



TECHNICAL SERVICE INFORMATION BULLETIN

TSIB 26-06 Rev A		March 30, 2026
TO:	All Buses equipped with Vanner equalizer	
TITLE:	LV Battery Replacement Procedure (Vanner Equipped Bus)	
APPLICABILITY:	Vanner equalizer 80 Series / 81 Series / 85 Series and 86 Series	

Problem Definition

When batteries are replaced in vehicles equipped with Vanner Equalizers, the Equalizer retains historical battery data (State of Charge, State of Health, and achievable capacity) from the old batteries.

As a result:

- The Equalizer continues to operate as if the old or defective batteries are still installed.
- Newly installed batteries may be overcharged or undercharged.
- abnormally high 12 V voltages and SOC imbalance can occur and battery life and overall.
- 24 V/12 V system performance are degraded.

Solution

After replacing batteries, the vehicle must be allowed to charge until the current draw is low, then the “Reset Battery States” function must be performed in the Vanner Equalizer Dashboard. This action:

- Clears the old battery models stored in the MBBM (Model Based Battery Monitoring) Software.
- Forces the Equalizer to correctly recognize the new batteries
- Restores proper charging, balancing, and voltage regulation
- Maximizes battery life and stabilizes the 12 V / 24 V electrical system

Rework instructions:

MBBM software resetting is required when batteries are replaced, to optimize the 24V/12V system performance and battery life. This TSIB document assumes the battery configuration is for 12V batteries in a 24V/12V parallel configuration. Battery manufacturers recommend replacing both batteries when one is found to be defective. Installing a new battery that is paired with a used battery will result in one of the batteries being overcharged because the same charging conditions are applied to all the batteries regardless of state of charge or actual capacity.

After the batteries are replaced, start the vehicle and access the Vanner Dashboard. Navigate to the Equalizer page (Yellow Circle) Start the vehicle. You will see numbers like the red circled numbers below.

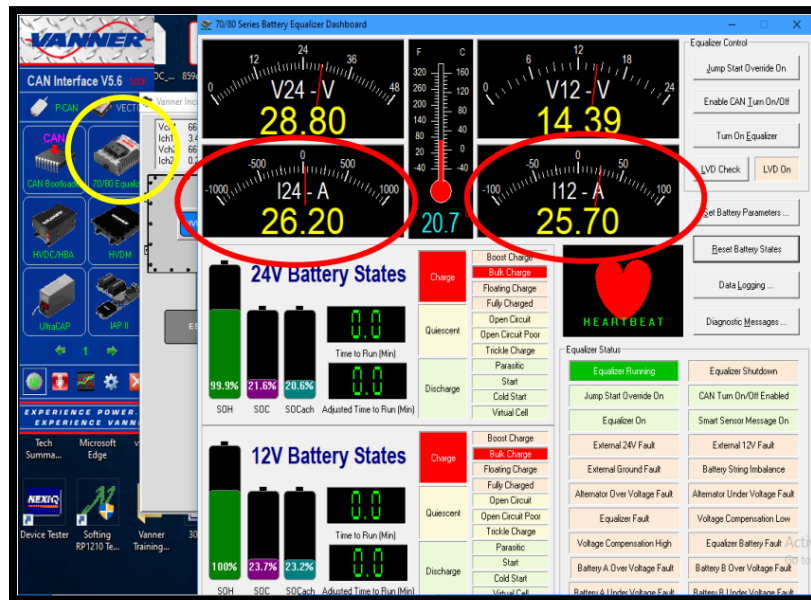


Figure 1 - Vanner Dashboard

Notice that the 24A and 12A are reading in the mid 20's, and the battery voltages are close to a 2:1 ratio. Those numbers are typically seen when the vehicle has been started and has been running for a few minutes, the reading will be gradually dropping. Note that initially you will see the old battery SOC and SOCach which should be much higher since these batteries are new.

Continue running the vehicle and let the new batteries charge. Ideally you should wait until the amp draw on both the 12V and 24V meters drop to 0 and only then reset the batteries.

Due to the present loads on the bus. you may not see the numbers get to 0, so to complete the battery installation you need to allow the batteries to charge as much as they can. You can turn off any unnecessary voltage draw such as lights, fans, defrosters, etc. to speed up the process.

Wait until the Vanner Equalizer Dashboard current draw reaches a single digit which is the trickle charging state. At this point it is essential to reset the battery values.

NOTE: Failing to do this step will cause the Equalizer to treat the new batteries as if they are still the defective batteries.

Resetting the batteries:

To start the process of resetting the batteries, have the dashboard display the Equalizer page. In the upper right-hand corner look for the tab that is labeled “Reset Battery States.” It is the sixth box from the top.

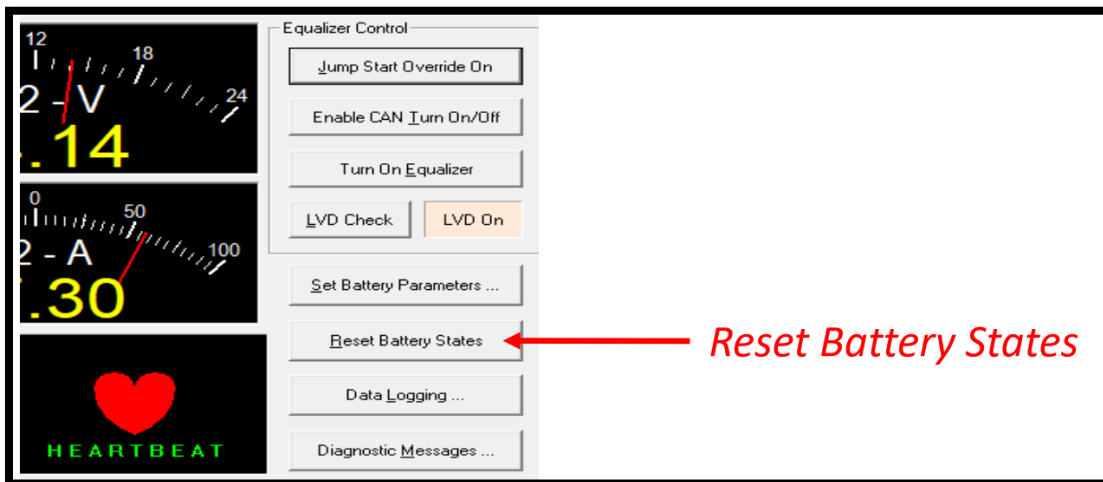


Figure 2 - reset battery

Click on the “Reset Battery States” button a dialog box will open asking to confirm. Click YES. box will be in the center of the page.

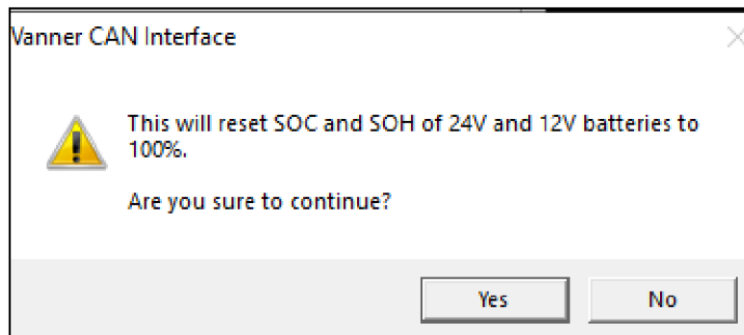


Figure 3 - Reset dialog box

The reset procedure is now completed. The Equalizer can now maximize the lifespan of the newly installed batteries. The bus can now be returned to service.

NOTE: If the battery values are not reset, the Equalizer will eventually correct the battery status values, but that could take several cycles

Direct all inquiries regarding this bulletin to:

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