

Preview Solution CBR-2468-2

Door Latch Diagnostics - VN (4) - PR (4)

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Valid for

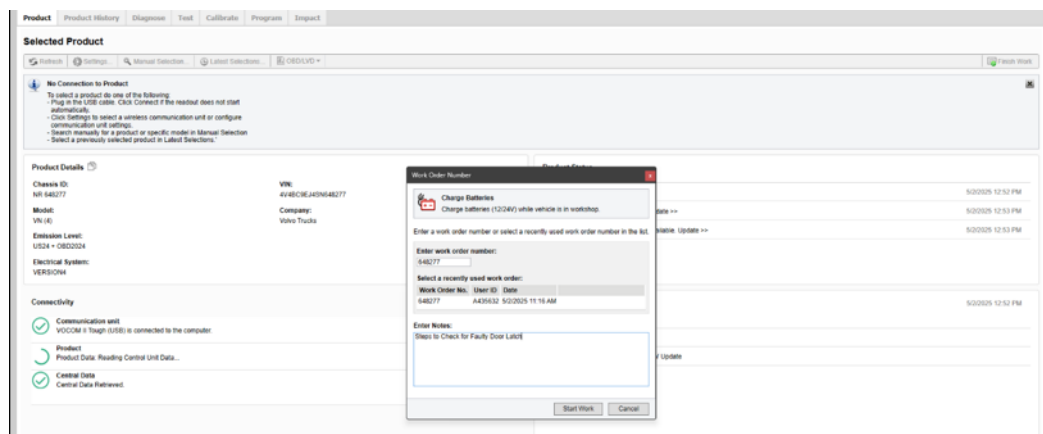
Mack Chassis - PR (4)

Volvo Chassis - VN (4)

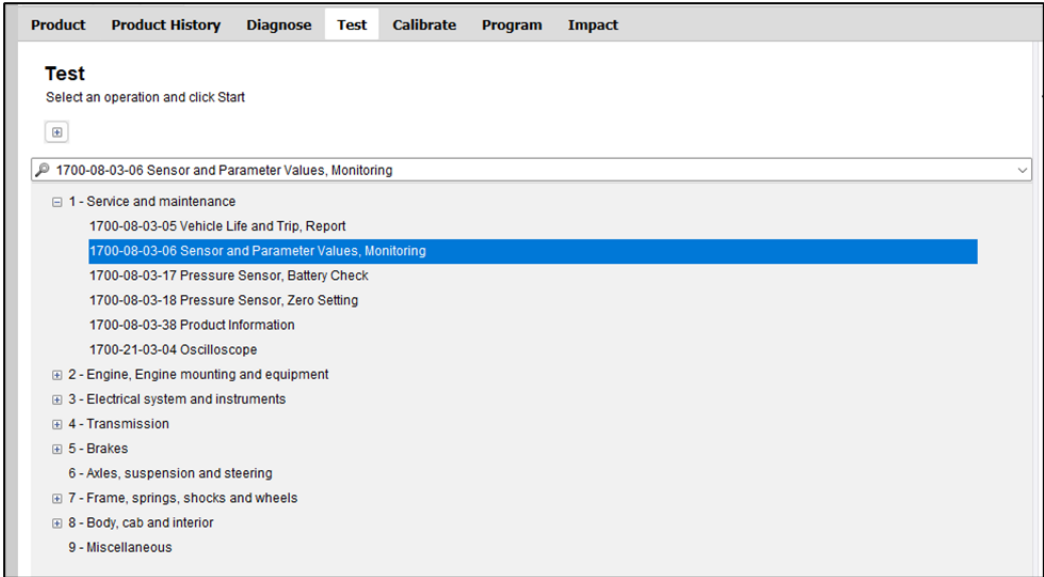
The purpose of this CBR is to help diagnosis an electrically faulty door latch. There have not been any reported cases where the mechanical aspects of the door latch has been faulted. This is only for the electrical circuitry of the door latch. When the sensor is faulty the truck behaves as if the door were open when in fact the door is closed and latched securely.

Follow the steps below to assist in diagnosing a faulty door latch that may cause a low-speed (7 MPH or lower) parking brake application.

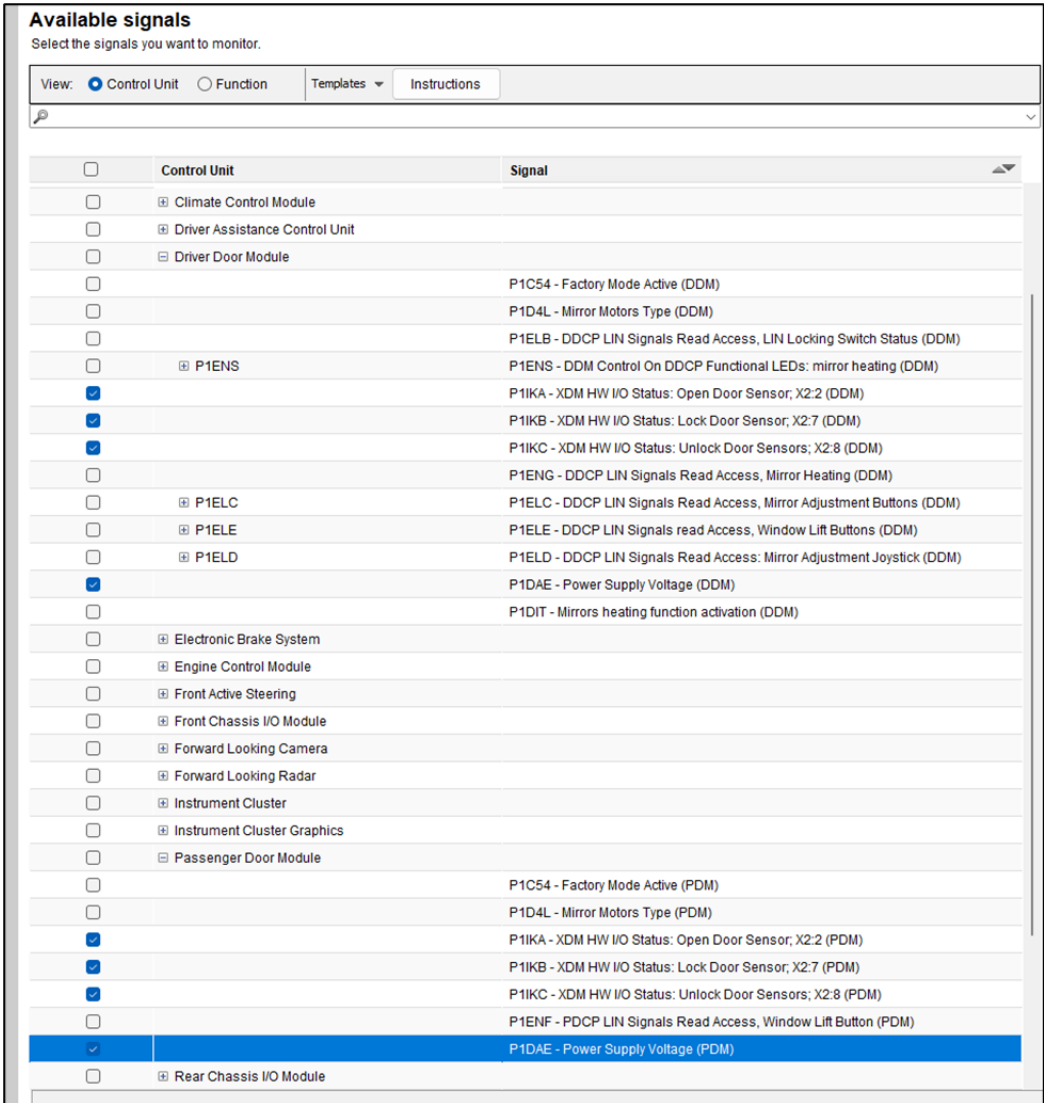
1. Connect to the truck in PTT



2. Navigate to **1700-08-03-06 Sensor and Parameter Values, Monitoring** under the **Test** tab.



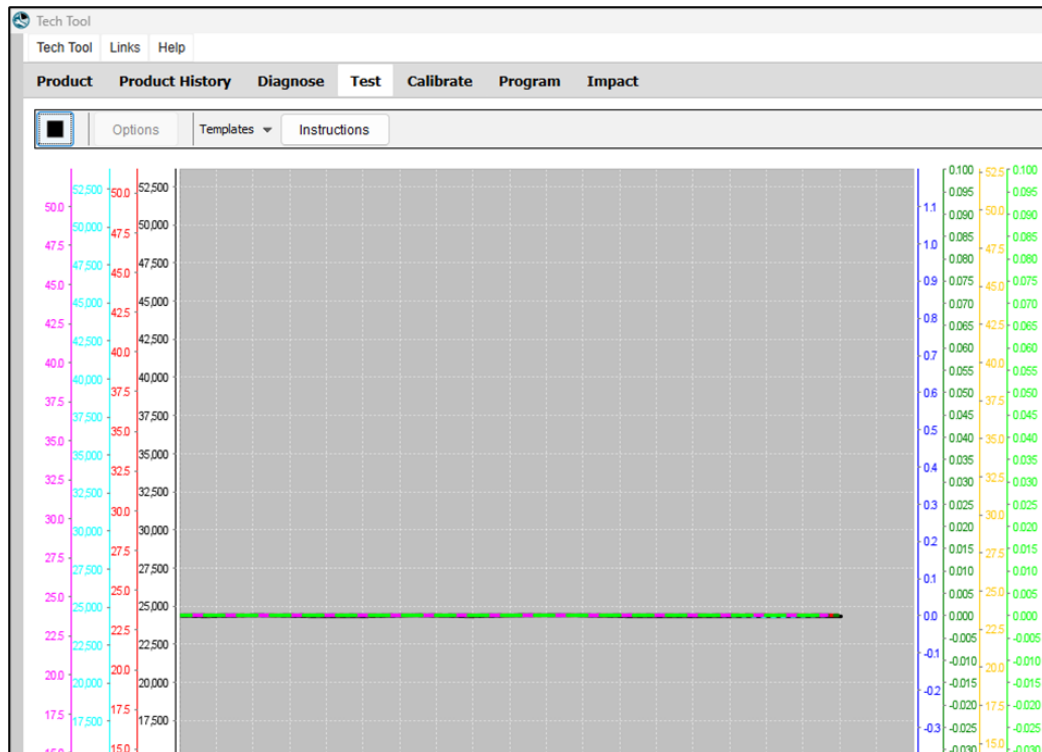
3. Start the operation.
4. You will need to select 8 signals: **P1DAE, P1IKA, P1IKB, AND P1IKC** from both the **Driver Door Module and Passenger Door Module (DDM and PDM)**



5. Verify the following signals are selected and continue.

1700-08-03-06 Sensor and Parameter Values, Monitoring		
Information >> Conditions >> Execution		
Selected signals		☐
P1DAE - Power Supply Voltage (DDM)		☒
P1IKA - XDM HW I/O Status: Open Door Sensor; X2:2 (DDM)		☒
P1IKB - XDM HW I/O Status: Lock Door Sensor; X2:7 (DDM)		☒
P1IKC - XDM HW I/O Status: Unlock Door Sensors; X2:8 (DDM)		☒
P1DAE - Power Supply Voltage (PDM)		☒
P1IKA - XDM HW I/O Status: Open Door Sensor; X2:2 (PDM)		☒
P1IKB - XDM HW I/O Status: Lock Door Sensor; X2:7 (PDM)		☒
P1IKC - XDM HW I/O Status: Unlock Door Sensors; X2:8 (PDM)		☒

6. Click on the play button on the top left of the screen.



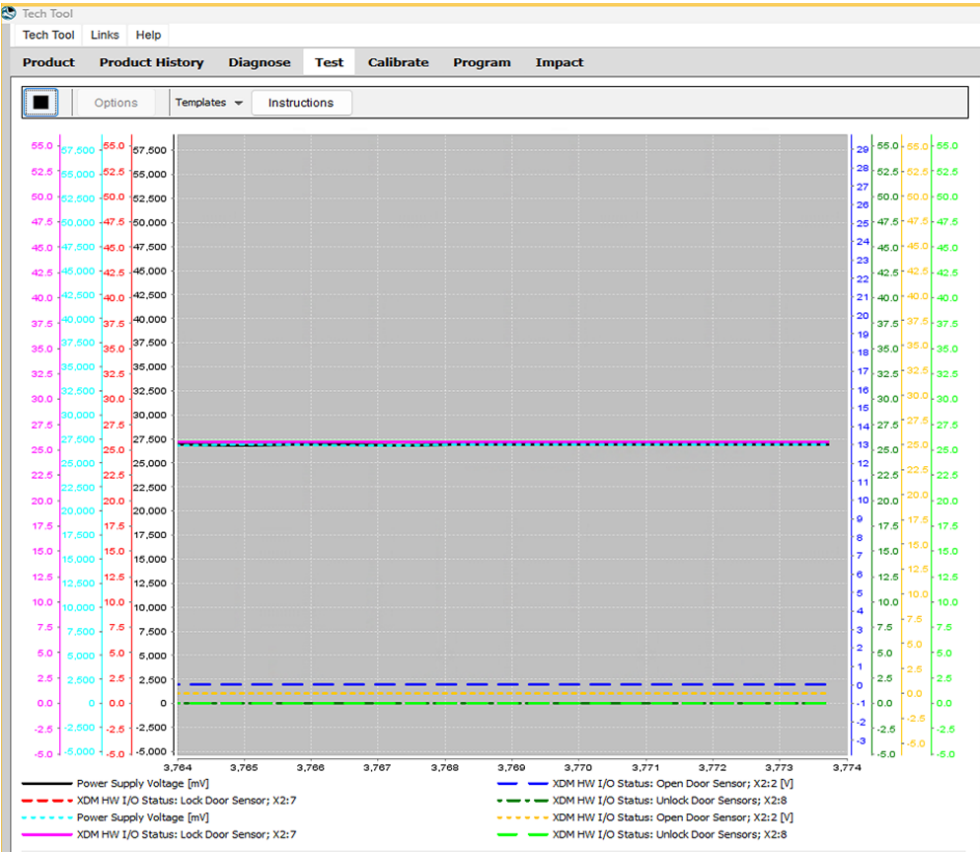
7. Monitor the signals.

- With a functional latch, when the door is physically closed and locked, P1IKA = Power Supply Voltage Value, P1DAE $\pm$ 4V, and P1IKB = 0V for both the DDM and PDM
- With a functional latch, when a door is physically open and unlocked, P1IKA = 0V and P1IKB = Power Supply Voltage Value, P1DAE $\pm$ 4V for both the DDM and PDM

8. Examples of Good and Bad latch

- Good Latch

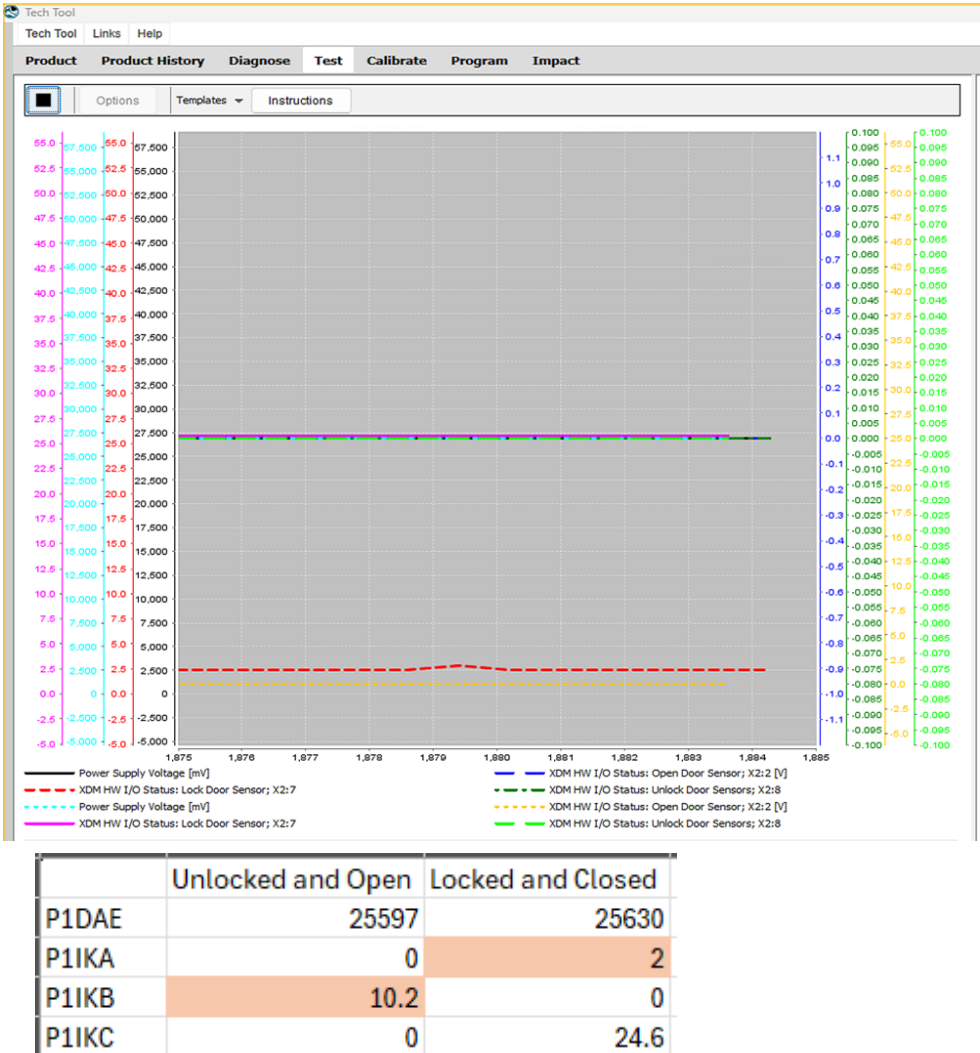
The following is an example of a good latch, doors open and unlocked. Note how the signals is 25.8V for P1IKB



	Unlocked and Open	Locked and Closed
P1DAE	25396	25407
P1IKA	0	23.4
P1IKB	22.6	0
P1IKC	0	24.6

b. Bad latch

This is an example of a bad latch, doors open and unlocked. Note how the voltage is about 2.4V for P1IKB. Please note that the voltage may fluctuate:



Note: Voltage other than what was mentioned in step 7 is indicative of a faulty latch. Please note that the images are for reference only, voltage values on a faulty latches may fluctuate.

Related links and attachments

No links or attachments available



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