VOLTGO / VICTRON CAN-BUS INTEGRATION

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Voltgo Battery Communication Setup

The VRLV2560 and VRLV5120 Elite Series batteries communicate with Victron GX devices using either the BMS-CAN or VE.Can ports.

These batteries cannot connect directly into a Victron inverter and all communication must pass through the GX device.

Setting Module IDs

Before connecting the batteries to the Victron system, ensure that each battery is assigned the correct Module ID in the Voltgo App and configured to the CAN protocol "Victron," as shown in Figure 1.

Single Voltgo Battery System

- Set this battery to ID1 on the Voltgo App. ***(Look at Figure 1).***
- Ensure the CAN Protocol is set to **"Victron".** ***(Look at Figure 1).***
- Restart the battery to lock the ID.

Parallel Battery System (Multiple Batteries)

If you have more than one battery in parallel, you will have **ONE** master and up to **FIFTEEN** slaves so follow these rules:

1. Master Battery

- The master battery must be set to ID1 on the Voltgo App***. (ONLY THIS BATTERY CAN BE ID1)***
- This master battery is the only one that connects to the Cerbo GX using the Type-A CAN cable.
- Ensure the master battery's CAN Protocol is set to **"Victron."** ***(Look at Figure 1).***

2. Slave Batteries

- All other batteries are slaves.
- Each slave battery must have a different ID number, programmed on the Voltgo App:
    - Example: ID2, ID3, ID4, etc.
- All ID numbers must be unique.
    - No two batteries can share the same ID.
    - You cannot have two batteries both set to ID2, or two both set to ID3, and etc.
- Ensure each slave battery is set to the CAN Protocol **"Victron."** ***(Look at Figure 1).***

3. Restart Required

- After setting the IDs, restart every battery.
- The restart is required so each module saves and locks its assigned ID.

Voltgo App Images (MIDDLE IMAGE MOST IMPORTANT FOR VICTRON SETUP):

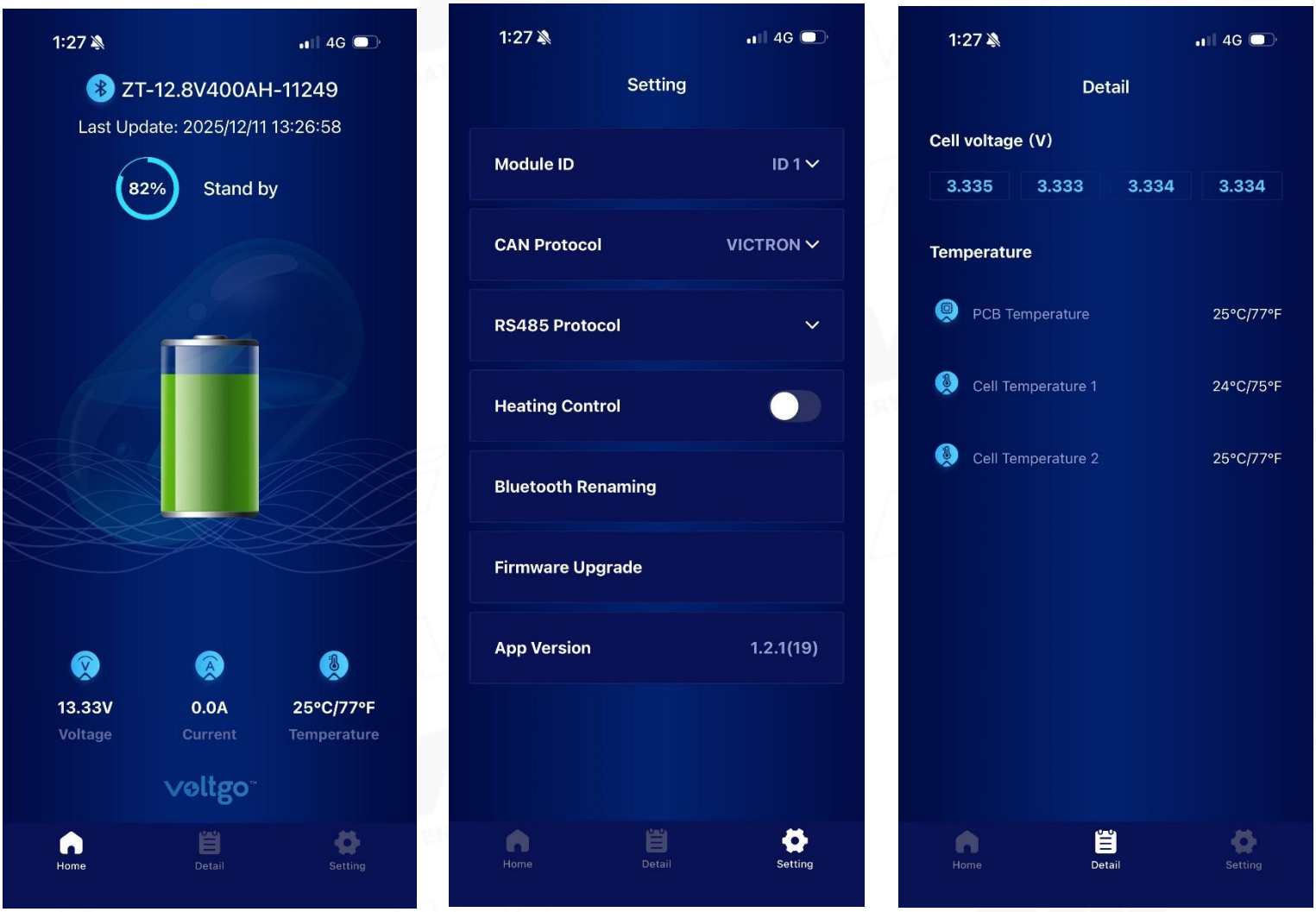


Figure 1: Battery Electrical Characteristics (LEFT), Communication Capabilities (MIDDLE), Battery Temperature (RIGHT)

CAN-Bus Communication between the Voltgo Battery and Victron GX Device

To connect the VOLTGO Elite battery system to a Victron GX device, utilise a **Type-A VE.Can to CAN-BUS BMS Type-A cable:** ***Product Link for Communication Cable (https://www.master-instruments.com.au/products/68140/ve.can-to-can-bus-bms-type-a-cable-1.8m.html)***

- Both ends of this communication cable are **RJ45**.
- Plug one RJ45 end into one of the two CAN-BUS RJ45 ports on the **MASTER VOLTGO BATTERY** (this battery must be set to **ID1** when a single battery setup or multiple batteries setup is utilised).
- Plug the other RJ45 end into either the **BMS-CAN** port or the **VE.Can** port on the Cerbo GX Device.
- Depending on which port you are using **(BMS-CAN or VE.Can),** please place a CAN terminator on the unused port next to it.
- Look below at ***Figure 3*** for BMS-CAN Port Connection and at ***Figure 4*** for VE.CAN Port Connection.

This method and cable type is fully compatible with all Cerbo GX devices, seen below in ***Figure 2***, and provides a direct CAN-BUS communication link to Voltgo Elite Batteries:

Figure 2: Cerbo GX Mark 1 (LEFT), Cerbo GX Mark 2 (MIDDLE), Cerbo-S GX (RIGHT)

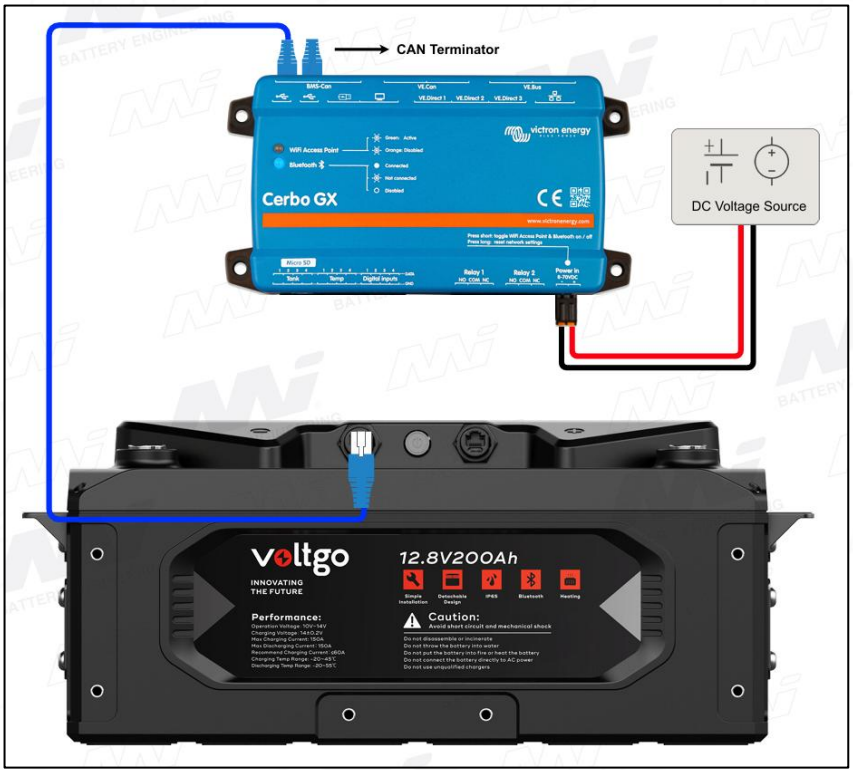


Figure 3: Voltgo Battery to Cerbo GX Connection via BMS-CAN Port.

Figure 4: Voltgo Battery to Cerbo GX Connection via VE.CAN Port.

Setting the CAN-Bus Profile on the Cerbo GX

For the Victron ↔ VOLTGO communication to work correctly, you must update the CAN-Bus Profile on the Cerbo GX:

- This ensures the GX device communicates at the correct speed with the VOLTGO batteries.
- You can do this using either the GX Touch or the Remote Console.

How to Change the CAN-Bus Profile on OLD & NEW GUI Version:

1. Open the Cerbo GX menu.
2. Navigate to Settings → Services (OLD Version) or Settings → Connectivity (NEW Version). After this point, the remaining steps are the same for both interface versions.
3. Select the Cerbo GX port you are utilising to connect the Type A cable to the Voltgo battery.
   - VE.Can, or
   - BMS-CAN
4. Change the CAN-Bus Profile to:
   - CAN-Bus BMS (LV) – 500 kbit/s
5. Exit the settings, and you should now see your Voltgo battery detected.

Why This Is Important

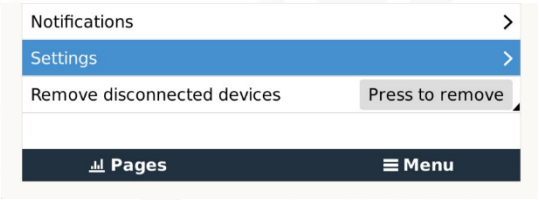
Setting the CAN-Bus Profile Ensures:

- Correct CAN speed
- Stable Communication
- Accurate SOC Reporting
- Proper Charge/Discharge Control

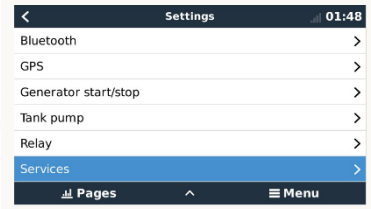
Navigation Diagrams for both NEW and OLD GUI Versions

Below are diagrams to guide you through where to go on the Cerbo GX interface (OLD Version).

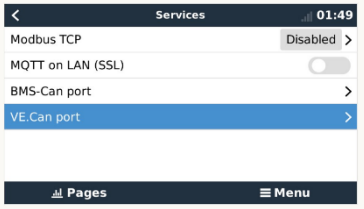
Go to Settings.



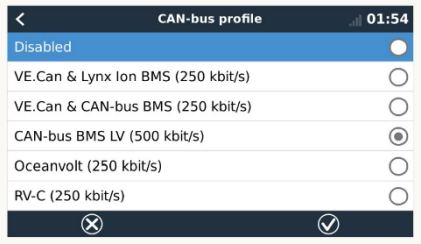
Then, select services.



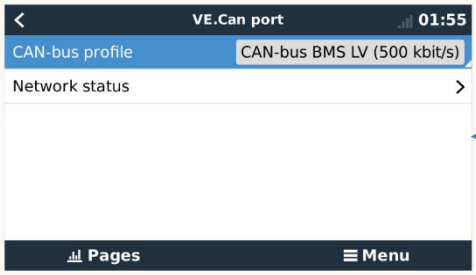
Choose BMS or VE.CAN Port.



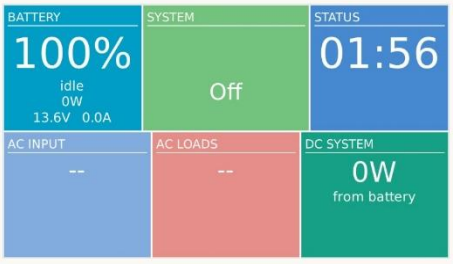
Click CAN-BUS BMS LV (500 kbits/s).



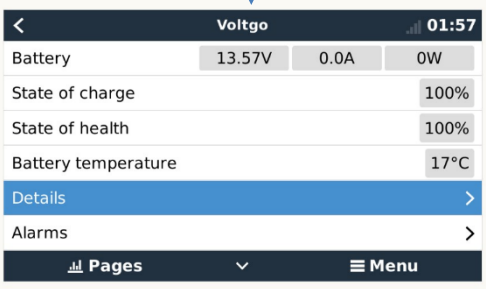
CAN-BUS Profile is now updated.



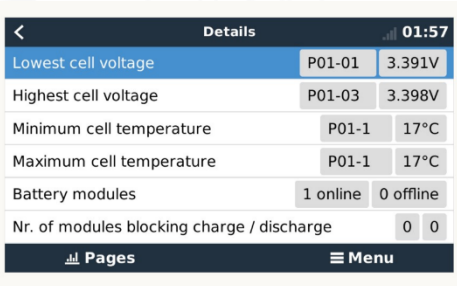
Check the system overview to confirm that Voltgo Battery is successfully communicating with the GX.



Click on the Voltgo Battery Profile, then go on details.



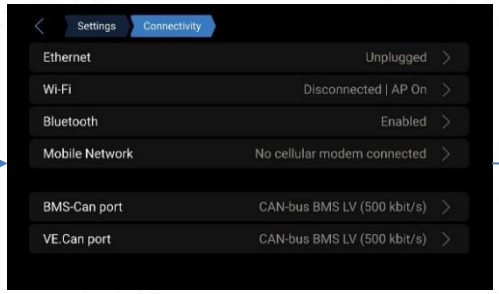
Observe the detailed electrical and temperature characteristics for the Voltgo Battery.



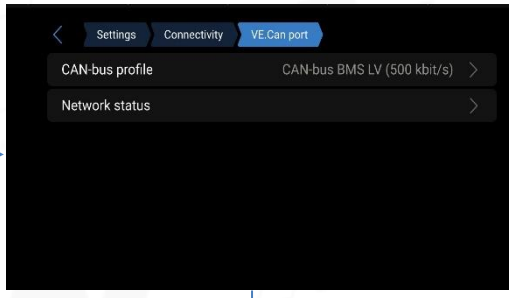
Below are diagrams to guide you through where to go on the Cerbo GX interface (NEW Version).

Go to Settings.

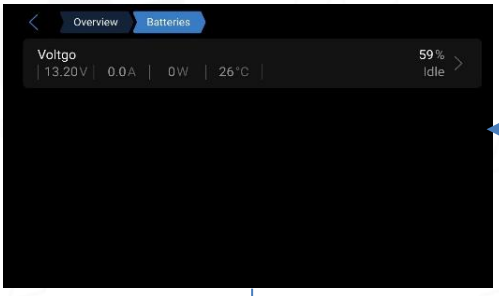
Then, Select Connectivity.

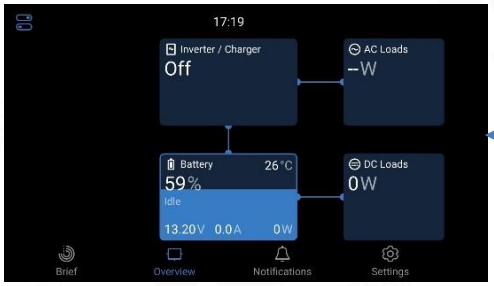


Choose BMS or VE.CAN Port.

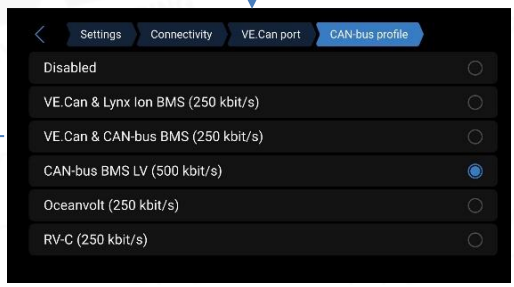


Click on the Battery Hub to see the Voltgo characteristics.

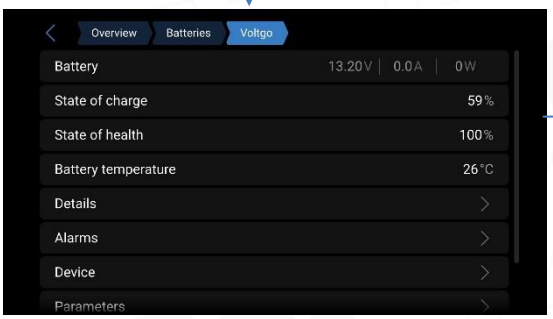




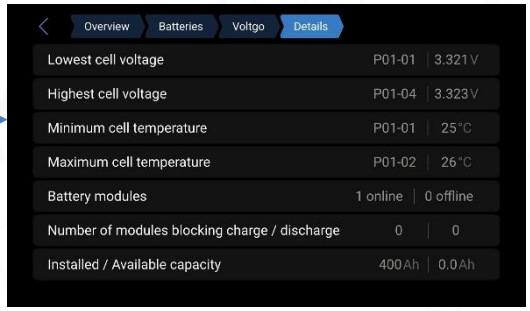
Check the system overview to confirm that Voltgo Battery is successfully communicating with the GX.



Click CAN-BUS BMS LV (500 kbits/s).



Go over the features of the Voltgo Battery.



Click Details to see more information on the Voltgo Battery.