

SS 3175-FTL Progressive Low Voltage Disconnect Parameter Update

Applicable Vehicles

New Cascadia vehicles built between July 1st, 2021 and February 5th, 2025.

M2+ vehicles built between January 9th, 2023 and February 5th, 2025.

Vehicles must be equipped with Progressive Low Voltage Disconnect feature which is ordered under the following sales codes.

Sales codes:

306 015: Progressive low voltage disconnect at 12.3 volts for designated circuits

306 016: Progressive low voltage disconnect at 12.1 volts for designated circuits

Symptoms

Depleted vehicle batteries often accompanied by a sufficiently cold refrigerator.

Issue

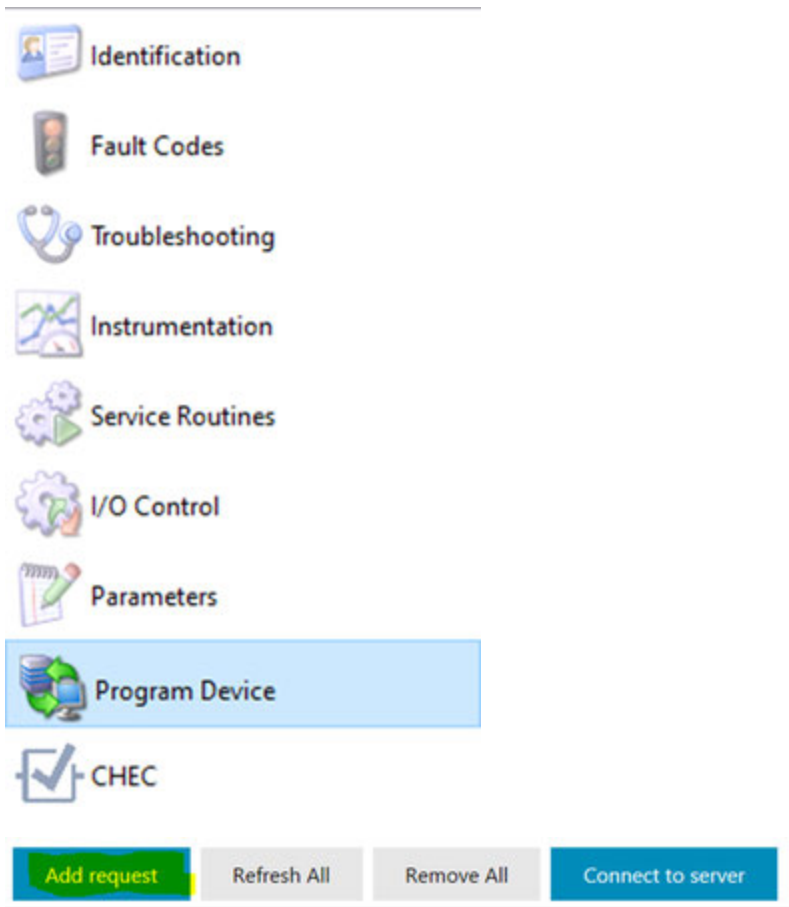
While the vehicle is shut off and parked for extended periods the batteries are protected from over discharge with the Progressive Low Voltage Disconnect feature. Due to an error in a feature parameter which wakes up the ASAM periodically to check battery voltage, the feature did not work as intended. This error caused failure to disconnect specific loads from the power supply causing batteries to over discharge.

Information about the Progressive Low Voltage Disconnect feature can be found in the Driver's manual.

Solution

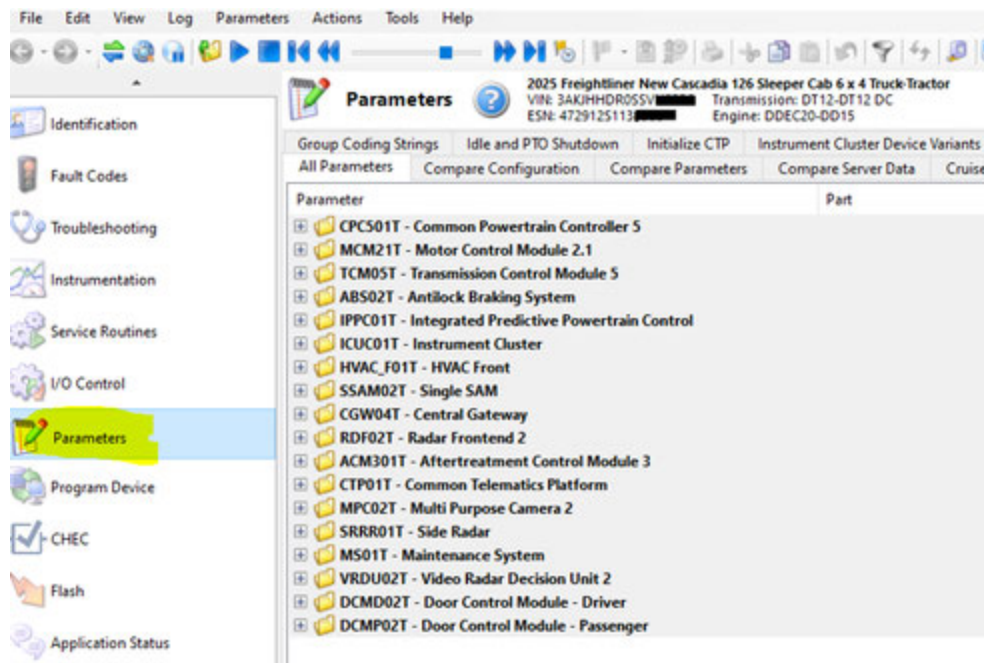
Using Diagnostic Link, connect to the vehicle diagnostic connector with a compatible device. Connect to all ECUs.

1. Select **Program Device** and click the **Add Request** button.



2. Confirm the vehicle information, and select **Connect to server**.

3. After a successful connection return to the **Parameters** menu.

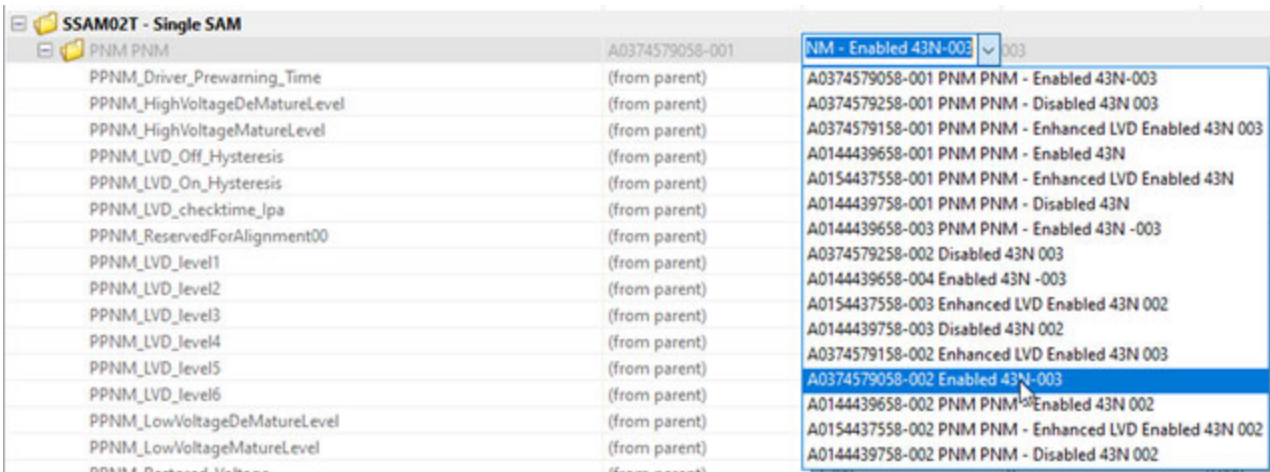


4. Expand the **SSAM02T**, expand the **PNM PNM** group.

5. Select the part number below in the drop down menu for the PNM group as shown below. **The selection needs to be the next revision of the currently equipped parameter. Please see table below for reference.**

Current	Latest
A0144439658-003, Enabled 43N -003	A0144439658-004, Enabled 43N -003
A0374579058-001, Enabled 43N -003	A0374579058-002, Enabled 43N -003
A0374579158-001, Enhanced LVD Enabled 43N 003	A0374579158-002, Enhanced LVD Enabled 43N 003
A0154437558-002, Enhanced LVD Enabled 43N 002	A0154437558-003, Enhanced LVD Enabled 43N 002

Example: A0374579058-001 Enabled 43N-003 → A0374579058-002 Enabled 43N-003



The screenshot shows a table of parameters for 'SSAM02T - Single SAM'. The 'PNM PNM' group is highlighted in yellow. The table shows the following parameters and values:

Parameter	Value	Unit
PPNM_Driver_Prewarning_Time	60.00	s
PPNM_HighVoltageDeMatureLevel	15.50	V
PPNM_HighVoltageMatureLevel	16.00	V
PPNM_LVD_Off_Hysteresis	60.00	s
PPNM_LVD_On_Hysteresis	60.00	s
PPNM_LVD_checktime_lpa	10	min
PPNM_ReservedForAlignment00	0	

6. Verify the adjusted parameters are showing the correct values. If matching the values below, click **Send**.

Note: These two parameters are the ONLY adjustments.

PPNM_LVD_checktime_lpa = 10

PPNM_ReservedForAlignment00 = 0

A confirmation screen will appear. Double check the 2 adjusted parameters and click **OK**.

Please confirm the parameter changes listed below.

Parameter	Part	Value
SSAM02T		
PNM PNM	A0374579058-002	Enabled 43N-003
PPNM_LVD_checktime_lpa	(from parent)	10
PPNM_ReservedForAlignmen...	(from parent)	0

7. The vehicle has been successfully adjusted.

New Performance after changes above:

After this adjustment operators may notice the circuits powering the items below automatically losing power when the battery voltage reaches the specified value.

1. House loads: this includes the majority of dash and sleeper power outlets, sleeper reading and spot lamps, and sleeper auxiliary fans. A message in the instrument cluster and an beep will sound one minute before the power is turned off to the house loads.
2. Basic loads: this includes power for fleet management systems and third party telematics as well as critical dash and sleeper power outlets.

Type of Loads Turned Off Under Specific Conditions and Standard Values				
Engine State and Voltage Value*	Ignition Position			
	Accessory	Off	On (Ignition)	Start (crank)
Engine On and Voltage Less Than 12.2 Volts	Not Applicable	Not Applicable	None	Not applicable
Engine Off and Voltage Less Than 12.3 Volts and Greater than 12.1 Volts	None	House Loads	None	Not applicable
Engine Off and Voltage Less Than 12.1 Volts	House Loads	House and Basic Loads	House Loads	Not applicable

* The voltage values listed above are default standard and may be changed via parameters.

Please note the power to these circuits will reconnect when the ignition is turned on, engine is started and the batteries reach 12.7 volts for 1 minute.

Labels :

Electrical

New Cascadia

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