



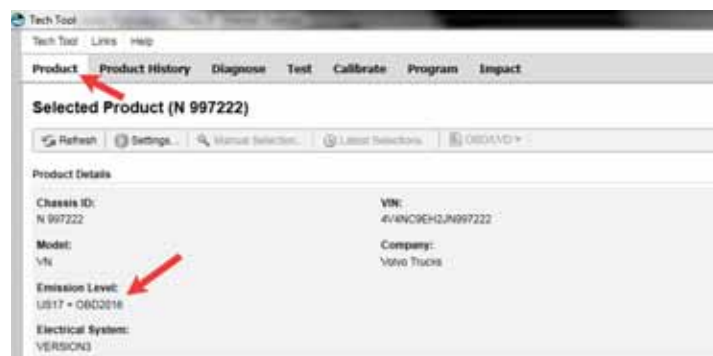
## Solution

**Title (customer effect)** Volvo Chassis - Telematics Gateway ( TGW, MID 142 ) Losing Communication With The Instrument Cluster ( IC ) - "Volvo Link Hardware Failure Use Paper Log" Displayed In The Driver Information Display - Counts Of Fault Code (FC) MID 140 PSID 239 FMI 12 Data Link, Volvo Link Logging, Possibly Following Engine Start; TGW Possibly Missing From Product Information In Premium Tech Tool - **OBD13 Through OBD16 Emissions With TGW1 Or TGW2**

**Cause** Volvo Link Hardware Failure Use Paper Logs may appear on the DID or counts of MID 140 PSID 239 FMI 12 may log in chassis equipped with telematics modules. The code and message may appear together or independently.

**Solution** **Verify the chassis emissions level first.**

- Details can be found in the Product Details box on the Product tab in PTT as seen below:



## Repair

### - US10+OBD13 and Certain US14+OBD13 (TGW1):

Chassis built commonly from late Model Year 2013 through the beginning of Model Year 2015 utilized the first generation Telematics Gateway, TGW1. First-gen TGWs utilized 2G cellular technology, which at the time of introduction had been in use by all cellular providers for several years. AT&T, the service provider for all TGWs, shut down its 2G networks at the beginning of 2017. Other US providers are currently moving to follow suit. With the shutdown of 2G networks, TGW1s ceased broadcasting.

- **It is not possible to replace a TGW1 with a TGW2.** If a chassis is having issues with a TGW1, it needs to be removed from the system.

**- If "Volvo Link Failure Use Paper Log" is displayed in the DID and/or MID 140 PSID 239 FMI 12 is logging regularly:**

1. Using Premium Tech Tool (PTT), use Operation [1700-22-03-06 Accessory Kit](#) under the Program tab to run [Accessory Kit 85151006](#).
2. Run PTT Operation [1700-08-03-39 Program Electronic Control Unit](#) and program the Information Display (MID 140).
3. Remove [Fuse F13](#).
4. Remove the harness connector from the TGW.
5. Check operation.

**- US14+OBD13 And US14+OBD15 (TGW2)**

1. Refer to [Tech Tip TT-001-2017 FIRST](#) and ensure software is correct as specified.
  - **This Tech Tip covers situations where the TGW is showing a Product Data mismatch or is not present in the Product Information in PTT.**
    - **NOTE:** The key cycle operation described in the Tech Tip may need to be repeated multiple times before the module properly powers up.
    - Because this issue can be related to battery voltage during cranking, battery connections and grounds should be ensured clean and tight. Batteries should be tested and verified to be in good condition.
2. Once all of the above information is reviewed and verified:
  - A. Using Premium Tech Tool (PTT), use Operation [1700-22-03-06 Accessory Kit](#) under the Program tab to run [Accessory Kit 85152126](#).
  - B. Run PTT Operation [1700-08-03-39 Program Electronic Control Unit](#) and program the Information Display (MID 140).
  - C. Check operation.

**- US14+OBD16 (TGW2)**

1. Because this issue can be related to battery voltage during cranking, battery connections and grounds should be ensured clean and tight. Batteries should be tested and verified to be in good condition.
2. Once batteries and connections are verified:
  - A. Using Premium Tech Tool (PTT), use Operation [1700-22-03-06 Accessory Kit](#) under the Program tab to run [Accessory Kit 85152126](#).
  - B. Run PTT Operation [1700-08-03-39 Program Electronic Control Unit](#) and program the Information Display (MID 140).
  - C. Check operation.

**- US17+OBD16 And Newer**

- The issues described above do not occur in GHG17 and newer chassis. If MID 140 PSID 239 FMI 12 or the Hardware Failure message is occurring, normal diagnostic procedures should be followed.

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Solution visibility

[Dealer distribution](#)

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**Function(s)/component(s) affected**

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Function affected TT , 12 1 0 TGW2 , MID 140 – IC04 / IC05 , MID 142 – RAL , Diagnostic tool

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## Function Group

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Function Group 365 entire vehicle control system , 397 mobile data services , 398 telematics systems

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## Customer effect

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Main customer effect calibration/programming/pairing/missing operation , diagnostics/methodology , efficiency/abnormal behavior , fault code/display

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Lights/Messages on information display message on display

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## Fault code(s)

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NA\_MIDs MID 140 PSID 239 FMI 12 , MID 142

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## Conditions

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Vehicle operating mode on start-up , when driving , when stationary

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Frequency of occurrence of problem always

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## Administration

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Last modified by RU4469V

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Number of scores 2

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## NA\_VOLVO\_Vehicle\_Range

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**NA\_VOLVO\_Vehicle\_Range** VNX , VNL , VNM , VHD , VAH

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## Engine family

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Engine family Volvo , Mack

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## Emission Standard

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Emission Standard US16 , US15 , US10 , US13 OBD , US14 GHG

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