Connection offline

Technical Service Bulletin

Transaction No.: **2074273/4**

91-24-05 - Car Net® 2.0 - Emergency Call Module and Communication Unit -J949- Vehicle is Offline (Not Connected)

Condition

Applicable Vehicles					
Model(s)	**Year**	**Eng. Code**	**Trans. Code**	**VIN Ranger From**	**VIN Range To**
Jetta, Golf, GTI, Passat, Arteon, Tiguan LWB, Atlas, Atlas Cross Sport	2020-2024	All	All	All	All
Taos	2022-2024	All	All	All	All
Golf, GTI, Jetta, Atlas, Atlas Cross Sport	2025	All	All	All	All

Revision Table			
Instance Number	**Published Date**	**Version Number**	**Reason For Update**
2074273/4	7/16/2025	91-24-05	Incorporate Elsa2Go tools and update diagnostic procedures.
2074273/3	10/16/2024	91-24-05	To include MY 2025 applicability.
2074273/2	8/20/2024	91-24-05	To update contact information.
2074273/1	7/3/2024	91-24-05	Original Publication.

Technical Background

Operating Control Unit (OCU/J949)

The device allowing online telematic services is called the Operating Control Unit (OCU), also known as Online Connectivity Unit. It is a cellular module manufactured by LGE and equipped with an integrated eSIM, managing the wireless communications from the vehicle to the LTE networks. Just like smartphones, the OCU shares the same unique identifiers of the IMEI and ICCID which are like the Vehicle Identification Number (VIN) of a vehicle but for a mobile device.

The OCU is installed within the vehicle in Various locations, e.g.: under rear seats, behind the dashboard, etc. The OCU requires connection to both the LTE and the GPS antenna to operate.

In addition to wireless voice and data call services, the OCU can provide various online services like Remote Function Services (Door Lock/Unlock), Vehicle Health Report and Vehicle Tracking if the applicable service is purchased by the customer.

myVW® may not fully complete the initial Register and Pairing process (R&P) after removal of transport mode during ePDI. This may result in a lack of functionality of the myVW® services.

On MY 2020 and later vehicles equipped with myVW® while performing the PDI:

Once you take the vehicle out of transport mode, it may take up to 30 minutes for the system to come online. The green LED in the overhead console is an indicator that the vehicle has made a good connection; however, the definitive status can be found in Elsa2Go. On the figure below, verify that the vehicle is " **Connected"** and Register & Pairing is marked **"Complete".** Any other status, in either of these spaces, indicates that the system is not operating correctly and requires intervention.

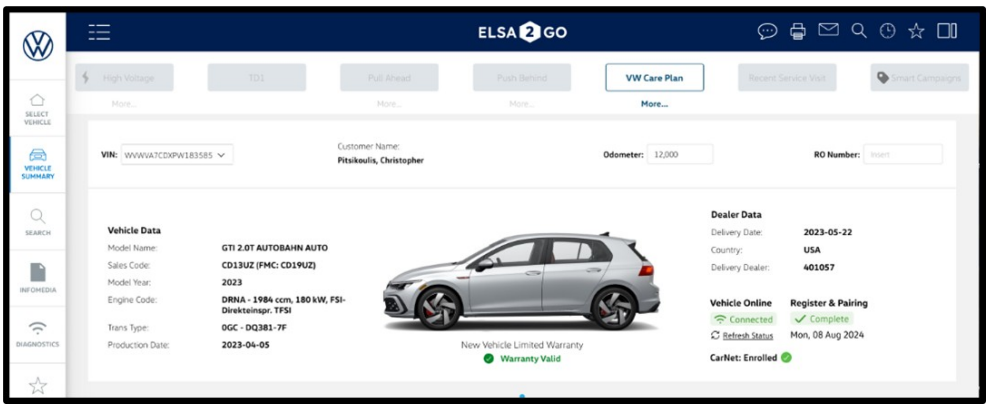

Figure 1

An incorrect status indicates that no connection was established. All vehicles equipped with myVW® need the status indicators in Elsa2Go to be as shown above; prior to being delivered to the customer.

<u>The most common causes for connectivity failure are:</u>

- Limited, or no, cellular coverage in the vehicle's current location.
  - To exclude this issue, perform a brief test drive in a different area.
  - Test drive must be 20 minutes long.
- Vehicle has faults and DTC's in ODIS.
  - Resolve all faults identified in ODIS.
- Technician did not follow the correct process to take the vehicle out of Trasport Mode.
  - Verify ODIS Service Version 7.2.1 or newer.
  - Perform the ODIS/OBD test Plan (Guided Function "Deactivate Trasport Mode) to initiate and complete R&P.

- Faulty connection between the -*J949*- and the antenna
  - Verify connectivity via GFF in ODIS.

Below is a high-level overview of the Register & Pairing process:

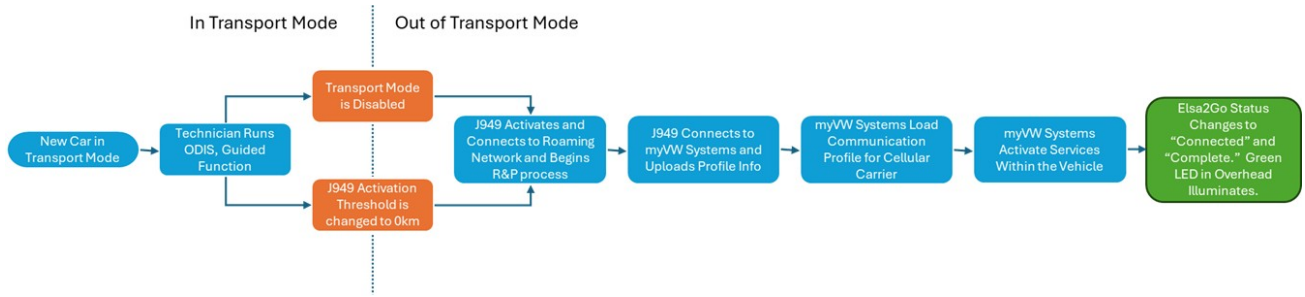

Figure 2

Production Solution

Not Applicable.

Service

In order for myVW® to successfully complete the R&P process, perform the transport mode removal test plan titled “Perform service work for vehicle handover”, auto populated under Guided Fault Finding (GFF) which includes activation & registration of the OCU”. Once the test plan completes, check the Elsa2Go status. If it still is not correct, take the vehicle outside and let it run for approximately 15-20 minutes.

If the concern still remains and the status is not correct, perform the following steps:

Part 1.

1.1. Connect the ODIS tester to the vehicle and initiate Guided Fault Finding (GFF).

1.2. Once the GFF module interrogation is complete, select Address 0075 Emergency Call Module and “right click”, then select “Adaptation”.

1.3. Search for “mobile online services, activation threshold”. If the “Current value” is NOT 0, manually change the value to 0, then attempt to re-initiate the R&P process.

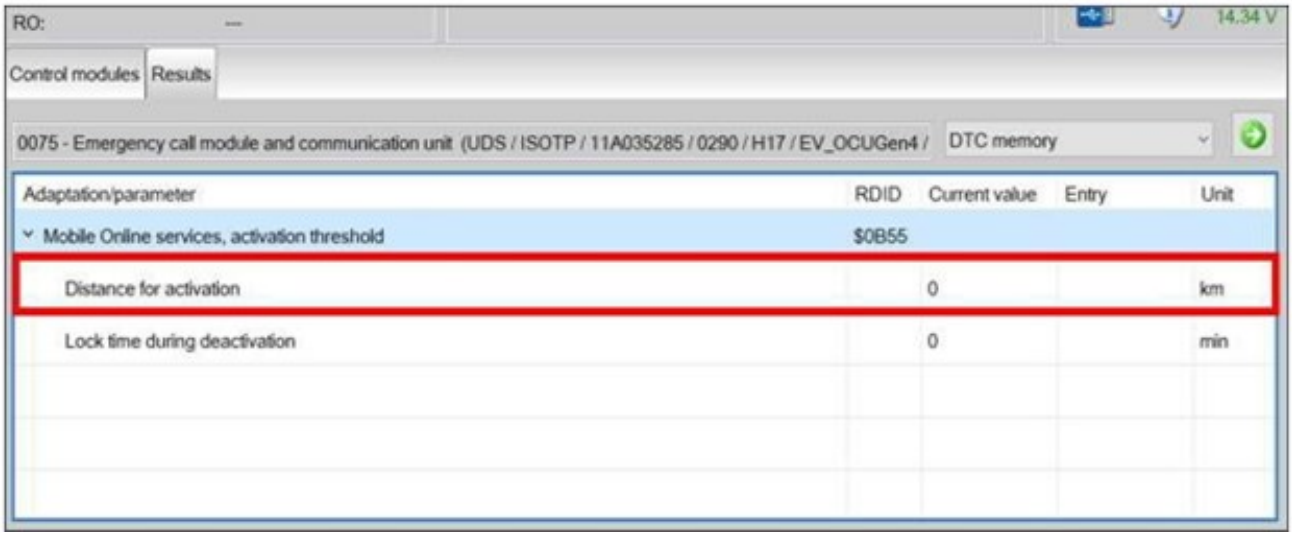

Figure 3.

If there is no change in the condition, check the measured value in Address 0075 via “Read measuring values” and search for “Status GPS Reception” and “Connection status”.

Status GPS Reception should show a minimum value of 3 satellites. Connection status Validity should read “Valid”.

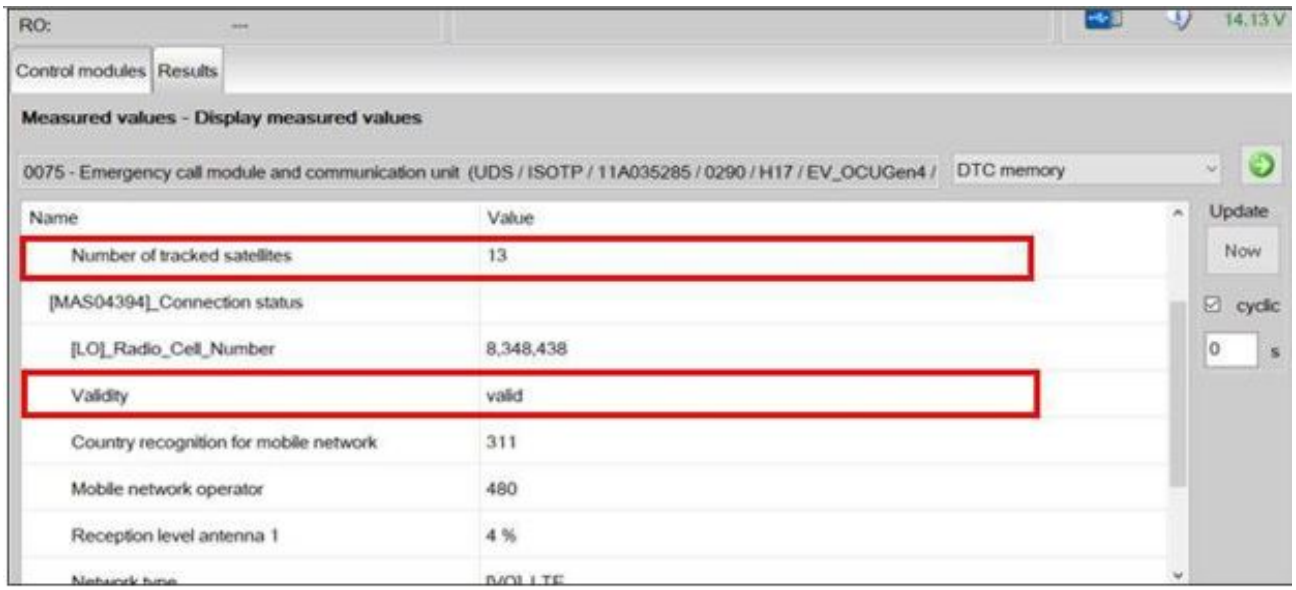

Figure 4.

If there is still no change in the condition, proceed to step Part 2.

Part 2 (With Ignition OFF)

2.1. Open the driver door.

2.2. To the left and below the steering wheel, open and remove the pull out compartment door (Approx. 4”x 6”) by pressing the detent lever inside/above, exposing the fuse box.

2.3. Remove the 7.5 amp fuse in position SC17 (for all MQB platform vehicles). The instrument cluster losing power is an indication that the proper fuse was pulled. (Figure 3.) Remove the 7.5-amp fuse in position SC19 (for all MQB-37W platform vehicles). (Figure 4.)

2.4. Wait 15 minutes with the fuse out to allow the Control Module for Emergency Call Module and Communication Unit -***J949***- internal backup battery to completely discharge.

2.5. Re-insert the fuse into the slot and reinstall the pull outdoor.

2.6. Switch the vehicle ignition ON and observe the 3-button module for 2 minutes.

2.7. Check the Elsa2Go status to see if the process was successful. (After performing any recovery task, you will need to press the "**Refresh Status**" link on the Elsa2Go screen.

2.8. If the Elsa2Go status is not correct after 2 minutes, keep the vehicle running outside for an additional 20 minutes to allow the process to complete.

2.9. After 20 minutes, check the Elsa2Go status to see if the process was successful. Status indicators have changed to **"Connected"** and **"Complete".**

Part 3 – Advanced Diagnostics

In section 2, we performed all the "easy" tasks that will resolve the majority of R&P issues. In this section, we will perform more complex diagnostics. All these steps require connecting ODIS tester to the vehicle and initiate Guided Fault Finding (GFF). Once the GFF module interrogation is complete, select Address 0075 Emergency Call Module.

3.1. Target Data Container Validation

- Objective: Confirm the -***J949***- has a valid Target Data Container
- How to Check: In your GFF paperless log under 0075 for -***J949***- look for "Target Data Container" and "Version of Target Data Container".
- Expected: Both fields should be populated, as ZDC contains critical values such as the APN and backend URL information
- Failure Indicator: If the container or version is blank or missing, configuration is incomplete
- Resolution: Run the Replacement Test Plan (RTP) or execute the Software Configuration test plan. After completion, request a new GFF log with measured values to validate the configuration update.

3.2 Transport Mode & RTP Check

- Objective: Ensure that the correct test plan was executed to bring the vehicle out of the transport mode. In the case of Replacement Test Plan (RTP), verify that all the required steps were completed.
- How to Check:
  - Search for "Test step: Test Description" and find "Action: Message" entries
  - If the test description only says "Deactivate transport mode" it indicates an incorrect or incomplete test plan was used
  - Failure Indicator: Log shows only "Deactivate transport mode" with no follow up actions (e.g. Activate OCU, Software Configuration, VKMS. For RTP, steps will be missed.

Incorrect Test Plan	Correct Test Plan	Correct Replacement Test Plan
Deactivate transport mode	Deactivate transport mode	Replace control module
-	Activate OCU	Perform initial operation

-	Reset service values (depending on equipment)	VKMS activation
-	Perform battery check	Perform software configuration
-	Reset adaptation values, Emergency battery	Adapting anti-theft immobilizer
-	Register OCU	Activate OCU
-	-	Reset control module
-	-	Register OCU
-	-	Reset adaptation values, Emergency battery

- Resolution: Run the correct test plan, and upload GFF logs with measured values.

3.3 Low Voltage Scenario

- Objective: Identify and resolve power instability affecting control modules, especially 0075F (OCU) and 005F (MIB Head Unit).
- How to Check: Search the GFF log for “Terminal 30 voltage” or DTC U140000 – Function restriction due to low voltage. Then compare model voltage values:
  - If 005F shows normal voltage (>12V) and 0075 shows low (<12V), the vehicle is likely performing a capacity discharge, which is expected and not a concern.
  - If both 005F and 0075 show voltage below 12V, this indicates a true low voltage issue.
- Expected Result: 005F should report stable voltage above 12V. Minor variation on 0075 may occur due to discharge logic.
- Failure Indicator: Both modules show voltage below 12V, along with U140000 DTC present in the log.
- Resolution: Inspect and correct any low voltage condition and update GFF logs with all measured values for review.

3.4 LTE Reception Failure

- Objective: Identify weak or absent LTE signal affecting the OCU’s ability to connect.
- How to Check: Search the GFF log for LTE signal indicators:
  - Mobile Communications: Active / Valid
  - Mobile Radio Cell, LTE Reception Level: >20%
  - GPS Reception: Valid, >2 Satellites visible
- Expected Result: LTE Reception Level should be above 20% with valid GPS lock.
- Failure Indicator: LTE below 20%, despite active/valid status and minimal satellite visibility.
-

Resolution: Park the vehicle in a open-sky location with strong LTE coverage. Perform test plan. Afterward, upload GFF log with all measured values.

3.5 VKMS Issue

- Objective: Identify failures in VKMS activation that prevent proper configuration of the control module 0075.
- How to Check: Review the GFF log for the following indicators:
- Control Module 0075: check for:
  - STATUS: Routine Aborted
  - RESULT: Incorrect Results
  - ERROR-CODE: 33 (Note: not all VKMS issues included in this code)
- Also look for DTCs such as:
  - 0075 B18B0F0-VKMS: Missing adaptation
  - 0075 B18B0F1-VKMS: No basic data supply available
- Expected Result: VKMS test completes successfully with confirmation that “VKMS data OK” is shown on all ECU’s.
- Failure Indicators: VKMS test plan fails or aborts, often showing ERROR-CODE: 33or the listed DTCs.
- Resolution:
  - Run the Replacement Test Plan (RTP) and wait for a 10-minute bus sleep (which includes VKMS, or
  - Perform the VKMS Test Plan via ODIS
  - If it fails, retry at the next full hour + as few minutes (e.g. (9:28 > 10:05)
  - Confirm “VKMS data OK” across all ECU’s
  - Exit diagnostics, lock the vehicle, move the key at least 50 ft. (> 15 meters) away and wait 30 minutes
  - Perform an ignition cycle and verify connectivity status in Elsa2Go
  - Request updated GFF logs for validation

3.6 DTC Codes to Monitor

DTC Code	Description	Implication
B20004B	Faulty Control Module	Indicates possible hardware or software corruption in the module.
B14D796	Emergency Call/Comm Module Internal Malfunction	Internal failure of -J949- OCU module.
U101300	Control Module Not Coded	Module not fully coded; requires software configuration

B200500	Data Record Invalid related to eCall-flashing red light	ECU configuration is incomplete or corrupt.

3.7 eCall – Flashing Red Light (SOS)

- Objective: Address the red SOS light caused by invalid or missing data record in the module.
- How to Check: Search the GFF log for DTC:
  - B200500 – Data Record Invalid related to eCall
- Expected Result: No presence of B200500 and green light active on SOS button.
- Failure Indicator:
  - Red flashing SOS light in vehicle
  - GFF log confirms B200500
- Resolution: Run the Replacement Test Plan (RTP) and upload GFF logs with all the measured values.

3.8 MNO Data Parameter / Connection Issue

- Objective: Validate the OCU's ability to connect to the mobile network and backend by reviewing Data and TCP connection states.
- How to Check: Use the GFF log to inspect these parameters under address 0075 (-***J949***-):
  - /Param DataRecor/Param DataConneState > should be active
  - /Param DataRecor/Param TCPConneState > should be active
- Expected Result: Both parameters must be active for successful network and backend communication.
- Failure Indicator: If either value is not active, communication cannot be established.
- Reference – OCU Measured Parameters (Example):

Paramenter	Value	Expected / Notes
/Param_DataRecor/Param_DataConneState	not active	Should be active
/Param_DataRecor/Param_TCPConneState	not active	Should be active
/Param_DataRecor/Param_MobilCountCode	311	
/Param_DataRecor/Param_MobilNetwoCode	480	
/Param_DataRecor/Param_MobilNetwoValid	valid	
/Param_DataRecor/Param_NetwoType	LTE	
/Param_DataRecor/Param_RadioCellNumbe	86150422	

/Param_DataRecor/Param_RecepLevel	18	
/Param_MatchRecorDataIdent	1A63	
/Param_RecorDataIdent	Network_Connectivity	
/Param_RespoServId	98	

- MNO & APN Reference Table:

Network	MCC	MNC	APN
Bootstrap	310	410	info.m2mcubic.com
Verizon	311	480	vzwb2binternet
T-Mobile	310	260	b2bvwg.tmous
Rogers	302	820	b2b.vwgroup

Part 4: Next Steps

4.1. Once ALL the above steps have been completed, and the vehicle is not "**Connected**" and "**Complete**", the -J949- module should be replaced and the complete Register and Pairing process shall be completed for the replacement module.

4.2. If, after replacing the -J949- module, the Elsa2Go status is not correct, create a VTA/TAC Car Net Web ticket.

For the replacement of the -J949- module, all the test steps described above must be performed prior to creating the VTA/TAC Car Net Web ticket. DO NOT REPLACE THE -J949- MODULE A SECOND TIME WITHOUT SPECIFIC DIRECTION FROM VW.

4.3. The VW Helpline Web Ticket need to include the following information in addition to the customary information submitted with all VTA/TAC Car Net Web tickets:

- All information should be related to the replacement -***J949***-, do not include any information associated with the original -J949-.
- IMEI for the replacement -J949-.
- Verification that the vehicle was in an area with known good cell coverage.
- From ODIS Measured Values:
  - Number of tracked satellites
  - Country recognition for mobile network
  - Mobile network operator
  - Reception level antenna 1
  - Network type

Figure 5. SC17

Figure 6. SC19

Warranty

Information only.

Required Parts and Tools

No Special Parts required.

No Special Tools required.

Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.