We-HUB & SUPE-RHUB configuration manual

Low Voltage HUB for WeCo 4K4 and 5K3 Lithium Modules

PRODUCT OVERVIEW

CAN ANALYST PORT

CAN / INVERTER

NEGATIVE

POSITIVE

CAN FROM EACH MASTER

RUN BUTTON ON/OFF

01- NEGATIVE

02- POSITIVE

18-75Vdc

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WECO
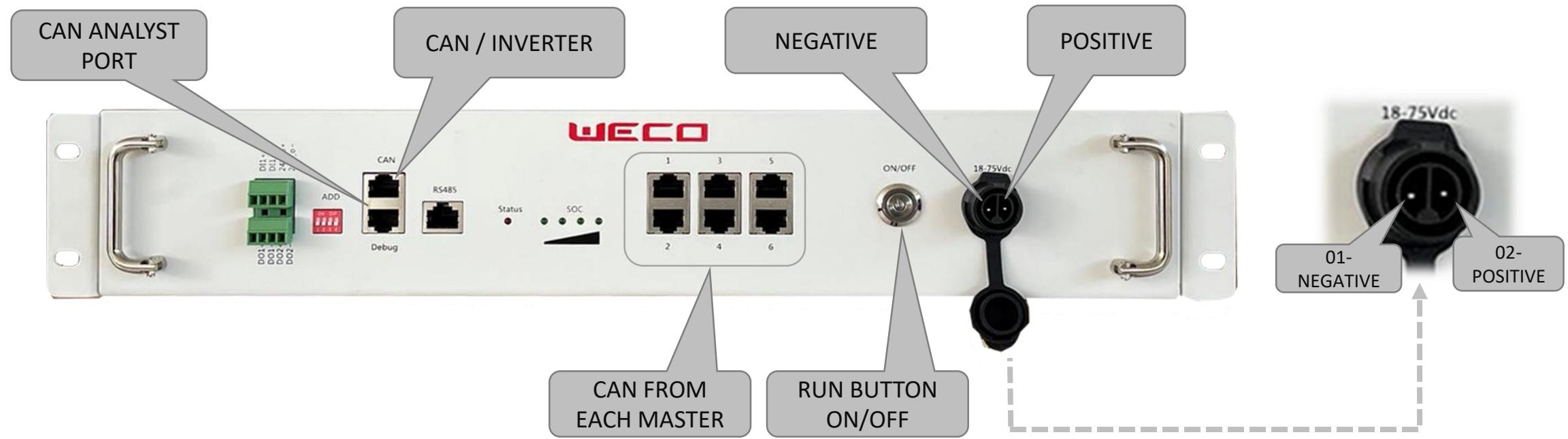
Note:
This Manual is divided in two sections:

Single We-HUB settings (section 1 – 3)
SUPER HUB settings   (section 4)

This manual is intended for expert installer only

This is an integration for the 4K4 and 5K3 Installation Manual

To install and monitor the We-HUB are necessary two types of converters:

1.   USB/RS232 WeCo Code> Ztek232_WeCo

2.   USB/CAN   WeCo Code>CAN_USB_LV

You can request the WeHUB software as approved installer by requesting it to **weco@weco.uk.com**

USB/232 and USB/CAN are available from WeCo, if you need to purchase them or requests the drivers or Firmware please contact us on **service@weco.uk.com**

WECO

Tools Required to Set up the We-HUB and SUPERHUB

WeCo MONITOR 232 / USB PC CONNECTION

Screw Terminal Side	Cable 232 / RJ45
PIN1	-
PIN 2 T/R-	PIN 7
PIN 3 RXD+	PIN 6
PIN 4	-
PIN 5	GND
PIN 6	-

RJ 45 TO WIRE - PIN DEFINITION-
PIN 01 = TX
PIN 02 = RX
PIN 03 = GND
PIN 04 = none
PIN 05 = none
PIN 06 = none
PIN 07 = none
PIN 08 = none
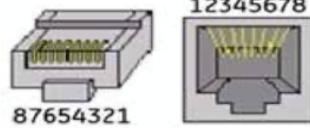
CAN to USB WeCo Converter PIN DEFINITION
Only for Authorized Service partner

FW NOMENCLATURE

CL_448.hex
Valid for both models

WE HUB

HUB_V117.hex

SUPER HUB

SPHUB_V701.hex

SINGLE WeHUB CONFIGURATION

- Launch the WeCo Software
- Select the **Restricted Access**
- Digit the Installer password (in case of lost password, write to weco@weco.uk.com)
- Access to the programmer page
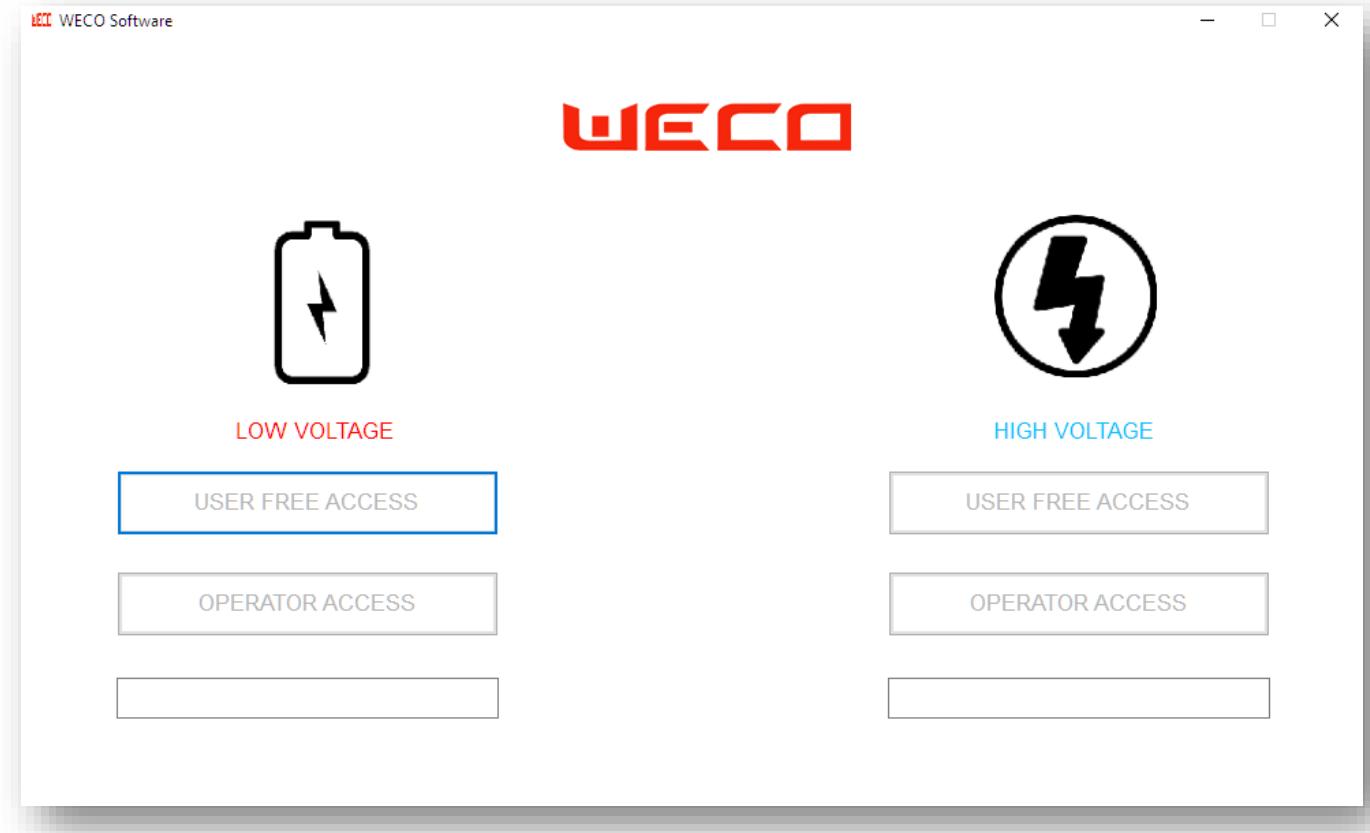
- Select the Module Setting Program and Click to access

For this setting use only the WeCo ZTEK RS 232 CONVERTER

Order code :CNV-Z-TEK

- Connect the RS 232 WeCo Converter to the RS 232 Port of the each Battery (port Operator Only on the 5K3 model)
- Select the COM port and wait for the connection and Battery data information.
  For more info about this section please Check the ''WeCo Monitor Guide''
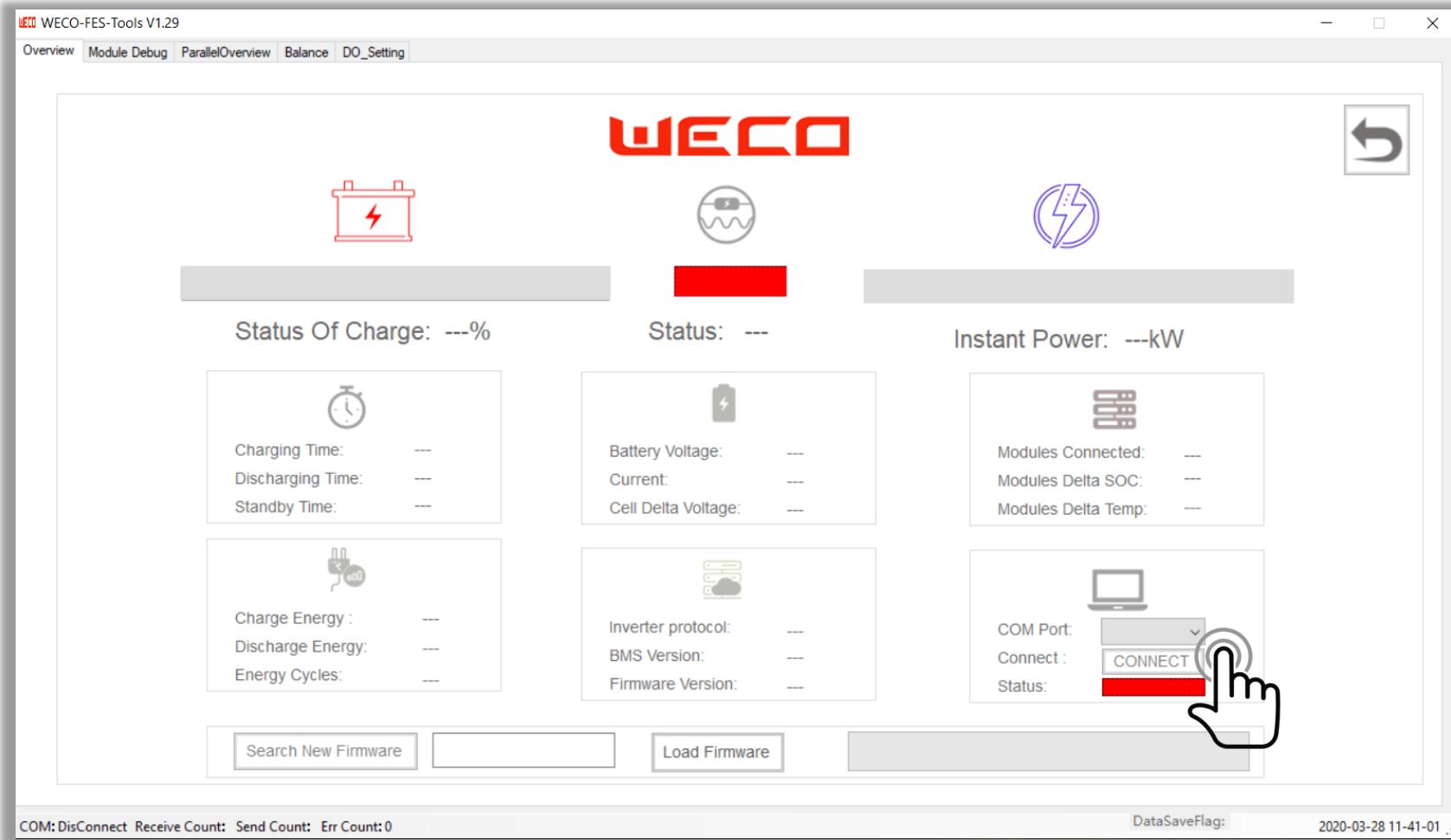
- Click on **Module Debug** to know the single module information


UPGRADE TO FW 4.48
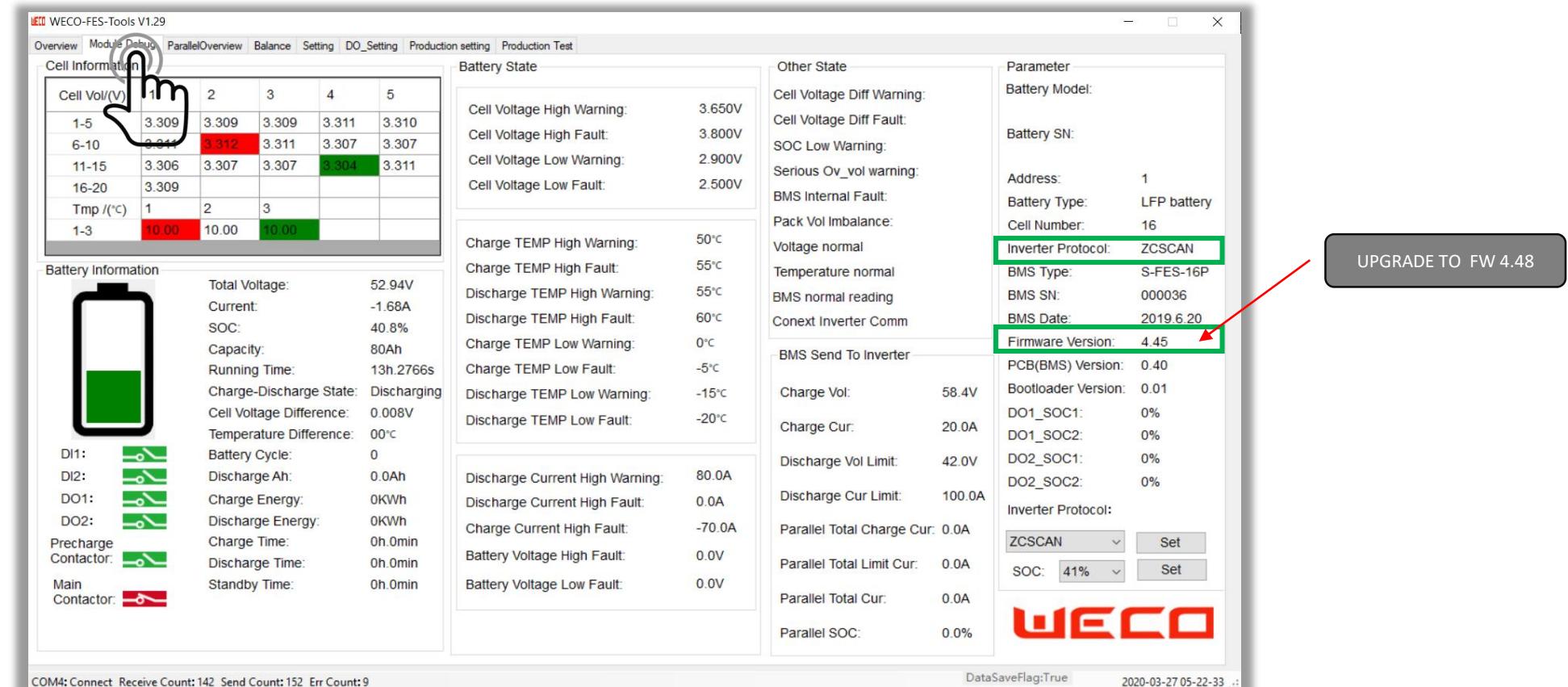
- Check the Firmware Version installed on your Battery
- This inspection must be performed on each module of each cluster
- All the modules of the system **must have the same FW version**
- The Specific FW for the HUB usually is released by email from WeCo to their distributors.
- Any Installer can request for the latest version by writing to service@weco.uk.com
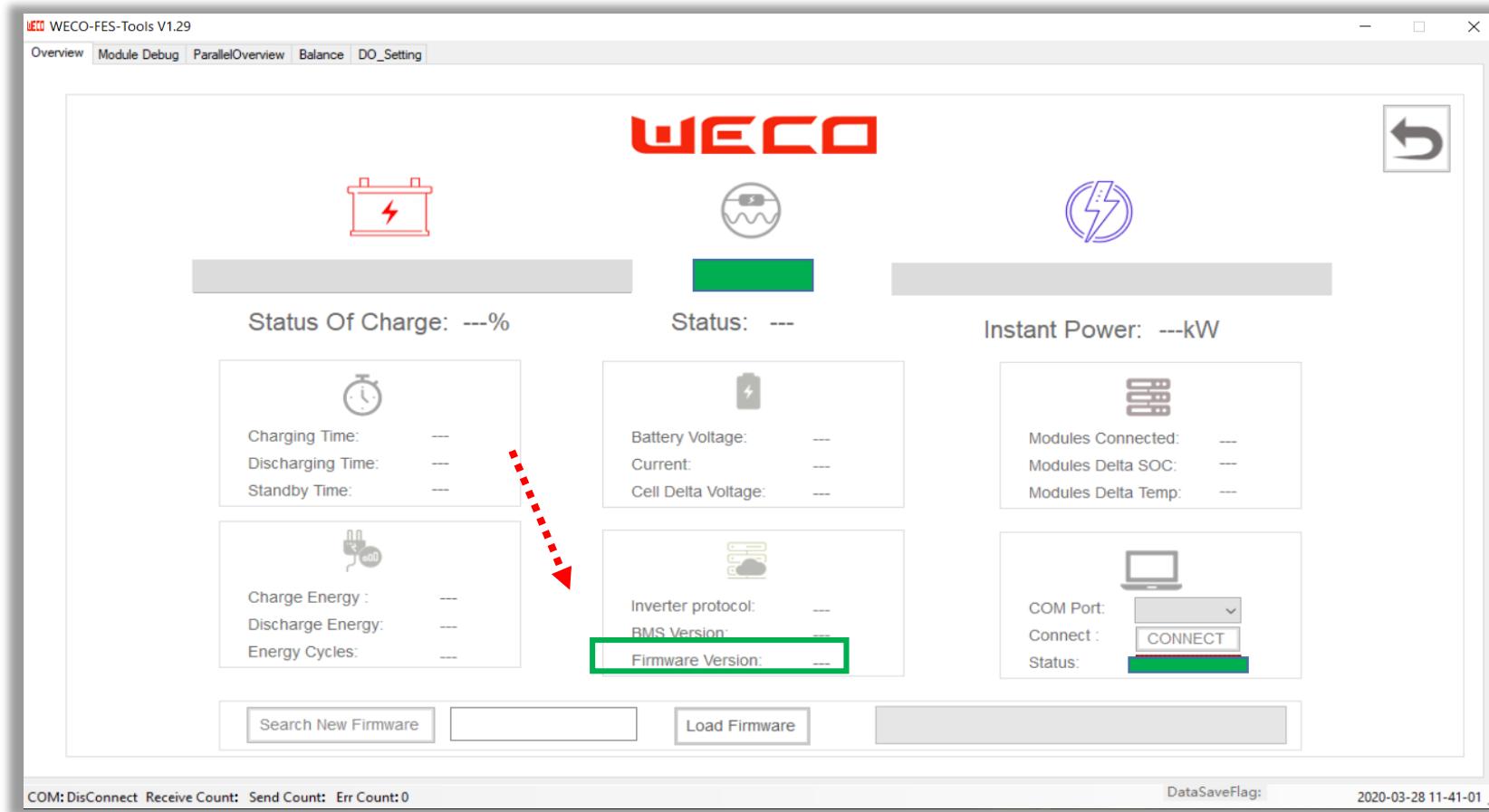
- Each module must have a specific HUB Firmware version that starts with 4.xx The latest version is Available on the Web Site
- **HUB working method** it is subsequent to the single module new Firmware
- Press **Search New Firmware**
- Select the HUB Firmware provided by WeCo(in case of necessity write to service@weco.uk.com)
- Select the firmware provided by clicking Open on the Pop Up Window.

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- Once the correct Firware has been detected proceed to the upload
- Press **"Load Firmware"** ad wait for the upgrade completion
- The Green Bar will show the upgrading Status.
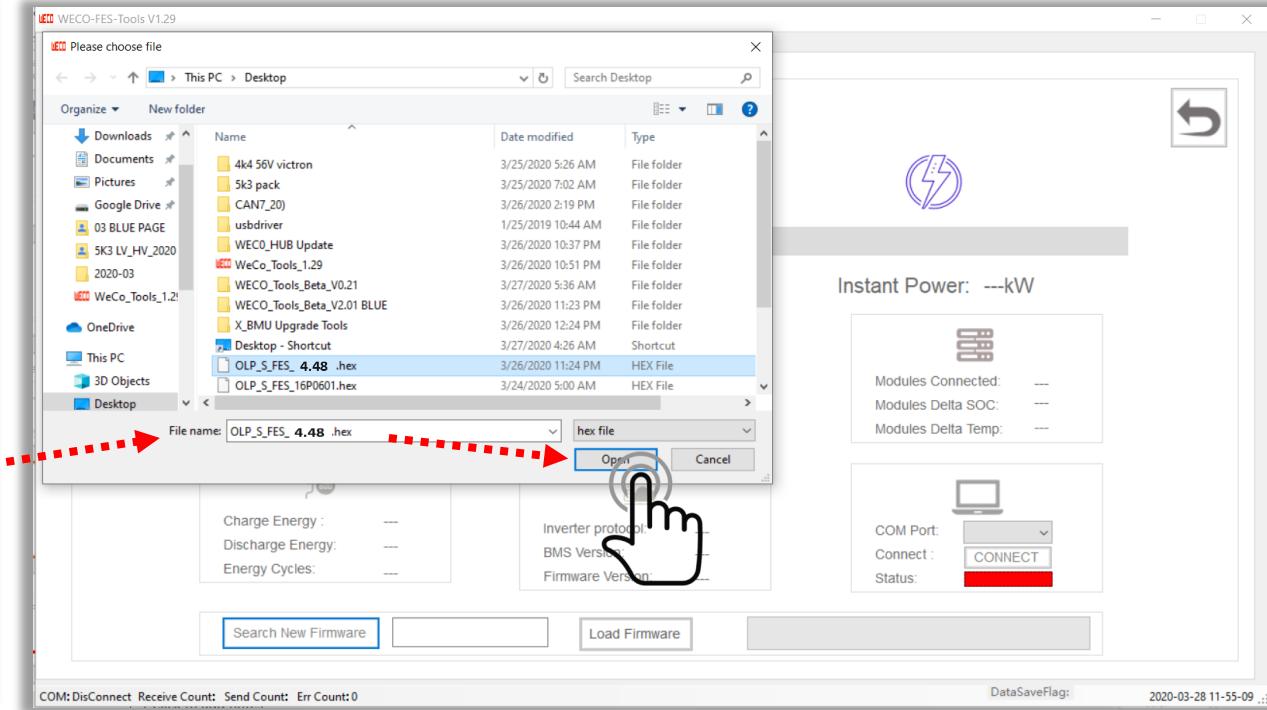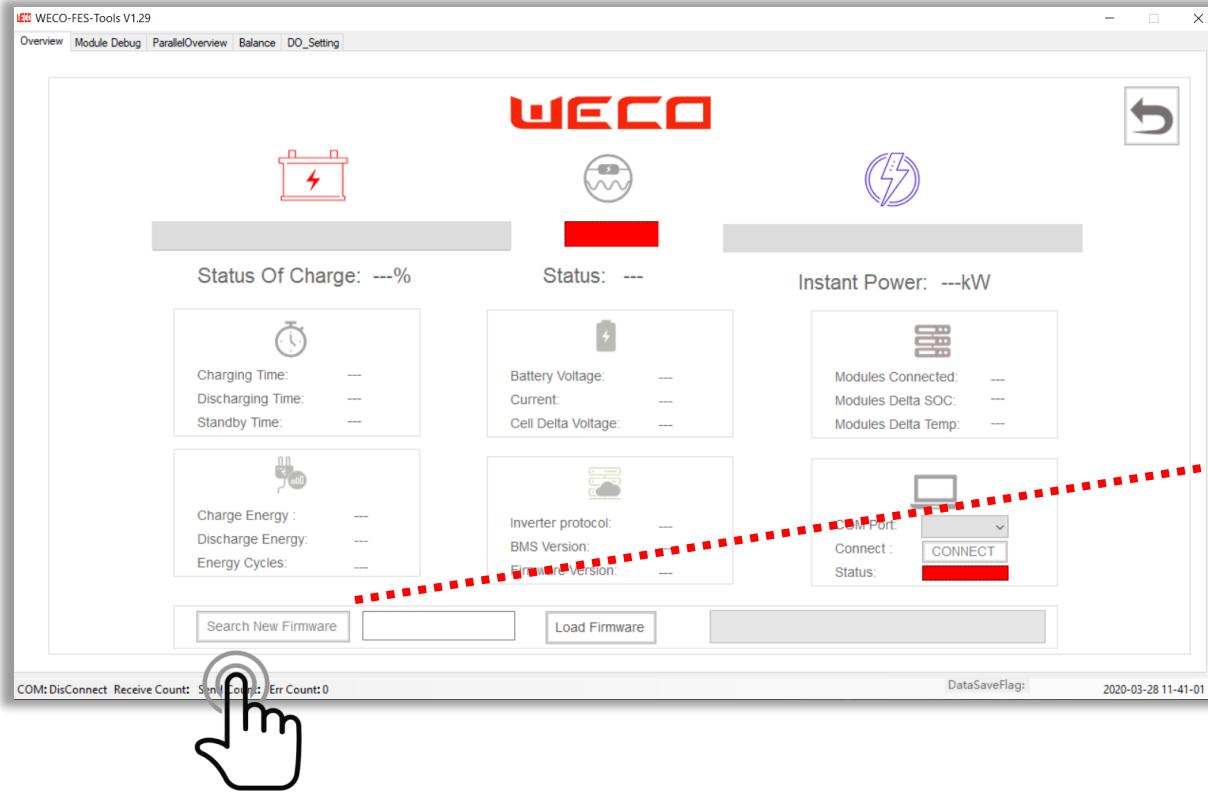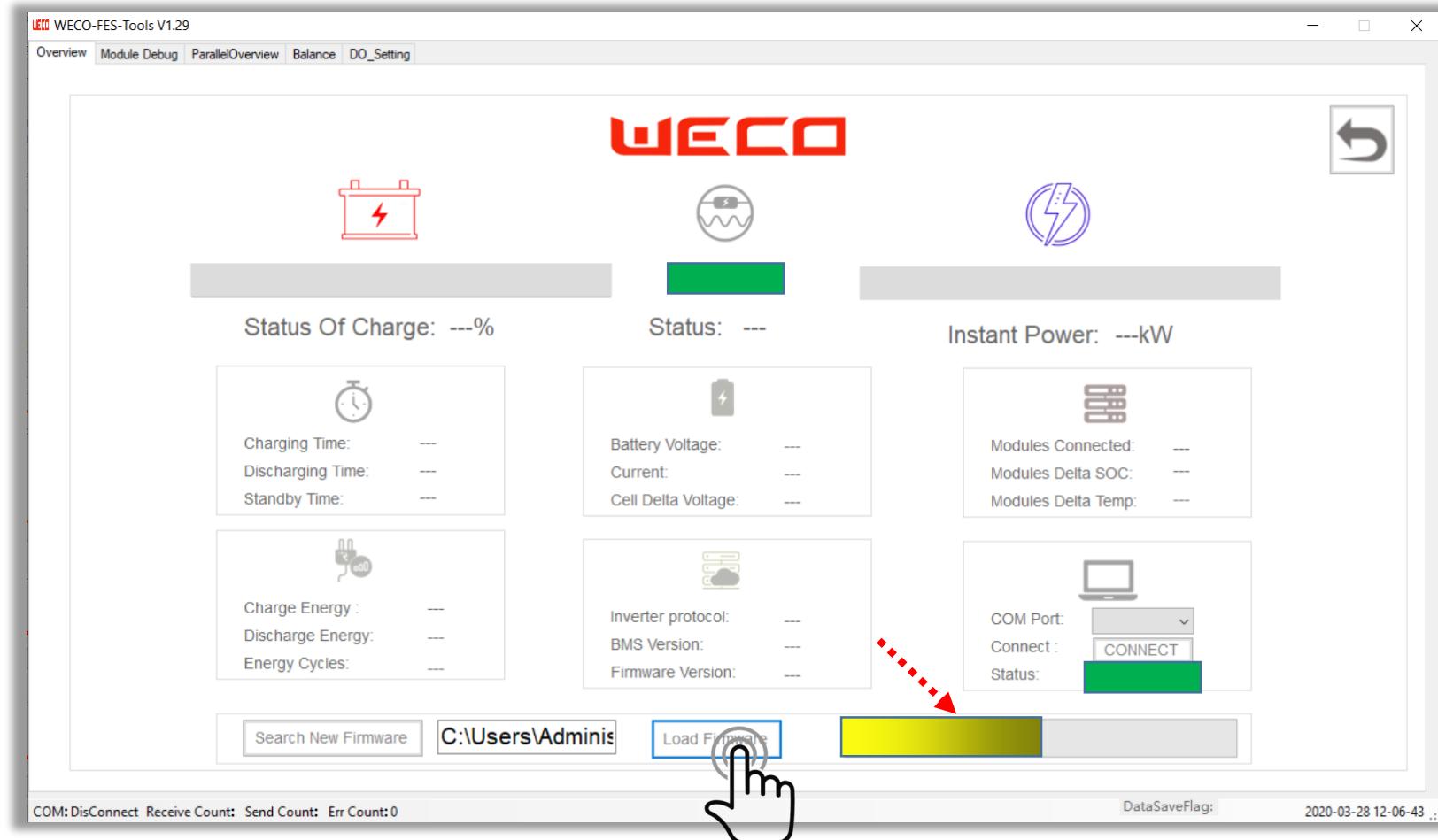
- Once the correct Firmware has been upgraded proceed with the others modules by repeating the same actions for each single module .
- Once all the modules of each cluster have been upgraded pass to the SECTION 02
- Press the Back Arrow to return to the Main Page
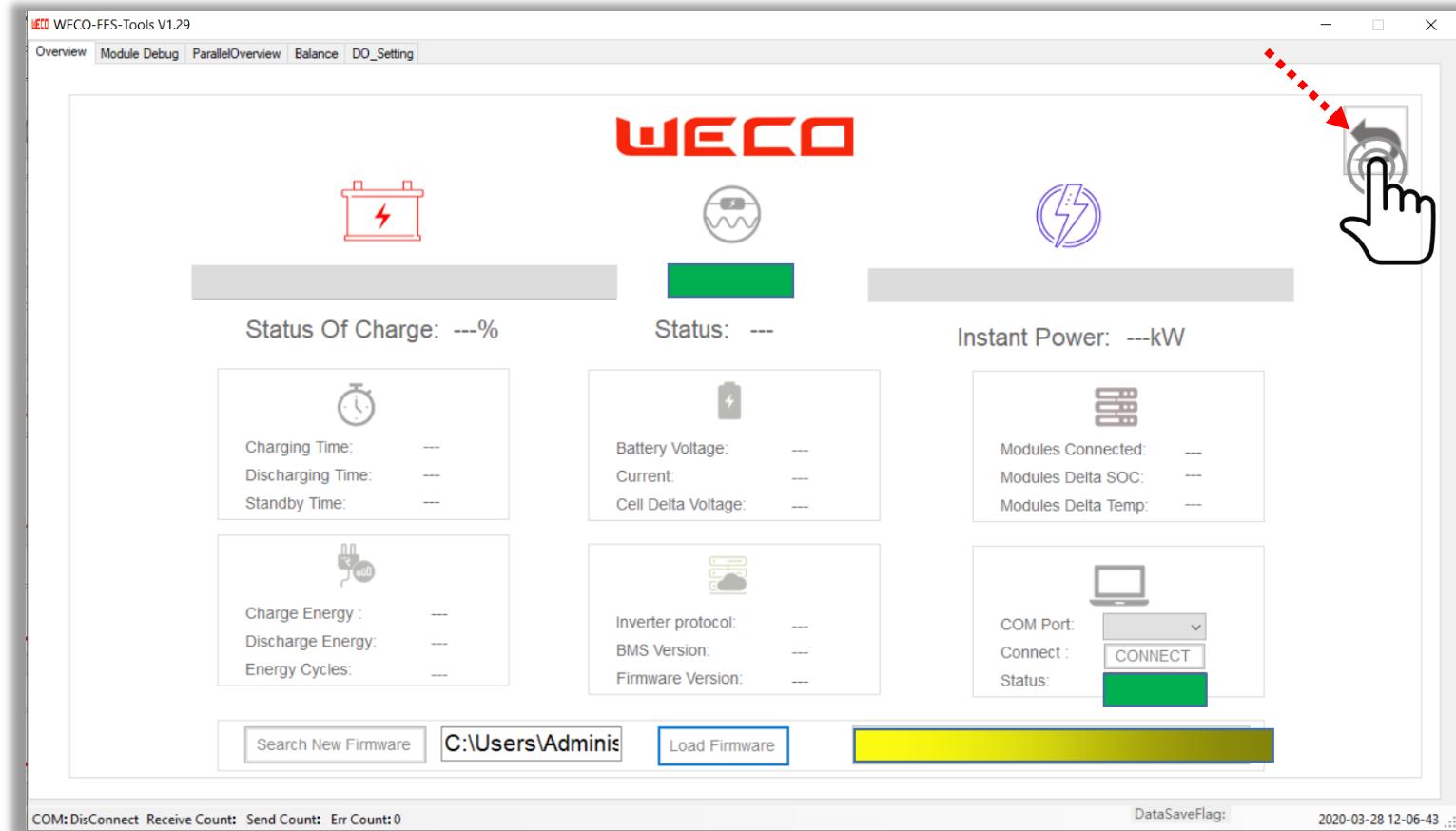
- Select the **Cluster Setting Program** and Click to access

- Unplug and reconnect the USB of the RS232 USB converter
- Connect the 232 converter to the cluster Master Unit
- Choose the COM port and press Connect.
- Wait for the each module information
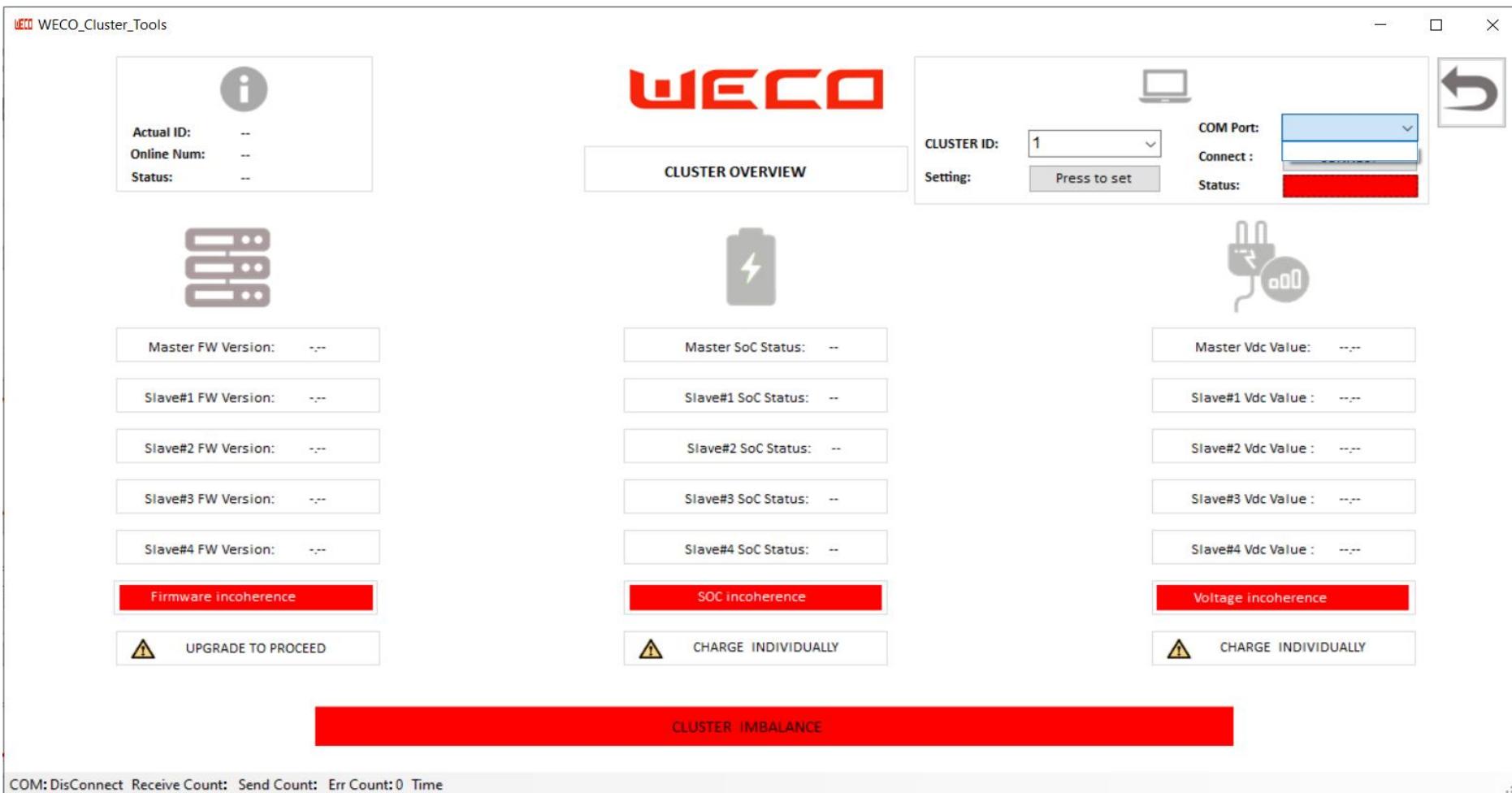
- Make sure that all the Firmwares version are consistent
- Make sure that all the SoC are at the same Value * suggested 100%
- Make sure that the modules voltage are levelled

  If one of the the above values is not alligned with the others, the installer must clear the imbalance by acting indivisually on each module
- When all of the three section are in **Green Status** will be possible to proceed to the next step
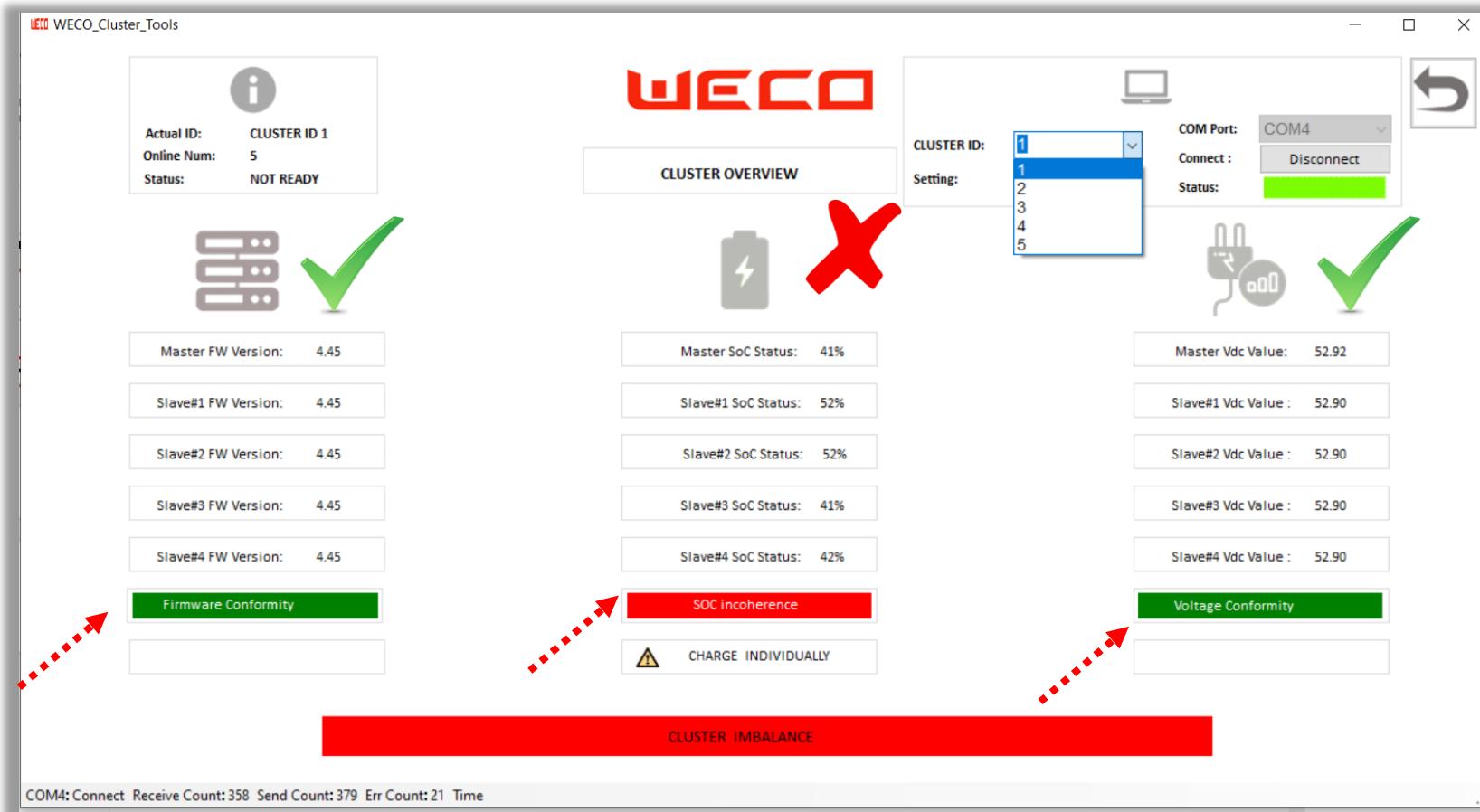
- Select the **Cluster ID** section and Assign the ID 1 at the Master Unit of the Cluster 1
- Press SET to confirm and assign the ID of the 1st Cluster Master Module
- Each master of each cluster must have an ID assigned.
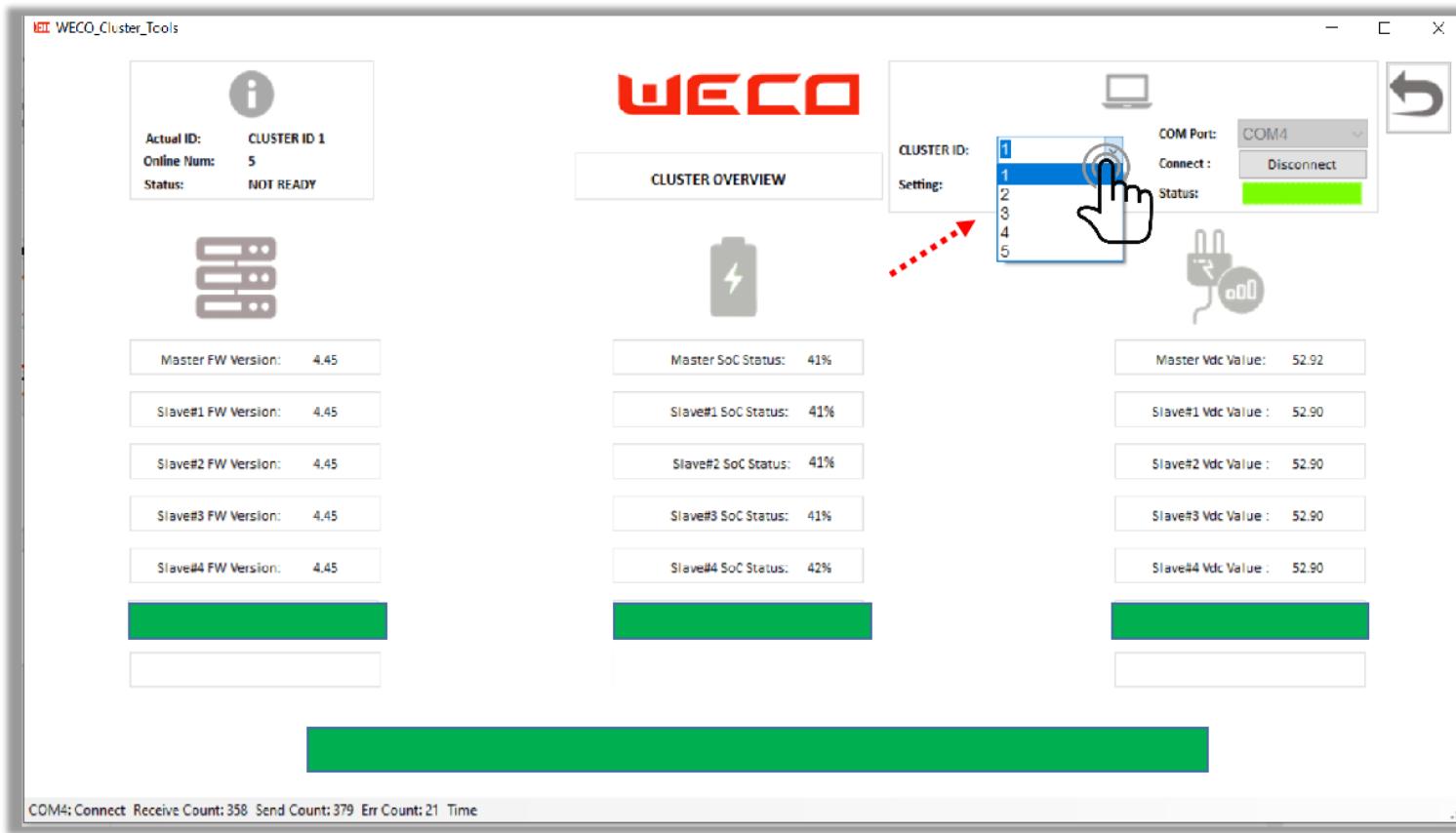
- Reapeat this action for all the clusters of the system
- Make sure set the same SOC on each cluster
- WeCo suggest to fully charge each module up to 100%, then proceed to the next step
  Set all the modules at 100% at the start up phase will prevents further imbalances

- Unplug the RJ45 RS 232 from the Master unit of the Cluster 1 and connect the Master Unit of the Cluster 2
- Assign the ID 2 to the Master Unit of the Cluster 2
- Proceeed with the same method up the ID 05 of the Cluster 05 (or up to the last cluster if you have less than 5)
- If you have less the 5 Cluster simply stop at your lastest Cluster
- **Make sure not to have clusters with the same ID**
- Installer MUST assign the cluster ID to any master module of each cluster
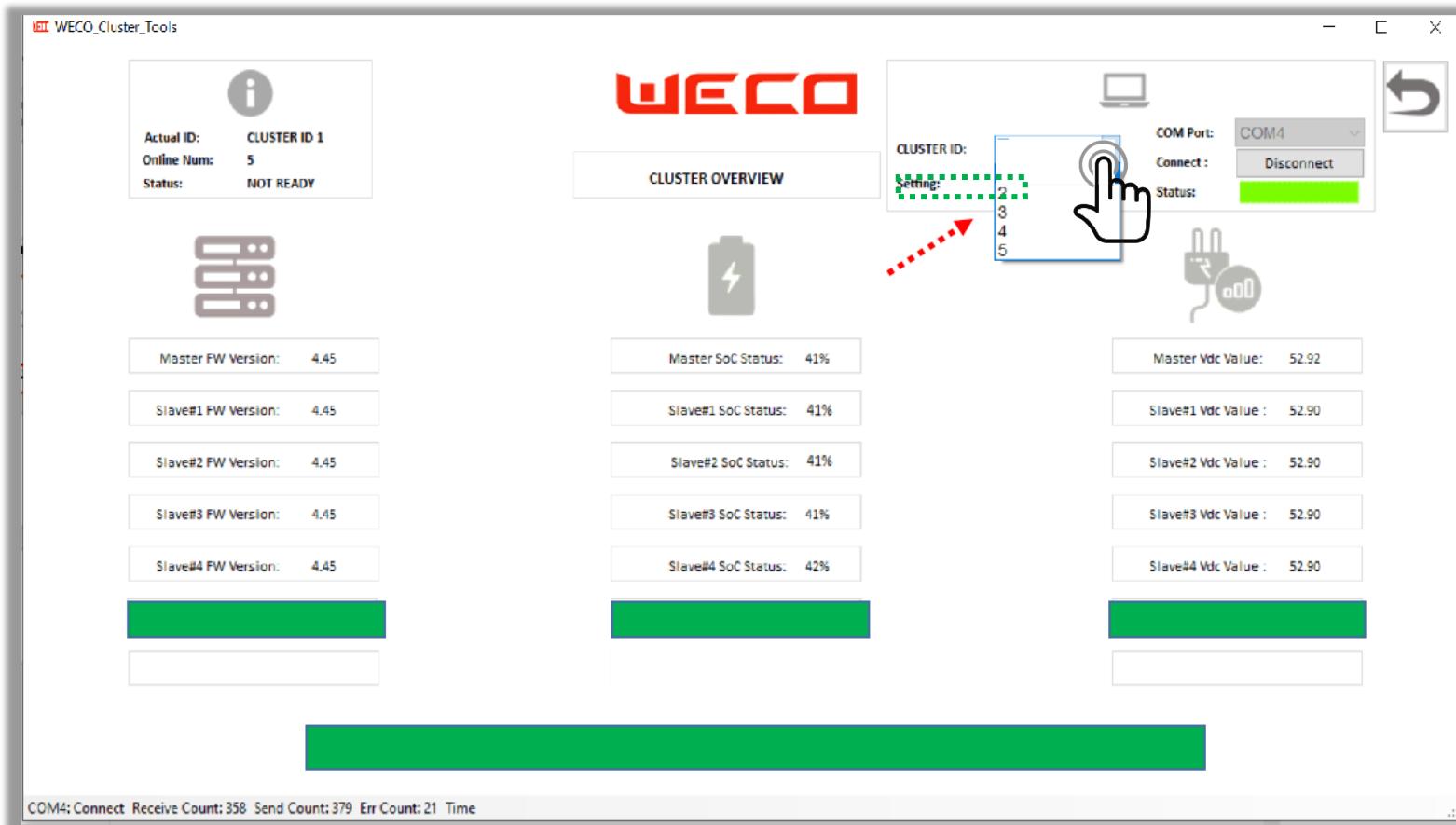
- For each cluster assign the Master and Slave sequence
- Select the number od modules that compose your cluster in order to have the right DIP Sequence
- If you have a cluster of 3 modules MUST SELECT -PARALLEL NUMBER 3- (Example Only)
- The DIP sequences changes acording with the number of modules selected.
- Manually set the DIP of each module and restart all the modules after the wiring
- Connect the parallel Commmunication cable from the Port B of the master as per Daisy Chain method
- For more information follow the Modules Manual
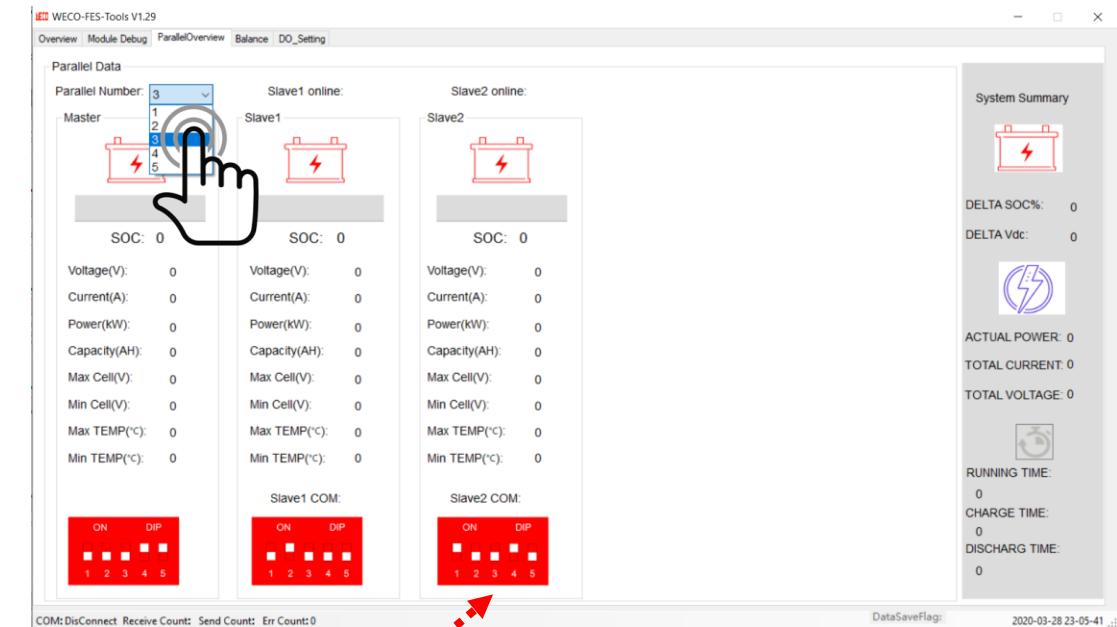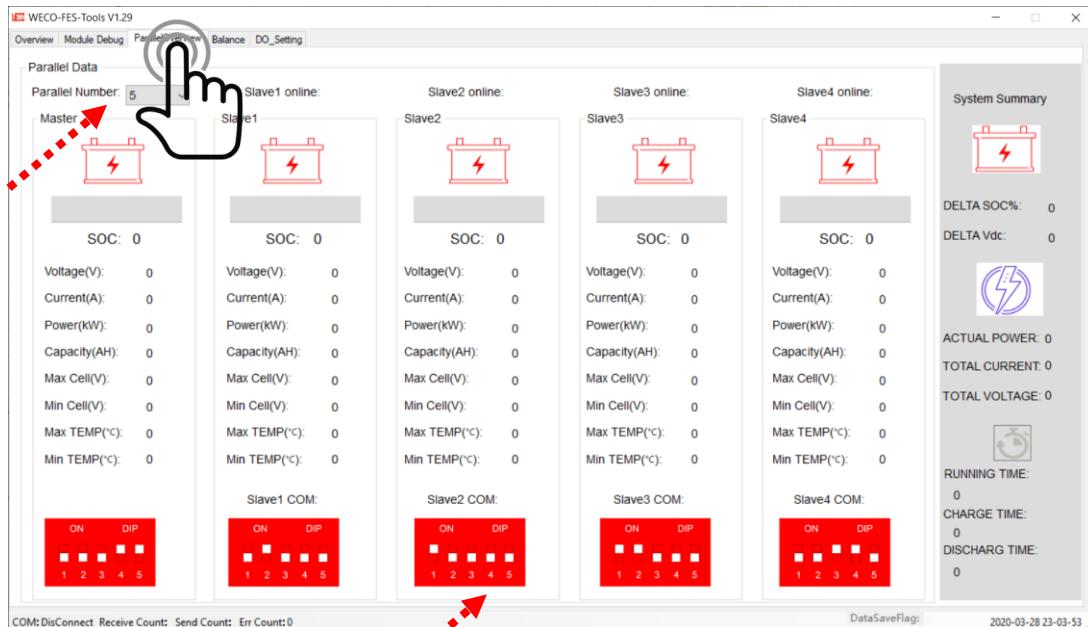
- This section is reserved to Expert intsallers in possession of the WeCo CAN ANALYST RED VERSION
- Back to the main page and select the **HUB Setting Program**
- To proceed with the next steps the needs a USB/CAN converter
- USB CAN converter can be provided by WeCo if the installer by writing an email to service@weco.uk.com

For this setting use only the WeCo RS 232 CONVERTER

Order code :CAN_NLT

- The We-HUB must be set up as per the system design
- Trough the USB/CAN converter is it possible to upgrade Firmware and Change Inverter protocol or reset the system configuration
- Connect the USB/CAN ANALYST Converter then press **CONNECT** the status bar will pass from RED to GREEN

- Frome the Protocol List Select the protocol to match your inverter
- After the protocol has been selected press **SET** and the HUB will open the communication protocol selected.
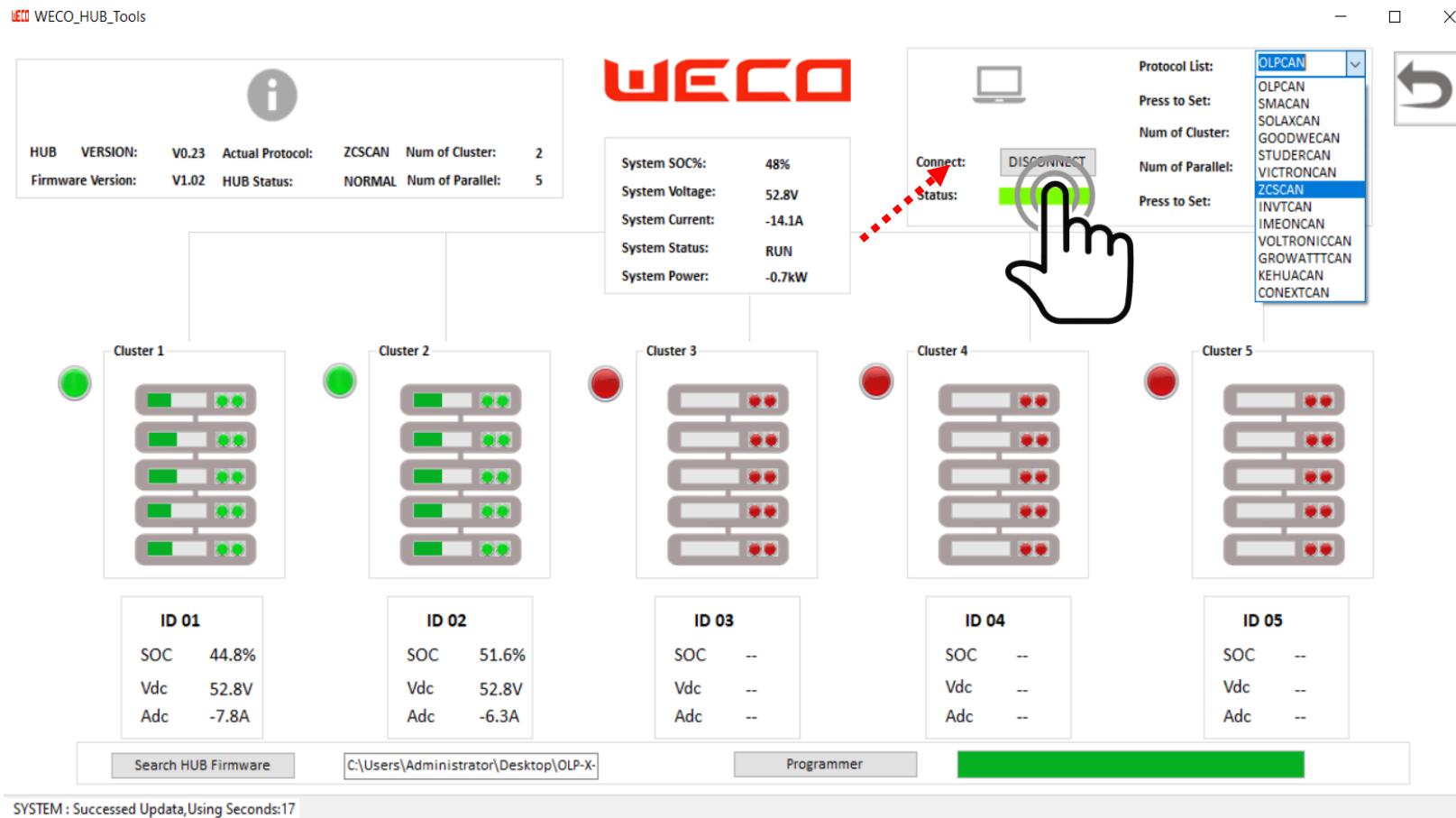
- To upgrde the HUB Firmware press on Search HUB Firmware. (The new Firmware can be requested by email writing to service@weco.uk.com)
- Search for the BMU-HUB Firware and press **OPEN**
- Set the Number of Modules connected to the HUB and press **SET**

HUB Quick Guide V 1.0_03_02_2020
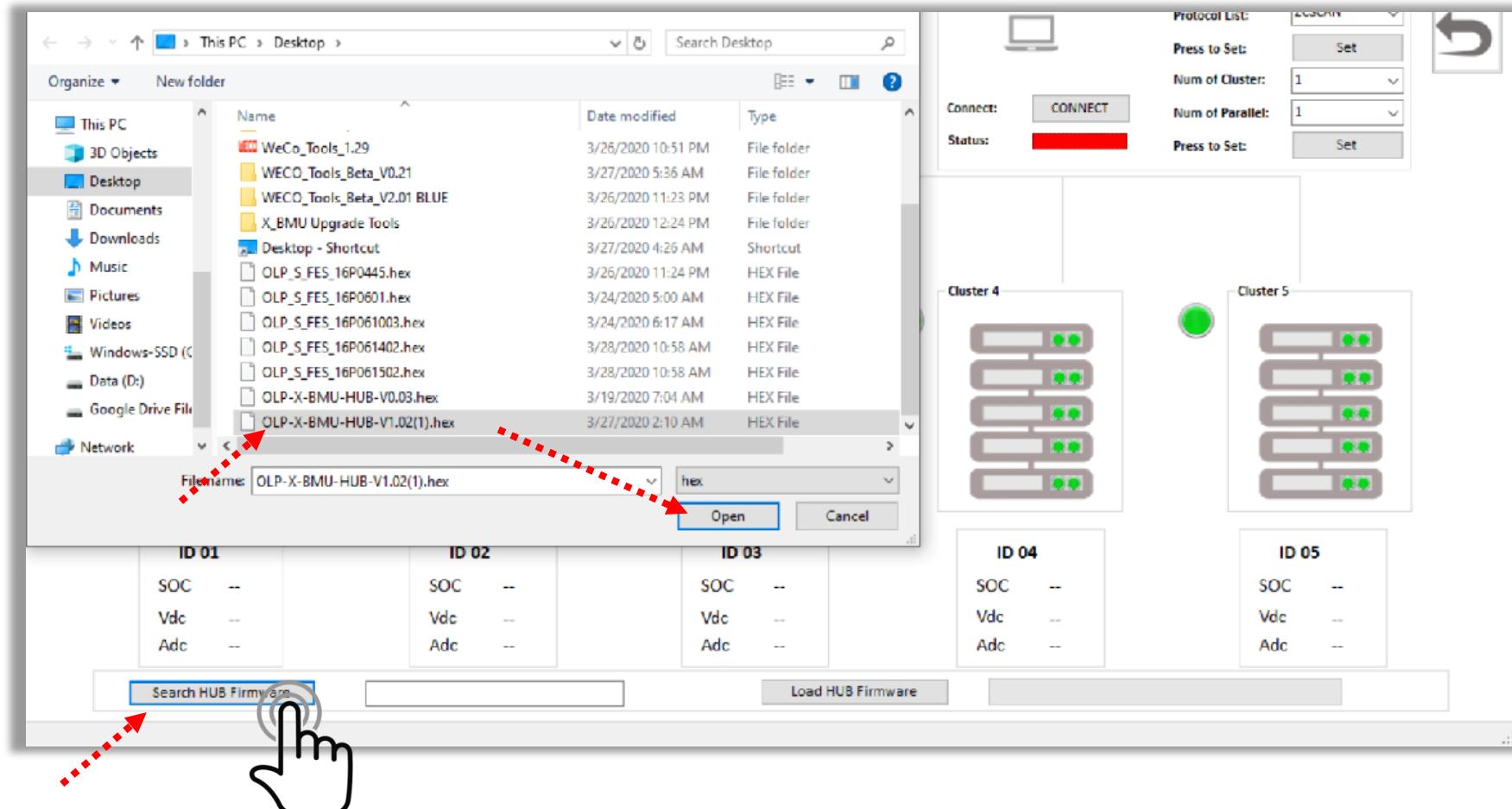
- Once the new HUB firmware has been identified and uploaded the SYSTEM will shows> **Successed to Bin File**
- Press **Load HUB Firmware** to transfer the Firmware from the PC to the HUB
- The Green Bar will shows the upgrade status
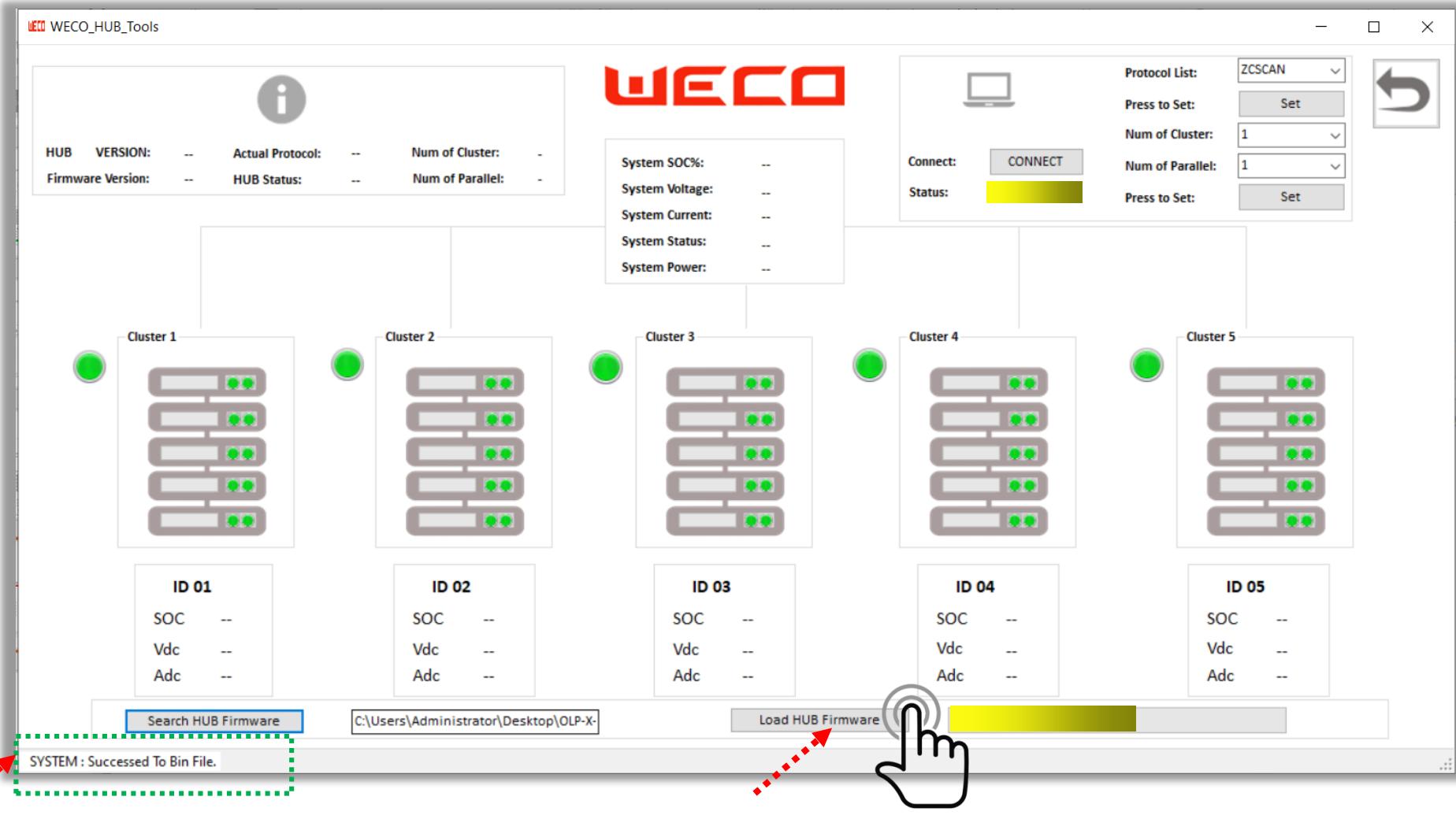
- Set the systems specs such how many Clusters and how many modules in parallel are connected on each cluster.
- Set the Number of Clusters connected to the HUB and press **SET**
- Set the Number of Modules connected to the HUB and press **SET**

Cluster Settings

Modules Settings

- If you have a single We HUB assign the Address 0 and press SET (see red selection)
- If you have a SUPER HUB assign the WeHUB ID for this devices, further information are available in section **2**

- Select and confirm the right number of clusters connected to your HUB (Red Selection)
- Select and confirm the right number of modules that compose your clusters (Blue Selection)

- The results of the previous settings will be be displayed in the INFO section
  ○ **Actual Protocol**
 ○ **Number of Clusters**
  ○ **Number of Parallel**

HUB Quick Guide V 1.0_03_02_2020
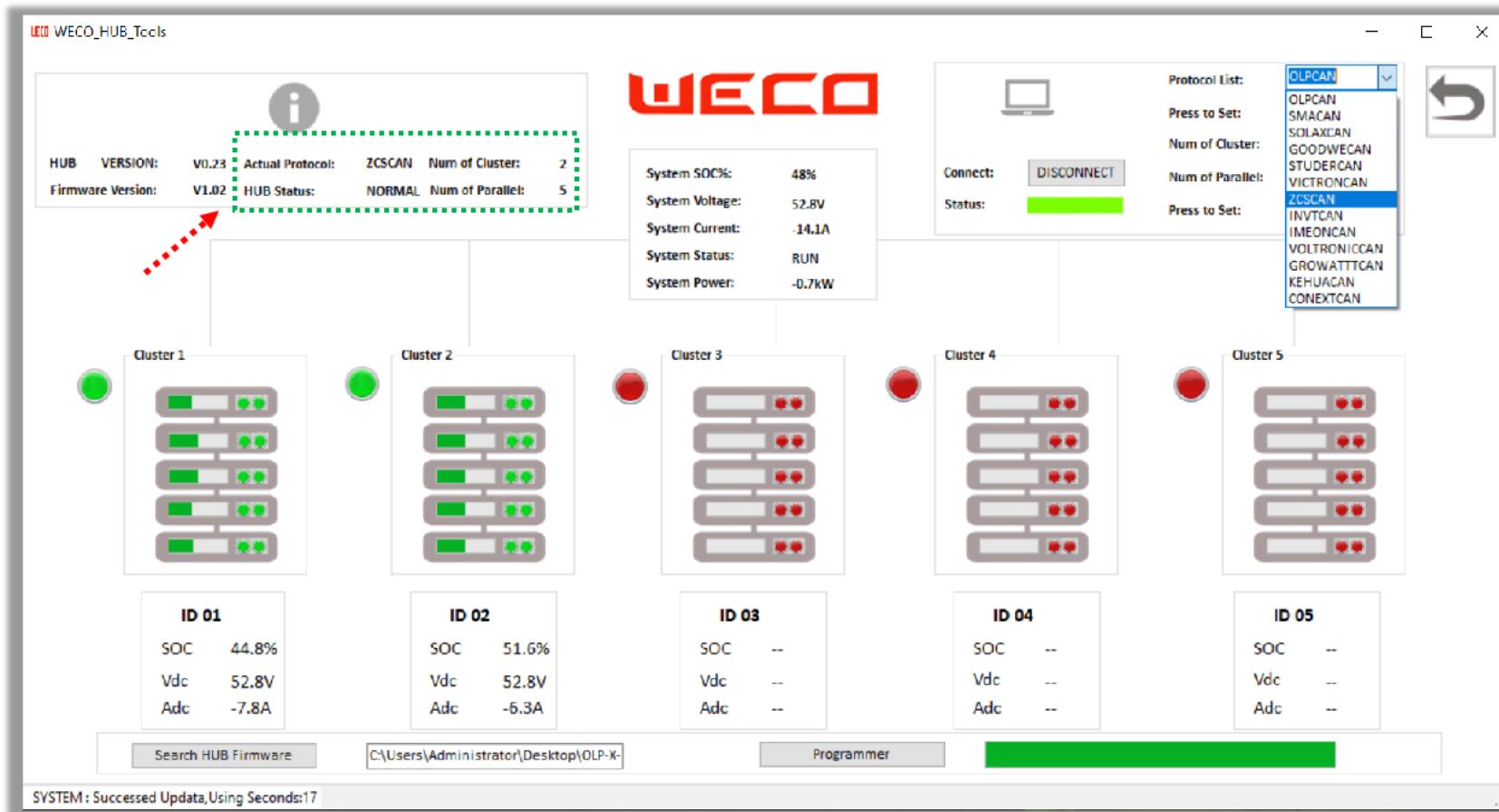
SuperHub it is required when the user need to install more than 40 batteries and a maximum of 100

SYSTEM ARCHITECTURE FOR SUPER HUB

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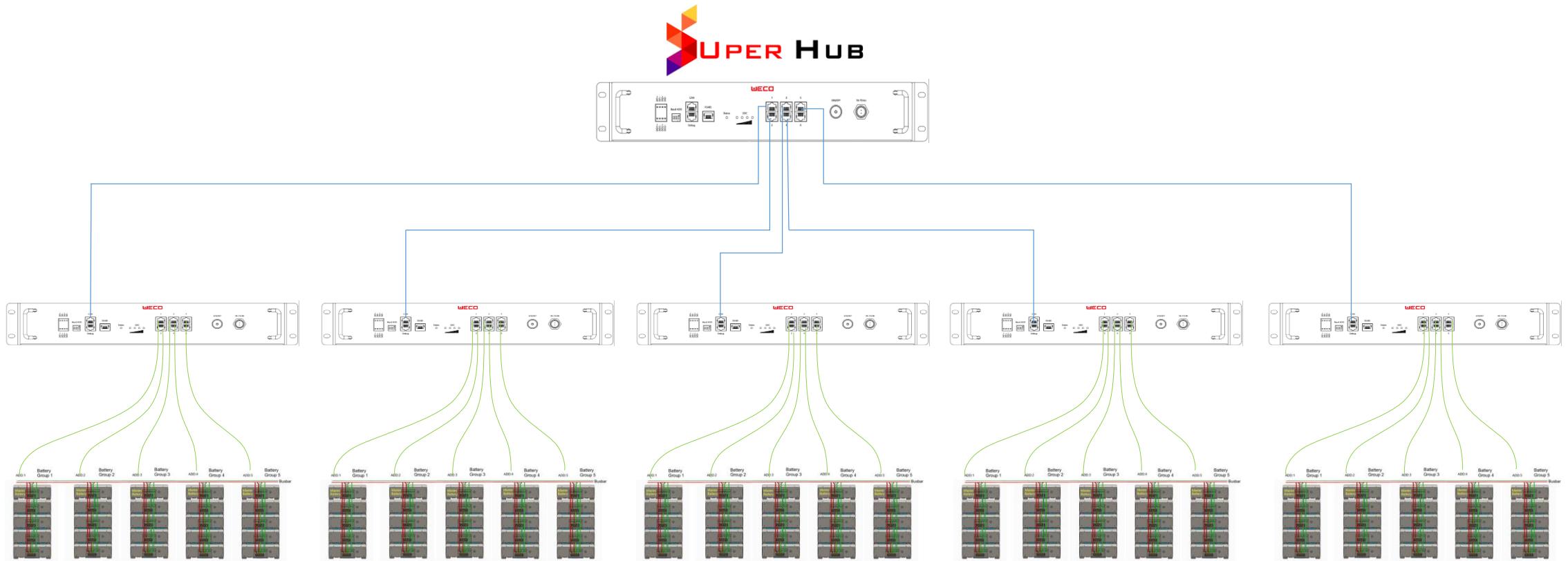
FIRMWARE UPGRADE TO MAKE THE We-HUB a SUPERHUB

We-HUB and SUPERHUB are the same device but in order enable a We HUB as SUPERHUB it is required to install a special firmware to enable the SUPERHUB

We-HUB
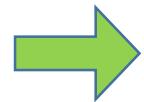
SUPER HUB

FIRMWARE UPGRADE

WeHUB FW Version is **HUB_V117.hex**

SUPERHUB FW Version is **HUB_SPHUB_V701.hex**

- Use the WeCo CAN ANALYST to connect with your We HUB
- Search for the latest FW to Enable the SUPER HUB function
- Power On the We HUB as usual and proceed with the UPGRADE

CAN to USB WeCo Converter PIN DEFINITION
Only for Authorized Service partner

- Press CONNECT and the STATUS and DATA bar will become Green
- Select the latest FW for SUPER HUB (**V7.01)**
- Launch the upgrade and wait for the process completion
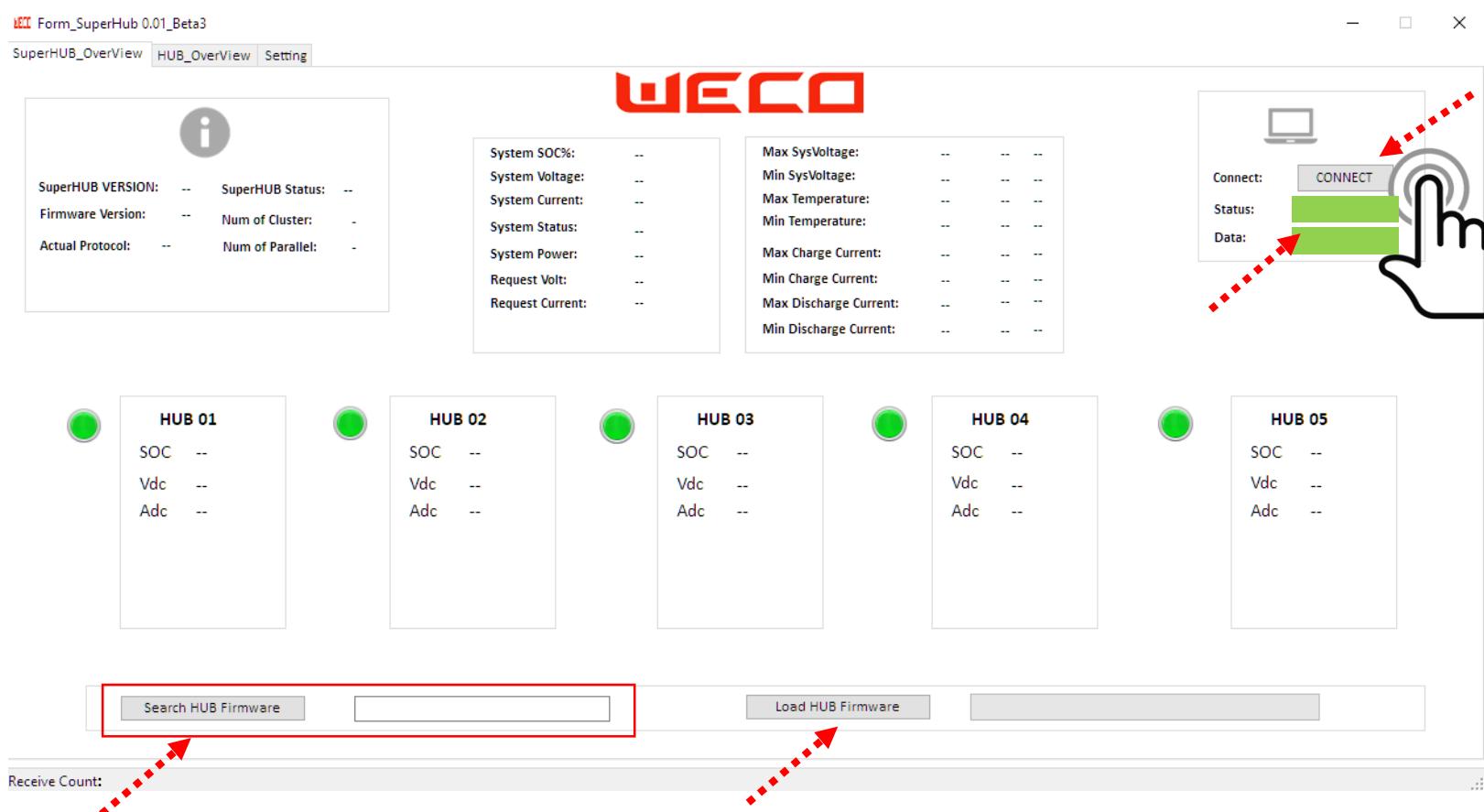
Connect each WE HUB from the CAN PORT

to the SUPERHUB INPUT
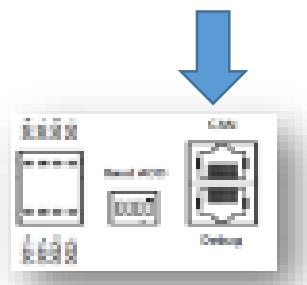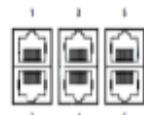
INVERTER CAN
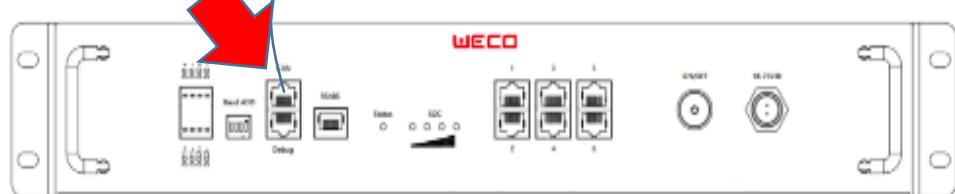
SUPER HUB
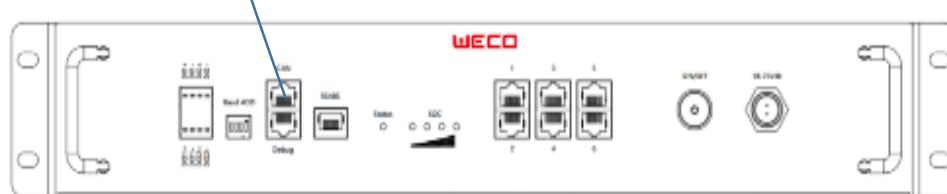
WeHUB ID01

WeHUB ID 02
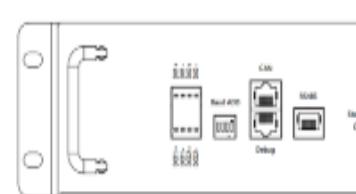
WeHUB ID XY

Select the desired Protocol and press set
Restart the SUPERHUB and RESTART all WeHUB installed in your system