

Various White Messages Regarding Driver Assistance Systems In the Instrument Cluster/Fault Memory Entry "C12D5FA" In the Control Unit for Driver Assistance Systems - ZFAS (75/25)

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

Model Year: **As of 2024**

Equipment: Reversing camera system (M-No. KA2)
or
Real Top View (4-camera system) (M-No. KA6)

Concerns: **Control unit for driver assistance systems (ZFAS)**

Cause: **The customer complains about the failure of various driver assistance systems and corresponding notes (white warning message) in the instrument cluster, for example:**

- Assistance Systems currently reduced
- Lane Keep Assist currently not available
- Active Lane Keeping currently not available
- Speed limit display not available
- Proactive occupant protection currently reduced
- Warn and Brake Assist reduced
- Driving light control faulty
- Emergency Stop Function currently not available

After an ignition change, all systems are available again and the warning messages no longer occur.

The following fault memory entry is stored in the fault memory of the control unit for driver assistance systems (ZFAS):

- **C12D5FA** – Control unit for driver assistance systems, image processing processor does not react

Cause: If the fault memory entry is **passive**, there is a possibility that electromagnetic incompatibility/influences on the video line may lead to the above-mentioned complaints.

If the fault memory entry is **active**, there is a possibility that the electrical contact of the image processing processor is faulty and leading to the above-mentioned complaints.

Action: If there is a customer complaint, check whether the fault memory entry "C12D5FA" is stored actively or passively in the control unit for driver assistance systems (ZFAS) and, depending on the result, either install a new video line or replace the control unit for driver assistance systems (ZFAS).

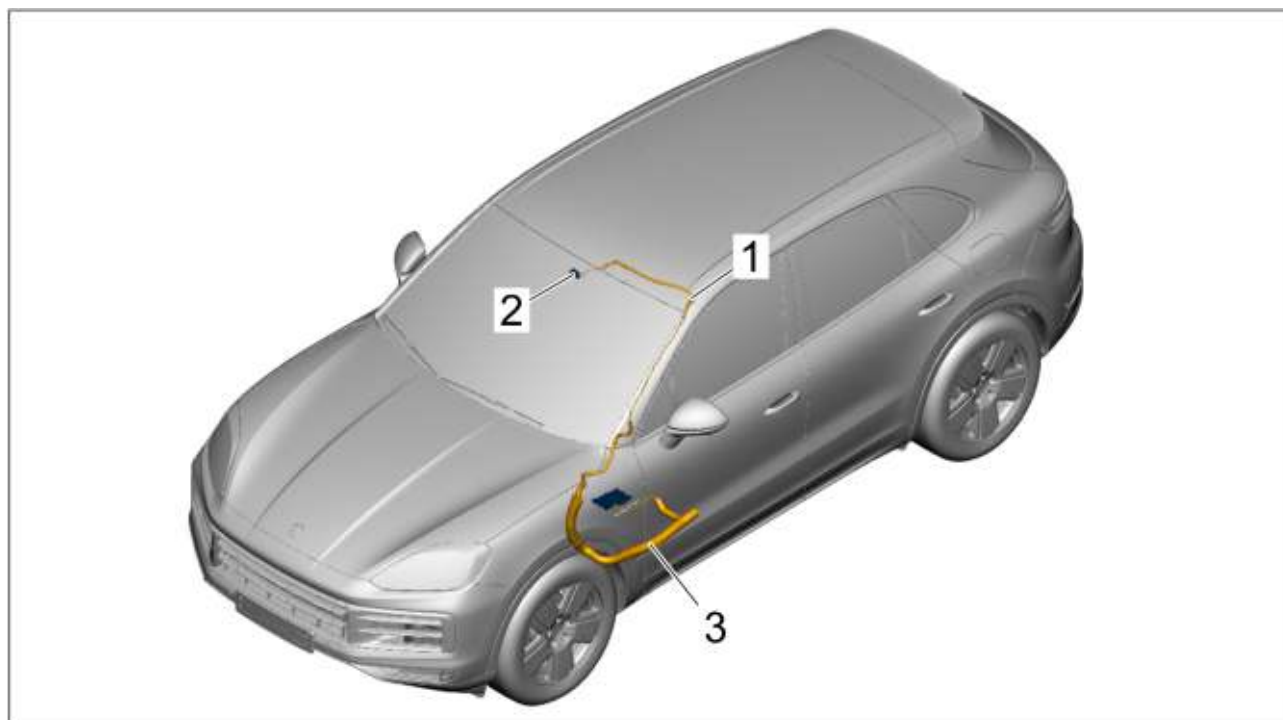
- The fault memory entry "C12D5FA" is **passively** stored in the control unit for driver assistance systems (ZFAS). Install the new video line. Continue with: ⇒ *Technical Information 'Preparatory work for rerouting the video line'*

or

- The fault memory entry "C12D5FA" is **actively** stored in the control unit for driver assistance systems (ZFAS). Replace the control unit for driver assistance systems (ZFAS). Continue with: ⇒ *Technical Information 'Replacing the control unit for driver assistance systems (ZFAS) (if the C12D5FA fault memory is actively stored)'*

Installation

Position:



Installation position for the video line

- 1 – Video line
- 2 – Front camera for driver assistance systems
- 3 – Control unit for driver assistance systems (ZFAS)

Required parts and material for installing a new video line (passive fault memory entry)

Parts Info:

Part No.	Designation – Location	Number
9J1998045Q	⇒ Repair kit for the antenna line – Including antenna connector for the control unit for driver assistance systems	1 piece

9J1998045H	⇒ Repair kit for the antenna line – Including antenna connector for the front camera	1 piece
9J1998045M	⇒ Connecting piece – Antenna line	1 piece
N 91205201	⇒ Cheese head bolt with multiple-tooth head (instrument cluster) – Seat rail on body	8 piece
N 10666302	⇒ Lens panel screw 4.2 x 19 – Sun visor on roof	4 piece
N 90799102	⇒ Countersunk screw with internal serration, self-locking M18 x 1.5 x 18 – Steering wheel on steering column	1 piece
PAF015082*	⇒ Hexagon collar nut M6 – Knee airbag for driver/passenger on dashboard	8 pieces (if required)*



Information

*Nuts are required for the knee airbags depending on the equipment of the affected vehicle.

Material: **Required material** (usually already available in the Porsche Center)

Part No.	Designation	Quantity
...	⇒ Non-woven adhesive tape, approx. 19 mm (0.75 in) wide – e.g. TESA 51616 ID	As required
...	⇒ Cable tie – Commercially available	As required

Required parts for replacing the control unit for driver assistance systems (ZFAS) (active fault memory entry)

Parts Info:	Part No.	Designation – Location	Number
	PAB9071XXX*	⇒ Control unit for driver assistance systems	1 piece

- N 91205201 ⇒ Cheese head bolt with multiple-tooth head (instrument cluster)
 – Seat rail on body 8 piece

**Information**

*Find which variant of the control unit for driver assistance systems (ZFAS) is required for the respective vehicle using the vehicle identification number in the Porsche Spare Parts Catalogue (PET2).

Required tools

Tools:

- **P90999 - Porsche Tester 4**
- 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**. For further information about the battery chargers to be used, see the corresponding Workshop Manual. ⇒ *Workshop Manual '270689 Charge battery and vehicle electrical system'*
- Torque wrench 2-10 Nm (2-8 ftlb.), e.g. **V.A.G 1783 - torque wrench 2-10 Nm (2-8 ftlb.)**
- Torque wrench 6-50 Nm (4.5-37 ftlb.), e.g. **V.A.G 1331A - torque wrench 6-50 Nm (4.5-37 ftlb.)**

Additional required tools if the video line must be rerouted:

- **VAS 6720 - Repair set for antenna lines**
- **3438 - Hooks**
- **9570/1 - Disassembly tool**
- Plastic wedge, commercially available
- Cable pull-in aid, commercially available **or** welding wire with bent ends

Preparatory work for rerouting the video line**Information**

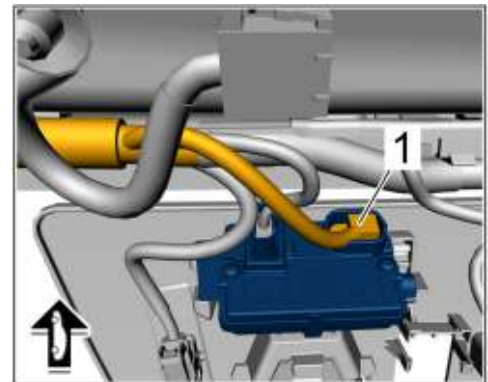
In order to ensure the fault-free functioning of the new video line, the new video line must be laid along the original main wire harness. Extensive preparatory work is required to make this possible.

- Work Procedure: 1 **Only for left-hand drive vehicles:** Remove the dashboard trim (driver's side) and, if present, remove the knee airbag on the driver side.
 ⇒ *Workshop Manual '701919A2 Removing and installing the dashboard trim (driver's side)'*
 ⇒ *Workshop Manual '697819A1 Removing and installing the knee airbag on the driver side'*
- 2 Remove the front floor covering.
 ⇒ *Workshop Manual '704119A4 Removing and installing the front floor covering'*
- 3 Remove the front roof console.
 ⇒ *Workshop Manual '708319A4 Removing and installing the front roof console'*

- 4 Remove the interior rearview mirror.
⇒ *Workshop Manual '682719A1 Removing and installing the interior rearview mirror'*
 - 5 Remove the sun visors.
⇒ *Workshop Manual '682319A1 Removing and installing the sun visor'*
 - 6 Loosen the roof trim in the area of the windshield to gain access to the video line in the area of the roof.
For work procedure, see: ⇒ *Workshop Manual '708419A4 Removing and installing the roof trim'*
 - 7 Expose the front camera and release and disconnect the plug connection for the video line ⇒ *Electrical plug connection for front camera video line -1-*.
The front camera does not have to be removed for this.
For work procedure, see: ⇒ *Workshop Manual '963819A2 Removing and installing the front camera'*

Disconnect the previous plug connection using a side cutter, secure and insulate the electrical line at a suitable point. This is no longer needed.
 - 8 Release and disconnect the previous electrical plug connection for the **white** video line on the control unit for driver assistance systems (ZFAS).

Disconnect the previous plug connection using a side cutter, secure and insulate the electrical line at a suitable point. This is no longer needed.
- **For left-hand drive vehicles:** ⇒ *Technical Information '963819A2 Rerouting the video line between the front camera (R232) and the control unit for driver assistance systems (ZFAS) - vehicles with left-hand drive'*



Electrical plug connection for front camera video line

Rerouting the video line between the front camera (R232) and the control unit for driver assistance systems (ZFAS) - vehicles with left-hand drive



Information

The new video lines are contacted at the respective front camera control unit (R232) or control unit for driver assistance systems (ZFAS) and laid along the main wire harness.

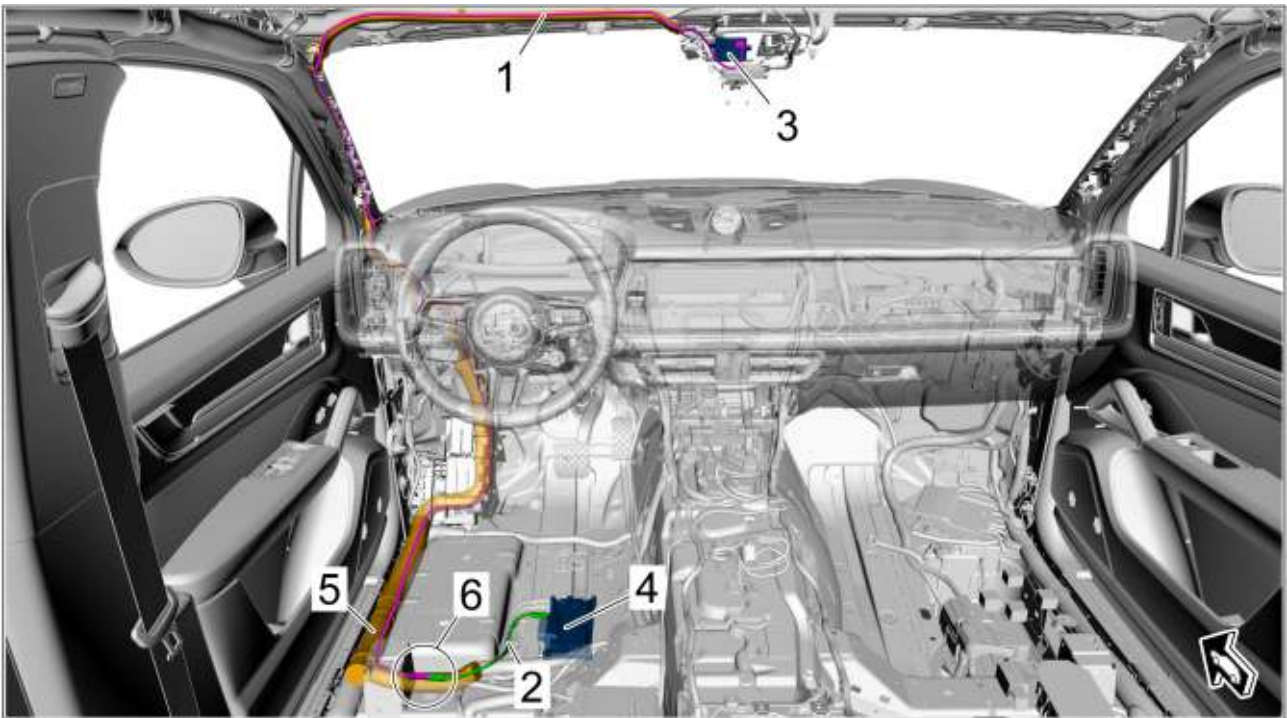
After being laid, the video lines are cut and connected to the electrical connectors from repair kit 9J1998045M.

Work Procedure: 1 Lay the new video lines.

Fasten the new video lines to the main wire harness without chafing and tension using cable ties or non-woven adhesive tape on the outside.

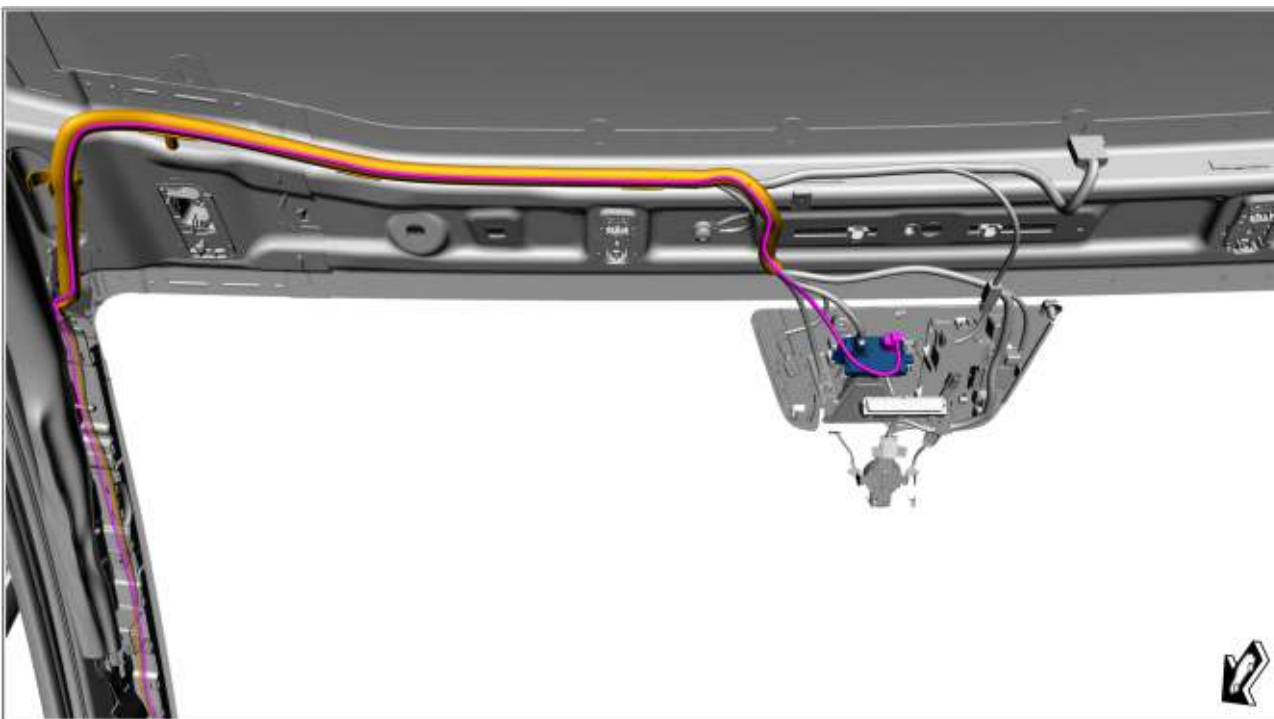
**Information**

In order to ensure the fault-free functioning of the new video lines, the new video lines must be laid along the main wire harness. Alternative routing is not expedient.



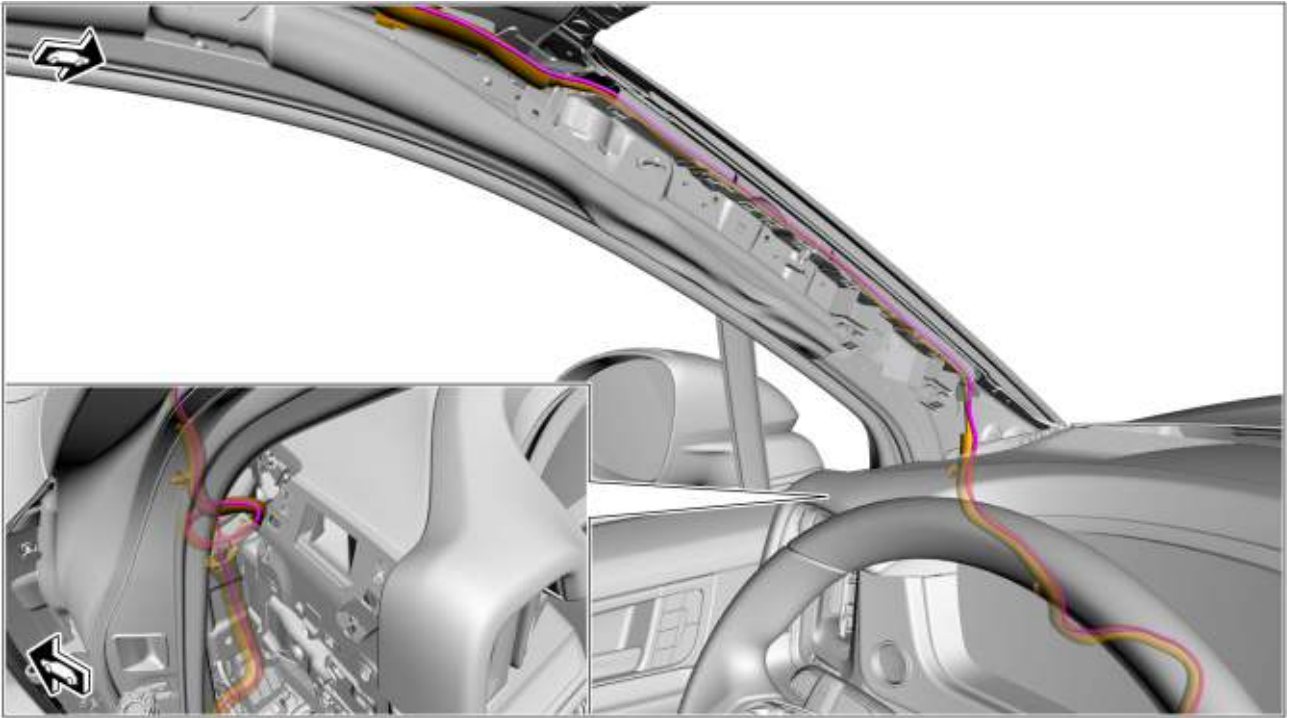
Overview of video line routing - left-hand drive

- 1.1 Contact the **new** video line 9J1998045H ⇒ Overview of video line routing - left-hand drive -1- on the front camera ⇒ Overview of video line routing - left-hand drive -3- and lay it in the direction of the control unit for driver assistance systems (ZFAS) ⇒ Overview of video line routing - left-hand drive -4- along the main wire harness ⇒ Overview of video line routing - left-hand drive -5- up to the connection point ⇒ Overview of video line routing - left-hand drive -6-.
- 1.2 Contact the **new** video line 9J1998045Q ⇒ Overview of video line routing - left-hand drive -2- on the control unit for driver assistance systems (ZFAS) ⇒ Overview of video line routing - left-hand drive -4- and lay it along the main wire harness ⇒ Overview of video line routing - left-hand drive -5- up to the connection point ⇒ Overview of video line routing - left-hand drive -6-.
- 2 Lay the video line in the roof area. ⇒ Routing in the roof area



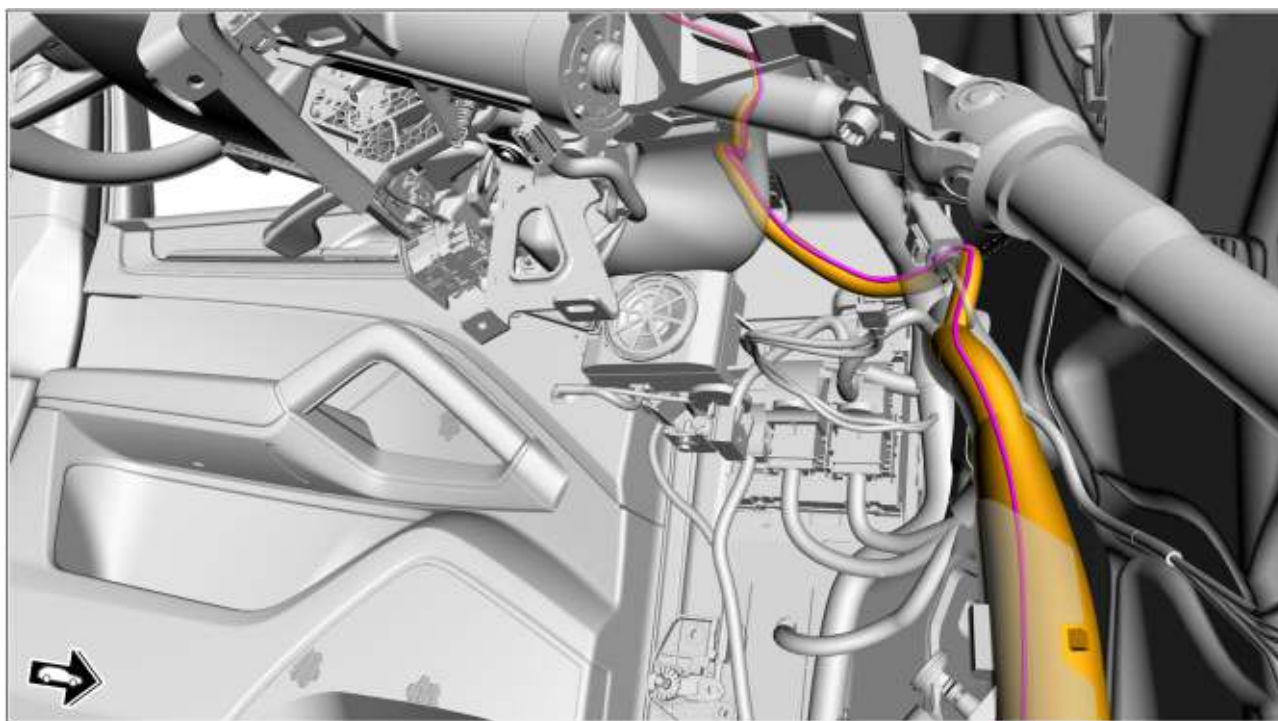
Routing in the roof area

- 3 Lay the video line in the area of the A-pillar. ⇒ *Routing in the area of the A-pillar*



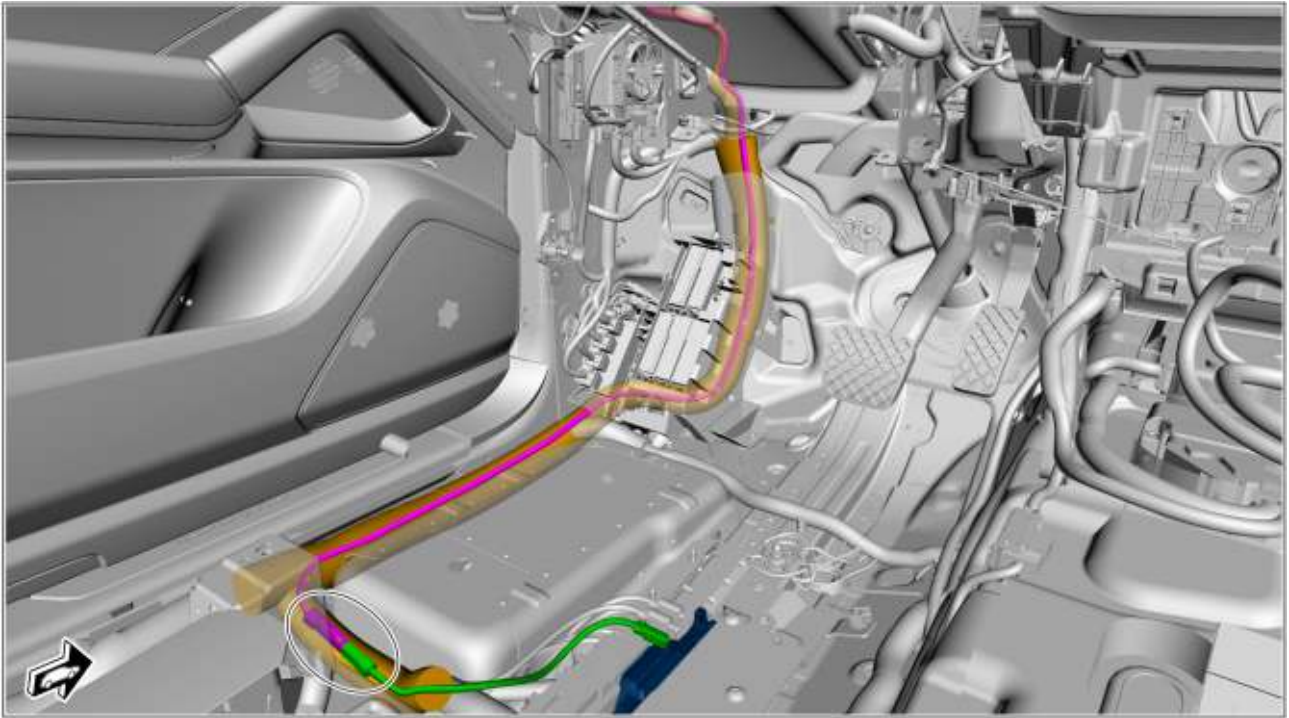
Routing in the area of the A-pillar

- 4 Lay the video line in the lower dashboard area - A-pillar. ⇒ *Routing in the lower dashboard area - A-pillar*



Routing in the lower dashboard area - A-pillar

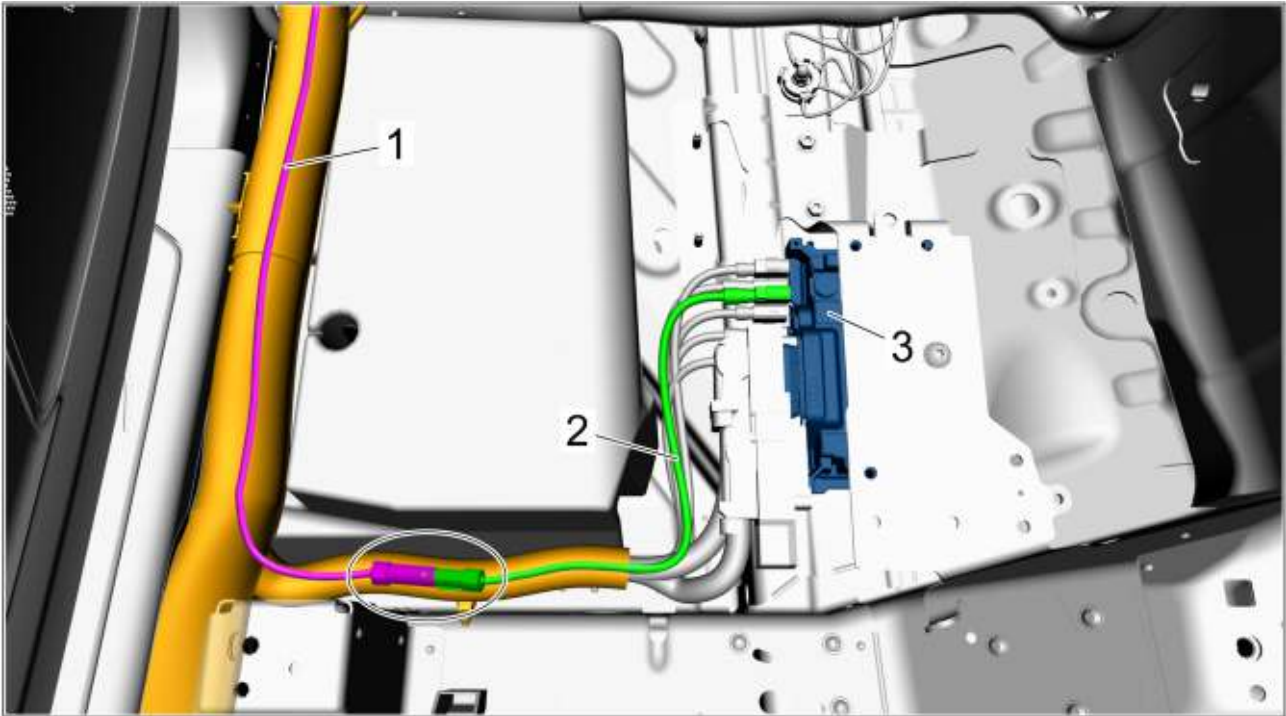
- 5 Lay the video line in the footwell - dashboard area. ⇒ *Routing in the footwell - dashboard area*



Routing in the footwell - dashboard area

Circle – Video line connection point area

- 6 Connect the video lines in the footwell area with repair kit 9J1998045M.



Footwell video line connection point



Information

Make sure that there is sufficient line protrusion in the area of the connection point so that the new video lines are laid without chafing and tension after attaching the electrical plug connections.

- 6.1 Cut both video lines $\Rightarrow$ Footwell video line connection point -1 and 2- to the required length. The connection point $\Rightarrow$ Footwell video line connection point -Circle- should be approx. 300 mm $\Rightarrow$ Footwell video line connection point -3- away from the control unit for driver assistance systems (ZFAS).
- 6.2 Attach and crimp electrical plug connections from repair kit 9J1998045M to the line ends of the video lines.
 $\Rightarrow$ Workshop Manual '912841C8 Repairing the antenna cable'
- 6.3 Contact the electrical plug connections.

Follow-up actions after rerouting of the video line

- Work Procedure: 1 Fasten the roof trim panel in the area of the windshield.
For work procedure, see: $\Rightarrow$ Workshop Manual '708419A4 Removing and installing the roof trim'
- 2 Install the sun visors.
 $\Rightarrow$ Workshop Manual '682319A1 Removing and installing the sun visor'

- 3 Install the interior rearview mirror.
⇒ *Workshop Manual '682719A1 Removing and installing the interior rearview mirror'*
- 4 Install the front roof console.
⇒ *Workshop Manual '708319A4 Removing and installing the front roof console'*
- 5 Install the front floor covering.
⇒ *Workshop Manual '704119A4 Removing and installing the front floor covering'*
- 6 **Only for left-hand drive vehicles:** Install the dashboard trim (driver's side) and, if present, install the knee airbag on the driver side.
⇒ *Workshop Manual '701919A2 Removing and installing the dashboard trim (driver's side)'*
⇒ *Workshop Manual '697819A1 Removing and installing the knee airbag on the driver side'*
- 7 Connect and switch on the battery charger.
⇒ *Workshop Manual '270689 Charging the battery/vehicle electrical system'*
- 8 Connect **P90999 - Porsche Tester 4**, switch on the ignition and start the diagnostic application.
- 9 Read out and delete all control unit fault memories.
- 10 Exit the diagnostic application, switch off the ignition and disconnect **P90999 - Porsche Tester 4** from the vehicle.
- 11 Switch off and disconnect the battery charger.
⇒ *Workshop Manual '270689 Charging the battery/vehicle electrical system'*

End of action.

It is not necessary to replace the control unit for driver assistance systems (ZFAS).

Replacing the control unit for driver assistance systems (ZFAS) (if the C12D5FA fault memory is actively stored)

- Work Procedure: 1 Remove the control unit for driver assistance systems and replace it with a **new** control unit for driver assistance systems.
⇒ *Workshop Manual '910219A1 Removing and installing the central control unit for assistance systems'*
⇒ *Workshop Manual '910255A1 Replacing the central control unit for assistance systems'*

Labor position and PCSS encryption

Labor position:

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
91282340	Rerouting the video line	
91282341	Rerouting the video line	
91025540	Replacing the central control unit for assistance systems	

PCSS encryption:

Location (FES5)	91020	Central control unit for assistance systems
Damage type (SA4)	1613	not functioning from time to time

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