



ProAm
Knuckle Buster

05-05-2021 08:24 AM

CPC failure

Vehicle Information

VIN: 3AKJGLD57GSGU0030

Model: CASCADIA 125 INCH SLEEPER CAB

Model Year: 2016

Mileage: 628716 miles

Make: FTL

Are you currently seeing this same issue on other DTNA vehicles at your location?: no

Base Model: CA125SLP

Vehicle Systems Involved

ENGINE AND ENGINE
COOLING

VEHICLE SPEED CONTROL
ROLLOVER

OTHER SYSTEM(CPC)

ELECTRICAL

It starts with SPN 91 FMI 8, SPN 111 FMI 3, RAC System Failure | HSA, Check Engine (amber) ON, and also fluctuating ambient temp, after a low battery start. The throttle pedal doesn't work at all.

Ambient temperature alternates (increases and decreases back and forth) from - 5°F to 21°F.

CPC Replaced at dealership with a new reman. CPC (Programmed accordingly).

After a failure during the road test, the CPC has been replaced again with used one (Programmed accordingly).

After ~ 45 miles driving it went even worse.

It was a **complete failure**, as follows:

1. Cruise control failed (self disengaged)
2. Throttle became unstable and unresponsive
3. The engine shut down while the truck was in motion...
4. After Pulling over, and attempt to restart - there were no adequate information - no gear number, a lot of DTC, no lamps, nothing at the LCD.
5. Replace back used CPC with reman. module (the "failed" one) and **the truck start fine.**

I do believe all the used CPC modules works fine.

- **Any ideas - could it be due to the harness or power issue?**
- **Any suggestions where to look?**
- **What does "Data Code" on the CPC stands for?**

Original CPC module:

P/n: **A003 446 1002** / 004 Electronic CPC4 NAFTA, S/n: **7106L4250304003**, Data Code:**250814 0077**

Reman CPC module:

P/n: **A003 446 1002** / 004 Electronic GHG14 NAFTA, S/n: **7106L4250304003**, Data Code:**unknown**

Used CPC module:

P/n: **A003 446 1002** / 004 Electronic CPC4 NAFTA, S/n: **7106140D0304003**, Data Code:**050814 0013**

Tags:

Common Powertrain Controller cpc cpc4

Add tags



0 Kudos

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Brett_Hall1

Wrench Turner

05-05-2021 09:06 AM

for code spn 91-8 checked ddec troubleshooting manual section 50.3. you need to checked power and grounds. for throttle pedal. and drag test terminals at cpc and throttle pedal connector.

Add tags



1 Kudo

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Brett_Hall1
Wrench Turner

05-05-2021 09:24 AM



code 111-3 checked ddec troubleshooting manual section 77.2 . this code is for low coolant level sensor. check for 5 volts at coolant level sensor pin 1 to ground. should be above 4 volts. pin 2 is battery ground. if no voltage than ohm wire from coolant level sensor to cpc connector 3 pin 11.
and for the other code. ohm wires out from cpc to pedal.

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Preview file
5 KB

Preview file
70 KB



1 Kudo

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ProAm
Knuckle Buster

05-05-2021 01:45 PM

I think there is an issue with data bus, 'cause some of the codes leads that way - J1939 Data Link (SID-231 / FMI-9), SPN-639 / FM-9...

Here are a whole bunch of error codes extracted from ELD log, as follows:

Vehicle	Fault Code	FMI	Description	Source
129	SID-231	9	SAE J1939 Data Link	Brakes, Po

129	SPN-158	2	Key Switch Battery Potential	Engine #2
129	SPN-639	9	J1939 Network #1, Primary Vehicle Network	Brakes - S Controller
129	SPN-96	5	Fuel Level 1	Instrumen
129	SPN-524	9	Transmission Selected Gear	Engine #2
129	SPN-556	9	Retarder Reference Torque	Engine #2
129	SPN-558	6	Accelerator Pedal 1 Low Idle Switch	Engine #2
129	SPN-596	13	Cruise Control Enable Switch	Engine #2
129	SPN-597	13	Brake Switch	Engine #2
129	SPN-91	2	Accelerator Pedal Position 1	Engine #2
129	SPN-91	31	Accelerator Pedal Position 1	Engine #2
129	SPN-191	9	Transmission Output Shaft Speed	Engine #2
129	SPN-810	8	Speed Signal Input	Brakes - S Controller
129	SID-15	4	Relay Diagonal 2	Brakes, Po
129	SID-22	8	Speed Signal Input	Brakes, Po
129	SPN-91	8	Accelerator Pedal Position 1	Engine #1
129	SPN-558	6	Accelerator Pedal 1 Low Idle Switch	Engine #1
129	SPN-597	13	Brake Switch	Engine #1
129	SPN-625	8	Proprietary Network #1	Engine #1
129	SPN-974	4	Remote Accelerator Pedal Position	Engine #1
129	SPN-1590	9	Adaptive Cruise Control Mode	Engine #1

129	SPN-2623	8	Accelerator Pedal #1 Channel 2	Engine #1
129	SPN-3695	13	Aftertreatment Regeneration Inhibit Switch	Engine #1
129	SPN-524277	19		Engine #1
129	SPN-524287	1		Engine #1
129	SPN-600	13	Cruise Control Coast (Decelerate) Switch	Engine #2
129	SPN-602	13	Cruise Control Accelerate Switch	Engine #2
129	SPN-625	8	Proprietary Network #1	Engine #2
129	SPN-628	2	Program Memory	Engine #2
129	SPN-974	4	Remote Accelerator Pedal Position	Engine #2
129	SPN-1590	9	Adaptive Cruise Control Mode	Engine #2
129	SPN-1624	9	Tachograph vehicle speed	Engine #2
129	SPN-1716	13	Retarder Selection, non-engine	Engine #2
129	SPN-2623	2	Accelerator Pedal #1 Channel 2	Engine #2
129	SPN-3695	13	Aftertreatment Regeneration Inhibit Switch	Engine #2
129	SPN-524277	19		Engine #2
129	SPN-524287	1		Engine #2
129	SPN-524287	9		Engine #2



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[Reply](#)**Steve_Reppard**

Piston Head

05-06-2021 05:35 AM

Have you verified powers, grounds and datalink to cpc are ok? Make sure to Loadtest powers and grounds, sounds like you have issue going to CPC. I have seen cpc failures caused by poor battery/wiring condition and trucks that need to be jump started quite often.

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Knuckle Buster

05-07-2021 06:19 PM

How to check the "datalink"?

I only checked power (+12v,Gnd, Ign) on pins: 1,2 and 3 at Connector #2 (the grey one).

You could be right - the problem occurred after a low batt. start (**11.8 V** - ICU4Me readings). The truck was on "Opti Idle - Engine mode", and after failure of the attempt to auto start the engine - that problem occurred.

Prior to that issue there was a lot of **fuel gauge failures**- sometimes the needle was down to zero, and after engine start it went up accordingly to the current fuel level)

Tags:

[Connector 2](#) [Engine mode](#) [fuel gauge](#) [low voltage](#) [opti idle](#)

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Brett_Hall1
Wrench Turner

05-08-2021 06:42 AM

check cascadia trouble shooting manual. section G03. check resistance at diagnostic connector pin c =1939 can hi. pin d is 1939 can low. you should have 60 ohms, check voltage on diag connector pin c to ground should have approx 2.5 volts. pin d to ground should have approx 2.5 volts.

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