



Technical Journal Title <b>Internet Connectivity symbols in CCD</b>		Ref. No. <b>TJ 36187.3.2</b>	
Issuer (Dept.) <b>Technical Service</b>		Issue Date <b>6/2/23</b>	Status Date <b>6/12/23</b>
Car Market <b>United States and Canada</b>	Partner <b>3 US 7510 Volvo Car USA</b>	Function Group <b>3975</b>	
Function Description <b>Mobile data services, general</b>		Page <b>Page 1 of 5</b>	

**Attachment**

<b>File Name</b>	<b>File Size</b>
Google Built-in Connectivity Fault Tracing (1).pdf	0.7355 MB
Know Your Triangles.pdf	0.1573 MB

Rows beginning with \* are modified

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

**DESCRIPTION:**

**NOTE: Do not replace TCAM units for the symptoms described below.**

If the vehicle has no internet connection and shows any of the following three symbols (see attached "Know Your Triangles.pdf" for reference) at the top of the CCD:

1. "Hollow Triangle With An X"
2. "LTE Full Triangle With An X"
3. "Full Triangle With An X"

Please see advice under "Service."

CCD = Central Console Display  
 DIM = Driver information Module  
 BUB = Back up battery  
 T&C = Terms & Conditions

**CSC** Customer Symptom Codes

<b>Code</b>	<b>Description</b>
EM	Internet Connection/Does not work
7N	Navigation/Other navigation problems
EO	Navigation/Does not work

**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
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							2021-9999		-	202037-999952
539							2022-9999		-	202139-999952

**SERVICE:**

**Full Triangle With An X:**

**This symbol will most likely appear when cellular connection is present, but internet services are disabled.**

**Customer Questionnaire:**

- When was this issue first detected? During or in between driving cycles?
- For how long has this issues been present?
- Is the navigation system and GPS working as expected or is there a message in DIM stating “Searching for GPS”?

**Support:**

- Verify that Vehicle SIM Data is enabled in the Settings-->Connectivity menu. If found disabled, wait a few minutes before proceeding with fault tracing to see if full connectivity is restored.
- Perform an IHU restart by pressing and holding the home button for approximately 20 seconds.
- If symptom is still present, do a TCAM restart by pressing and holding the front defrost button for approximately 20 seconds.
- If no change after 24-48 hours and no known network disturbances have occurred, please fault trace as normal using VIDA.

**Hollow Triangle with X:**

**This symbol will most likely appear when there is an issue relating to the TCAM unit.**

**Customer Questionnaire:**

- When was this issue first detected? During or in between driving cycles?
- For how long has this issue been present?
- Is the navigation system and GPS working as expected or is there a message in DIM stating “Searching for GPS”?

**Support:**

- Confirm that a TCAM Certificate has not inadvertently been removed by navigating to the Remote Services section in VIDA (Planning & Diagnostics-->Diagnostics-->Remote Services-->Click on orange box and follow instructions)
- If the customer has done a TCAM restart via the front defrost button and 24-48hrs have passed without any improvement, please try to reset the TCAM through the VIDA application.
- If no diagnostic connection is possible, a hard reset of the TCAM BUB (Back-Up Battery) and 12V Main battery (by physically disconnecting power) is needed. Please observe that the BUB needs to be disconnected **prior** to disconnecting the 12V Main battery.

**LTE Full Triangle With An X:**

**When LTE is displayed this means that the TCAM unit is connected to a network.**

**Issue is likely to be caused by either a network issue or communication issue between IHU and TCAM.**

**Customer Questionnaire:**

- Has the customer accepted the T&C process?
- When was this issue first detected? During or in-between driving cycles?
- For how long has this issue been present?

**Support:**

- Verify that Vehicle SIM Data is enabled in the Settings-->Connectivity menu. If found disabled, wait a few minutes before proceeding with fault tracing to see if full connectivity is restored.
- Perform an IHU restart by pressing and holding the home button for approximately 20 seconds.
- If symptom is still present, do a TCAM restart by pressing and holding the front defrost button for approximately 20 seconds.
- If no change after 24-48 hours and no known network disturbances have occurred, please fault trace as normal using VIDA.

**For additional information, please reference the attached “Google Built-in Connectivity Fault Tracing (1).pdf” and visit the Connected Car Support site: [connectedcarsupport \(volvocars.biz\)](http://connectedcarsupport.volvocars.biz)**

**Warranty claim info:**

To get warranty claim accepted for a job described in this TJ, following data must be used:

Failing Part: No part replacement accepted

VST OP number: 99922-2, General reimbursement acc. to TJ/QB

**Note:** TJ number must be stated in repair order text!

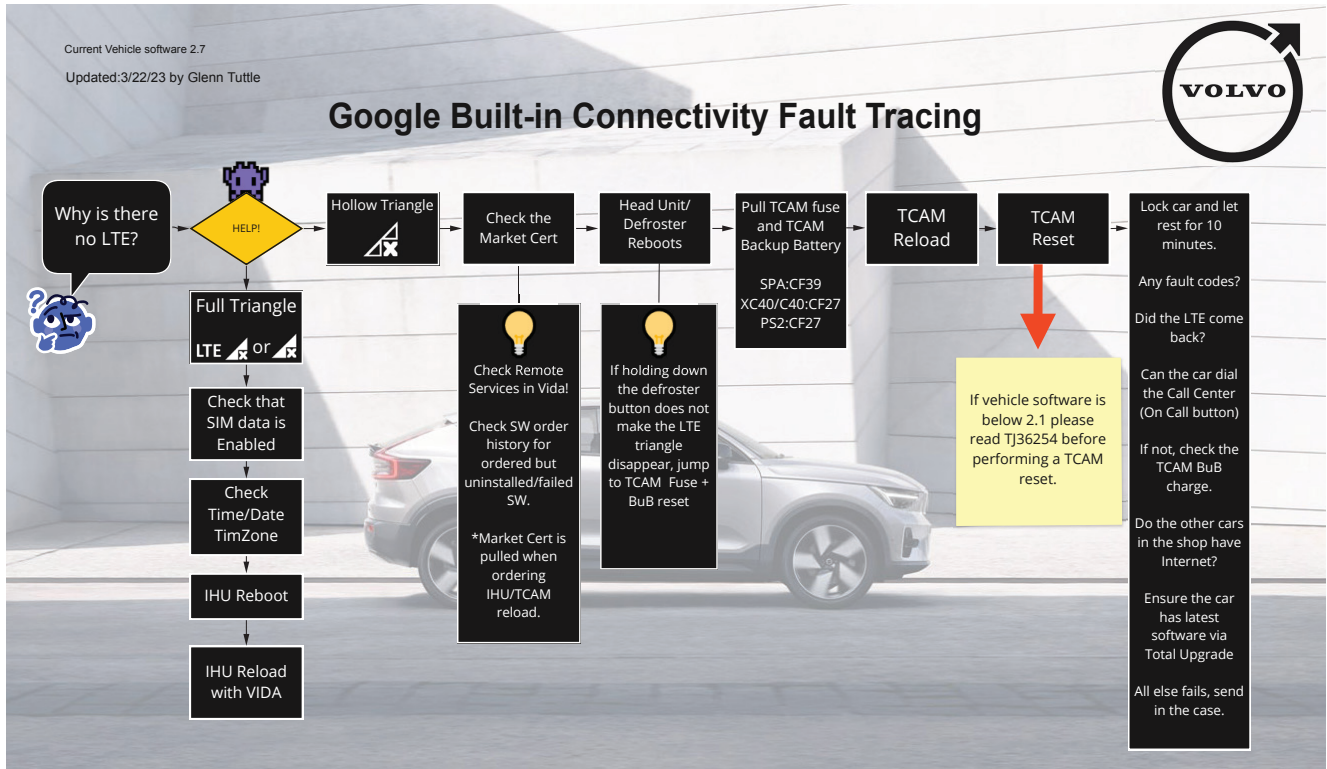
**VST Operation Number**

VST Operation Number	Description
99922-2	General reimbursement acc. to TJ/QB

**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 3975.

**To view TJ attachments continue to next page. This TJ has two attachments.**



**KNOW YOUR TRIANGLES**  
(GOOGLE BUILT-IN)

**LTE**

**"FULL LTE"**  
You have full connection to the cellular network, Internet, and Google.

**LTE**

**"LTE FULL TRIANGLE WITH AN X"**  
You have a cellular connection but cannot establish a valid Internet connection.

**"HOLLOW TRIANGLE WITH AN X"**  
You have neither cellular nor a Google/Internet connection.

**"FULL TRIANGLE WITH AN X"**  
You have a cellular connection but limited Internet services.

Updated: December 14, 2022  
Current App v5.22  
Current Car SW 2.5