

P3 Intermittent 250k J1939 Failure



[Dagan Williams](#) 33 posts since Dec 12, 2019

P3 Intermittent 250k J1939 Failure Feb 19, 2021 1:37 PM

BH9503

2012 CAS

J1939 Intermittently failing after unit has been sitting for extended time, but while modules are not communicating the voltage is normal 2.4V low 2.6v high side and battery switch cutoff 59.9ohms. Also checked J1939 voltages and resistance at the ABS and CPC. After cycling the battery cutoff switch the unit will typically begin communicating normally until truck has sat. Unit will also at seemingly random moments begin communicating again while truck has been sitting stationary unmoved and not return to having issue until unit has sat again. When connected to DDL all modules would appear on Roll call while communication codes are active

Active Codes:

(CPC)

2049/9

1814/9

3696/9

986/9

2025/9

Inactive:

(CPC)

527/9

2033/9

Have verified proper BAT, IGN, and GND, to the ABS ECU and the CPC. Have disconnected every module one at a time on the 1939 datalink with exception of the CGW (ABS, CPC, HVAC FRONT, HVAC REAR, ICU, OMNITRACS) and cycled key then started engine and checked for communication. while initially doing this with the ABS ECU the truck would communicate while ABS disconnected and then would not communicate while connected, but then after a while communication was still lost even while ABS is disconnected, CPC has been programmed as well as a test CPC installed, initially the test CPC module seemed to restore communication, but after the engine was started and running for a few seconds the datalink would fall out again and this would happen each time the CPC was swapped or programmed. ICU was disconnected and first key cycle still did not communicate, but every key cycle since unit has had communication even after ICU was connected back, unit sat for several days (usually would cause issue by now) and still has communication with all modules connected.

Running out of ideas, having a hard time keeping the codes active long enough to T/S often only have an hour before regains communication and will not duplicate till sitting more than 24 hours.

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Tags: j1939, abs, communication, datalink, data, 250k, cpc, 1939



[Francois Tourigny](#) 85 posts since Mar 8, 2019

Re: P3 Intermittent 250k J1939 Failure Feb 21, 2021 7:30 PM

Did you check your backbone resistance (sometimes wire rubs against the frame)

I'm not at the shop atm do not remember the exact resistor location into P3.

Also check this out; could be helpful

<https://www.dtnasolutions.com/docs/DOC-469463>

I would also check the Voltage at J1939_250k+ and J1939_250k- while issue is present. I already found a CPC that would get that voltage close to 3V, it was the failed part.

Good luck



[Dagan Williams](#) 33 posts since Dec 12, 2019

Re: P3 Intermittent 250k J1939 Failure Feb 22, 2021 12:15 PM

Yes, the backbone resistance is 59.9 oms and the voltages while the issue is active are 2.4V and 2.6V.... this unit is a 2012 with only a 250k datalink.



[Kyle Siebert](#) 4,151 posts since Nov 14, 2014

Re: P3 Intermittent 250k J1939 Failure Feb 22, 2021 1:23 PM

Does the radio have j1939 going to it?

I take it you have already checked and unplugged any [Y harness on 9 pin DLC For Aftermarket ECU. Usually a electronic log book, people's net, GPS device ect...](#)

It's very well possible, this is a loss of power issue to multiple ECUs. May not be a bad idea to check SAMs for corrosion.



[Dagan Williams](#) 33 posts since Dec 12, 2019

Re: P3 Intermittent 250k J1939 Failure Feb 22, 2021 1:50 PM

The issue has continued to duplicate even with the ELD and camera both removed, but when i work it back into the shop I will double check for any other 3rd party devices like a separate GPS, the radio is not on the 1939 and also is an aftermarket radio with an aftermarket harness though at one point I know the radio was not coming on while the issue was active, but other times it has been on. I did check BAT and IGN voltages before to a couple modules, but that would explain why the radio would not turn on at the same time its active if it's intermittently losing it.