Surround View Static Calibration – Explanation of Debug Screen

Vehicles Affected

Models	Model Year	Model Type	VIN Range	Vehicle-Specific Equipment
Taycan	As of 2020	All	N/A	KA6
911	As of 2019	All	N/A	KA6
Cayenne	As of 2019	All	N/A	KA6
Panamera	As of 2025	All	N/A	KA6

Revision History

Revision	Release Date	Changes
0	November 21, 2025	Original document

Condition

Technicians find the Surround View (Real Top View (RTV)) camera calibration is unsuccessful during diagnosis or repair of an affected vehicle. The contents of the PCM display "Debug Screen" (*Figure 1*) for calibration of the surround view cameras is unclear.

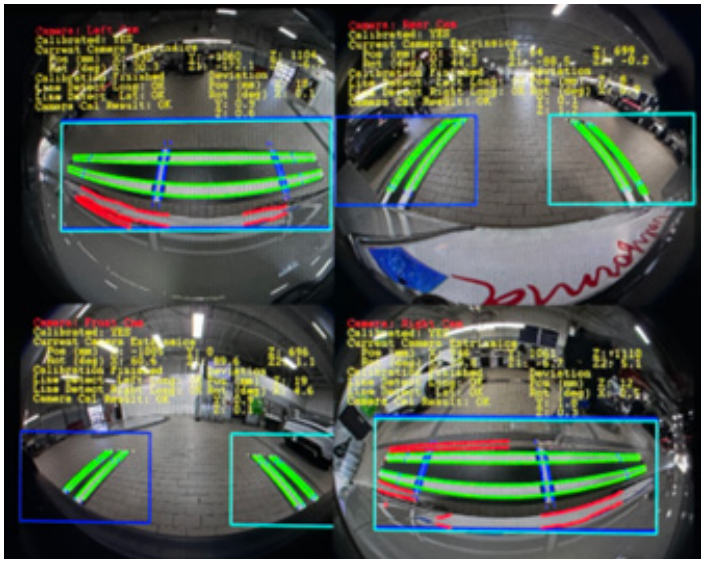

Figure 1

Technical Background

Static calibration of the surround view cameras occurs within the assistance system control unit, utilizing the PIWIS Tester and the surround view calibration mat special tool (VAS 721 001 "Calibration System").

The information presented in the "debug screen" is described below.

Service Information

If the surround view / top view camera calibration is unsuccessful, check the PCM display "debug screen" during a calibration attempt for information about why the calibration failed.

Please observe the following notes:

- The camera view must be selected in the PCM **before** starting the calibration
  - After a failed calibration, the camera view button is greyed out and cannot be selected until the key is cycled
  - After a failed calibration, press [F12] on the PIWIS Tester to display surround view calibration data on the PCM screen
- Contrast between the white lines and the black background on the calibration mats is crucial for target recognition. Even if the white lines on the debug screen are clearly visible, it is possible for the calibration to fail due to insufficient contrast.
- Sunlight or bright lights reflecting on the workshop floor can cause failure of surround view calibration
- Altering lighting conditions by placing mobile walls or curtains next to the calibration targets to cover light sources like workshop doors, windows, and lights can have a positive effect on the calibration result
- Objects or lines on the floor and walls can interfere with the calibration and cause it to fail
- If several calibration attempts are unsuccessful, a vehicle bus-sleep can have a positive effect on the calibration result.

- **Yellow text** means the values are OK
- **Red text** means the values are Not OK

- **Green lines** must be aligned lengthwise (longitudinally) with the lines on the calibration mat and completely highlighted (*yellow ovals in Figure 1 and Figure 3 indicate where the green lines are not completely highlighted*)

- **Blue lines** must be aligned crosswise (transversely) with the lines on the calibration mat and completely highlighted (*yellow oval in Figure 4 indicates where the blue lines are not completely highlighted*)

- **Red lines** are not used for calibration and can be ignored (*for example, red lines in Figure 5*)

- Calibration mats must be within the **Blue and Turquoise boxes** (*yellow oval in Figure 6 indicates where the calibration mat is outside the blue and turquoise boxes*)

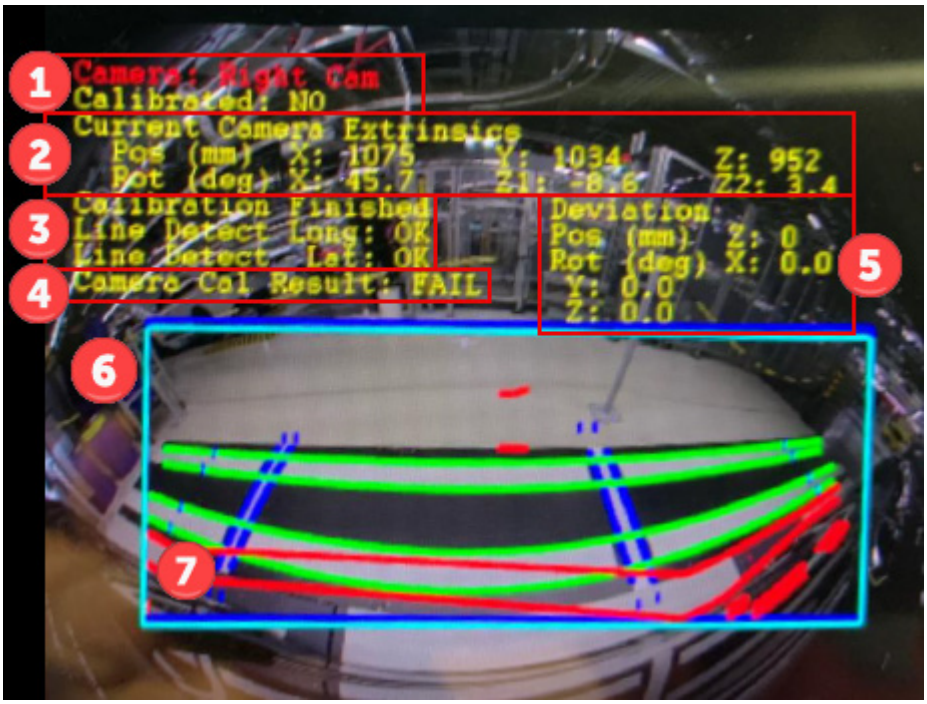

Figure 2

1. Information on whether or not the system has ever been calibrated.
2. Camera nominal position according to data set specification (X; Y; Z)
3. Information on whether the calibration process was completed, and whether or not the green longitudinal lines and blue transverse lines of the calibration target were detected
4. Information on whether the calibration result is OK or not OK (FAIL).
5. Specification of the calculated correction values based on the completed calibration process.
6. Region of interest marked in box (turquoise and blue)
7. Lines shown in red were detected but not used for calibration.

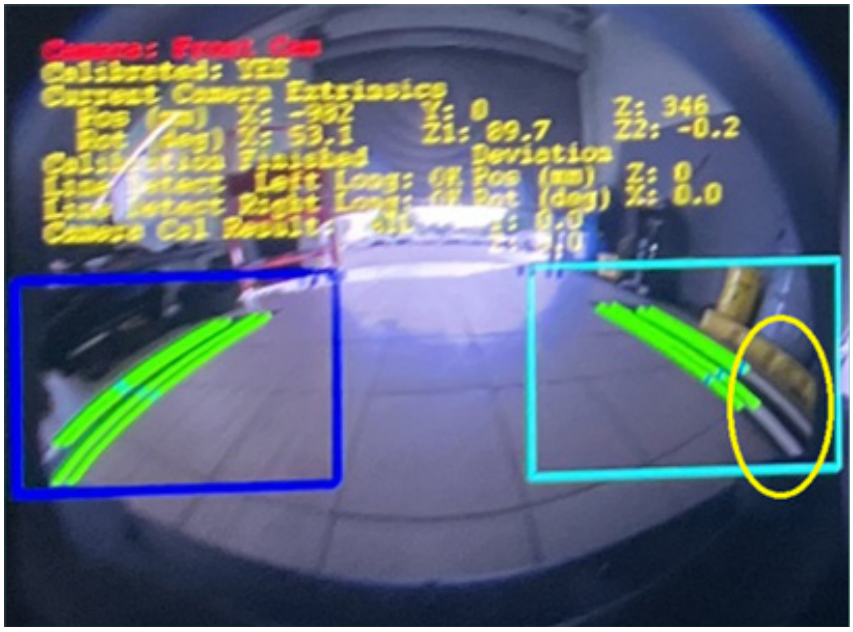

Figure 3

Figure 4

Figure 5

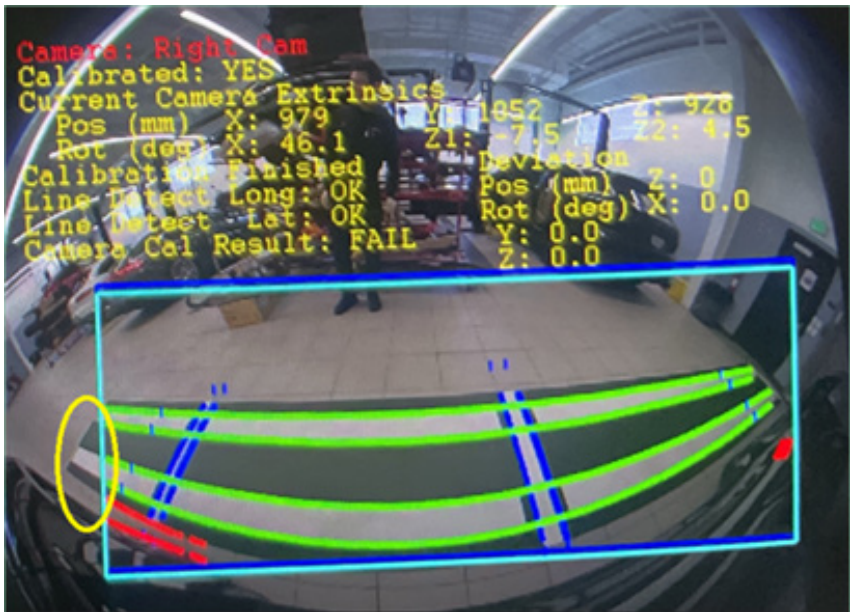

Figure 6

Warranty

Follow standard practices for claiming related work. Refer to the Warranty Policy & Procedures for further guidance if needed.

Search Items

Surround view, real top view, rtv, calibration, static calibration, debug screen, VAS721001