

DTNA Solutions > Service Solutions > Freightliner
 > SS 1033522 New Cascadia With Fault Codes RDF42/524...

SS 1033522 New Cascadia With Fault Codes RDF42/524230/19 - ECU PSM data error and VRDU232/524042/19 - ECU RDF data error

Applicable Vehicles

This solution applies to all New Cascadia vehicles built before 1/1/2018 that have not had both the Central Gateway (CGW) and Single SAM (SSAM) modules updated to the latest software CGW 17.46 and SSAM 17.50.

Symptoms

When viewing codes both RDF42/524230/19 - ECU PSM data error and VRDU232/524042/19 - ECU RDF data error, will show active.

Issue

These codes can show active if the CGW and SSAM modules have not both been updated to the newest software. It has been seen more commonly when the SSAM software is at an older version than the CGW.

Solution

If both codes RDF42/524230/19 - ECU PSM data error and VRDU232/524042/19 - ECU RDF data are active, then prior to troubleshooting the codes, make sure that both the CGW and SSAM are at the newest software.

Description	Number	Mode	Status	Troubleshooting Type
CPC302T - Common Powertrain Controller 3				
VRDU data - CAN timeout	1590	12	not active	Refer to PSL
PTConf Error: No response from MCM for requests	521050	14	not active	Traditional
ABS02T - Antilock Braking System				
SPN/FMI=1807/8 Steering Wheel Angle / abnormal frequency, pulse width o...	1807	8	not active	Refer to OEM
SPN/FMI=520240/9 External Brake Demand System (VRDU) / abnormal upda...	520240	9	not active	Refer to OEM
CGW04T - Central Gateway				
Lost communication with RDU	524232	31	previously active	Traditional
RDF02T - Radar Frontend 2				
ECU PSM data error	524230	19	active	Refer to OEM
Assistance CAN Bus Off	639	11	previously active	Refer to OEM
ECU VRDU timeout	524232	9	previously active	Traditional
ECU EBS Timeout	524011	9	previously active	Traditional
MPC01T - Multi Purpose Camera				
ECU ICUC timeout	524023	9	previously active	Traditional
VRDU02T - Video Radar Decision Unit 2				
ECU RDF data error	524042	19	active	Traditional

If both of these codes are active then makes sure the CGW and SSAM are at the newest software, prior to troubleshooting the codes.

Labels :

Electronics | Controls | Configuration | Communication | and Diagnostics

Freightliner

New Cascadia

38n

cgw detroit assurance flash ssam new cascadia p4

Add tags



30 Kudos

Comments



Bruce_Plowman

06-15-2018 05:50 AM

Is this going to be added to the troubleshooting manual?



Kyle_Siebert

06-27-2018 08:41 AM

This should be tagged as p4 not p3.

This was a very difficult solution to find. Found it with "17.50" search.

Not sure why it wouldn't come up with flashing, SSAM CGW flash, SSAM flash,



Kyle_Siebert

06-27-2018 08:54 AM

compatibility ssam



Kyle_Siebert

06-27-2018 08:57 AM

[test.justin.johnso](#) is there any reason that my comments wont work in the search feature for this solution? Im trying to make it easier to find this solution in searching but none of my comments come up in the search feature. Could it be that this is a document, and my comments are void on here?



Kyle_Siebert

06-27-2018 09:16 AM

Well just had some issues with doing this but was resolved by flashing the ICU after the ICUC Auto configuration then doing the ICUC Auto configuration again. Im attaching the screenshot if it helps anyone.

Used Nexiq USB2
Flashed SSAM 16.32.0 to 17.50.0 and
CGW 16.47.0 to 17.46.01
Had these codes

Fault Codes		Transmission: DT12-DT12-04 Engine: DDEC16-0013 Vehicle: New Cascadia Diagnostic	
There are data items on this computer that are required to be uploaded to the server. Click here to attempt to connect to the server now.			
All Faults Fault History Test Results Virtual Technician Data			
Description	Number	Mode	Status
J1939-33 - Body Controller			
Condition Faults	520187	31	active
J1939-127 - Reserved for Future SAE Assignment (127)			
Received Network Data In Error	524549	19	active

Performed ICUC Autoconfiguration and ended up with this mess

ICUC Automatic Configuration

Choose one of the ICUC automatic configuration routines and press "Start". This will cause the ICUC to learn the ECU/device list and/or Global Variant Coding from other devices on the vehicle, and clear the "Auto Config routine not performed" fault, if present.

NOTE: If the "Incompatible ECU variant in the SMF" fault is active after executing the automatic configuration routine, this is an indication that a device is incorrect for the vehicle or that the ICUC SMF needs to be updated. See the "ICUC Device Variants" panel in the Parameters view for more information.

Time

Label

10:37:12.524

5. Reset device

10:37:14.940

6. Reset faults

10:37:18.166

7. Reading ECU List (RD20)

10:37:22.411

8. Reading GVC Parameters (RD25)

10:37:23.183

9. Completing procedure

10:37:23.184

10. Reconnect all

Auto-config ECU List and GVC Parameters: Procedure can start

Auto-config ECU List and GVC Paramet

Start

Auto Config routine not performed (523021/31)

active

D-DTC9 - Incompatible ECU variant in the SMF (523021/31)

active

Engine: D0EC14-D011
Transmission: DT12-DT12 G4
Vehicle: New Cascadia Dp139

There are data items on this computer that are required to be uploaded to the server. [Click here to attempt to connect to the server now.](#)

All Faults

Fault History

Test Results

Virtual Technician Data

Description	Number	Mode	Status
UDS-0 CPC302T - Common Powertrain Controller 3			
DTC: 1807/0 CAN timeout	520230	12	active
UDS-11 ABS302T - Antilock Braking System			
SPN/TM: 1807/0 Steering Wheel Angle / abnormal frequency, pulse width e...	1807	8	not active
UDS-23 ICUC01T - Instrument Cluster			
D-DTC: Incompatible ECU variant in the SMF	523021	31	active
Auto-Config routine not performed	523025	31	active
UDS-37 CGW04T - Central Gateway			
Lost communication with HPC	524017	31	active
UDS-232 VMD002T - Video Recorder Decision Unit 2			
ECU SWs timeout	524018	9	not active

Flashed ICU 17.19.1 to same software and all codes resolved



Talbert_Simonia

06-27-2018 10:55 AM

Kyle what I have found that since the last D/L update. You will get the first screen for the fault codes after doing the ICUC auto-config. I have been powering everything down. Wait five minutes. Then power it back up. Then it runs with no issues. I do not update the software on the ICUC.



Chaz_Trimble

06-27-2018 06:24 PM

The tags need to be updated?



Kyle_Siebert

06-27-2018 08:02 PM

Yeah, I was having a hard time trying to find this solution. So I figured commenting some phrases would help it get noticed in the search engine. But it isn't working. Watch...

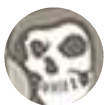
Cupertino



Chaz_Trimble

06-27-2018 08:04 PM

I see what you mean. I have searched comments I know were in a discussion before as well.



Justin_Johnson1

07-10-2018 03:55 PM

Hey Kyle, sorry I just saw this. You tagged the wrong "me". I'm not 100% sure that comments are included in searches, but for quick reference you could bookmark the solution.

I know we were having some issues with the search right after the new launch. It seems to be pretty close to the top results when I try and search for it now though.



Duane_Carlsen

07-11-2018 08:49 AM

Hi Kyle,

I did see your last post regarding the ICU Auto Configuration, but this is a different problem from what the solution was posted for. As you could see in your screen print IPPC dropped out during the programming and never came back on line. This is a known issue and I will write a separate solution for that. Basically if you program (Flash) a module all of the other modules drop off the connection during the flash. For some reason, the IPPC does not come back on line. If this happens you should remove the 9 pin diagnostic connector from the vehicle, and then fully turn off and then turn on the ignition 2 times. This will usually allow the IPPC to reconnect. Once it reconnects then you might see that the ICU Auto Configuration will not need to be run. Also the ICU Auto Configuration code ICUC 23 SPN 523021 FMI 3— — D-DT9- Incompatible ECU Variant in the SMF code that is showing needs to be updated in the troubleshooting manual. I sent that information to the lit group back on April 18, 2018 and it appears that it is still not update. I will also write a solution for this code ICUC 23 SPN 523021 FMI 3— — D-DT9- Incompatible ECU Variant in the SMF also.



3 Kudos



Kyle_Siebert

07-11-2018 11:22 AM

Cool, thanks Duane



Talbert_Simonia

07-11-2018 06:57 PM

Duane that would be similar to me shutting it all down. Then start over for the ICUC Auto-Config.



Mark_Monroe

08-07-2018 11:31 AM

I have the IPPC drop out everytime after updating the TCM mostly it never comes back unless I disconnect the batteries for 10-15min and do a hard reset.

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