

Title After Software Update Fails and VIDA Can't Connect,
VGM Unresponsive
Ref No US36514.4.2 en-US
Issuer Technical Service
Partner 3 US 7510 Volvo Car USA, LLC

Status Released
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Reference

Func Group 3900

Func Desc media, navigation and communication

Attachment

File Name	File Size
CMA_VGM_Location.jpg	0.0845 MB
S90_VGM_Location.JPG	0.0720 MB
SPA_VGM_Location.jpg	0.0644 MB

Rows beginning with * are modified

Note! If using a printed copy of this Technical Journal, first check for the latest online version.

Description:

***Added VST Operation No.**

If the vehicle is experiencing problems communicating with VIDA, especially in relation to after a failed SWDL, this could be related to the VGM is not responding. Please see text under Service for advice.

Note: This TJ only applies to vehicles with the Android Automotive Operating System.

VGM = Vehicle Gateway Module

SWDL = Software Download

POT = Power Operated Tailgate

OBD = On-Board Diagnostic

ECU = Electronic Control Unit

VOE = Vehicle Over Ethernet

DICE = Diagnostic Communication Equipment

VIN = Vehicle Identification Number

CSC Customer Symptom Codes

Code	Description
22	Diagnostic communication/Wired diagnostic connection to vehicle does not work
23	Diagnostic communication/WiFi diagnostic connection to vehicle does not work

24	Diagnostic communication/Remote diagnostic connection to vehicle does not work
2V	Technician information/Software/Vehicle communication/Not for warranty use

DTC Diagnostic Trouble Codes

Vehicle Type

Type	Eng	Eng Desc	Sales	Body	Gear	Steer	Model Year	Plant	Chassis range	Struc Week Range
224							2023-9999		-	202222-999952
225							2023-9999		-	202222-999952
227							2023-9999		-	202222-999952
234							2022-9999		-	202122-999952
235							2022-9999		-	202122-999952
236							2022-9999		-	202122-999952
238							2022-9999		-	202122-999952
246							2022-9999		-	202122-999952
256							2023-9999		-	202222-999952
536	ED	E400V6					2021-9999		-	202037-999952
536	EF	E400V2					2022-9999		-	202146-999952
536	EH	E400V8					2024-9999		-	202317-999952
536	EP	E400V16					2024-9999		-	202317-999952
536	ER	E400V12					2024-9999		-	202317-999952
536	K7	BK7KERS					2023-9999		-	202222-999952
536	K8	BK8KERS					2023-9999		-	202222-999952
536	K9	BK9KERS					2023-9999		-	202222-999952
536	L1	BL1KERS					2023-9999		-	202222-999952
536	L3	BL3KERS					2023-9999		-	202222-999952
536	L5	BL5KERS					2023-9999		-	202222-999952
539							2022-9999		-	202139-999952

Service:

If SWDL fails, the VGM may end up in an unresponsive state. To identify if this has happened, the most indicative symptom is that the car does not show up in VIDA. The car might be readable with DICE, but it will not be possible to perform a reload or get out of this unresponsive state via the DICE.

Prior to fault tracing, please check that there is no aftermarket dongle attached to the OBD connector; this might interfere and cause issues with the vehicle's diagnostic communication.

To get the car communicating through VIDA, please perform the following steps:

Exchange:

1. Press the OnCall/Connect/Talk Bubble button; if the call is connected, this might trigger the VGM to respond in VIDA. If this doesn't help, continue with the below step.
 2. *Exchange the VGM with a donor VGM if there is one available (the HW part numbers do not need to match); if the car shows up in VIDA, connect to the car. Without disconnecting the VIDA connection, remove the donor VGM and replace it with the original VGM (it is important that this step is executed within a few minutes).
 3. If the car still shows up in VIDA, and diagnostic communication is possible, perform a reload of the VGM. If successful, the VGM is now restored.
- Important: be sure NOT to confuse the VGM with the POT—see "SPA_VGM_Location.jpg", "CMA_VGM_Location.jpg", and "S90_VGM_Locations.jpg" for example VGM locations. Always consult VIDA for VIN-specific component location information.

If a donor VGM is not available, a new VGM will need to be ordered. If this is the case, please repeat the above procedure, starting at step 2. If the procedure is executed successfully, the new VGM can now be used as a donor VGM in future cases similar to the one described in this TJ.

Recovery:

1. With the new/donor VGM installed and using a VOE OBDII adapter (i.e. - NOT with a DICE or VIDA WiFi), perform an "Existing" vehicle readout with VIDA.
2. Click on the Advanced Test button (Software Installation tab >> Advanced Test, in the top-right corner).
3. Quickly swap the original VGM with the new/donor VGM.
4. Watch the communication box and wait for it to turn green.
5. Click "Enable Programming" (Software tab >> Advanced Test button in the top-right corner >> Enable Programming Mode button)
6. Confirm the VGM is now in "Programming" mode.

Software Download:

If the VGM is now successfully in "Programming" mode:

- Perform a VGM Reload. The VGM is now restored.

If the VGM is **NOT** in "Programming" mode:

- Perform an ECU "Reset" (Software tab >> Advanced Test button in the top-right corner >> Reset button)
- The VGM status should now show as "Extended"

- Click "Enable Programming" (Software tab >> Advanced Test button in the top-right corner >> Enable Programming Mode button)
- Confirm the VGM is now in "Programming" mode.
- Perform a VGM Reload. The VGM is now restored.

If the VIDA connection is not established by the above method, please contact RTS.

Note:

TJ 31946 advises against exchanging components between cars for testing purposes. If unsure on the procedures and methods described in the above steps, please contact RTS for assistance related to this TJ; see under Vehicle Report.

Warranty Claim Info:

To get a warranty claim accepted for a job described in this TJ, please use the attached VST Operation No.

VST Operation Number

VST Operation No.	Description
36004-2	Software control module downloading
98773-2	Control module (VGM) check acc. to TJ

Vehicle Report:

Yes, please submit a Vehicle Report if the service solution described in this TJ has no effect. Use concern area "Vehicle Report" and sub concern area "Support needed", use function group 3900.

To view TJ attachments continue to next page. This TJ has 3 attachments.