S021 Battery Monitor Shortage

3/2/2023   ✏ <u>Edit</u>   ⎘ Clone

S021

Subject

Battery Monitor Shortage

Whats New Abstract

Due to supplier constraints, chassis equipped with Auto-Start capabilities will be shipped without the battery monitor installed, and the software parameters will be disabled. These chassis will be "pre-wired" with the necessary harnesses.

3/2/2023 Update:
Battery monitor module parts are now available. This bulletin update includes an installation procedure for the module and instructions to enable software functionality. Vehicles shipped with a prewire condition are now eligible for this customer paid installation of battery monitor modules as requested.

Revision

3/2/2023 Update:

Updated bulletin with additional information in various sections (dated) and added parts ordering and installation procedures.

NOTE: The ordering and installation of the Battery Monitor Module are customer-paid purchase decisions and will not be covered under any warranty claims.

Condition

With the Auto-Start feature disabled, the associated functionality will be lost, and the dash switch will not allow the system to "arm". The dash icon showing the battery state of charge will read "- -" where "0%" is shown below.
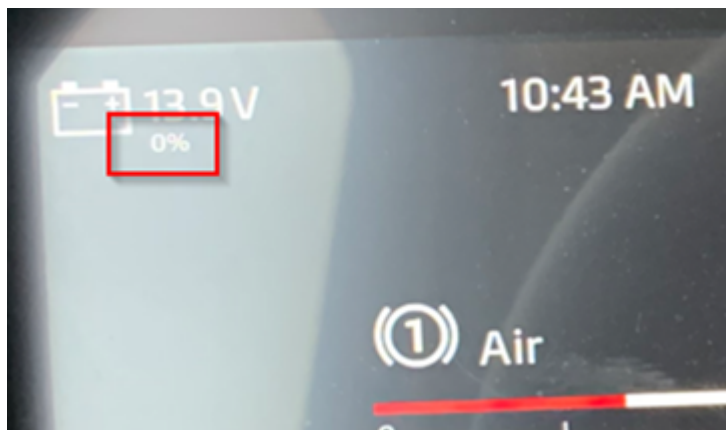
3/2/2023 Update:

Due to global supply chain issues, certain chassis were delivered with a prewire installation for the Auto

start/stop battery state of charge monitor. The monitor modules are now available for customer-paid purchase and installation.

Chassis Affected

Model 567 and 579 chassis equipped with Auto-Start and manufactured from 7/5/2022 through current production.

3/2/2023 Update:

"Prewired" means that the factory installed the harness(es) necessary to connect to the State of Charge (SOC) Module to make the Auto-Start feature functional.

Action

Information Only

This bulletin is to provide information on a battery monitor shortage for chassis equipped with Auto-Start. When parts become available, dealers will be notified and the process to enable the software parameters will be added to the bulletin. For more information please reference [TSB 22-75](#).

3/2/2023 Update:

This bulletin update is to provide a procedure to install the battery monitor State of Charge (SOC) module and instructions on how to enable the software to provide functionality.

Warranty

3/2/2023 Update:

There is no warranty payment associated with this bulletin update. Vehicles that were purchased with State of Charge (SOC) modules and were affected by the parts shortage were credited and shipped with a prewire for SOC modules. These modules and the associated installation are now available for subsequent purchase by the vehicle owners. Parts and installation will be at customer expense.

Parts

NO PARTS

When parts become available, dealers will be notified and the process to enable the software parameters will be added to the bulletin.

3/2/2023 Update:

Parts are available through PACCAR Parts.

Below are the Battery Monitor Module kit numbers to order and are dependent on the type of factory installed batteries.

PPD Kit P/N	Factory Installed Battery	Pre-wire Option Code
P74-6034-100	PACCAR Dual Purpose Battery	7331210
P74-6034-200	North Star Battery	
P74-6034-300	PACCAR AGM Battery	

Procedure

3/2/2023 Update:

Please follow your dealership's safety procedures and precautions to ensure the vehicle can be safely repaired and maintained.

Ensure that the correct part number of State of Charge (SOC) Module is used per the part number matrix in the Parts section of this bulletin. Verify the type of batteries installed.

1.Disconnect vehicle batteries

- Ensure that both the POS and NEG battery connections have been removed from MAIN and AUX batteries.

2.Locate the CAN connector for the Main State of Charge (SOC) Module.

- This "prewired" harness connector should be located in the main battery box. It may be bagged and/or wrapped and cable tied.
- Remove the wrapping and cable ties so that the harness can be connected to the SOC module once

installed.

3.Locate and mark negative cables coming from engine starter and interconnect.
4.Remove negative cables from battery terminal.
5.Attach terminal A of SOC Module to negative battery terminal.
6.Attach starter and interconnect cables to battery terminal.
7.Attach remaining negative cables to terminal B of SOC Module.
8.Attach CAN cable to Connector on SOC module.
9.Secure battery cables and CAN harness as necessary with cable ties.

If vehicle is equipped with AUX batteries, continue with this procedure. If the vehicle does NOT have AUX batteries, skip to software section, below.

10.Locate the CAN connector for the Auxiliary State of Charge (SOC) Module
    a. This "prewired" harness connector should be located in the auxiliary battery box. It will be bagged and/or wrapped and cable tied.
    b. Remove the wrapping and cable ties so that the harness can be connected to the SOC module once

installed.

11. Locate and mark negative cables coming from interconnect.
12. Remove negative cables from battery terminal.
13. Attach terminal A of SOC Module to negative battery terminal.
14. Attach interconnect cables to battery terminal.
15. Attach remaining negative cables to terminal B of SOC Module.
16. Attach CAN cable to Connector on SOC module.
17. Secure battery cables and CAN harness as necessary with cable ties.

## Battery State Of Charge Monitor Installation

> **ℹ NOTE**
>
> Battery *State of Charge (SoC)* monitors are factory-programmed and cannot be reprogrammed in the field. The software in the *SoC* monitor is specific to the brand and type of battery that the vehicle was sold with. Replacing factory batteries with a different brand/type of battery will require a new *SoC* monitor. This new monitor may look identical to old monitor, but will have a different part number.

> **ℹ NOTE**
>
> If experiencing issues with Auto Start performance, ensure all installed battery *SoC* monitors are Revision C or newer. This can be verified by the presence of a sticker "Rev. C" on side of battery *SoC* monitor. Older monitors will not have this sticker.

In order for the battery *SoC* monitor to report accurate charge and battery draw, it must be connected in a specific manner. Terminal **A** of the *SoC* monitor is to be mounted directly onto a negative battery terminal. All other negative cables, with the exception of the starter and interconnect cables, are to be mounted onto terminal **B**. Failure to follow this installation specification will reduce Auto Start system performance and may generate *DTCs*. The connector on the battery *SoC* module accepts the harness connector for *CAN* communication with the chassis node.
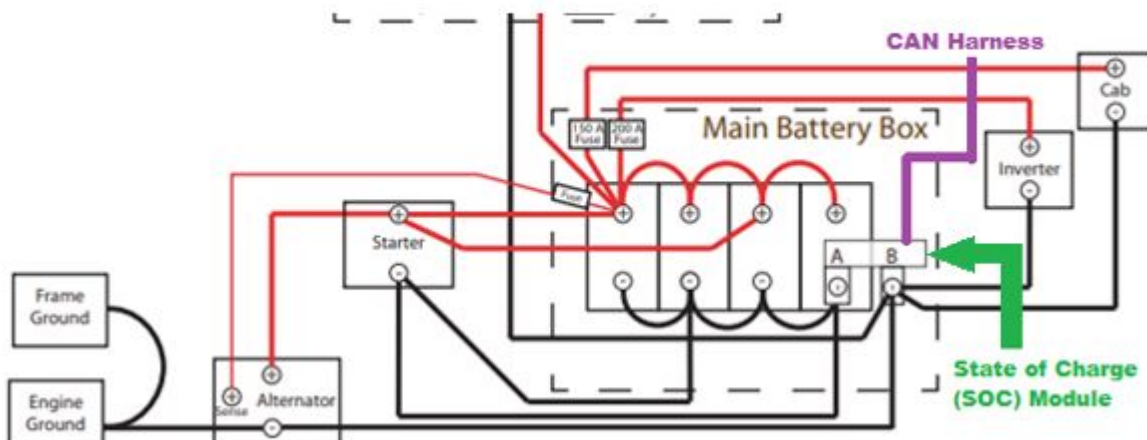
Figure 64: Battery State of Charge Monitor
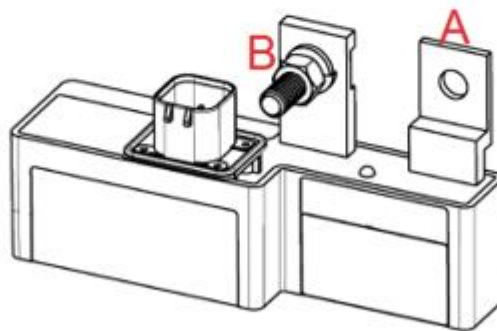
> **ℹ NOTE**
>
> Main and auxiliary battery monitors follow a very similar installation process and look very similar, however they are different. Verify part numbers and ensure proper monitor is installed in proper location.

For the software update on affected chassis:
1. Using PVP, verify parameter AA01289 is set to Enabled.
   a. Note, this specific parameter cannot be changed by the dealership, only Vehicle Support Center

Employees. See below for more information on how to contact the VSC if needed.
2.Connect DAVIE4 to the chassis and verify the VECU CG1322 PN reflects the desired state.
   a. There are three options:

   - 2314402 - VMUX MX WITH AUTO START
   - 2314403 - VMUX CUMMINS WITH AUTO START
   - 2314404 - VMUX WITHOUT AUTO START

   b. If CG1322 PN does not match the desired state, OR if AA01289 is not set to Enabled, open a TCS case
to have the VSC update these parameters to the desired state.
   c. EX: For a VMUX MX to have Auto-Start it must have both:

   - AA01289 = Enabled
   - CG1322 PN with description: 2314403 - VMUX MX WITH AUTO START

3.Vehicle Support Center must process chassis through PVP
4.Dealership can now update VECU software with DAVIE Service Tool
   a. Connect DAVIE4
   b. Download new software for the VECU
   c. Program software to the VECU following DAVIE prompts

TCS365 Case Creation Guide for contacting VSC

Follow this guide to create a TCS365 case for this bulletin to ensure the case routes to the appropriate
personnel.

When opening the TCS case, please request AA01289 to Enabled and CG1322 to Enable auto start.

1.Open TCS365 in Google Chrome or Microsoft Edge.
2.Select: Vehicle Support | Technical Assistance.
3.Select Case Type: MX Software Support (even vehicles with Cummins engines use this selection)
4.Select Case Category: Parameter Changes
5.On the Powertrain Support page, fill in the following fields as shown and/or appropriate:

   - Account Name: Appropriate for your dealer
   - Subject: S021 Battery Monitor Shortage
   - Description: Battery Monitor system install and software update
   - Area of Concern: Software / Programming
   - Repair Order Number: As Appropriate
   - Odometer: Current vehicle Miles/Kilometers
   - Provide Engine SN: appropriate for chassis
   - Vehicle OEM: Select from drop down menu
   - Vehicle Chassis Number: Last 8 of VIN
   - Vehicle Year: Model Year
   - Customer Name:
   - Units: "Miles" etc.
   - Dealer PO#: Appropriate for dealer

Attachments

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