

**Message "Lane Change Assist Not Available – Service Necessary" in the Instrument cluster: Re-Programming Control Units for Lane Change Assist and, if Applicable, Radar Sensor for Front Corner Radar (205/21)**

Model Line: **Cayenne (9YA/9YB)**

Model Year: **2021**

Equipment: **Lane Change Assist (I-no. 7Y1)**

Concerns: **Lane Change Assist control unit and radar sensor for front corner radar**

- Information:
- The white warning message with acoustic warning tone '**SWA / APW / ASW not available**' is displayed intermittently in the instrument cluster. The warning message disappears after a few seconds, even though the ignition is not switched off and on again.
  - The fault memory entry '**B200FF9 – Function restriction**' is stored in the fault memory of the Lane Change Assist control unit. This can be caused by a software error in the control unit, which detects and calculates an excessive number of objects when driving in particularly high detection environments (e.g. high traffic volume on multi-lane roads), which can lead to a runtime overrun of the processors' computing time. The control unit then sets an error code and intermittently switches off the affected assistance systems until the error routine (self-healing) is completed.

Action required: If a customer complaint exists, re-program the control units for the Lane Change Assist and for the radar sensors for the front corner radar with the PIWIS Tester and installed test software version **40.800.010** (or higher).

- Radar sensor, left front corner radar (slave)
- Radar sensor, right front corner radar (master)
- Lane Change Assist, left (slave)
- Lane Change Assist, right (master)



**Information**

If control unit programming is performed for one of the affected control units, the other control units are also programmed automatically to the required level.



**Information**

The total time required for control unit programming is **approx. 10 minutes**.

## Required tools



### Information

The Cayenne is equipped as standard with a **lithium starter battery**, which must only be charged using suitable battery chargers.

For further information about the battery chargers to be used, see:

⇒ *Workshop Manual '2706IN General information on the 12-volt lithium-ion battery'*

⇒ *Workshop Manual '270689 Charging battery/vehicle electrical system'*

Tool:

- Battery charger with a current rating of **at least 90 A** and a **current and voltage-controlled charge map** for lithium starter batteries, e.g. **VAS 5908 battery charger 90 A**
- **9900 - PIWIS Tester 3** with PIWIS Tester test software version **40.800.010** (or higher) installed

## Re-programming control unit for Lane Change Assist and radar sensors for front corner radar

### NOTICE

Use of a PIWIS Tester software version that is older than the specified version

- Measure is ineffective
- ⇒ **Always use the specified version or a higher version of the PIWIS Tester software for control unit programming and coding.**

Work procedure: 1 The basic procedure for programming a control unit is described in the Workshop Manual ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Programming"'*.

**Specific information on control unit programming in the context of this Technical Information:**

Required PIWIS Tester test software version:	<b>40.800.010</b> (or higher)
Type of control unit programming:	Control unit programming using the <b>'Automatic programming'</b> function for the right Lane Change Assist control unit (master)/Lane Change Assist, left (slave)/radar sensor for front corner radar, right (master)/radar sensor for front corner radar, left (slave):  <b>'Lane Change Assist right (master)'</b> control unit or <b>'Lane Change Assist, left (slave)'</b> or <b>'Radar sensor for front corner radar, right (master)'</b>

	<p>or 'Radar sensor for front corner radar, left (slave)' – 'Coding/programming' menu – 'Automatic programming function'.</p> <p>If control unit programming is performed for one of the affected control units, the other control units are also programmed automatically to the required level.</p>
Programming sequence:	<p>Read and follow the <b>information and instructions on the PIWIS Tester</b> during the guided programming sequence.</p> <p>During the programming sequence, the '<b>Lane Change Assist, right (master)</b>', '<b>Lane Change Assist, left (slave)</b>', '<b>Radar sensor for front corner radar, right (master)</b>' and '<b>Radar sensor for front corner radar, left (slave)</b>' control units are re-programmed and then re-coded automatically.</p> <p><b>Do not interrupt programming and coding.</b></p> <p>Once the control units have been programmed and coded, you will be prompted to switch the ignition off and then back on again after a certain waiting time.</p> <p>Backup documentation of the new software versions is then performed.</p>
Programming time (approx):	<b>12 minutes</b>
Software version programmed during programming:	<p><b>0588 (or higher)</b></p> <p>Following control unit programming, the software version can be read out of the relevant control unit in the ⇒ 'Extended identifications' menu using the PIWIS Tester.</p>
Procedure in the event of abnormal termination of control unit programming:	<ul style="list-style-type: none"> <li>• Switch ignition off and then on again.</li> <li>• Read out and erase fault memories. ⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Rework"</i></li> <li>• Repeat control unit programming by restarting programming.</li> </ul>
Procedure in the event of error messages appearing during the programming sequence:	⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"</i> .

**Concluding work**

Work Procedure: 1 Carry out general rework for control unit programming as described in ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Rework"*.

**Invoicing**

For documentation and warranty invoicing, enter the working position and PCSS encryption specified below in the warranty claim:

APOS	Labor operation	I No.
91702500	Programming control units for Lane Change Assist	

PCSS encryption:

<b>Location (FES5)</b>	91700	Lane Change Assist control unit
<b>Damage type (SA4)</b>	1613	does not function at times

References: ⇒ *Workshop Manual '2706IN General information on the 12-volt lithium-ion battery'*  
 ⇒ *Workshop Manual '270689 Charging battery/vehicle electrical system'*  
 ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*

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