

Eliminating Transmission Symptoms - Re-Programming Control Unit for Tiptronic Transmission (I-No. G1G) (Hard Gear Changes - Even During "Kickdown" Downshifts / SY16/13)

General information

Change overview:

Release	Date	Change
0		<ul style="list-style-type: none"> First publication
1	12/20/2018	<ul style="list-style-type: none"> The reference to "Kickdown" downshifts was added under 'Symptom' The test software for the PIWIS Tester has been adapted to the current version 15.700 due to changes.
2	01/05/2024	<ul style="list-style-type: none"> Work item adjusted

Model Year:

As of 2011

Vehicle Type:

Cayenne (92AA11, 92AA21, 92AA31, 92AA41, 92AA51, 92AAG1, 92AAH1, 92AAI1, 92AAL1, 92AAM1, 92AAN1, 92AAP1, 92AAQ1, 92AAT1, 92AAU1, 92AAV1)

Symptom

Customer complains of "hard gear changes" while driving.

Hard gear changes can occur even during **"Kickdown" downshifts**, e.g. when changing from 7th to 5th/4th gear.

Cause, date of introduction and remedial action

Cause

The previous software versions for the Tiptronic transmission control unit can result in "hard gear changes" under certain conditions.

Date of introduction

Updated software for the Tiptronic transmission control unit has been used in production since May 27, 2013.

Remedial action

Re-program control unit for Tiptronic transmission and depending on specifications, also re-program the DME control unit.

Tools and materials

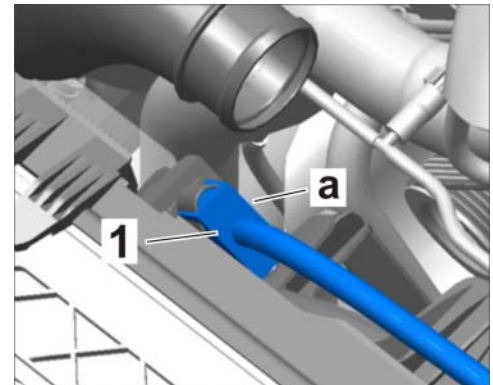
Tools and materials

9818 - PIWIS Tester II with PIWIS Tester software version **15.700** (or higher) installed
Battery Charger, 90 A

Re-programming control unit for Tiptronic transmission

Preliminary work

- 1 Disconnect electric plug connection for the fan blower ⇒ *Electric plug connection for fan blower -1-* (⇒ *Electric plug connection for fan blower -a-*) 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.
- 2 Connect a battery charger with a current rating of **at least 90 A** to the jump-start terminals in the engine compartment.
- 3 Switch on the ignition using the **original driver's key**. For vehicles with "Porsche Entry & Drive", replace the control panel in the ignition lock with the original driver's key, if necessary.
- 4 **9818 - PIWIS Tester II** with software version **15.700** (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.



Electric plug connection for fan blower

Re-programming control unit for Tiptronic transmission



Information

The procedure described here is based on the **new** PIWIS Tester II software version **15.700** with **enhanced and improved software adaptations**.

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 ⇒ **'Diagnostics'** menu and select vehicle type ⇒ **'Cayenne as of MY 2011'**.
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'**.
- 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 any message informing you that campaigns for the vehicle are stored in the PIWIS information system.



Information

Open campaigns for vehicles have priority and must be carried out before correcting symptoms.

Campaigns are stored in the PIWIS information system.

- 5 To program the Tiptronic transmission control unit, select the ⇒ **'Campaign'** function and confirm your selection by pressing **•>>** .
You are then prompted to enter a programming number.
- 6 To enter the programming number, click in the relevant text box so that the cursor starts to flash.
- 7 Enter the programming number **K8Z8Y** and press **•Enter** to confirm.
The text box turns blue.
Press **•>>** to start the guided programming sequence.



Information

When the **Tiptronic transmission control unit** is programmed, the **DME** control unit is **also** re-programmed automatically.

The names of the control units to be programmed as well as the data record names, Porsche part numbers and status are displayed.

**Information**

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

**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"), programming must be **repeated as described**.

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

Once programming is completed successfully (message "Campaign was carried out successfully"), press •>>" to continue.

8 Select the ⇒ **'Overview'** menu and press •<<" to return to the control unit selection screen.

Re-programming control unit for Tiptronic transmission**Information**

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You are then prompted to enter a programming number.
- 6 To enter the programming number, click in the relevant text box so that the cursor starts to flash.
- 7 Enter the programming number **Z4A1A** and press **•Enter“** to confirm.
The text box turns blue.
Press **•>>“** to start the guided programming sequence.

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Re-programming control unit for Tiptronic transmission

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You are then prompted to enter a programming number.
- 6 To enter the programming number, click in the relevant text box so that the cursor starts to flash.
- 7 Enter the programming number **Z4R9G** and press •Enter" to confirm.
The text box turns blue.
Press •>>" to start the guided programming sequence.

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

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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 as described**.

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

Once programming is completed successfully (message "Campaign was carried out successfully"), press •>>" to continue.

- 8 Select the ⇒ **'Overview'** menu and press •<<" to return to the control unit selection screen.

Re-programming control unit for Tiptronic transmission



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- 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.
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You are then prompted to enter a programming number.
- 6 To enter the programming number, click in the relevant text box so that the cursor starts to flash.
- 7 Enter the programming number **Z4R9G** and press **•Enter"** to confirm.
The text box turns blue.
Press **•>>"** to start the guided programming sequence.



Information

Once the Tiptronic transmission control unit has been programmed successfully, the DME control unit must then be programmed manually.

**Information**

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

**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"), programming must be **repeated as described**.

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

Once programming is completed successfully (message "Campaign was carried out successfully"), press •>>" to continue.

8 Select the ⇒ **'Overview'** menu and press •<<" to return to the control unit selection screen.

Re-programming DME control unit

- 1 Select the control unit ⇒ **'DME'** in the control unit selection screen (⇒ **"Overview"** menu) and press •>>" to confirm your selection.
- 2 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.
- 3 Press •>>" to acknowledge the message informing you that campaigns for the vehicle are stored in the PIWIS information system.
- 4 Once the DME control unit has been found, select the ⇒ **'Programming'** menu and press •>>" to confirm.
- 5 Select the ⇒ **'Automatic programming'** function and press •>>" to confirm your selection.
The name of the control unit to be programmed (in this case: DME), the data record name, Porsche part number and status will be displayed.
- 6 Press •F8" ("Execute") to start programming.
Several bars, showing the progress of the programming process, appear consecutively during programming.
The programming process runs automatically.
Do not interrupt programming.



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"), programming must be **repeated**.

When programming is completed successfully, the message "Programming has been completed successfully" is displayed and a tick appears in the 'Status' box.

- 7 Once programming is completed successfully, press •>>" to continue.
- 8 Select the ⇒ **'Overview'** menu and press •<<" to return to the control unit selection screen.
- 9 Switch off the ignition.
- 10 Disconnect the PIWIS Tester diagnostic connector from the diagnostic socket.
- 11 Lock the vehicle with the vehicle key and wait for approx. 1 minute. In the meantime, connect the electric plug connection for the fan blower.
- 12 Switch on ignition and restore communication between the PIWIS Tester and the vehicle.

Carrying out control unit coding

- 1 Select the **'DME'** control unit in the control unit selection screen (⇒ 'Overview' menu) and press •>>" to confirm your selection.
- 2 Once the DME control unit has been found and is displayed in the list, select the ⇒ **'Coding/adaptations'** menu.
- 3 Select the ⇒ **'Automatic coding'** function and press •>>" to start coding.
Once coding is completed successfully, the message "Coding has been completed successfully" is displayed and a tick appears in the 'Status' box.
If coding is not completed successfully (error message "Coding was not completed successfully"), coding must be **repeated**.
- 4 Once coding is completed successfully, press •>>" to continue.

Performing throttle valve adaptation

- 1 Select the ⇒ **'Maintenance/repairs'** menu.
- 2 Select menu item ⇒ **'Adaptations'** and confirm your selection by pressing •>>" .
- 3 Note the preconditions displayed (engine off, ignition on, do not press the accelerator pedal) and confirm by pressing •>>" .

- 4 Select the ⇒ **'Throttle valve adaptation'** function so that the corresponding text line turns blue and press •F8" to start throttle valve adaptation.
- 5 Follow the instructions on the PIWIS Tester while throttle valve adaptation is being performed.
Once throttle valve adaptation is complete, a tick will appear in the "Value" field in the PIWIS Tester display.
If throttle valve adaptation is **not** completed successfully, the adaptation must be **repeated**.
- 6 Press •F8" ("Stop") to end throttle valve adaptation.
- 7 Press •<<" to return to the start page of the ⇒ **'Maintenance/repairs'** menu.
- 8 Select the ⇒ **'Overview'** menu and press •<<" to return to the control unit selection screen.

Reading out and erasing fault memory

- 1 In the control unit selection screen (⇒ 'Overview' menu), press •F7" to call up the Additional menu.
- 2 Select the function "Read all fault memories and erase if required" and press •>>" to confirm.
The fault memories of the control units are read out.
- 3 Once you have read out the fault memories, erase the fault memory entries by pressing •F8" .
- 4 Press •F12" ("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 the fault memories of individual control units (e.g. DME, PDK, etc.) cannot be erased, switch off the ignition, disconnect the PIWIS Tester diagnostic connector from the diagnostic socket and lock the vehicle using the vehicle key.

Wait for approx. 1 minute and then read out the fault memories of these control units again and erase the fault memories 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 found and corrected. This work cannot be invoiced under the workshop campaign number.

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

Subsequent work

- 1 Switch off the ignition.
- 2 Disconnect the PIWIS Tester from the vehicle.
- 3 Connect electric plug connection for the fan.
- 4 Switch off and disconnect the battery charger.
- 5 Replace the original driver's key in the ignition lock with the control panel again.

Invoicing**Invoicing**

Work is invoiced under the labor operation:

APOS	Labor operation	I No.
24702550	Programming DME control unit	

For invoicing and documentation using PQIS, enter the following coding:

Location (FES5)	37302	Control unit
Damage type (SA4)	1121	Tiptronic shifts too hard

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