

SS 3095-FTL 2022 New CPC5 Functionality Difference

Applicable Vehicles

UPDATED PART NUMBER LIST as of July 13 2022

The following CPC5 part numbers:

- **A 055 446 40 02 (version 20.4)**
- **A 055 446 48 02 (version 20.5)**

Installed in new trucks or used as a service replacement part.

For new vehicles: all New Cascadia built after February 21, 2022 included one of the above parts.

This solution does not apply to any other CPC5 part number, and does not apply to Business Class M2, 108SD, 114SD, or 122SD vehicles.

Symptoms

Repeat replacement of the CPC5 on New Cascadia equipped with Detroit engines. Potential issues will affect the ability of the CPC5 to read input signals from:

1. Accelerator Pedal Position #1 or #2 sensor
2. Ambient Air Temperature sensor
3. Vehicle Speed Sensor sensor (very low usage option)

If an un-diagnosed short-to-battery condition exists to the sensor common pin associated with these inputs, an internal fuse in the CPC5 can open.

Issue

Shortages of a circuit protection ASIC (application-specific integrated circuit) forced the component supplier to install non-serviceable fuses on four sensor common pins of the CPC5 module.

The non-serviceable fuses protect four sensor common pins on the CPC5 module from a short-to-battery condition. The pins that are impacted are:

1. VSS Sensor Common at connector ENG_CTRL_DASH_0_ECU_CPC5_3A pin 22
2. Ambient Air Temperature Sensor Common at connector ENG_CTRL_DASH_0_ECU_CPC5_3A pin 35
3. Accelerator Pedal Position #1 Sensor Common at connector ENG_CTRL_DASH_0_ECU_CPC5_3A pin 29
4. Accelerator Pedal Position #2 Sensor Common at connector ENG_CTRL_DASH_0_ECU_CPC5_3A pin 43

Note that specific harness drawings will vary from vehicle to vehicle.

A short-circuit to battery voltage condition in wiring to one of these sensor common pins *may* result in one of these fuses opening. If wiring issues are not isolated and corrected, multiple CPC5 modules may be used before a vehicle is repaired.

CPC5 parts with the non-replaceable fuses have replaced all previous CPC5 parts for vehicle repair.

Solution

When a CPC5 needs to be replaced, *and* the replacement CPC5 contains non-resettable fuses, it is vital to ensure that there are short-to-power conditions on the four Sensor Common pins noted above *before* replacing the CPC5. Failure to check for wiring issues may result in replacement of multiple CPC5 modules.

When practical, test the vehicle with an earlier CPC5 controller. P/N A 055 446 35 02 contains the ASIC chip and is suitable for use in testing.

Labels :

Electrical

New Cascadia

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ekeerbs

04-22-2022 08:48 A

Note that the first occurrence of the part number is incorrect. There is *only* one part number: A 055 446 40 02.



ekeerbs

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I have recently learned that version 20.5 of the CPC5, part number A 055 446 48 02, was released in May 2022. This version is *also* a fused version of the CPC5 controller.