Victron & ZYC Energy

1. Product & System compatibility

1.1 A GX device is required, eg Cerbo GX, etc

It is essential to use the BMS-Can (or CAN-bus) connection of a GX device with these batteries for communication of charge and discharge limits, error codes and state of charge. This is set to 500 kbit/s.

It is recommended to use the latest firmware version on new installations and when trouble shooting issues.

1.2 All 48V Multis, MultiPlus, Quattros and RS models are compatible

The minimum supported firmware version for VE.Bus models is 469. Minimum supported firmware for RS models is 1.16. Updating to the latest firmware is recommended for new installations, and troubleshooting issues.

These inverter/charger units must be connected to the GX device via the VE.Bus connection port.

In grid connected systems, advanced control functions are configurable in the ESS settings on the GX device.

In off-grid systems, the control functions of the Battery Management System (BMS) are built into the latest version of the GX device.

1.3 Solar Charger compatibility

All 48V BlueSolar and SmartSolar MPPT Chargers are compatible.

Some of our Solar Chargers feature a VE.Direct communication port, some feature a VE.Can communication port, and some feature both. Both of these types of communication ports can be used to connect the Solar charger to the GX Device. Such connection is mandatory, because it is used to regulate charge currents and voltages.

When planning to use the VE.Can communications port to connect the Solar Charger(s), make sure to select a GX Device that has sufficient CAN-Bus ports. The Color Control GX has only one such port, its VE.Can port, and is therefor not suitable. All other GX Devices can be used, since they have two ports. One can then be used to connect the battery, and the other to connect the Solar Charger.

2. Minimum battery sizing

.	Single Phase	Single Phase	Three Phase	Three Phase
Inverter/Charger	On-grid	Off-grid	On-grid	Off-grid
Multiplus 48/500/6	1	1	1	1
Multiplus 48/800/9	1	1	1	1
Multiplus 48/1200/13	1	1	1	1
Multiplus 48/1600/20	1	1	1	2
Multiplus 48/2000/25	1	1	1	2
Multiplus 48/2000/25-50 120V	1	1	1	2
Multiplus 48/3000/35	1	1	2	3
Multiplus 48/5000/70	1	2	2	4
Multiplus II (GX) 48/3000/35-32	1	1	1	3
Multiplus II (GX) 48/5000/70-50	1	2	2	4
Multiplus II 120V 48/3000/35-50	1	2	1	3
Multiplus II 120V 48/5000/70-95	1	2	2	4
Multiplus II 48/3000/35-32	1	1	1	3
Multiplus II 48/5000/70-50	1	2	2	4
Multiplus II 48/8000/110-100	1	3	3	7
Multiplus II 48/10000/140-100	2	3	3	8
Multiplus II 48/15000/200-100	2	4	4	12
Quattro 48/3000/35-50/50 120V	1	1	2	3
Quattro 48/5000/70-100/100 120V	1	2	2	4
Quattro 48/10000/140-100/100 120V	2	3	3	8
Quattro 48/5000/70-100/100	1	2	2	4
Quattro 48/8000/110-100/100	1	3	2	7
Quattro 48/10000/140- 100/100	2	3	4	8
Quattro 48/15000/200- 100/100	2	4	4	12
Quattro 48/15000/200- 100/100 277V	2	4	4	12
Quattro II 48/5000/70-50	1	2	2	4
RS Smart Solar 48/6000	1	2	2	4
Multi RS Solar 48/6000	1	2	2	4
Multi RS Solar 48/6000 Dual Tracker	1	2	2	4
Easysolar II 48/3000/35-32 MPPT 250/70 GX	1	1	2	3
Easysolar II 48/5000/70-50 MPPT 250/100 GX	1	2	2	4

3. Further system integration documentation

A QuickStart guide with further details about installation and configuration is available from ZYC Energy here.

Their product manual contains further information here.

3. Installation Video

4. Remote ZYC firmware update via VRM

VRM remote firmware update is typically only for Victron products, however a special ZYC integration allows for this specific third-party battery update via the GX device and VRM without requiring any extra tools or software.

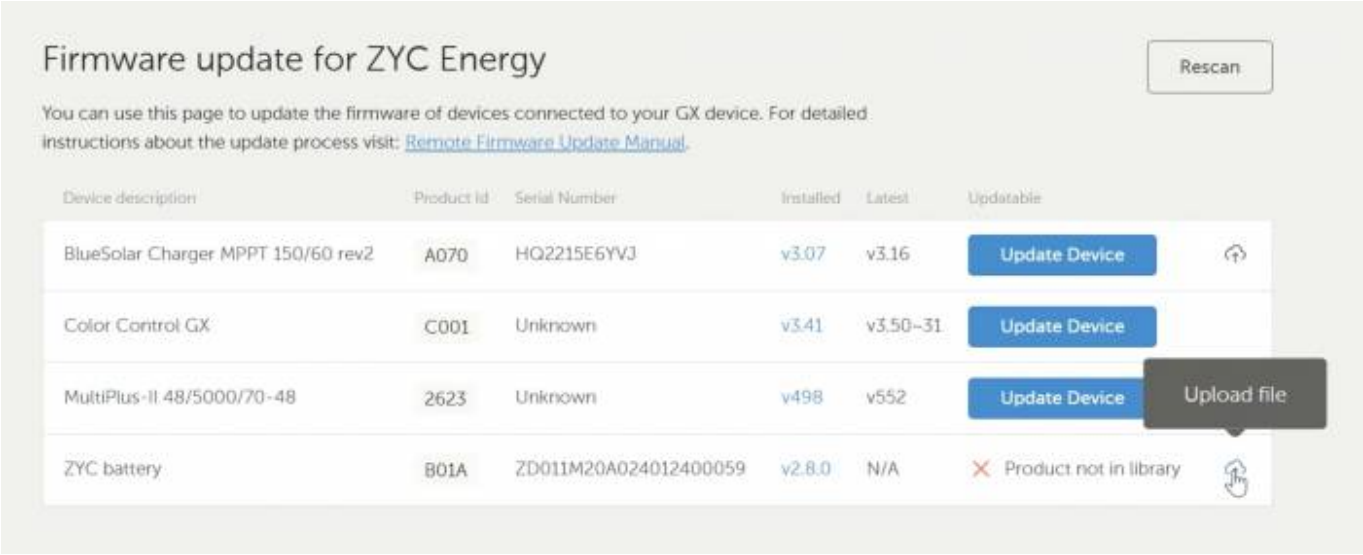
Prerequisites

Before starting, ensure the ZYC battery is connected to a Victron GX device via CAN-Bus and that the GX device is internet-connected and registered with the Victron VRM portal. You'll also need the necessary permissions in VRM to perform updates.

Confirm the GX device is internet-connected with "Full access" enabled in the VRM menu of the GX settings.

Updating Process

Access the Victron VRM portal, select your installation, and check the device list for the ZYC battery to make sure it is properly detected.



Check for Updates

Victron does not store ZYC firmware files on VRM, nor does it know what the latest firmware version is, or if there is an update available. ZYC updates will need to be downloaded to your computer first from https://www.zycportal.com documentation section so that you can upload them via VRM.

Prepare for Update

Review any notes or warnings in VRM, ensuring the system is in a safe state for updating.

While this is a reliable proceedure, there are always risks involved when performing a firmware update. For example in a remote off grid system, if a power outage would would affect someone on site they should be notified first before attempting it.

Perform the Update

ZYC has prepared a step by step guide here -

simpo_5000_update_guide_via_vrm_v1.0.pdf

There is a screen recording of the process here -

update_firmware_through_vrm.mp4

Open the device list for the site, click the Firmware update button. If there is no firmware update button; see here for troubleshooting.

Follow VRM's on-screen instructions to initiate the firmware update, this involves uploading a firmware file obtained from ZYCs website. Wait for the process to complete.

If the update fails, restart GX device, retry the update, and if it fails again, contact ZYC for support.

Verify the Update

After completion, check the battery's firmware version in VRM and monitor for any system issues. The VRM firmware update is applied to the Master battery, for large systems it can take some time for the ZYC BMS to then automatically update the firmware of the other connected batteries.

5. Support

Support for this battery should first come from your ZYC Energy supplier.