

Eliminating Symptoms in Body Interior: Replacing Front Camera (Front Camera Functions Fail/SY3416)

General information

- Revisions: **Revision 1 — This bulletin replaces bulletin dated December 13, 2016.**
This revision includes amended work procedures.
- Model Year: **As of 2012 up to 2017**
- Model Line: **Panamera (970)**
Macan (95B)
Cayenne (92A)
- Equipment: Panamera (970) with I-no.: 458, 631, 632 or 852
Macan (95B) with I-no.: 7Y0, 7Y2, 7Y3, 8G0 or 8G2
Cayenne (92A) with I-no.: 7Y0, 7Y6, 7Y7, 8G0, 8G1, 8G2, 9Q1 or 9Q6
- Subject: **Front camera**
- Symptom: **The customer complains that certain functions of the front camera are not available at times:**
- Lane Change Assist not available
 - Porsche Dynamic Light System not available
 - Traffic sign recognition not available
- Cause: Image sensor fault in the front camera. Insufficient contrast causes certain functions to fail at times.
- Remedial Action: Check front camera and replace it if necessary.
- Date of Introduction: As of July 20, 2016, the reworked front camera is installed during production.
- Tools: **Flashlight** (or light on smartphone)
9900 - PIWIS Tester 3

Work
Procedure:



Information

The lense in the front camera area must be clean in order to perform the check described below. Heavy soiling must be removed before taking measurements.

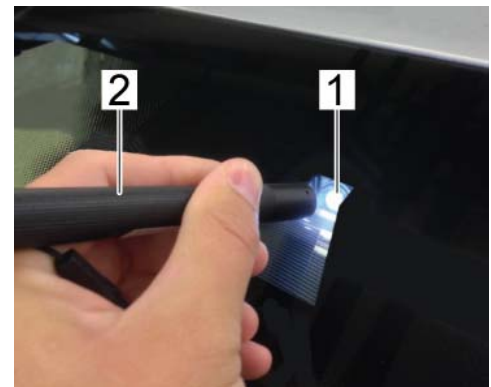
- 1 **9900 - PIWIS Tester 3** must be connected to the vehicle and then switched on.
- 2 Select "**Front camera**" control unit in the '**Control unit overview**' menu and press •F12" to confirm your selection.
- 3 Select the "**Contrast**" function in the '**Actual values/input signals**' menu and press •F12" to confirm your selection.



Information

The help of another person is required.

- 4 Shine the flashlight (or light on smartphone – ⇒ *Shining flashlight on front camera -2-*) directly onto the lens of the front camera (⇒ *Shining flashlight on front camera -1-*).
⇒ The flashlight/smartphone light can be set to any brightness, but the brightness must be constant.



Shining flashlight on front camera

- 5 After a waiting time of approx. 5 seconds, the displayed "Contrast" value will have levelled off on the PIWIS Tester and can be read off.
- 6 The value changes about every one to two seconds.
You must read off and write down **at least 10 values**.
Calculate the average value and evaluate it (add the values you wrote down and divide by the number of values):
 - **If the average value** of the contrast values is **less than 80**, the **front camera is OK**.

- If the mean value of the contrast values is **greater than 80**, the **front camera is faulty** and must be replaced. ⇒ *Workshop Manual '963819 Removing and installing front camera'*

Example:

	Front camera OK	Front camera not OK
1st value	43	202
2nd value	67	197
3rd value	42	173
4th value	43	180
5th value	66	181
6th value	42	164
7th value	65	162
8th value	66	170
9th value	44	166
10th value	42	177
Mean value	52	177.2

7 Switch off the PIWIS Tester and disconnect it from the vehicle.

Invoicing: The work involved – depending on which measure is performed: checking or checking and replacing – is invoiced under the labor operation:

APOS	Labor operation	I No.
96380100	Checking front camera	

APOS	Labor operation	I No.
96385500	Replacing front camera	
96380150	Checking front camera	

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

Location (FES5)	96380	Front camera
Damage type (SA4)	3025	Blind

References: For replacing front camera, see ⇒ *Workshop Manual '963819 Removing and installing front camera'*

Important Notice: Technical Bulletins issued by Porsche Cars North America, Inc. are intended only for use by professional automotive technicians who have attended Porsche service training courses. They are written to inform those technicians of conditions that may occur on some Porsche vehicles, or to provide information that could assist in the proper servicing of a vehicle. Porsche special tools may be necessary in order to perform certain operations identified in these bulletins. Use of tools and procedures other than those Porsche recommends in these bulletins may be detrimental to the safe operation of your vehicle, and may endanger the people working on it. Properly trained Porsche technicians have the equipment, tools, safety instructions, and know-how to do the job properly and safely. Part numbers listed in these bulletins are for reference only. The work procedures updated electronically in the Porsche PIWIS diagnostic and testing device take precedence and, in the event of a discrepancy, the work procedures in the PIWIS Tester are the ones that must be followed.

© 2018 Porsche Cars North America, Inc.