Deichmann Lithium-ion Battery & Victron Inverter Set Up Guide

The purpose of this document is to explain the set-up guidelines for the lithium-ion battery of Deichmann and the inverter of Victron Multiplus-II 48/3000/35-32.

1. Check List

DEICHMANN Battery	Power Cable (25mm²)	Communication Cable (RJ45-RJ45)	Victron Multiplus-II 48/3000/35-32 Inverter & Victron Colour Control GX

NOTE

- When you manually make the communication cable, the PIN assignment need to be paid attention to. Please check APPENDIX 1 for battery and inverter PIN assignment.

- Before start, make sure battery and inverter size match. Follow Deichmann user manual to check details, it is recommended to use battery in 1: 2 configurations. In our case now, 3kW inverter connects to 5kWh battery

2. Setup steps

Step 1: Cable connection to inverter

Keep both inverter and battery completely off. Connect power cable and Colour Control GX Communication cable to inverter firstly. This comm cable from inverter RJ45 port to Colour Control GX VE. Bus port. It's a standard cable.

Step 2: Connect the communication Cable

Keep battery off, connect communication cable to battery and Colour Control GX.

NOTE

- Connect the CAN port of the battery to the VE. Can port of the inverter Colour Control GX through the communication cable.
- Please check APPENDIX 1 for pin definition of communication cable.

Step 3: Connect the power cable and Colour Control GX DC cable to the inverter

To keep the inverter and battery completely off, first connect the power cable and Colour Control GX DC cable to the inverter.
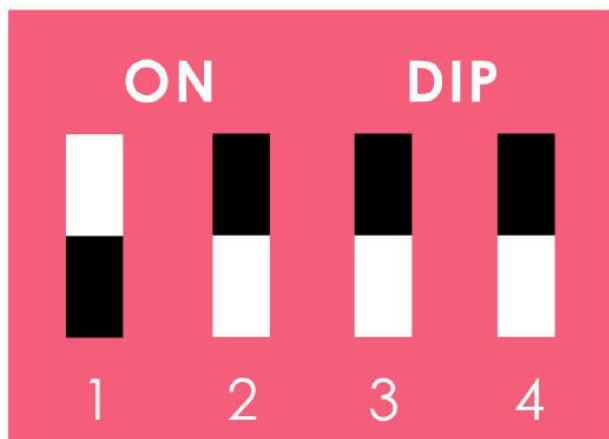

NOTE

- There is a label on the power cable to ensure that the polarity connection between inverter and battery is correct, not reversed.

Step 4: Dial DIP switch on master

Make sure master battery is dialled as below method. In parallel, please check APPENDIX 2 for all battery dial addresses.

ON OFF OFF OFF

Step 5: Cable connection to battery

Keep battery off, connect power cable to battery.

Red cable is connected to the positive pole of the battery, Black cable is connected to the negative pole of the battery.

Step 6: Breaker between inverter and battery

Connect DC breaker between inverter and battery to protect.
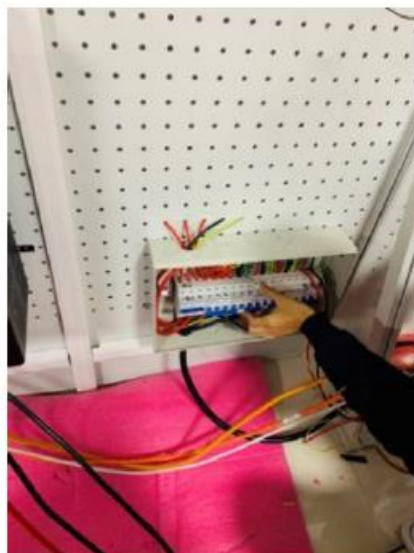
NOTE

- Confirm the use of suitable circuit breaker.

Step 7: Turn on battery

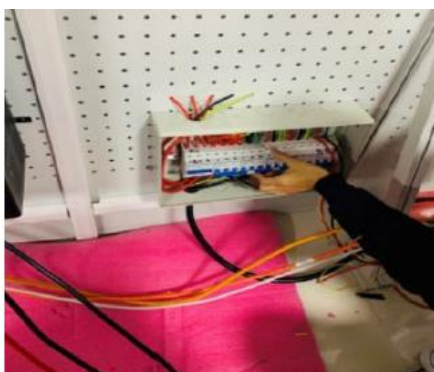Press the power switch on the battery panel, the power indicator will light up and battery will turn on.

Step 8: Switch to ON to start the inverter.

Step 9: Turn on the DC breaker
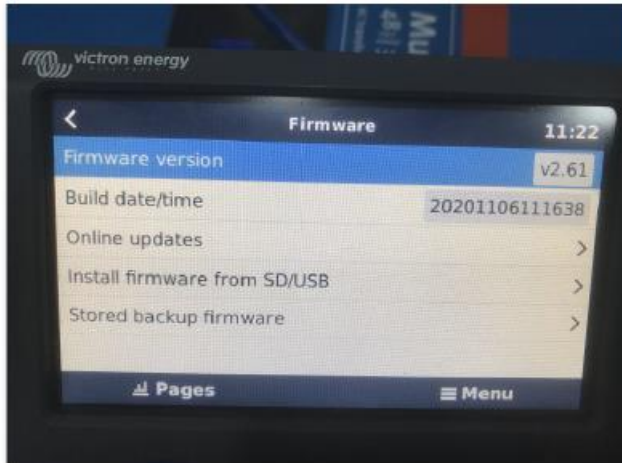
Open the circuit breaker
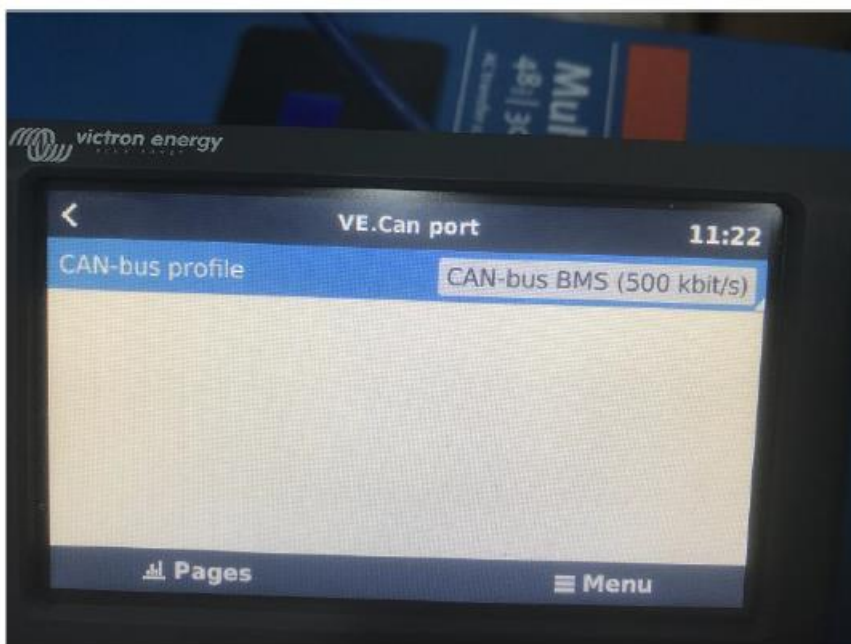
Step 10: Battery and inverter are connected.

Now inverter is started, we can do some setup on the Colour Control GX to make the communication success.
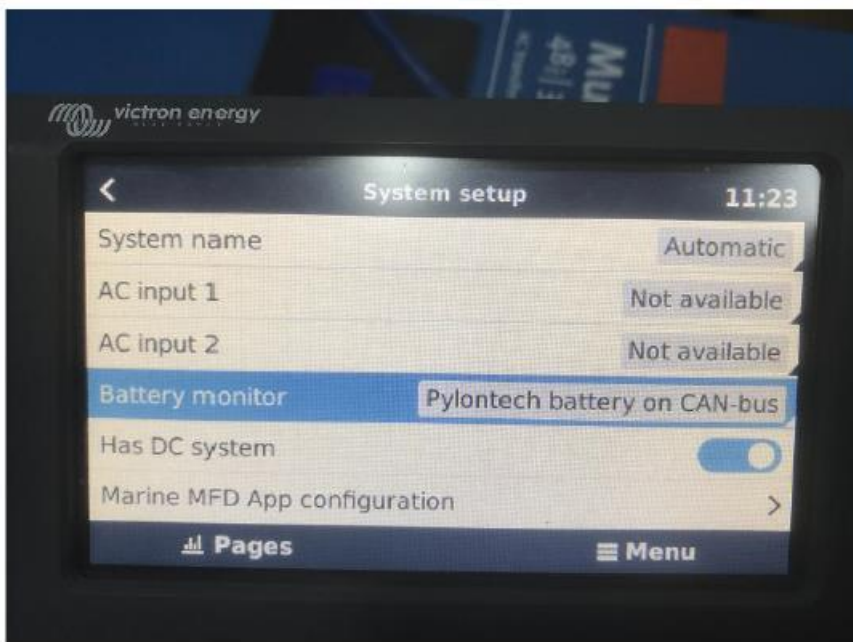
Step 11: Inverter setup

- Ensure the Colour Control GX firmware is newer than v2.42. Setting---Firmware
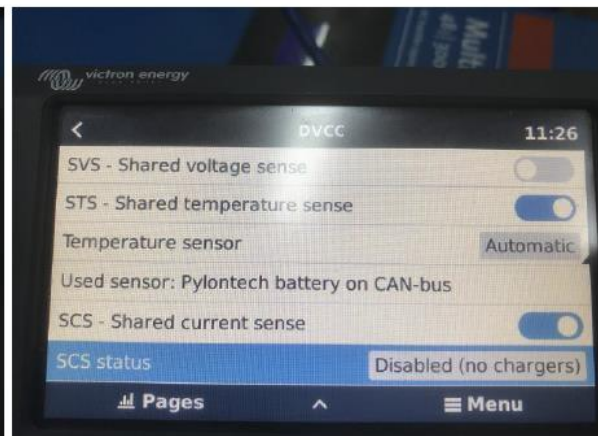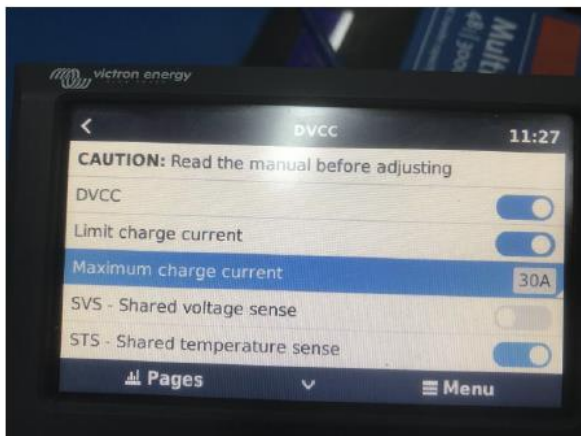

- Setting---Services---CAN bus---CAN bus profile---choose "CAN-bus BMS (500 kbit/s)"

- Setting---System setup---Battery monitor---choose "Pylontech battery on CAN-bus"


- Setting---DVCC---Turn on DVCC

  In DVCC, turn on the "Limit charge current", set the Max. charge current 30A, Turn on STS & SCS, leave SVS off.

- Get into "MultiPlus-II 48/3000/35-32", you can set "input current limit" to control the input power, however, if the battery communicates with Victron successfully, inverter will follow the request value sent by battery BMS, such as the Max. charge current, bulk voltage etc.
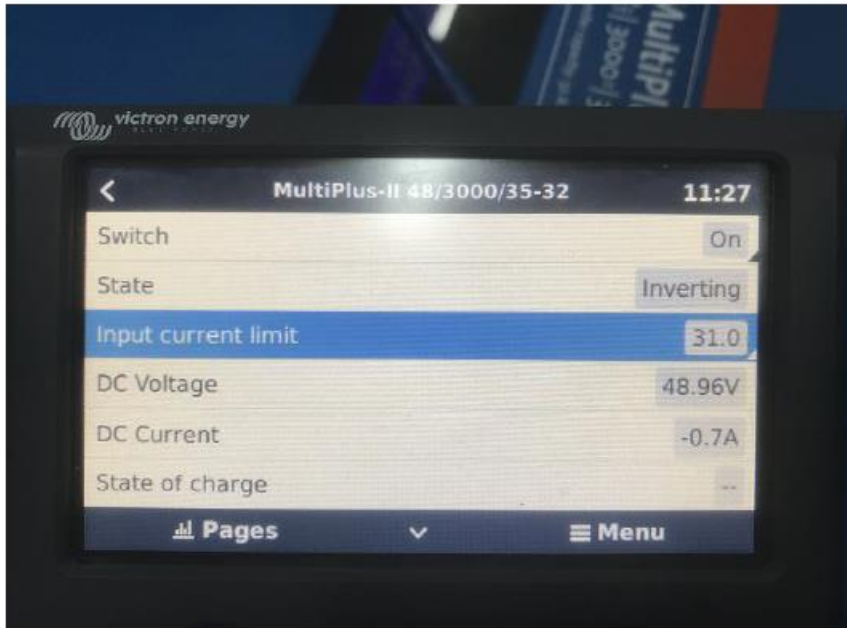
- Get into "Pylontech battery",

 Choose Parameter---to see the value sent by battery BMS
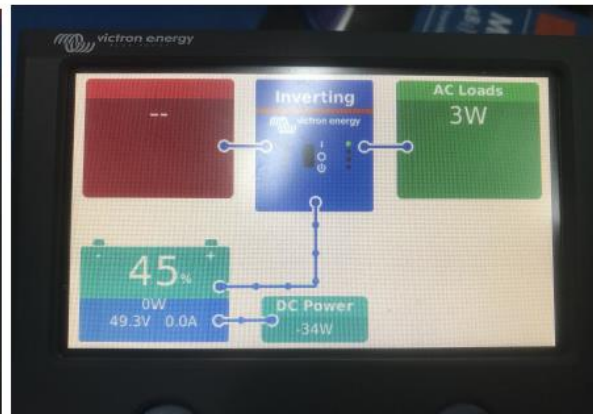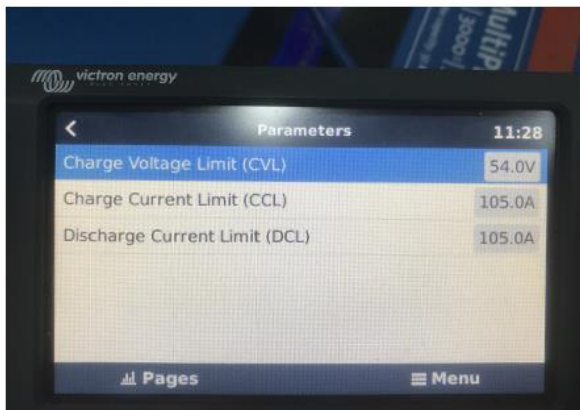
Step 12: Some parameters setup on the Victron monitor

- Bulk voltage:53.5V

- Float voltage:51V

- Sustain voltage:49V

- Absorption voltage:52V

- Cut off voltage:46V

Step 13: Shut Down

- Remove all the load
- Turn off DC breaker of battery.
- Turn off battery
- Disconnect PV/Grid
- Turn off the inverter power switch, shut down the inverter

APPENDIX 1
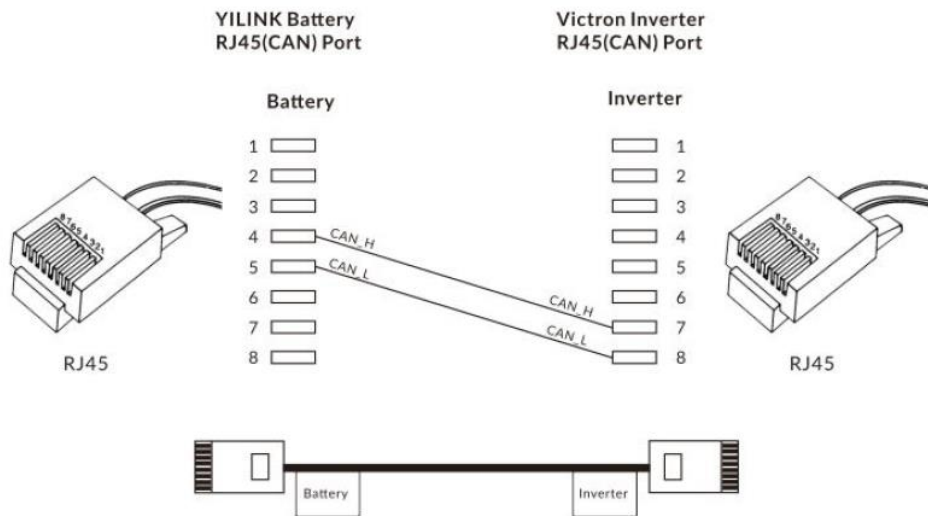
APPENDIX 2

While in parallel communication, the dial-up addresses of battery module are 1,2,3,4······14,15, where 1 stands for the main engine, the data of other batteries are uploaded to the main engine conducts unified uploading. The host computer with dial-up code of 1 to connect with upper computer.