

# Victron & Pylontech US2000B and Phantom-S

## Compatible Victron products

All 48V Multis and Quattros. And always a [Color Control GX](#) is necessary in the system, since that has the canbus port which is used for the (required!) communication between the Pylontech battery and the Victron system.

## Notes

- PylonTech batteries can only be used in a [Victron ESS installation](#): an installation that uses the ESS Assistant.
- Derating, based on the dynamic Pylontech charge- and discharge limits:
  - Minimum CCGX version is v2.00
  - The derating mechanism is not precise. In other words, do not expect a discharge limit of 30A to result in a precise discharge of 30A.
  - Actual charge- and discharge limits are visible in the Parameters page. See screenshot below.
- Pylon batteries and MPPT Solar Chargers with a VE.Can communication port cannot be both connected to the CCGX, because of different canbus speeds. Use Solar Chargers with a VE.Direct comm. port instead.

## Wiring of communication cables

A special RJ-45 cable is necessary to connect the Pylontech to the CCGX. Pinout:

Function	CCGX / VE.Can RJ-45	Pylontech RJ-45
GND	Pin 3	Pin 2
CAN-L	Pin 8	Pin 5
CAN-H	Pin 7	Pin 4

Plug the CCGX side of that cable into one of the VE.Can sockets on the back of the CCGX.

Plug the other end into the CAN port of the battery.

Then, plug a [VE.Can terminator](#) in the other VE.Can socket on the CCGX. Two VE.Can terminators are included with the package of the CCGX as an accessory, only one is used. Keep the other one as a spare.

Without properly connecting this cable, the battery will stop charging/discharging after 10 minutes. Also, the battery will not show up on the display of the CCGX.

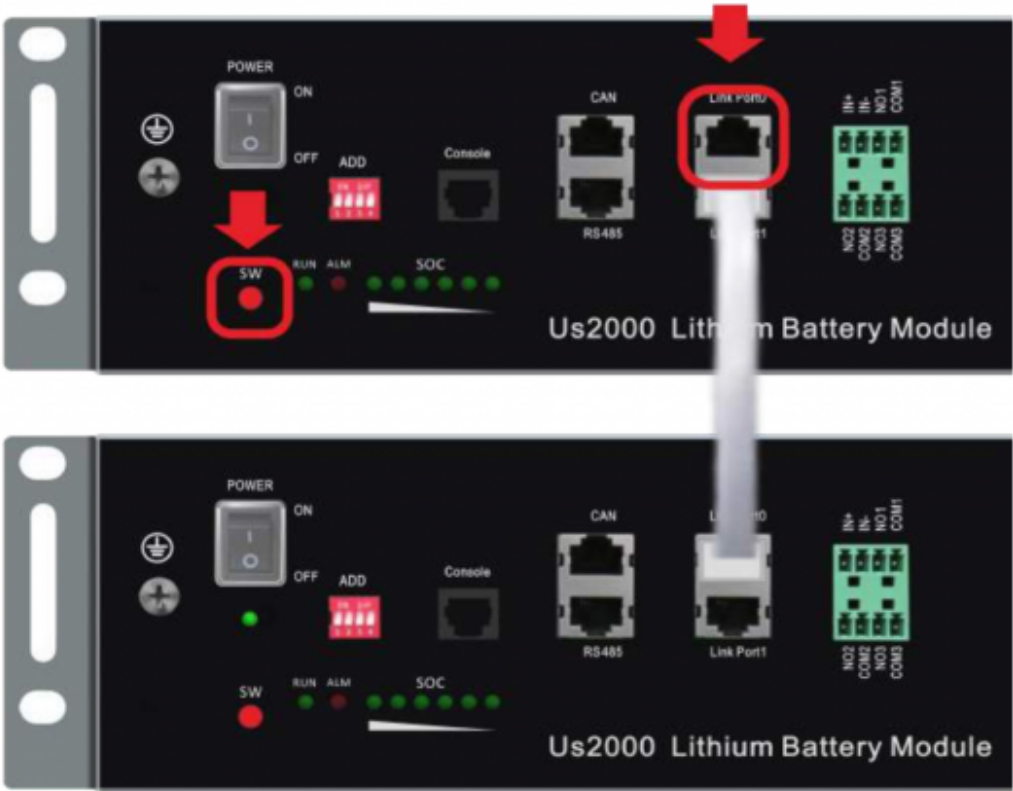
### Multiple batteries

Chain the batteries using the RJ-45 cable supplied by Pylontech using the link ports on the battery:

The system auto configures itself: no software changes necessary.

The battery with the empty link port 0 is the master battery. Connect the master battery to the CCGX.

(2) The one with **emptyLink Port 0** is the **Master Battery** Module, others are slaves:



VEConfigure settings

General tab

- 1. Check “Enable battery monitor”
- 2. Set the battery capacity to 50Ah times the number of battery modules.
- 3. The other parameters (“State of charge when bulk finished” and “Charge efficiency”) can be left to their default setting. They are not used in this setup.

Charger tab

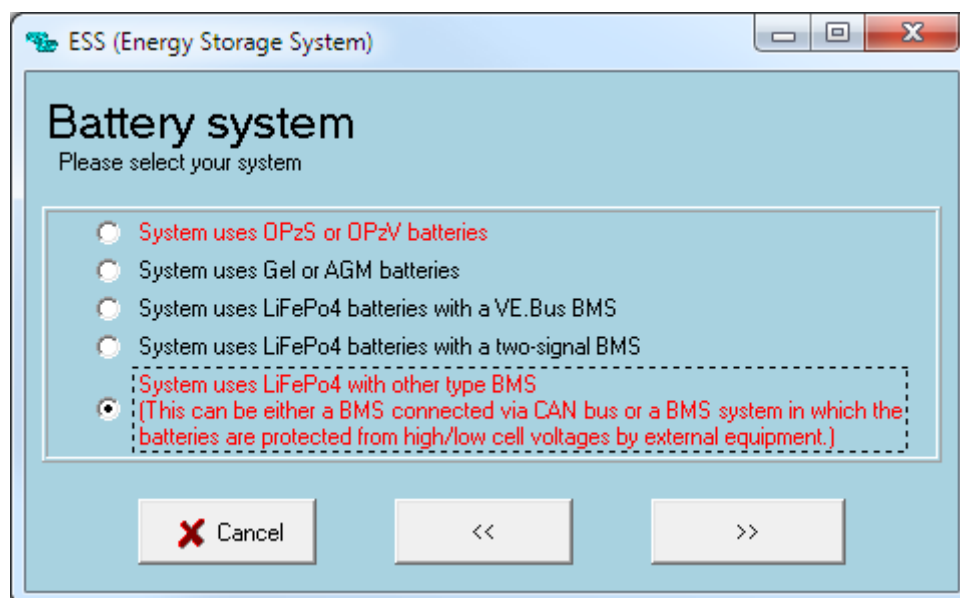
Parameter	Setting
Battery type	Lithium
Charge curve	Fixed
Absorption voltage	53.2 V
Float voltage	53.0 V
Absorption time	1 Hr

Note: make sure to double check the float voltage after completing Assistants, and if necessary set it

back to 53.0 V.

## ESS Assistant

Select the fourth battery type:



Then:

1. Sustain: 50.0V
2. Dynamic cut-off values: 47.0V
3. Restart offset: do not change

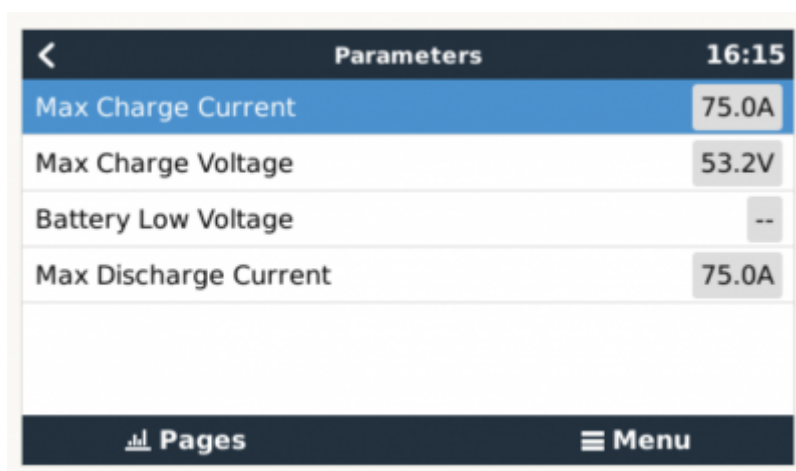
## Color Control GX Configuration

- Select the *CAN-bus BMS (500 kbits/s)* CAN-profile in the CCGX. Menu path: *Settings* → *Services* → *CAN-profile*. Note that this changes the function of a VE.Can port: it is not possible to connect both VE.Can products and an Pylontech battery together.
- After properly wiring and setting up, the Pylontech will be visible as a battery in the device list

Device List				16:18
Pylontech battery	41%	48.48V	-0.6A	>
BlueSolar Charger MPPT 150/70			10W	>
MultiPlus 48/5000/70-100			Bulk	>
Notifications			1	>
Settings				>
Pages				Menu

(if you have multiple batteries a single entry will show up, which represents all batteries).

- The parameters option within the battery page shows the actual battery charge and discharge limits:



The screenshot shows a mobile application interface titled 'Parameters' with a back arrow on the left and the time '16:15' on the right. It lists four battery parameters with their current values in input fields. At the bottom, there are buttons for 'Pages' and 'Menu'.

Max Charge Current	75.0A
Max Charge Voltage	53.2V
Battery Low Voltage	--
Max Discharge Current	75.0A

## FAQ

**The maximum charge and discharge current is limited to 25A, but the data sheet tells me the maximum is 100A.**

The maximum current is limited to keep the battery healthy and reach the 10 year guarantee.

**After charging the battery the charge current often changes between 0A and 25A.**

This is caused by cell balancing inside the battery. This happens with new batteries and after a deep discharge.

## DISQUS

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From:  
<https://www.victronenergy.com/live/> - Victron Energy

Permanent link:  
[https://www.victronenergy.com/live/battery\\_compatibility:pylontech\\_phantom?rev=1505466541](https://www.victronenergy.com/live/battery_compatibility:pylontech_phantom?rev=1505466541)

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