ENCAP

BEYOND BATTERIES

ENCONTROL

USER MANUAL

EN-WT32-SC01-M3-3.5”-911-1V0-GEN1

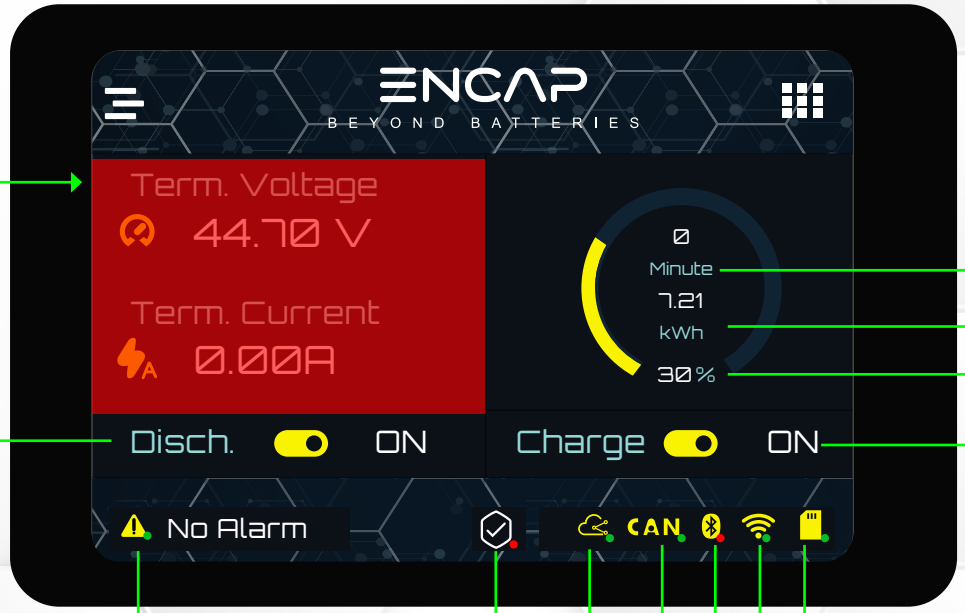
VERSION 1.0 | REVISION 0 | RELEASE DATE: 3RD APRIL 24

ENCONTROL LCD (FIRMWARE VERSION 3.0.4)

The Monitoring LCD allows user to monitor and configure the Module.

1. *DASHBOARD*

The first page on LCD is dashboard by default.



Tap anywhere in the shaded area to view Module parameters

Discharge Status of Module

Minute shows the remaining time for full charge or full discharge. O minute means the Module is on standby

kWh shows the capacity of the Module

It shows the SOC of the Module

Charge Status of Module

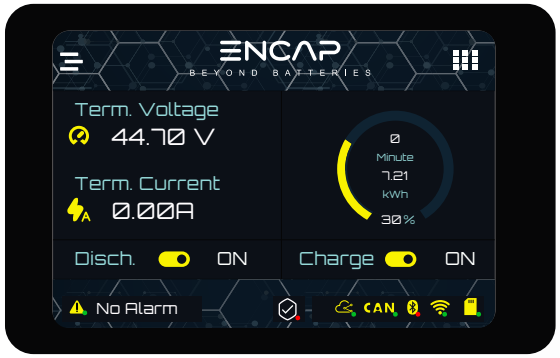
Alarm Notifications

Terminal ON/OFF for secure operation

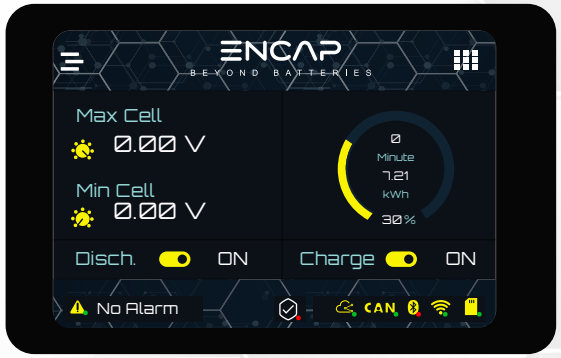
SD Card Status
WIFI Status
Bluetooth Status
CANBUS Status
Online Monitoring Status

- Active
- Non-Active

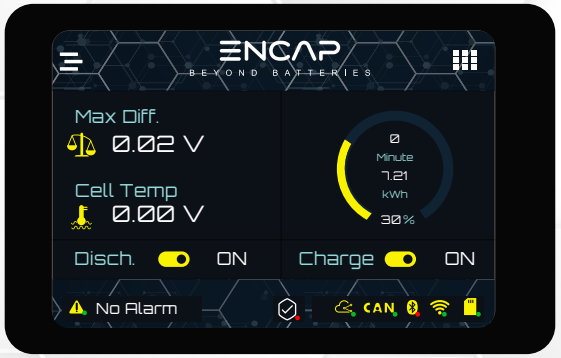
Tap the dashboard to view Module parameters: i.e. Terminal Voltage, Terminal Current, Maximum and Minimum Cell Voltages, Difference of Maximum and Minimum Cell Voltages, Cell Temperature, Charge Energy, Discharge Energy, System Time, System Date, System Alarms, System Mode.



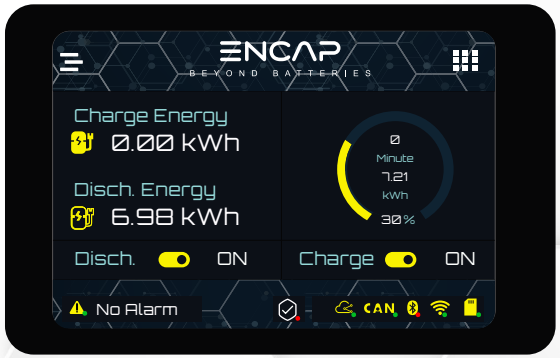
First Display



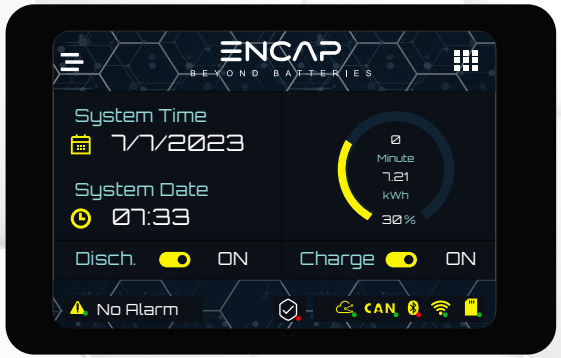
Second Display



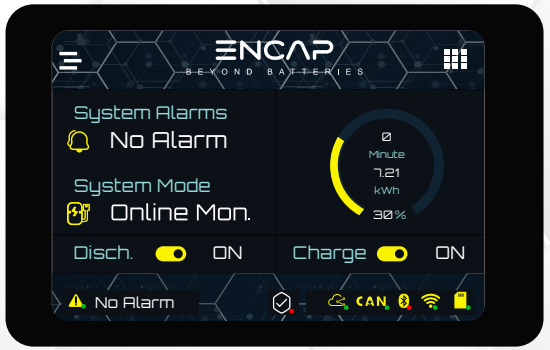
Third Display



Fourth Display

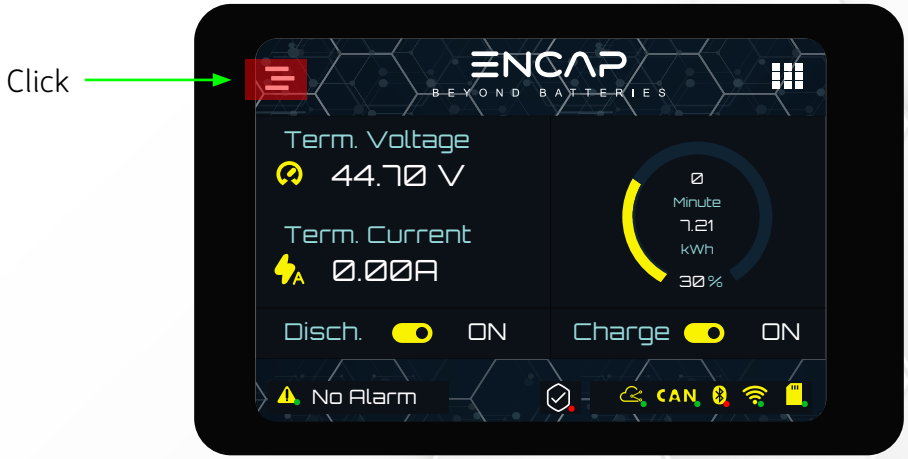


Fifth Display



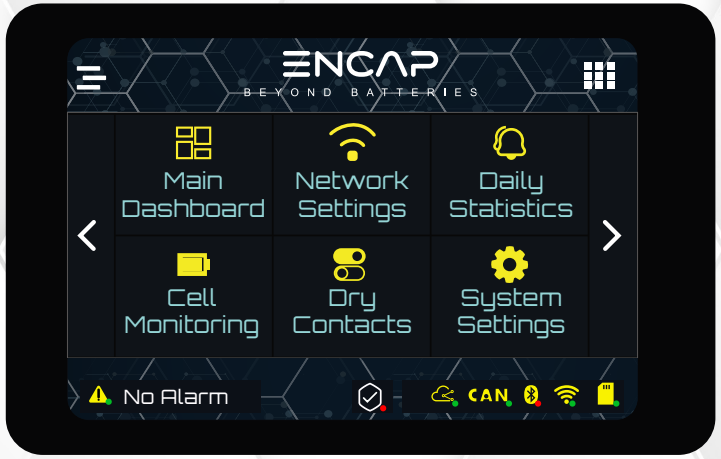
Sixth Display

Click on the menu bar ☰ to go to main menu.

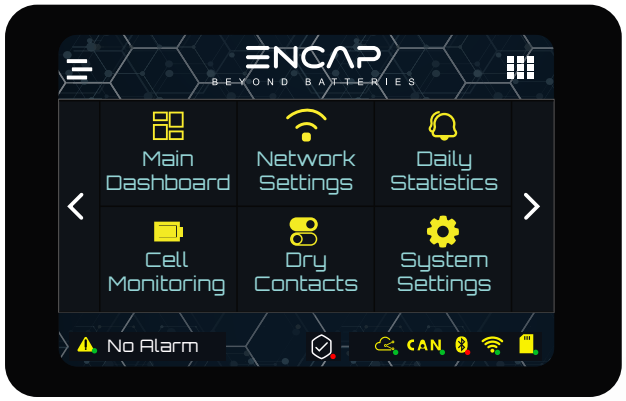


2. MAIN MENU:

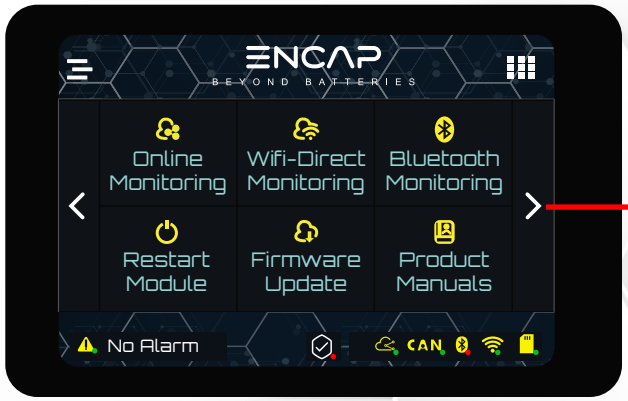
The main menu provides parameter viewing and functions setting. The main menu is categorized into three pages.



First page

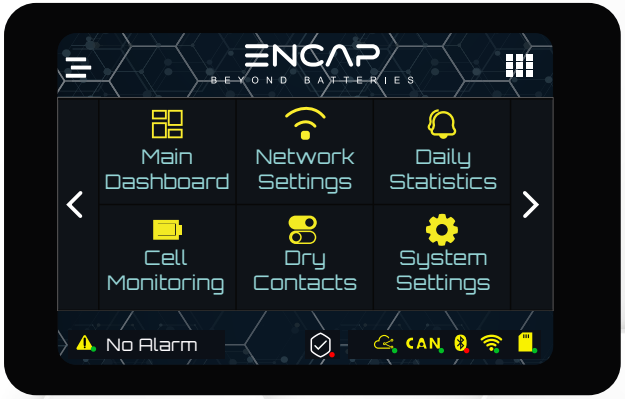


First page



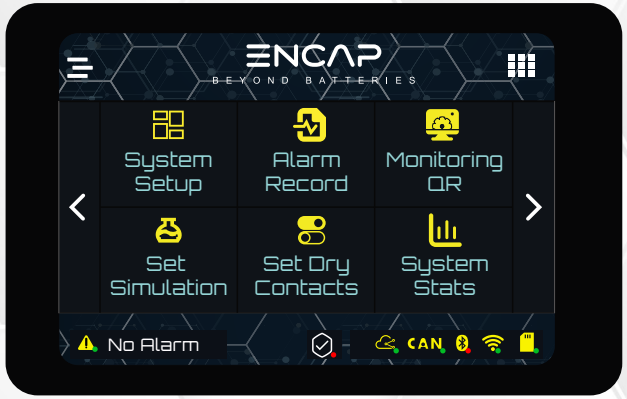
Second page

Click on right arrow to go to third page



First Page

Second Page



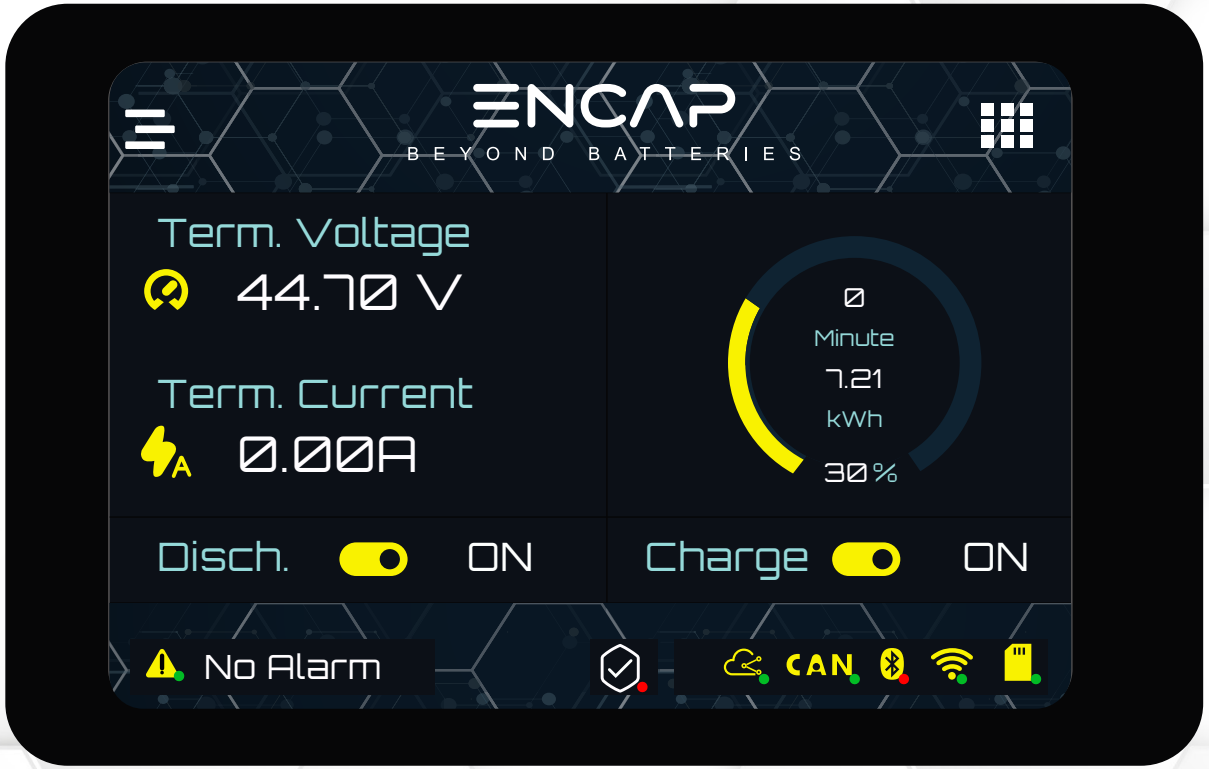
Third Page

FIRST MENU PAGE

First Menu page has Main Dashboard, Network Settings, Daily Statistics, Cell Monitoring, Dry Contacts and System Settings.

1. MAIN DASHBOARD

The first page on LCD is dashboard by default.

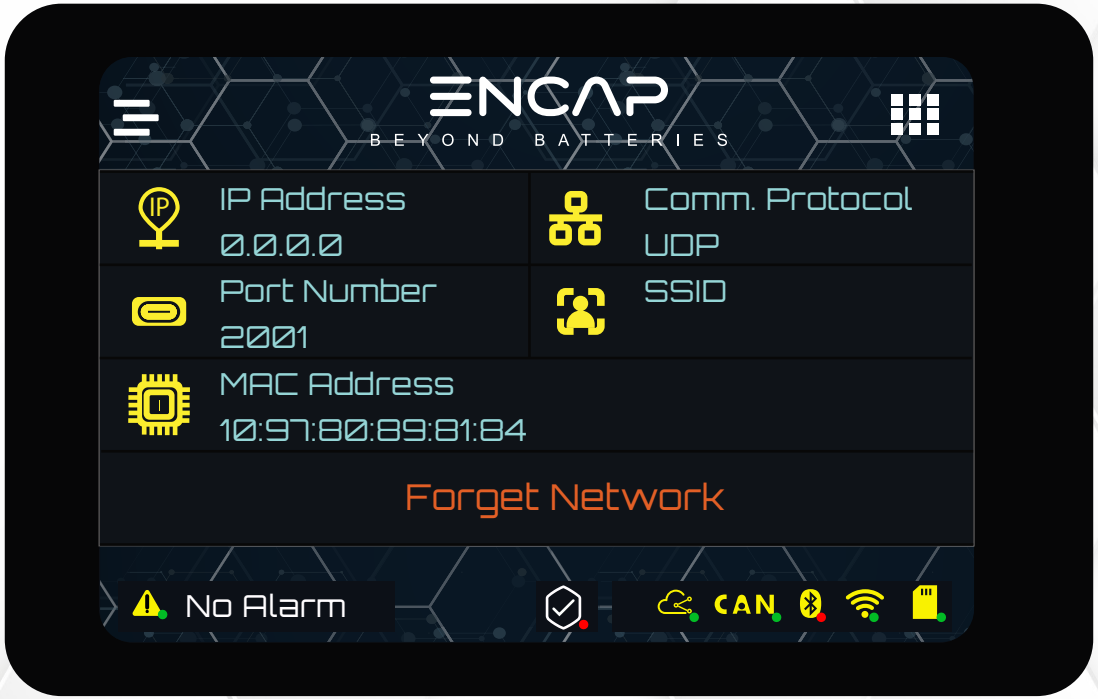


2. NETWORK SETTINGS

This page shows the IP Address, Port Number, Mac Address, Communication Protocol and SSID.

FORGET NETWORK:

Click on Forget Network to delete stored network info and Wi-Fi passwords.

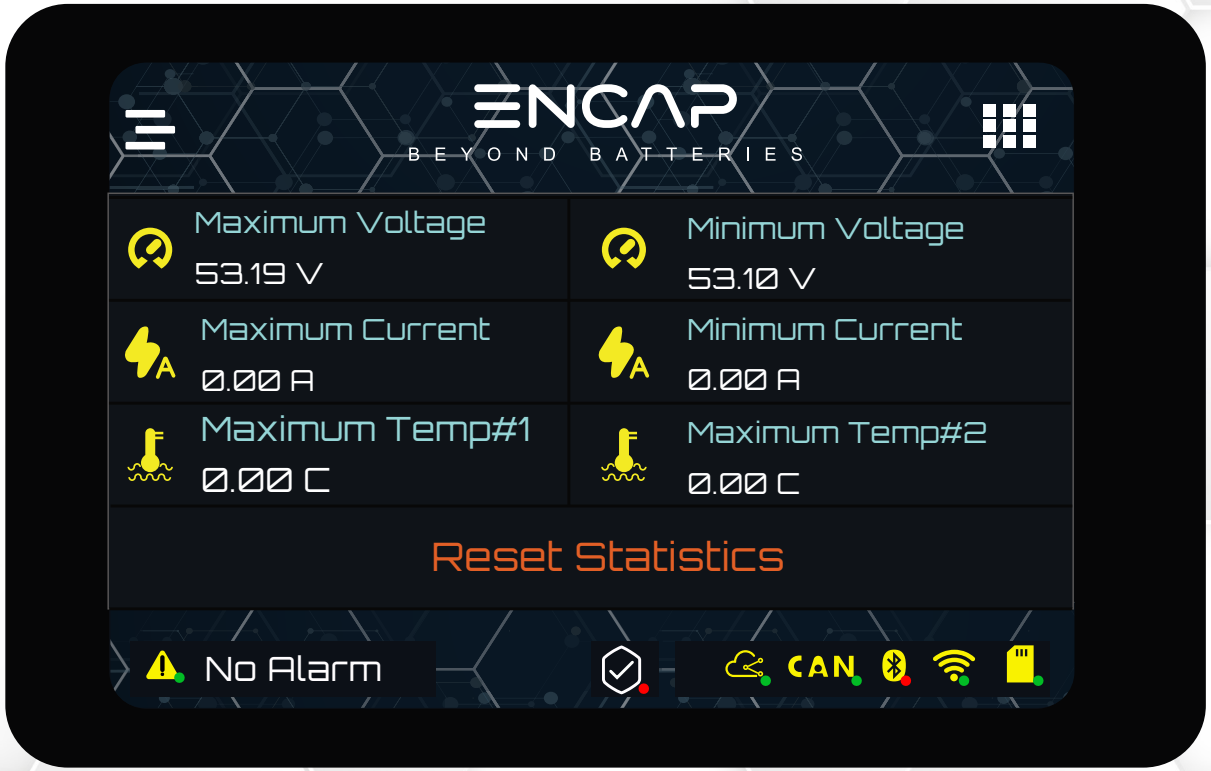


3. DAILY STATISTICS

Daily statistics shows the maximum and minimum voltages, maximum and minimum currents and maximum temperature of the Module.

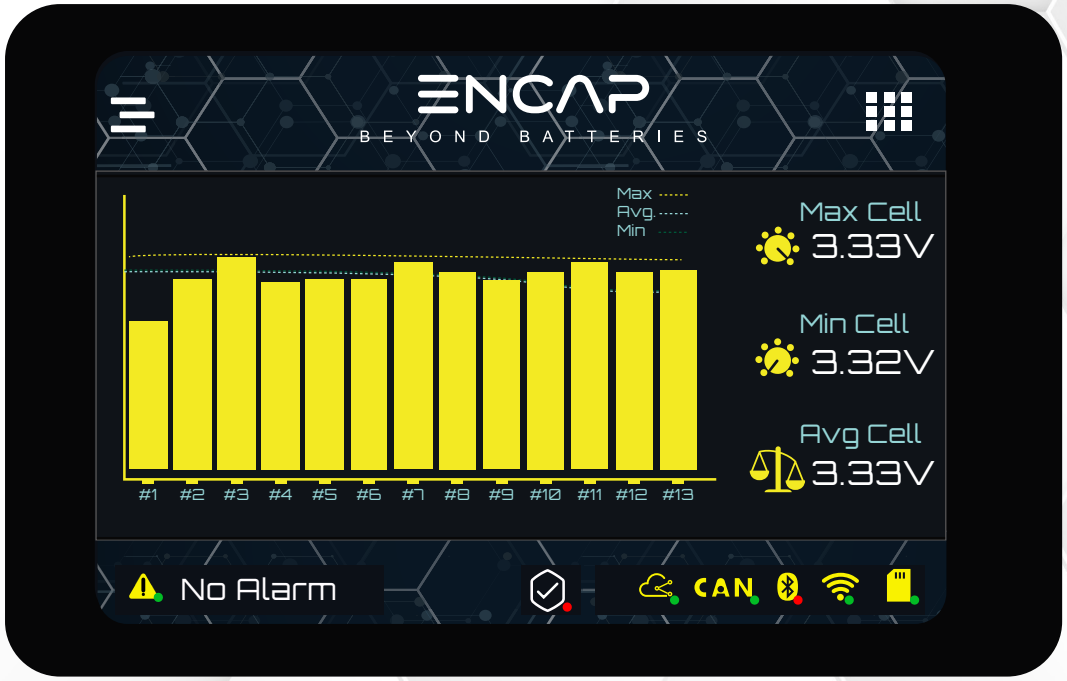
RESET STATISTICS:

Click on Reset Statistics to delete stored preset values.



4. CELL MONITORING

This page gives information on each cell’s voltage in the Module. This page helps the user to know about the imbalance and under/over voltage of cells.

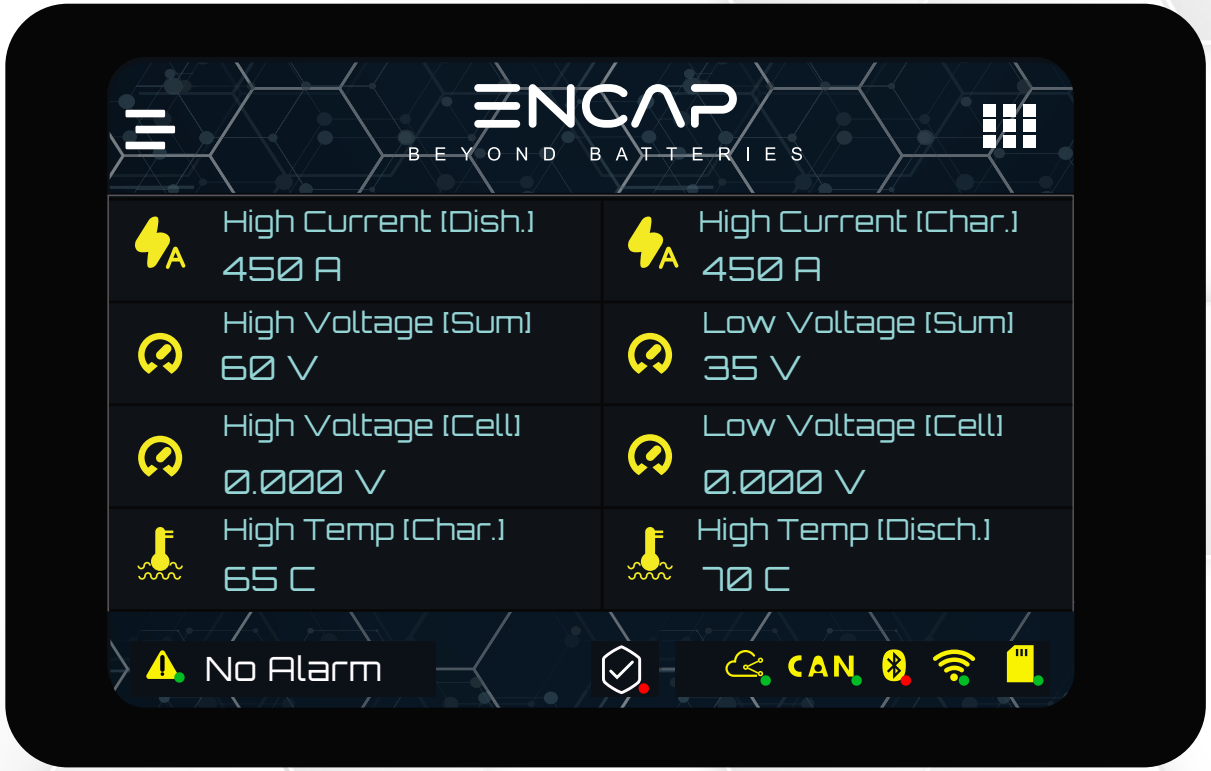


5. DRY CONTACTS

This is the Dry Contact read page. This page helps the user to view all the settings of the configured Dry Contacts.

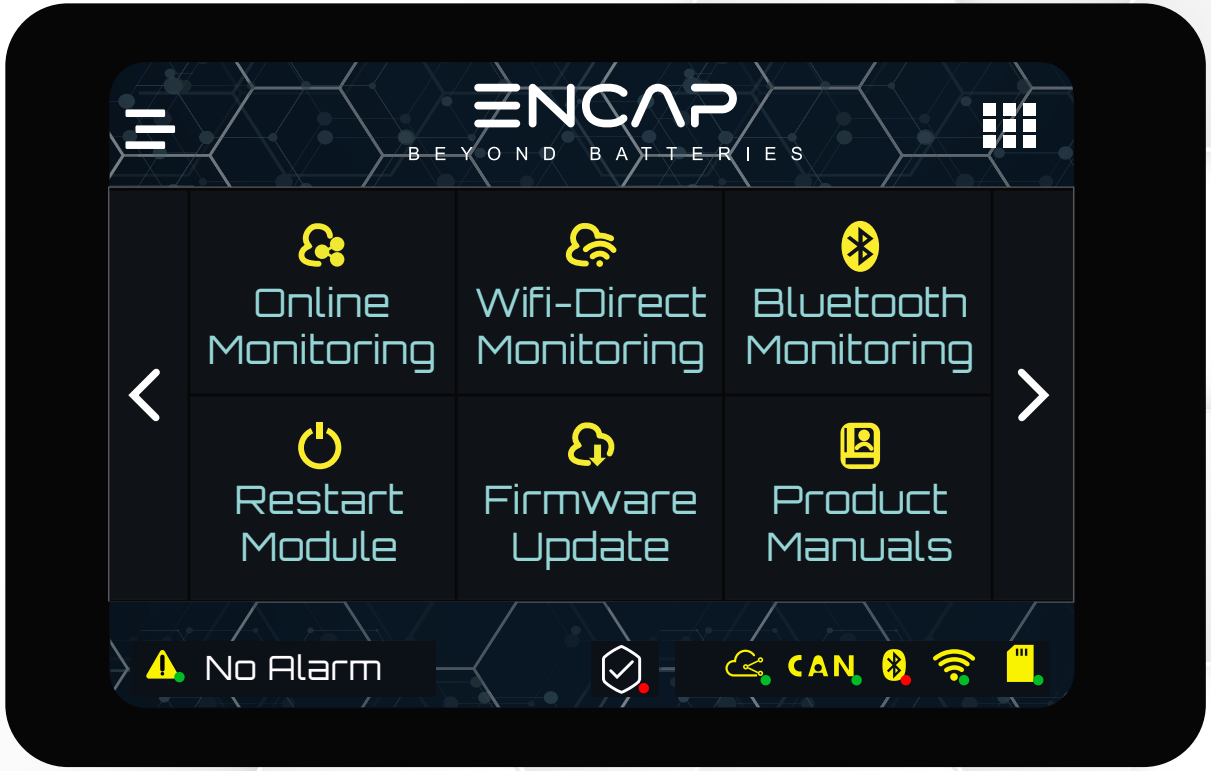
6. SYSTEM SETTINGS

System settings shows the preset limit of high current during charging and discharging, high and low voltage of Module, high and low voltage of cells and high temperature during charging and discharging.



SECOND MENU PAGE

Second menu page has Online Monitoring, Wifi-Direct Monitoring, Bluetooth Monitoring, Restart Module, Firmware Update and Product Manuals.



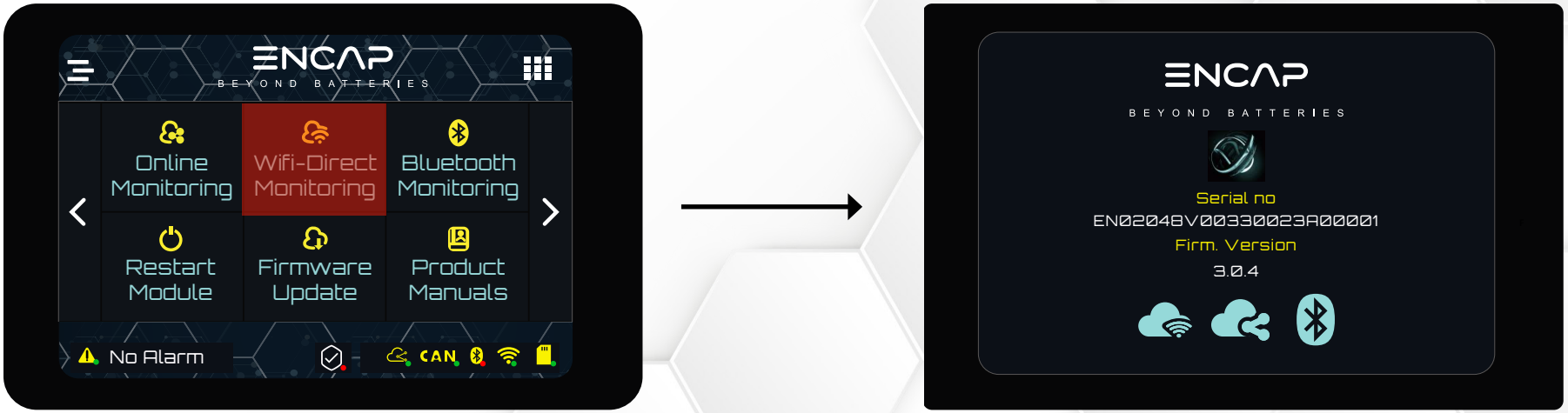
1. ONLINE MONITORING

Click on Online Monitoring, Module will restart. While restarting, the Online Monitoring will brighten up.

Online Monitoring will connect automatically if SSID and password are defined. For connecting for the first time, user need to define SSID and password. Kindly refer to Monitoring QR for defining SSID and password.

2. WIFI- DIRECT MONITORING

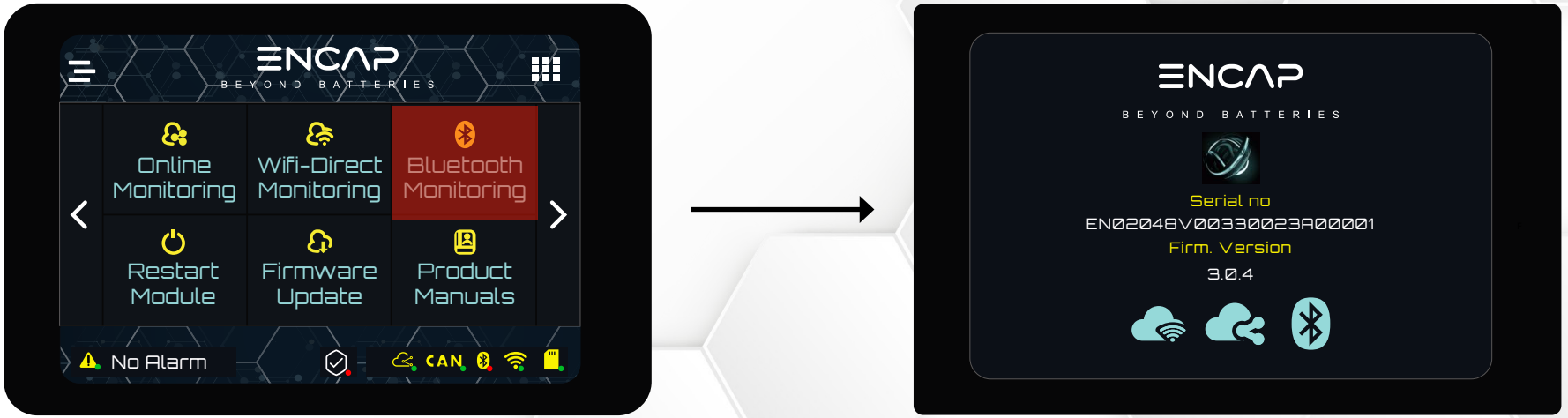
Click on Wi-Fi Direct Monitoring, Module will restart. While restarting, the Wi-Fi Direct icon will brighten up.



Wi-Fi Direct will connect automatically if SSID and password are defined. For connecting for the first time, user need to define SSID and password. Kindly refer to Monitoring QR for defining SSID and password.

3. BLUETOOTH MONITORING

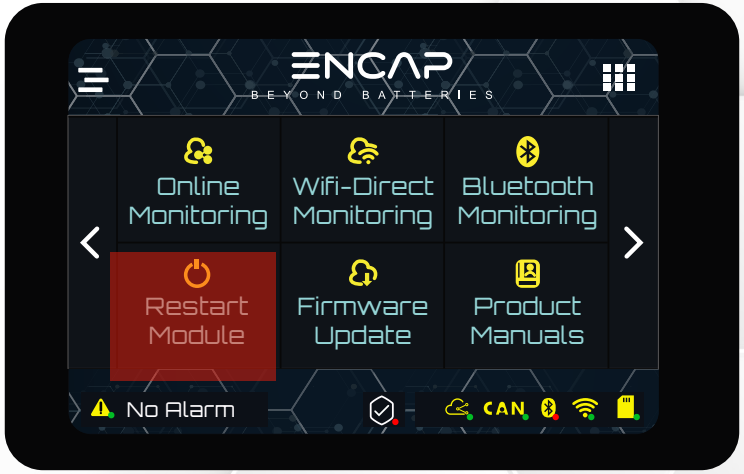
Click on Bluetooth Monitoring, Module will restart. While restarting, the Bluetooth icon will brighten up.



This function is only for use by **ENCAP** and not available to a user at this time.

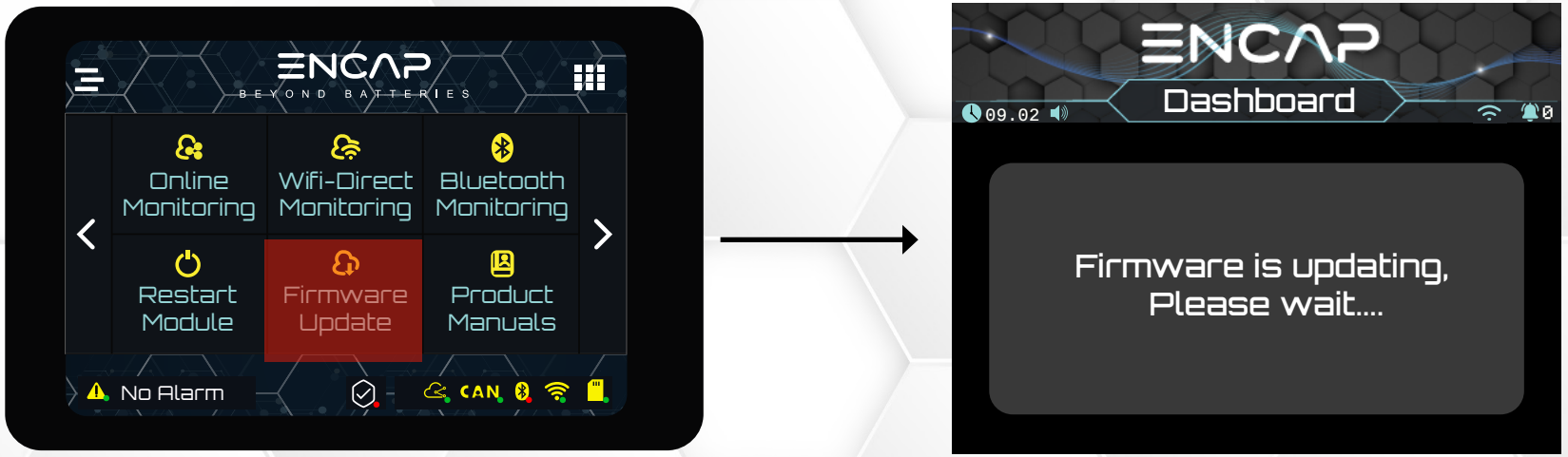
4. RESTART MODULE

If user want to restart Module, click on restart Module to restart the Module.



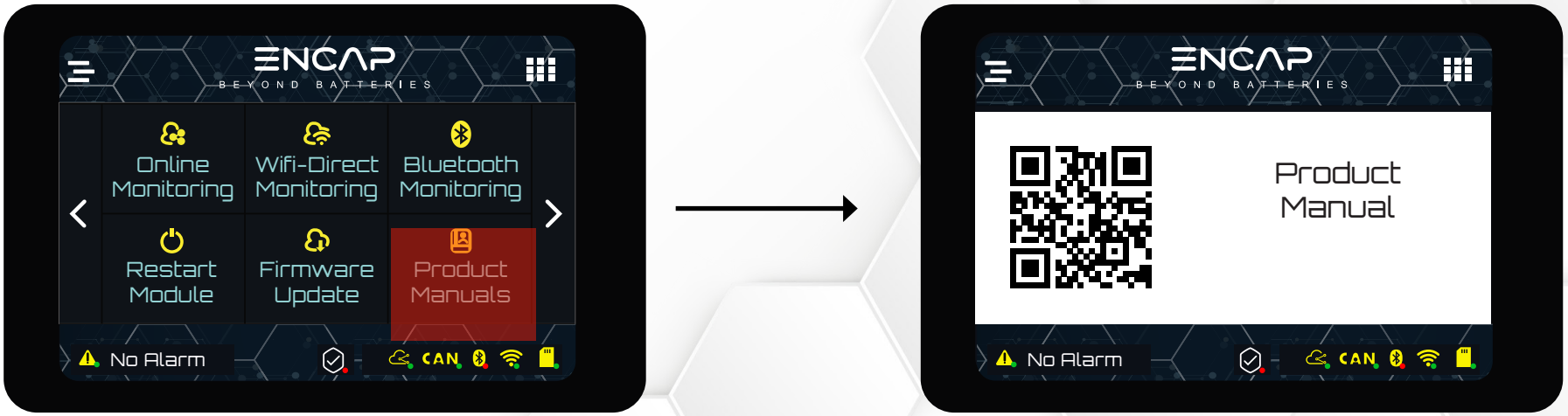
5. FIRMWARE UPDATE

Make sure the Module is in Online Monitoring mode when updating the firmware. Click on Firmware Update.



6. PRODUCT MANUAL

Click on product manual. Scan the QR code to download this product manual.



THIRD MENU PAGE

Third menu page has System Setup, Alarm Record, Monitoring QR, Set Dry Contacts and System Statistics.

1. SYSTEM SETUP

User can enable/disable BMS buzzer, enable/disable terminal safety and set and read CAN ID from system setup page.

BMS BUZZER:

If the BMS buzzer is enabled, whenever the touch functionality is triggered, it will buzz. Tap on the BMS buzzer to disable it.

TERMINAL SAFETY:

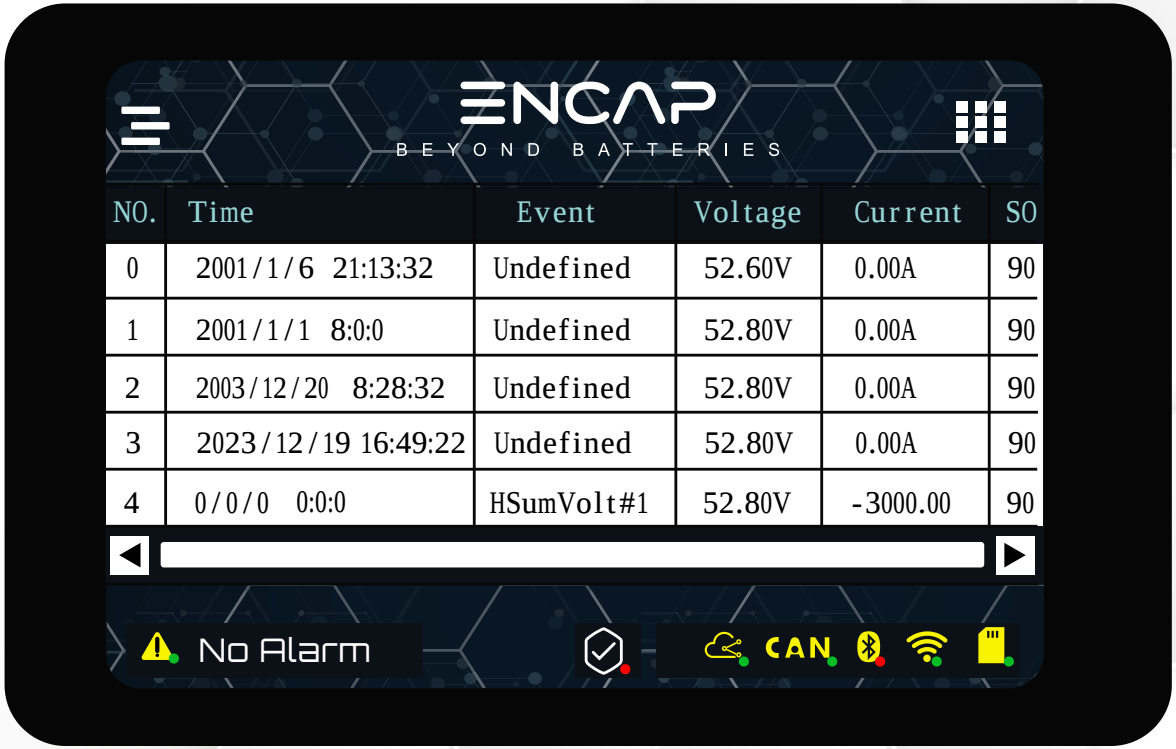
This feature is added to secure the operation of BMS. Click on Terminal Safety to enable the feature. When safe feature is enabled, Module will not charge or discharge.

If you want to charge and discharge the Module, disable the safe feature by clicking on Terminal Safety. .

SET CAN_ID and Read CAN 1D is for racked and containerized Modules only.

2. ALARM RECORDS

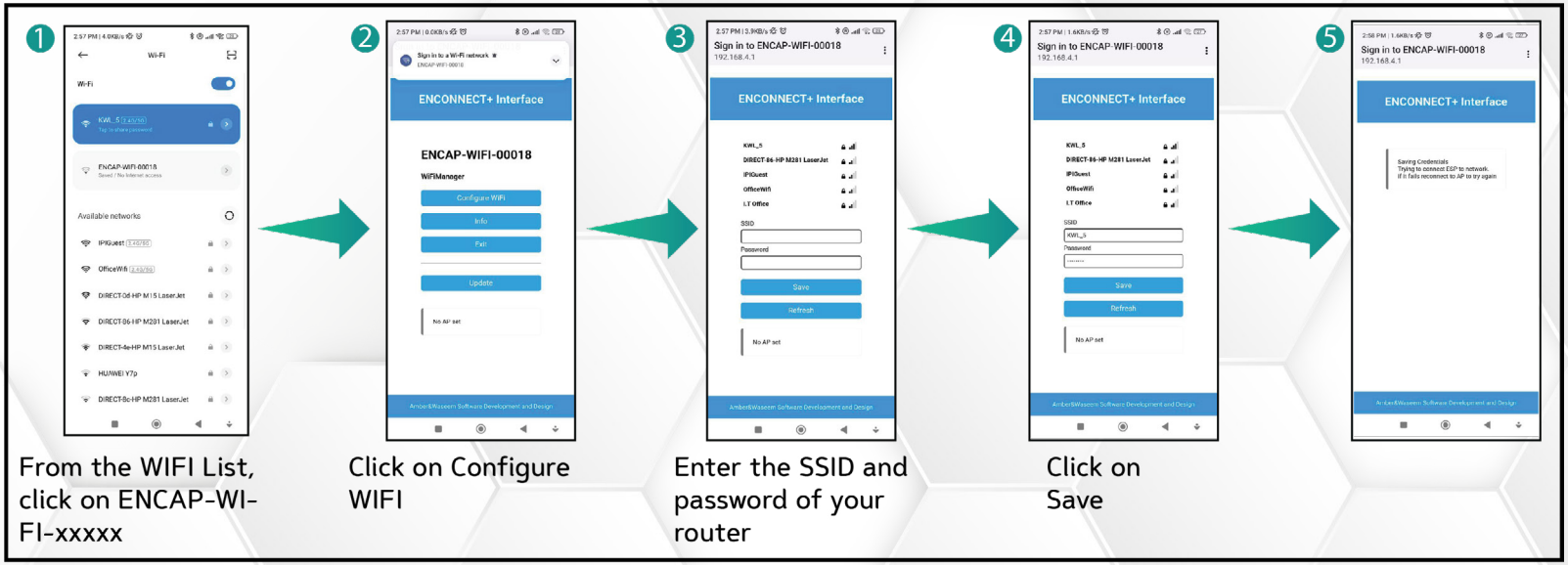
Encap Module has all the alarms settings with protection feature as default. This page shows all the logged alarms with time and date.



MONITORING QR

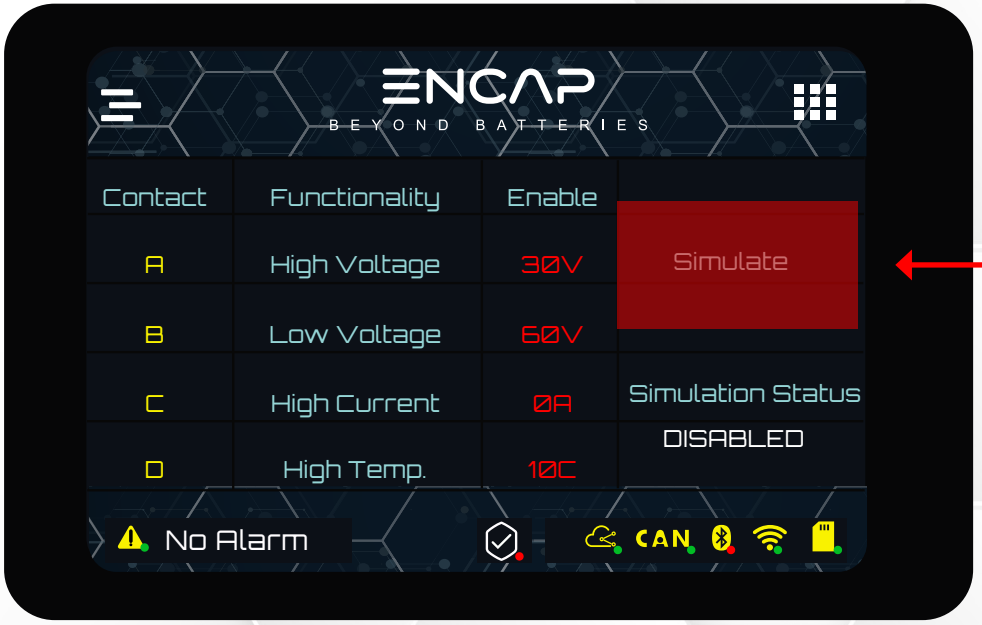
Click on monitoring QR to scan the QR code.

Follow the steps below to complete the process:



SET SIMULATIONS

Set Simulations is use to test Dry Contacts. To check if Dry Contacts are working, click on simulate to enable or disable Dry Contacts.



Click on Simulate to enable or disable the Dry Contacts

SET DRY CONTACTS

Dry Contact Write page allows the user to configure the Dry Contacts.

The user can specify Dry Contact, its type, and the condition they want. Module has four Dry Contacts:

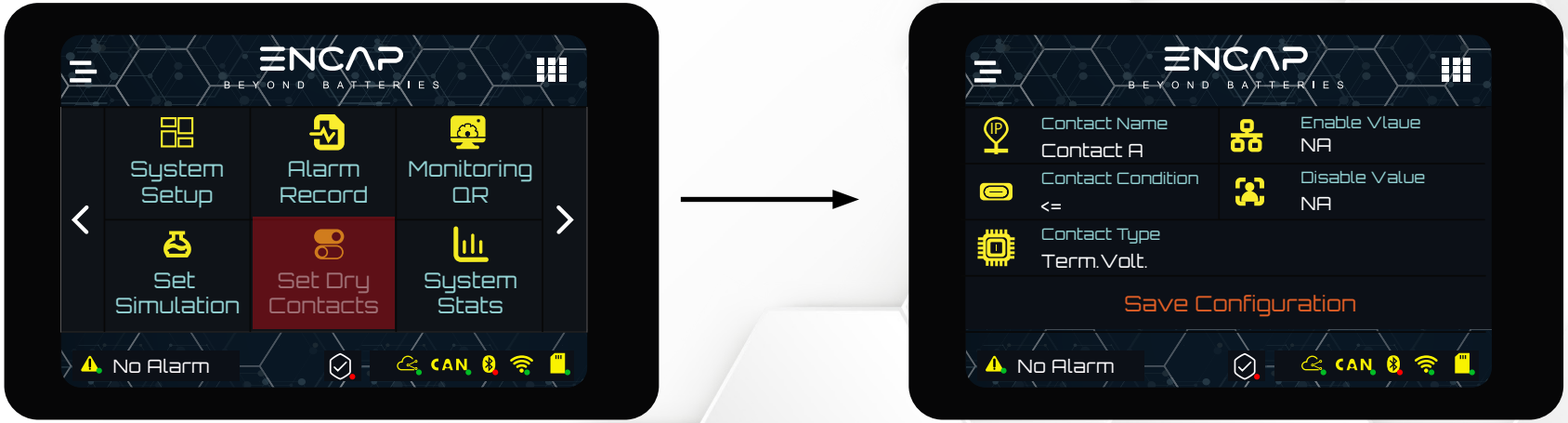
- Dry Contact A
- Dry Contact B
- Dry Contact C
- Dry Contact D

These Dry Contacts can be set for the following six parameters.

- Terminal Voltage
- Current
- Temperature
- SOC
- Disable
- Enable

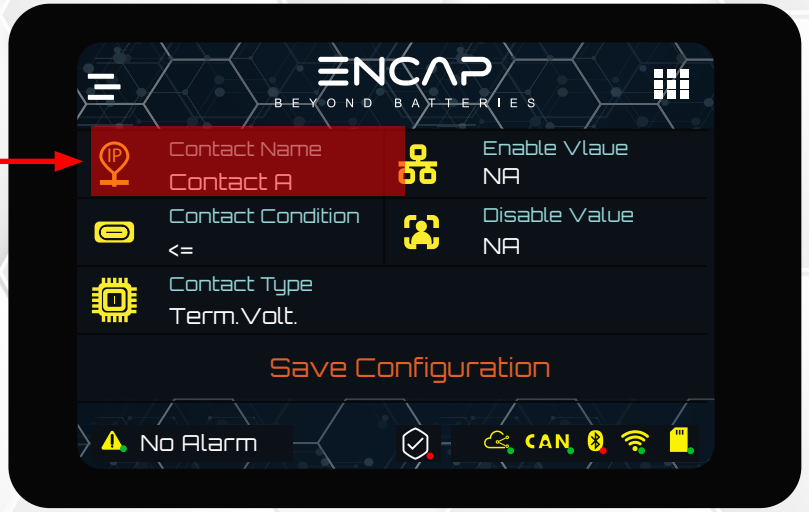
1. STEPS TO CONFIGURE DRY CONTACTS:

Click on Set Dry Contacts. Set Dry Contacts window will open.



DRY CONTACT PIN SELECTION

Tap on the Contact Name to navigate through the Dry Contact A, B, C and D.

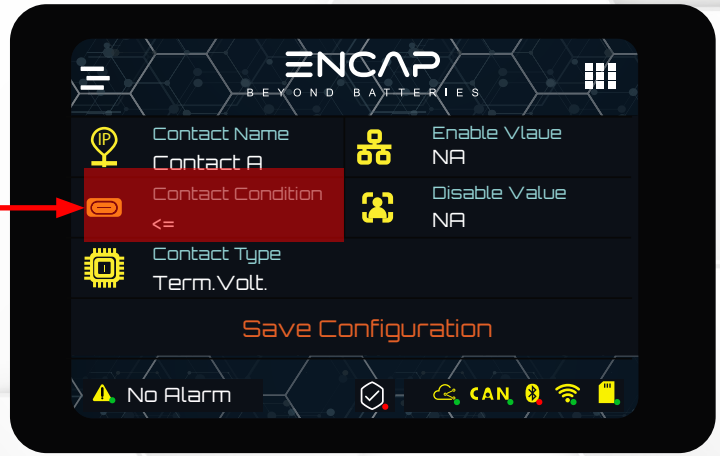


DRY CONTACT CONDITION

There are two set conditions:

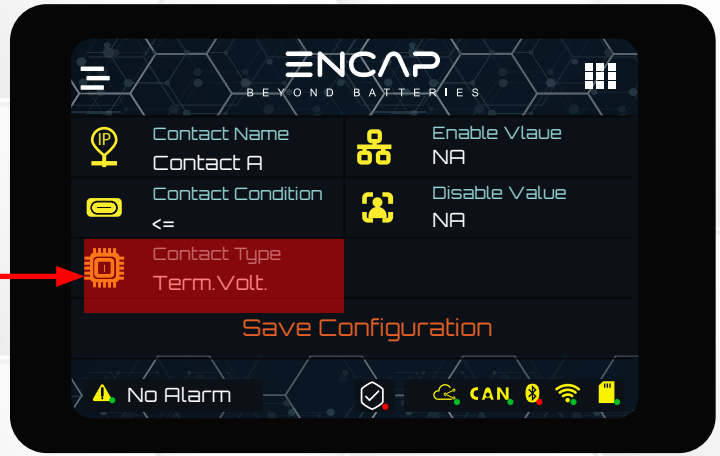
1. Less than or equal to
2. Greater than

Tap on the Contact Condition to navigate through the conditions



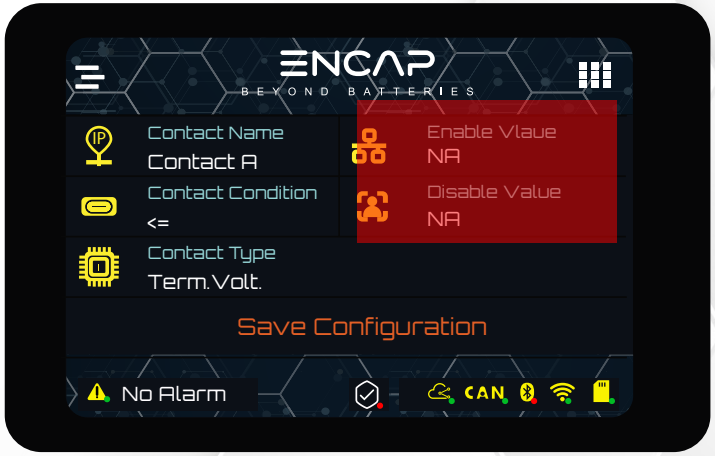
DRY CONTACT PARAMETER TYPE SELECTION

Select the Contact type by navigating through the list. Tap on the Contact Type for navigation.

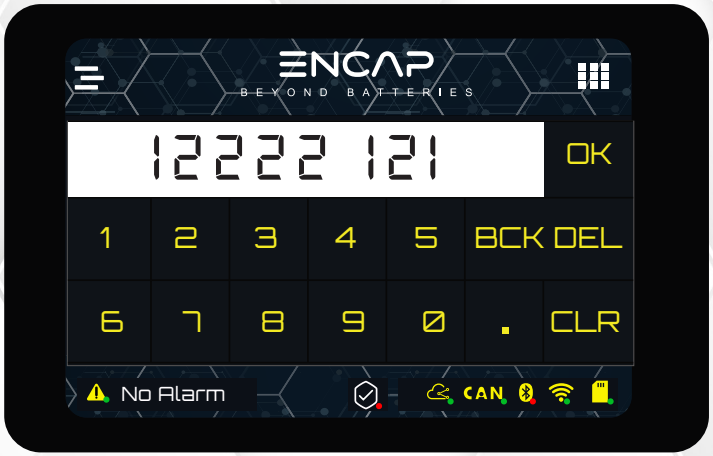


DRY CONTACT FUNCTION SELECTION:

After the name, type and condition of the Dry Contact is set, choose the set value to enable and disable the function.



Clicking enable or disable will open the set value prompt window.



Write the value and click OK. When everything is set, click on Save Configurations.

SYSTEM STATS

System stats shows the statistics of the Module from the time of first start. It shows total charge and discharge energies, highest and lowest current read, system run time, main board and BMU serial.