

CUMMINS FAULT 4769 VIN KZ0866



[Robert Cadell Jr](#) 2,643 posts since Nov 9, 2014

CUMMINS FAULT 4769 VIN KZ0866 Apr 3, 2019 4:08 PM

SEE ATTACHED STORY AND DOCUMENTS, IF YOU RUN INTO 4769 DEF TANK LEVEL SENSOR FAULT, MAKE SURE THE WIRING IS PER CUMMINS T SHOOTING, SCHEMATIC A66-09451-060 IS INCORRECT IN THE SCHEMATIC PORTION, IT SHOWS PIN 4 AS GROUND, AND PIN 3 AS SUPPLY, IF YOU PULL THE T SHOOTING FOR THIS FAULT PER CUMMINS DIAGRAM IT SHOWS PIN 3 AS SUPPLY AND PIN 4 AS RETURN, PLEASE PINS OUT PER CUMMINS T SHOOTING OR SCHEMATIC, THIS IS A ISB CM2350 WE DID END UP CHANGING THE HEADER ALSO, BUT PER CUMMINS T SHOOTING, NO VOLTAGE CHECKS OR PIN OUT CHECKS, JUST WENT A STEP FURTHER, ONE THING I DONT UNDERSTAND THE DEF LIGHT (YELLOW ONE), IS STILL ON IN THE ICU, NO FAULT IN DASH OR ENGINE ECM BUT PER TABLE 2 IN THE M2 WORKSHOP MANUAL IN THE SECTION FOR ICU 3 DEF LEVEL COMES FROM ENGINE ECM SA 00. CAN SOMEONE ANSWER ME PLEASE IF THE LIGHT WILL GO OUT GAUGE IS READING NORMALLY AND ECM REPORTING FULL DEF LEVEL, AND YES THE CONNECTOR WAS PINNED INCORRECTLY.

CAN ANYONE JUMP IN ON THE DEF LIGHT THING, WILL IT GO OUT?

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- [FAULT 4769 CUMMINS.pdf](#) 112.8 KB Preview
- [def tank harness print kz0866.pdf](#) 163.5 KB Preview

Tags: fault, def, cummins, 4769, tank level, pins



[Kyle Siebert](#) 4,010 posts since Nov 14, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 3, 2019 7:26 PM

[Cummins fault code 4769 DEF tank level sensor abnormal update rate](#)

"If ECM calibration revision is up to date, have to fill tank up and leave KOEO for 2 hours." I think that derate and emissions codes need special attention. This is actually also quoted in the Conditions for Clearing the Fault Code for 4769. Then your amber lamp by the DEF gauge should go out. Sounds a lot like detroits emissions codes. Tech replaces a DEF doser or something and fixes it, CEL goes out, clear codes and test drive and truck shows back up several days later for derate code and no other codes. Then come to find that the tech never followed the verification procedure like SCR efficiency test or DEF quantity test. Tricky part is when the work was done somewhere else and your just throwing tests at it like a maniac to get the derate codes to clear.

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As for the polarity issue, I would trust freightliner over cummins. Its freightliners DQS header and wiring.

If there was a issue with how it was wired it should have set a code for all 3 sensors; temp, level and urea quality. Considering it works in either direction tells me that its probably not polarity sensitive but wouldn't risk switching it.



[Robert Cadell Jr](#) 2,643 posts since Nov 9, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 3, 2019 7:35 PM

That's why I posted this Kyle yes when I rewired the level sensor I did have temp codes there were no revisions available, I did the diag, I could have been a robot threw a def header on it and said oh well, if you leave the wiring like it is per the print it's wrong I wired it like Cummins has it laid out and it was happy. Was hoping someone in the tech dept would look into this

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Good Hunting - you'll find your issue



[Kyle Siebert](#) 4,010 posts since Nov 14, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 4, 2019 2:42 PM

Well if you haven't dealt with it yet, the next gen Cascadia has the intermediate axle wired incorrectly per Wabco's maintaince manual. See [New Cascadia P4 abs wheel speed sensor locations. wheel speed sensors wired incorrectly? 6x6](#)

That's a real headscratcher the first time dealing with it.



[Kyle Siebert](#) 4,010 posts since Nov 14, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 3, 2019 7:35 PM

Also the DEF smart header source address is 163 Catalyst Fluid Sensor.



[Sean Evans](#) 458 posts since Nov 12, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 4, 2019 2:36 PM

This code has frustrated me on a few trucks, and I have spent quite a bit of time trying to understand it. The DEF light will be on until the verification is complete after 2 hours of key on ENGINE OFF with a good header.

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If the header is failed, the ICU DEF gauge seems to read accurately, and the DEF light will be on, but in Cummins the tank level will read 8%.

While you can reflash the ECM calibration to clear this code, I have got myself into the habit of replacing the header, leaving the key on with the engine off for 2 hours, the 4769 code will go inactive, and the DEF light will go out, then I start the engine and let the 3714 and 3212 codes go inactive on their own. Then I clear the codes.

As far as wiring, I always trust FTL over the Cummins schematics for FTL installed parts.



[Robert Cadell Jr](#) 2,643 posts since Nov 9, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 4, 2019 3:01 PM

I had to wire this back up per Cummins diagram

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[TechComm](#) . 37 posts since Nov 10, 2017

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 4, 2019 2:56 PM

Thank you for the feedback. We will look into it.



[Jon Cecil](#) 848 posts since Nov 25, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 18, 2019 3:53 PM

Not sure if this changed recently but remembered reading this feed. One of our techs was having issues with a def header in a motorhome and ran into the same thing where the Freightliner and Cummins schematics are conflicting. There is a "See note 2" next to the quality sensor on the Cummins schematic. Note 2 says the wiring varies to see OEM service information. I had him wire it back up per Freightliner schematics. I think a lot of the parts on those Cummins schematics that aren't Cummins parts are generic.



[Robert Cadell Jr](#) 2,643 posts since Nov 9, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 18, 2019 4:14 PM

that's the weird part who is the OEM, us or Cummins, the one I had I wired by the schematic that was on the T shooting fault went inactive after replacing the header. Thanks for the feed back Jon

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[Feedback TechComm](#) .



[Jon Cecil](#) 848 posts since Nov 25, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 18, 2019 4:44 PM

We would be the OEM since we supply the wiring, plus the header is also a Freightliner part as well. Cummins has no idea what manufacture their engine is going in.



[Robert Cadell Jr](#) 2,643 posts since Nov 9, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 18, 2019 4:55 PM

But to your point Cummins t shooting for that fault shows one way to wire it, our schematic shows it different.

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[Jon Cecil](#) 848 posts since Nov 25, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Apr 18, 2019 5:16 PM

From my experience with troubleshooting, Cummins is good for troubleshooting Cummins parts. For example, FCCC chassis with a low coolant level fault code. No issue found usually results in replacement of sensor. After replacement, code is still there because Cummins doesn't know there is a Coolant Level module tied to it and the sensor is just a probe. Cummins can only help so far before its out of their hands.



[Paul Mathers](#) 112 posts since Feb 14, 2018

Re: CUMMINS FAULT 4769 VIN KZ0866 Jun 11, 2019 5:52 PM

I currently have one in my bay with this same issue, but it is setting faults for tank level, quality, and temp. I also noticed that pins 3 and 4 are different compared to what Cummins says. Pin 3 is ignition and pin 4 is ground, opposite of what the Cummins schematic says. Unit is very new and has been in other shops for the same issue. I'm not sure how much of an issue the polarity to this header would cause. Also, T/S doesn't have you check the wiring on any of the faults. Only check is the Cummins 1939. All wiring checks good, so I'm going to install a new header. I'm not going to change the wiring since the header is supplied by FCCC and not Cummins.



[Jon Cecil](#) 848 posts since Nov 25, 2014

CUMMINS FAULT 4769 VIN KZ0866

Re: CUMMINS FAULT 4769 VIN KZ0866 Jun 11, 2019 9:46 PM

I would leave the wiring how Freightliner has it wired. I have seen the codes active and require key on engine off for 2 hrs for the code to clear.



[Robert Cadell Jr](#) 2,643 posts since Nov 9, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Jun 11, 2019 11:45 PM

If the header doesnt fix the issue flip the 2 circuits you listed that was my issue as well, the ftl diagram didnt match Cummins print. Please keep us posted.

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[Mike Swint](#) 3 posts since Nov 14, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Oct 5, 2020 7:57 PM

Got a S2 in the shop now with this code, customer found on a RV forum that the coolant lines maybe routed incorrectly, This one is plumbed with the coolant line from the lower rad tube going to the Valve on the def tank. They say this over heats the header. Has anyone heard of this scenario? I cannot find anything about this in either Cummins or Freightliner.



[Jon Cecil](#) 848 posts since Nov 25, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Oct 5, 2020 8:08 PM

Take a look at SS 1034491. It talks about the coolant lines being reversed.



[Jon Cecil](#) 848 posts since Nov 25, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Oct 13, 2020 9:51 PM

I can't find this SS anymore. I also couldn't find a bulletin about it.



[Robert Cadell Jr](#) 2,643 posts since Nov 9, 2014

CUMMINS FAULT 4769 VIN KZ0866

Re: CUMMINS FAULT 4769 VIN KZ0866 Oct 14, 2020 11:37 AM

Jon, found this go under service solutions not off the main page.

- [DOC-1033000.pdf](#) 5.8 KB Preview



[Jon Cecil](#) 848 posts since Nov 25, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Oct 14, 2020 12:57 PM

Sorry, should have been more clear. I can't find SS1034491 anymore. It specifically said to look for reversed coolant lines going to the DEF header causing random fault codes. I looked through bulletins to see if it was changed over to a bulletin but couldn't find it there either.



[Robert Cadell Jr](#) 2,643 posts since Nov 9, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Oct 14, 2020 1:06 PM

Ok, waiting for a answer as to what happened

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Good Hunting – You'll find your problem



[Mike Swint](#) 3 posts since Nov 14, 2014

Re: CUMMINS FAULT 4769 VIN KZ0866 Oct 14, 2020 6:49 PM

I found the def lines backwards, swapped them at the frame rail, and replaced the def header as they say it was exposed to high heat and thus ruined the sensor. no codes, all ok now.