was re-established so that programming can now be carried out again.

3   Select the ⇒ **'Campaign'** function and try to **restart** control unit programming by **entering the programming number again**.

•   If programming is completed **successfully** following the restart (message "Campaign was carried out successfully"), carry out the work described under ⇒ *Technical Information 'WC3400 Subsequent work'*.

•   If programming **is not completed successfully** even after restarting (message "Programming was not completed successfully" is displayed again), Steps 1 to 3 must be repeated until programming is completed successfully. It may be necessary to **restart** programming **up to three times** in individual cases.

•   If programming **does not start again** after entering the programming number or **is not completed successfully even after restarting programming at least three times** (message "Programming was not completed successfully"), carry out the following work:

4   Press •F11" to cancel programming.

5   Switch off ignition.

6   Pull fuses for the front-end electronics control unit out of the slot in order to reset the control unit. Then re-insert the fuses.

•   Left-hand drive vehicles: Fuse box on left of dashboard, fuses No. 23 (30 A), No. 24 (30 A), No. 25 (15 A) and No. 26 (30 A)

- Right-hand drive vehicles: Fuse box on right of dashboard, fuses No. 33 (30 A), No. 34 (30 A), No. 35 (15 A) and No. 36 (30 A)

For model year 2012 (C) vehicles, also remove the fuses for the rear-end electronics control unit (fuse and relay carrier in luggage compartment, fuses No. 1 (15 A), No. 2 (15 A), No. 3 (30 A) and No. 4 (30 A)) from the slot and then re-insert them.

i **Information**

After re-inserting the fuses, there is a possibility that the ignition cannot be switched on and the instrument cluster will remain off.

However, the driver's key in the ignition lock must still be turned to "Ignition on" position. Communication between the vehicle and PIWIS Tester can then be re-established despite the fact that the ignition and instrument cluster appear to be switched off.

7 Switch on ignition and restore communication between the vehicle and the PIWIS Tester.

8 Actuate the central locking button in the centre console to "wake up" the gateway control unit and re-establish communication between the gateway control unit and the front-end electronics control unit.

i **Information**

There may be **no response or reaction** from the vehicle after pressing the central locking button. Nevertheless, internal communication between the gateway control unit and the front-end electronics control unit was re-established so that programming can now be carried out again.

9 Call up the Additional menu on the PIWIS Tester and restart control unit programming again using the ⇒ **'Campaign'** function by entering the programming number.

- If programming is completed **successfully** after resetting the control unit (message "Campaign was carried out successfully"), carry out the work described under ⇒ *Technical Information 'WC3400 Subsequent work'*.

- If programming is **not completed successfully** even after resetting the control unit (message "Programming was not completed successfully") ⇒ continue with Step 10.

10 Press •F11" to cancel programming.

11 Switch off ignition.

12 Switch off and disconnect the battery charger.

13 Disconnect the negative terminal of the vehicle battery and wait approx. 1 minute. Then re-connect the negative terminal of the vehicle battery.

Information

After re-connecting the battery, there is a possibility that the ignition cannot be switched on and the instrument cluster will remain off.

However, the driver's key in the ignition lock must still be turned to "Ignition on" position. Communication between the vehicle and PIWIS Tester can then be re-established despite the fact that the ignition and instrument cluster appear to be switched off.

14   Switch on ignition and restore communication between the vehicle and the PIWIS Tester.

15   Actuate the central locking button in the centre console to "wake up" the gateway control unit and re-establish communication between the gateway control unit and the front-end electronics control unit.

Information

There may be **no response or reaction** from the vehicle after pressing the central locking button. Nevertheless, internal communication between the gateway control unit and the front-end electronics control unit was re-established so that programming can now be carried out again.

16   Call up the Additional menu on the PIWIS Tester and restart control unit programming again using the ⇒ **'Campaign'** function by entering the programming number.

•   If programming is completed **successfully** after resetting the battery (message "Campaign was carried out successfully"), carry out the work required after disconnecting the battery ⇒ *Workshop Manual '2X00IN Work instructions after disconnecting the battery'* and the work described under ⇒ *Technical Information 'WC3400 Subsequent work'*.

Dealership Distribution Routing	Service Manager	_____	Shop Foreman	_____	Service Technician	_____	_____	_____	_____
	Asst. Manager	_____	Warranty Admin.	_____	Service Technician	_____	_____	_____	_____