

2021 Bulkhead Module Problems?



[Penske Edmonton](#) 4 posts since Apr 8, 2015

2021 Bulkhead Module Problems? Nov 17, 2020 10:32 PM

Any one have a problem like this? 3 brand new 2021 M2's with isb 6.7, Allison 2500 auto trans. (SN#MP4974) All have same problem. The wiper motor quits, rh head light quits. Nothing after market tied into J1939, brand new refer body. Grounds at cab, chassis & starter look good. Tried reflashing bulkhead module, no go. J1939 terminating resistors in place, have correct resistance on j1939 backbone. All the codes go inactive when for example high beams turned on high beam code goes inactive, low beam same, etc. Any ideas? Thanks

Mike Hajkowicz

Penske North

Edmonton, Ab

- [236340 chassis codes nov 1720.pdf](#) 60.5 KB Preview

Tags: freightliner m2



[Chris Vanboom](#) 163 posts since Nov 21, 2014

Re: 2021 Bulkhead Module Problems? Nov 26, 2020 7:06 PM

I am speculating some harness miswiring, those codes are all over the place. The S82/6 and 6897/6 both mean roughly the same thing - too much current draw on the fuel water separator heater. That is a simple circuit to start with.

Feel free to bring 1 of the 3 over, we are just down the street and we are not busy.



[Penske Edmonton](#) 4 posts since Apr 8, 2015

Re: 2021 Bulkhead Module Problems? Nov 26, 2020 10:41 PM

Hello Chris,

As far as I know 2 of them are in your yard right now, if you guys could give us a good story on the w.o. as we have 2 others same issue. Hey, unrelated problem: 520342 fmi 17 def pump speed plausibility (no Detroit troubleshooting) & 4374 fmi 0 def pump speed too high on a dd15. We're familiar with the 4374 0 code over the years. Previous shift replaced: def header & tank, header to pump suction line, & def nozzle to no avail. I seen a couple guys on serv solution had same code but all parts mentioned are new. I uploaded a 2 ads self test logfiles to the CSC but their closed. On ads self test press is 145psi, pump speed 2400rpm. On quantity test the doser doesn't even try to inject, pump speed is 1600rpm & def press only 85, test won't complete & stays in priming mode. I repaired a few wires in the usual spots in one box harness but no go. Ever seen that before? I'm fixing to put a test acm in it tomorrow, going to try to get ahold of a Detroit training guy I know but he's likely off due to the holiday. Thanks

Mike



[Chris Vanboom](#) 163 posts since Nov 21, 2014

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Re: 2021 Bulkhead Module Problems? Nov 26, 2020 10:52 PM

Hey Mike,

The U.S. Turkey day is slowing the support down for sure!

The DEF pump speed you are seeing is too high, ideal pump speed should be less than 1200 rpm at 145 psi. In most cases this is caused by a restriction in the DEF Doser or internal leakage from the DEF pump relief valve so an RS Supply kit will usually fix them.

I know the 520342/17 code is unlisted, but it relates to DEF pressure/pump speed the same as 4374/0, so the troubleshooting is the same.

I will follow up with the shop to see where they are at with the M2



[Jacob Cassidy](#) 20 posts since Nov 12, 2015

Re: 2021 Bulkhead Module Problems? Nov 27, 2020 7:14 PM

You have a data link issue. The Chassis module controls one headlamp, the bulkhead module controls the other headlamp, the ICU controls the wipers. A Data link issue will cause all 3. Check for an Electronic Driver log or aftermarket tracking device. I've also found the resistor on the left frame rail not tied up. Best to luck on intermittent diagnosing.



[Penske Edmonton](#) 4 posts since Apr 8, 2015

Re: 2021 Bulkhead Module Problems? Nov 27, 2020 8:05 PM

That's what I thought, j1939 issue. The terminating resistor in the frame rail & beside ign sw both there. 120 ohms resistance good, no aftermarket communications devices, nothing at the tap in point under the windshield. Trucks not even put into service yet.



[Jacob Cassidy](#) 20 posts since Nov 12, 2015

Re: 2021 Bulkhead Module Problems? Nov 27, 2020 10:33 PM

Does your roll call on diagnostic link lose connection? Might have someone watch the roll call while you wiggle the harness. The Wiggle Test is most effective.



[Kyle Siebert](#) 4,084 posts since Nov 14, 2014

Re: 2021 Bulkhead Module Problems? Nov 28, 2020 9:20 PM

I too suspect a wiring issue. It's not a datalink issue as there is nothing in the faults to indicate the CHM went offline.

Its a little more complicated. Lets boil it down a bit more. Is it the wiper low or wiper high that goes out or both? Is it the right side low beam or high beam and again or both? Does the horn work when this happens?

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Do any of the lamps in the right headlight area work; turn signal or marker light? Have you inspected the 1 or 2 grounds inside the left frame rail somewhat near the steer axle left side ABS modulator valve? Technically one ground is for the left headlight and other options and the other ground is for the right headlight and options. But they seem to put them both on the same ground and the other stud is covered with masking tape.

These 4 circuits are all on their own FETs. And they are on separate VBAT's. Unless someone pinned them differently, i'd check if it was 2 circuits but i'd like to know if its high or low wipers or both.



[Kyle Siebert](#) 4,084 posts since Nov 14, 2014

Re: 2021 Bulkhead Module Problems? Nov 28, 2020 9:20 PM

VBAT1	C4.P	Fuse 19 (30A)	Right Low Beam	C3.L
			Turn Right Front/Side	C3.R
			Turn Right Rear	C1.P
			Right Stop Lamp	C1.L
			Left Stop Lamp	C1.N
			Right DRL	C3.K
			Fog/Road Lamps	C3.C/C3.D

6.7A — C1-H Backup Alarm
6.7A — C3-L Right Low Beam
6.7A — C4-K Right High Beam

VBAT2	B4.G	Fuse 20 (30A)	Accessory (HVAC)	B6.A9
			Accessory (radio)	B6.A10
			Wake Up (instrument cluster)	B5.D
			Left High Beam	B1.L
			Wiper High	B3.F
			Horn	B3.E

6.7A — B3.F – Wiper High
6.7A — B3.H – Wiper Low

VBAT3	B1.N	Fuse 18 (30A)	Wiper Low	B3.H
			Spare 8.0A HSD (ignition)	B5.G
			Panel Lamps	B5.H
			Panel Lamps (smart switch)	B7.A1

