

# Uncontrolled Copy

**ID #** CBR-2465

**Version** 6

## Title

Proactive Engine Restart ( Remote Engine Start System) And Hood Open Popup - VN (4) - PR (4) - AN (4)

## Abstract

The purpose of this CBR is to help diagnosis issues with the Proactive Engine Restart system and Hood Open popup message.

## Content

Published 29 May 2026

### Valid For

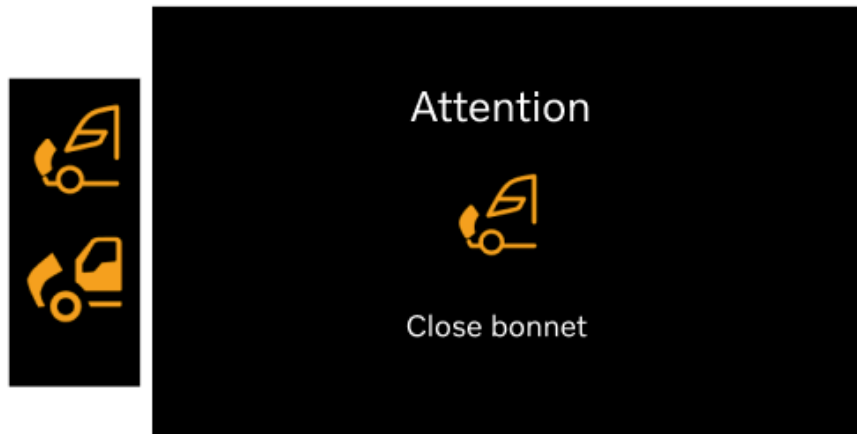
Volvo Chassis- VN (4)

Mack Chassis - PR, AN (4)

Model Year - 2024 to current

The purpose of this CBR is to help diagnosis issues with the Proactive Engine Restart system and Hood Open popup message.

This CBR can also be used for Close bonnet or Hood Open popup troubleshooting. (see picture below)



1. This CBR pertains to two issues that may arise with the Proactive Engine Restart (Remote Engine Start System)

1. **Key Fob Activation Issue:**

- **NOTE: ONLY APPLICABLE TO SALES PACKAGE H9AC1X**
- Remotely starting the engine via the AUX switch on the key fob DOES NOT work
- Lock, unlock, and turning on parking heater via key fob Does work



1. **Flexible Switch Activation Issue:**

- The Auto Start/Stop flexible switch (pictured below) does not activate the system – no alert is displayed that the system has been activated.

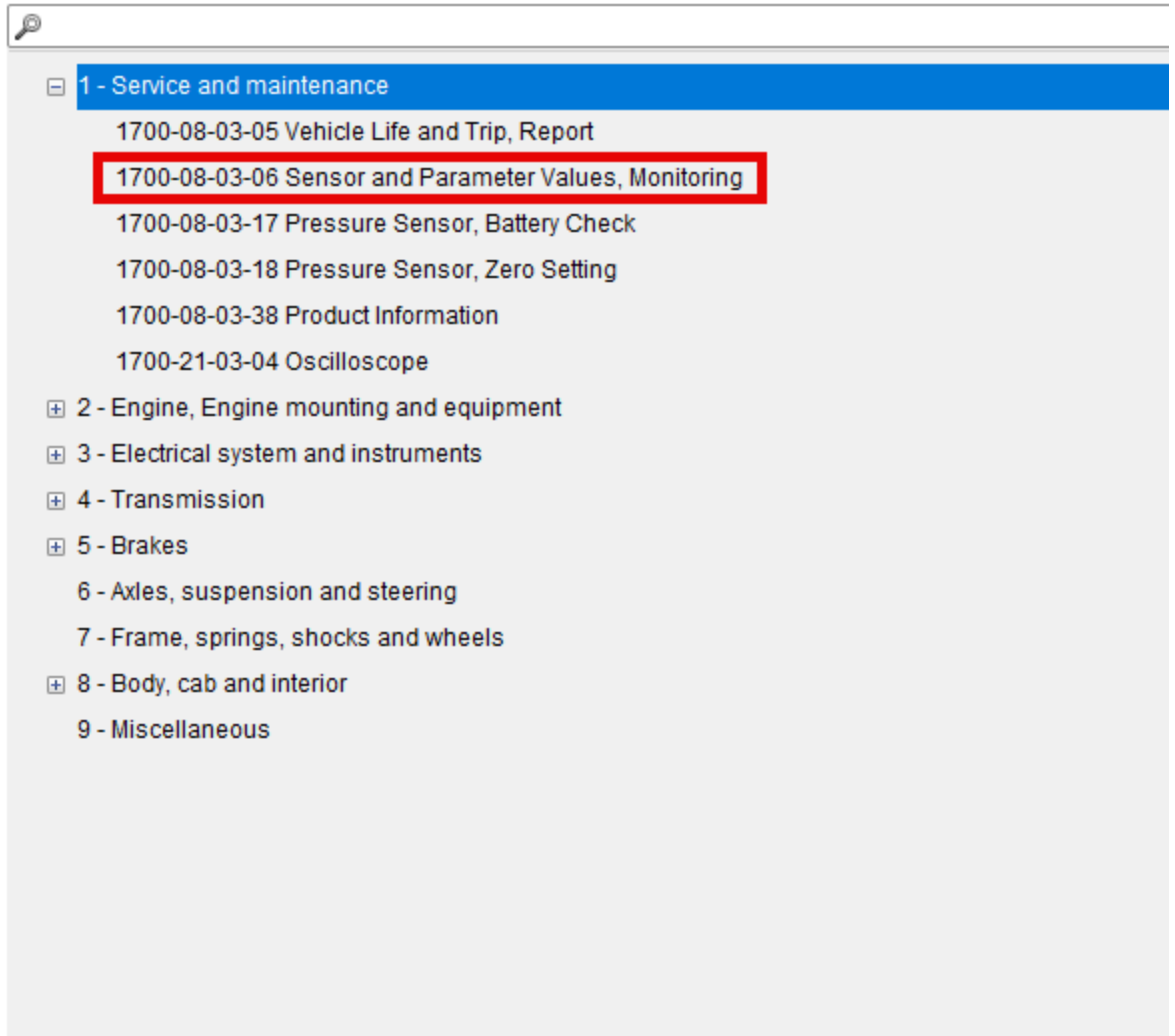


## 1. PROCESS

- To troubleshoot these issues, verify that the 'closed hood' pre-condition for Proactive Engine Restart is met.
  1. To verify correct hood sensor function, use **Sensor and Parameter Values, Monitoring** test in **Premium Tech Tool (PTT)**.
  2. Connect the truck to PTT and navigate to the Test tab.
  3. Select operation **1700-08-03-06 Sensor and Parameter Values, Monitoring**.

## Test

Select an operation and click Start



4. Once operation has loaded, enter **P1EQZ** in the search bar. Once located, select the parameter and press continue. **Note: Tech Tool needs to be up to date with the latest software.**

## Available signals

Select the signals you want to monitor.

View:  Control Unit  Function
Templates ▾
Instructions

	Control Unit	Signal
<input type="checkbox"/>		P1EAG - Flexible Switch Di
<input type="checkbox"/>	<input checked="" type="checkbox"/> P1EAV	P1EAV - Flexible Switch Di
<input type="checkbox"/>	<input checked="" type="checkbox"/> P1EAW	P1EAW - Flexible Switch D
<input type="checkbox"/>	<input checked="" type="checkbox"/> P1EAX	P1EAX - Flexible Switch Di
<input type="checkbox"/>	<input checked="" type="checkbox"/> P1EAY	P1EAY - Flexible Switch Di
<input type="checkbox"/>	<input checked="" type="checkbox"/> P1EAZ	P1EAZ - Flexible Switch Di
<input type="checkbox"/>		P12J9 - ECS, Drive Height
<input type="checkbox"/>		P1IZ3 - Engine Speed Cor
<input type="checkbox"/>		P1DI2 - Auxiliary Bodybuild
<input type="checkbox"/>		P1DI3 - Auxiliary Bodybuild
<input type="checkbox"/>		P1DI4 - Auxiliary Bodybuild
<input type="checkbox"/>		P1DI5 - Auxiliary Bodybuild
<input type="checkbox"/>		P1DI6 - Auxiliary Bodybuild
<input type="checkbox"/>		P1DI7 - Auxiliary Bodybuild
<input type="checkbox"/>	<input checked="" type="checkbox"/> P1FDL	P1FDL - Matching status fo
<input type="checkbox"/>		P1CW9 - Tail Lift, Switch T
<input type="checkbox"/>	<input checked="" type="checkbox"/> P1BWW	P1BWW - LIN4 Flexible Sw
<input type="checkbox"/>		P1B0V - Engine Speed Co
<input type="checkbox"/>		P1BYL - Beacon Light, Cal
<input type="checkbox"/>		P1BYV - Body/Cab Working
<input type="checkbox"/>		P1BY4 - Extra Side Workin
<input type="checkbox"/>		P1CXE - Side Reverse Lig
<input type="checkbox"/>		P1BYZ - Chassis Working
<input type="checkbox"/>	<input checked="" type="checkbox"/> P1HIW	P1HIW - Extra Lighting Plo
<input type="checkbox"/>		P1BYT - Roof Light Sign / C
<input type="checkbox"/>		P1CXO - Container Unlock
<input type="checkbox"/>		P1CXP - Slidable Fifth Whe
<input type="checkbox"/>		P1B9X - Wireless Remote
<input checked="" type="checkbox"/>		P1EQZ - CIOM HW I/O stat

5. You will need to verify 3 voltages to ensure the hood status is being reported properly.

- Hood fully closed/shut
- One latch open/released

- Both latches open/released

You can pull the hood release lever very slowly to unlock the latches one-by-one for this test.

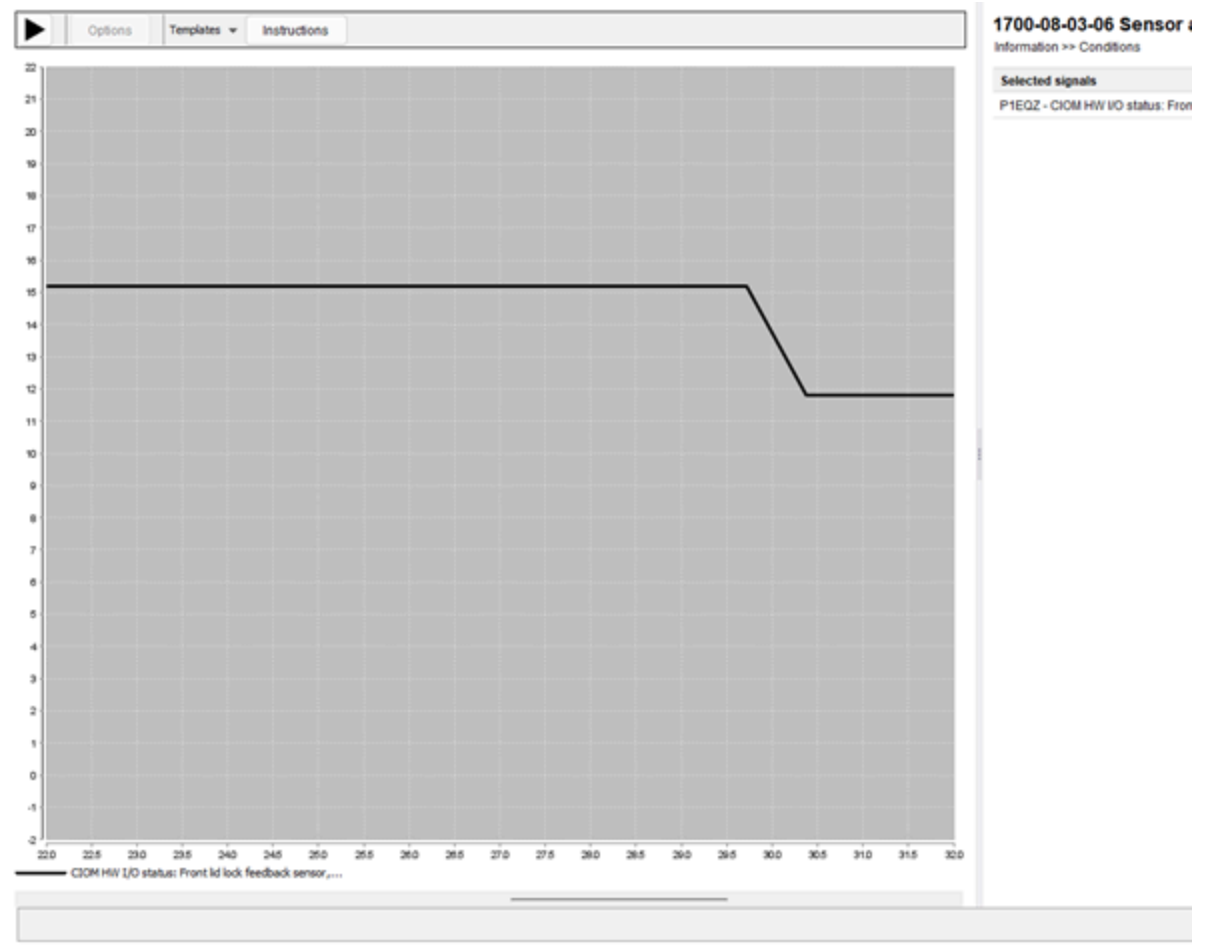
Observe the voltage with the hood completely shut, with one latch open, and with both latches open. There should be a significant voltage drop between each of the three hood states above.

Note: The voltages depend heavily on the battery status and state of charge, so voltages may vary significantly from one truck to another.

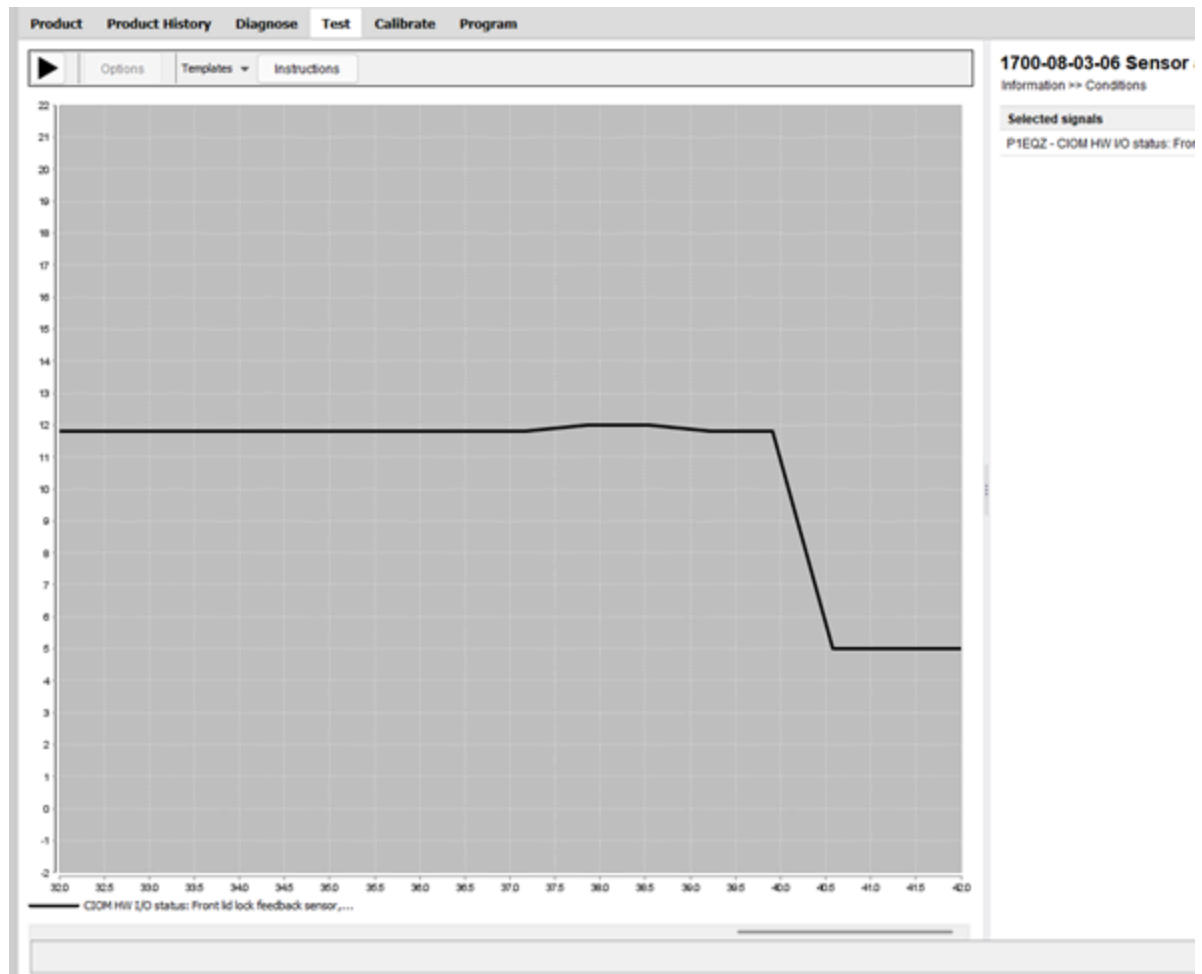
Example voltages (**Real voltages may vary**):

- Hood fully closed: 17.4V
- One latch open: 13.6V
- Both latches open: 5.6V

Latches fully close and opening only 1 latch from example above. Note the voltage drop:



Upon opening the 2nd latch (note the further voltage drop):



These voltage drops as the hood is unlatched indicate the latches are reporting their states to the truck and Tech Tool properly and the hood sensors are functional.

## 1. TESTING

1. Check the Hood Latch adjustment using operation 8231-05-03-02. Once that is complete, verify that the Proactive Engine Restart is working correctly – ensure that the following preconditions are met:

### 1. Test Proactive Engine Restart With Key Fob

- Driver and Passenger doors must be closed
- Hood must be closed
- Fuel level must be above 12.5%
- Park brake must be applied
- Gear lever must be in Neutral position
- Vehicle mode must be in Living or Parked

- Auto Start/Stop flexible switch is NOT ACTIVATED (flexible switch on the left side of the dash is not lit up)
- Once ALL of the above preconditions are met, press and hold AUX button on the key fob for 3 seconds to start the engine.

## 2. Test Proactive Engine Restart with Flexible Switch

- For vehicles with key and cylinder: insert the key, ensuring that it is in the OFF or Accessory Position
- For vehicles with a key fob and push start: the key fob must be located inside the cab and truck is off.
- Driver and passenger doors must be closed.
- Hood must be closed.
- Fuel level must be above 12.5%
- Park brake must be applied
- Gear Lever must be in Neutral position
- Accelerator pedal must be released
- Once ALL of the above preconditions are met, press the Proactive Engine Start flexible switch to enable the function. A message on the instrument cluster display (picture right) will verify successful activation.



### Tags

auto start

bonnet

bonnet open

fob

hood

hood open

hood open popup

key fob

mack

pr4

pr 4

Live UI : engine restart

remote

remote start

vn4

vn 4

volvo

Categories \*

Make and Model > Mack > AN (4) - Anthem

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Vehicle System > Electrical

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Make and Model > Volvo > VN (4)

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Make and Model > Mack > PR - Pioneer