

520210/8



[Darius Ripp](#) 12 posts since May 1, 2017

520210/8 Nov 19, 2020 7:18 PM

I am dealing with a p4 Cascadia, where the original codes were 703/5, 704/5, 520213/31, 520727/13, and 520525/5. Numerous techs have been on this between wabco and freightliner the 3/2 valve the abs ecu, the trailer modulator, the esc module all have been replaced. There is a long list of wiring checks that have been done. I personally have been on this the longest and I am still on this. The codes that seem to come and go and stay around here the longest are 792/5 wheel speed sensor position d. The 520210/8 esc module and the 703/5. I have at discretion of dsm ripped open the dash harness to inspect, and the chassis harness, I have load tested all wires to do with these codes, the dsm thinks that another module could be causing this issue. I am lost on where to go with this. Any ideas would be greatly appreciated vin is kx0061.

- [Fwd%3a Case#%3a WBA0131538 VIN 3AKJHHDR4KSKX0061 Case Status%3a Open.eml](#) 116.1 KB



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

Re: 520210/8 Nov 19, 2020 8:12 PM

The ESC module shares the same "datalink" and power as the brake pressure sensor. It's internal to the abs ecu. Make sure there isn't any water from missing connector plugs. Could just be defective. Not sure how this would relate to front drive axle right side wheel speed sensor.

Wouldn't have anything to do with ABV valve codes either. Are your Nexiq drivers up to date?

I have seen ABV codes 3 years ago caused by Nexiq 2 connecting. But a intermittent short to ground on a e8 abs ecu will cause all three ABV codes to come active. I had a ABV ground wire shorted to ground in the dash cause that. Was because of a dash alumin drilling chip in the harness shorted ABV ground to ground. Only happened when activating ABV then had a direct short to that ground. Would have thought a ground shorting to ground wouldn't be a issue. But I guess it was measuring amperage as a report. It not seeing amperage I guess thru the ecu off.



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

Re: 520210/8 Nov 19, 2020 8:19 PM

I really don't think a Nexiq driver is causing your issue. I would hint toward a wiring issue in one of the three ABV circuits.

A possible issue with the brake position sensor. Causing ESC codes.



[Darius Ripp](#) 12 posts since May 1, 2017

Re: 520210/8 Nov 20, 2020 12:52 AM

520210/8

What I am finding at the minute is the j1939 data link even though I have no codes for it is showing 120 ohms when testing at pin c and d of the 9 pin and also at the cpc. Gonna do more testing tomorrow to see if this has anything to do with the issue. Dsm said that it could be a different module acting up and causing this code.

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Re: 520210/8 Nov 20, 2020 3:20 PM

Nevermind that was a wasted trip down memory lane. After looking into that found my sheet showing what was all on the 1939 500 k and nothing this truck has on it. So I am going to look into the brake pressure sensor issue you were talking about. Is that something in the abs ecu that goes bad or the sensor itself? Just asking because the abs ecu has already been replaced.



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

Re: 520210/8 Nov 20, 2020 9:11 PM

Brake pedal position sensor, mounted on the outside of the brake tredle valve.



[Darius Ripp](#) 12 posts since May 1, 2017

Re: 520210/8 Nov 20, 2020 9:14 PM

Tried that with a new one and still has the same code active

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

Re: 520210/8 Nov 20, 2020 9:35 PM

What code is active again?



[Darius Ripp](#) 12 posts since May 1, 2017

Re: 520210/8 Nov 20, 2020 9:39 PM

At the current time just the 520210/8. Esc module abnormal frequency. I have inspected all wires in chassis harness had completely opened the harness per dsm request to inspect them and also the dash ones. Had dash completely out. Also load tested all wires with a light bulb. New esc and abs ecu.



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

Re: 520210/8 Nov 20, 2020 11:12 PM

520210/8

See if you can monitor brake position sensor in diagnostic link and see if its showing a % or something.



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

Re: 520210/8 Nov 20, 2020 11:15 PM

At the ESC module pins 1 and 2, did you have around 12 volts?



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

Re: 520210/8 Nov 20, 2020 11:17 PM

I wanna say the 12 volt power was shared between the brake position sensor and ESC module. So if you have no voltage there with the ESC module unplugged, try unplugging brake pedal position sensor to see if your voltage comes back.



[Darius Ripp](#) 12 posts since May 1, 2017

Re: 520210/8 Nov 23, 2020 2:12 PM

Yes I had 12 volts and on the other wires 3 and 4 I had voltage for the can.



[Talbert Simonian](#) 1,802 posts since Nov 21, 2014

Re: 520210/8 Nov 24, 2020 7:07 PM

Have you read this yet [SS 1033257 P4 New Cascadia ABS Fault Code 11/520247/31 --Failure Memory Bit \(ESC\) Condition Exists](#)



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

Re: 520210/8 Nov 25, 2020 2:10 AM

[ABS code 520247-31 Next Gen Cascadia P4](#)

It may not be a bad idea to see what sensors arnt ready in the ABS ECU with diagnostic link. The screen shots here could be useful.