

# Preview Solution CBR-2451-3

## Troubleshooting Mismatches - VN (4)

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### Valid For

Volvo chassis - VN (4)

Model Year - 2025 to current

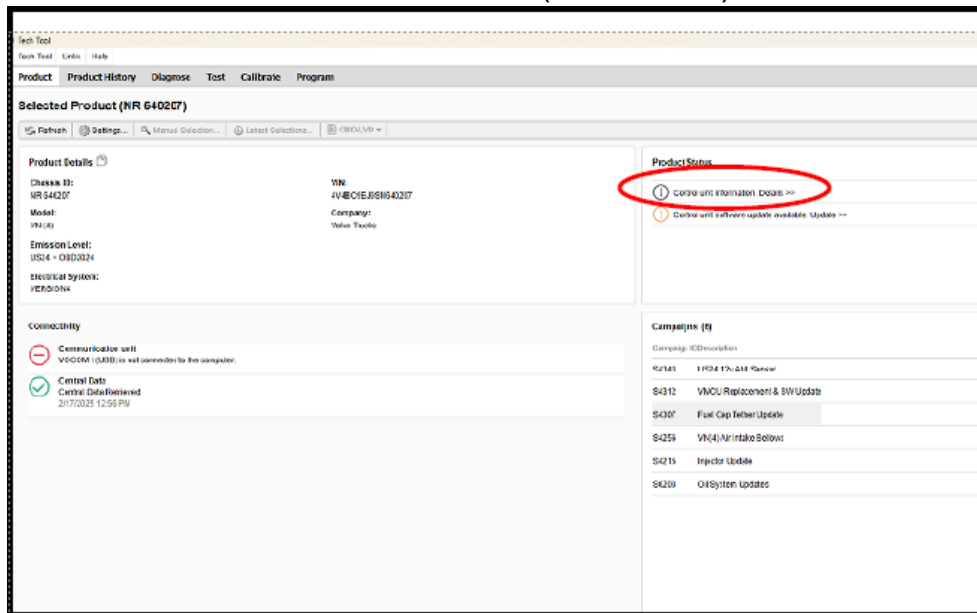
### 1.0 Overview

Troubleshooting with PTT will require a general knowledge of identifying mismatches. This document provides an overview of finding these mismatches.

### 2.0 Finding Mismatches

#### 2.1 Where To Look

From the product screen, mismatches can be found by clicking on the Control Unit Information. Details >> field (circled below).



#### 2.2 No Mismatches

The image below depicts no mismatches, as indicated by the column of green check marks.

Control Unit	Product Data	Central Data	Hardware	Sub hardware	Software
Engine Control Module (EMS)		✓			
Aftertreatment Control Module (ACM)		✓			
Transmission ECU (TECU)		✓			
Rear Chassis I/O Module (RCIOM)		✓			
Center Chassis I/O Module (CCIOM)		✓			
Front Chassis I/O Module (FCIOM)		✓			
Air Production Modulator (APM)		✓			
Vehicle Master Control Unit (VMCU)		✓			
Electronic Brake System (EBS)		✓			

### 2.3 Mismatch Preasent

Mismatches, when present, can be identified by a red circle with a white dash in one of the columns. For the scenario pictured below, a CCIOM Sub Hardware Mismatch is present.

Control Unit	Product Data	Central Data	Hardware	Sub hardware	Software
Aftertreatment Control Module (ACM)	✓	✓	✓	✓	✓
Passenger Door Module (PDM)	✓	✓	✓	✓	✓
Battery Power Management Unit (BPMU)	✓	✓	✓	✓	✓
Air Production Modulator (APM)	✓	✓	✓	✓	✓
Center Chassis I/O Module (CCIOM)	✓	✓	✓	✗	✓
Transmission ECU (TECU)	✓	✓	✓	✓	✓
Vehicle Master Control Unit (VMCU)	✓	✓	✓	✓	✓
Trailer Body I/O Module (TBIOM)	✓	✓	✓	✓	✓

### 2.4 Identifying the Mismatched Component

- First, click on the affected control unit to pull up further details.

Air Production Modulator (APM)	✓	✓	✓	✓	✓
Center Chassis I/O Module (CCIOM)	✓	✓	✓	✗	✓
Transmission ECU (TECU)	✓	✓	✓	✓	✓
Vehicle Master Control Unit (VMCU)	✓	✓	✓	✓	✓
Trailer Body I/O Module (TBIOM)	✓	✓	✓	✓	✓

- In the Details menu, click on the mismatched component (ex. Sub Hardware, Software).

Details (Center Chassis I/O Module (CCIOM))					
▶ Hardware					
▶ Sub hardware					
▶ Software					

- The affected component will be marked with a red circle (as pictured below).

Details (Center Chassis I/O Module (CCIOM))

	Part Number		Serial Number	
	Product Data	Central Data	Product Data	Central Data
Sub hardware	23360304	23360304	00000204	09000204
Battery Sensor, SOC/SOH	24696834	24696834	22037463	22037463
Battery Sensor, SOC/SOH	24696834	24696834	22035533	22035533
Battery Sensor, SOC/SOH	-	24696834	-	22028173

- Note: The numbers in the central data column represent a part number that can be entered into Impact if the component is unknown.

## 2.5 Troubleshooting the Mismatch

Components affected by mismatches can generally be brought back online by simply unplugging the unit and plugging it back in. The following sections will outline the locations of several components which may experience a mismatch.

### 2.5.1 IP and BB PDCs (Power Distribution Centers)

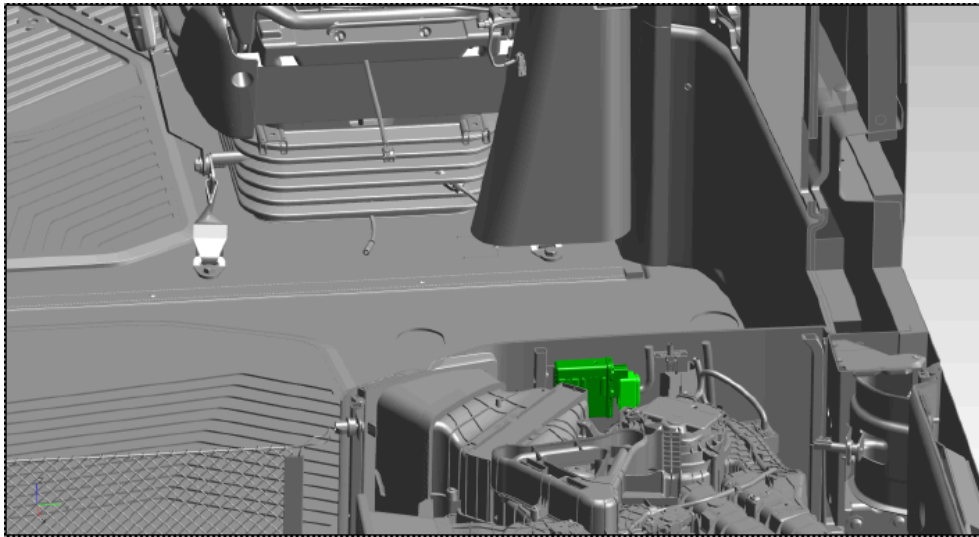
The IP and BB PDCs are a subhardware of the VMCU. They are located in the electrical center, behind the Cab Fuse & Relay Center (FRC). NOTE that the Cab FRC must be removed in order to access the PDCs.



View of the Cab Electrical Center with the Cab FRC Removed 1: IP PDC  
2: BB(a) PDC  
3: BB(b) PDC

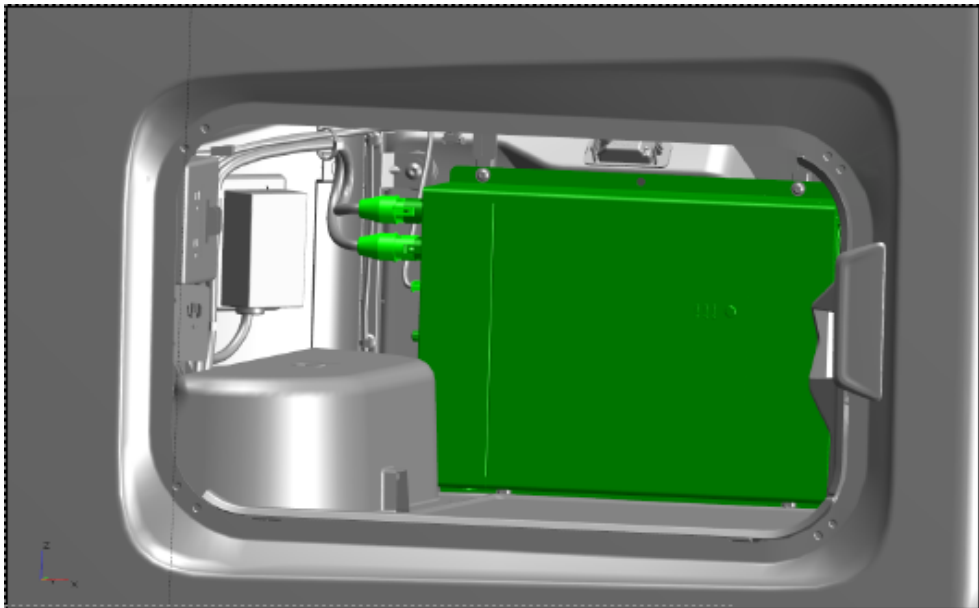
### 2.5.2 Bunk PDC

The Bunk PDC is a subhardware of the VMCU. It is located under the passenger side bunk seat, in the bunk HVAC area.



### 2.5.3 Inverter

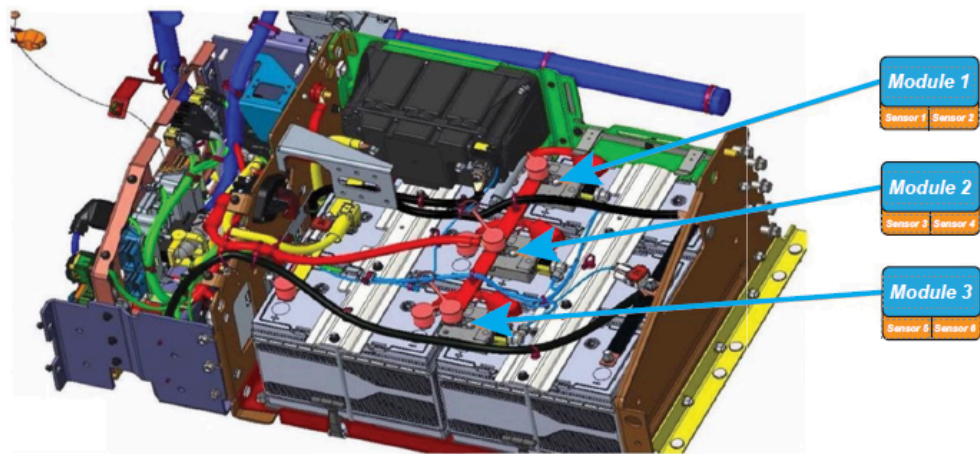
The inverter is a subhardware of the VMCU. It is located in the driver side luggage compartment. NOTE: the inverter has separate plugs for power and LIN communication - unplug all 3 of these connectors.



View from outside of the driver side luggage compartment

### 2.5.4 Battery Sensor Modules

The Battery Sensor Modules are a subhardware of the CCIOM. Unplug and replug each module to troubleshoot the mismatch.



### 2.5.5 Parking Heater

The Parking Heater is a subhardware of the CCM. NOTE: There is no need to unplug and replug this component. Instead, run the Parking Heater Cleaning function. If the operation runs successfully, the Parking Heater is online and not mismatched.

The Parking Heater Cleaning operation is located in the Maintenance section of the Instrument Cluster Display.



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