

SIRIUS MODULE COMBINER

User Manual

Model Number: MC-48-F05-B-V1.2-1020

Version 1.2; Release Date: October 2020



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Contents

- 1. Safety Instructions:5
 - 1.1 Symbols Convention:5
 - 1.2 Safety Precautions:5
 - 1.3 Modules Connection Safety Precautions:6
 - 1.4 Shipping:.....7
 - 1.5 Qualified Installer:.....7
- 2. Product Introduction:.....8
 - 2.1 Part Number:.....8
 - 2.2 Product Mechanical Appearance:.....8
 - 2.3 Product Description:10
- 3. Module Installation:.....12
 - 3.1 Inspection:.....12
 - 3.2 Safety Gear:.....12
 - 3.3 PACKAGE CONTENTS:.....13
- 4. Electrical Installation:.....14
 - 4.1 Cable Size:14
 - 4.2 Connecting Cable Lugs, Washers and Bolts to Module Terminals:.....15
 - 4.3 Installation:16
 - 4.4 Modules Connected in Series:18
 - 4.4.1 Steps to Operate Modules in Series:.....20
 - 4.5 Modules Connected in Parallel:22
- 5. Post Installation Check:.....24
 - 5.1. Terminal Voltage:.....24
 - 5.2. DC 12V port:.....25
- 6. SMC Monitoring Software:26
 - 6.1 Interfacing:26
 - 6.2 SIRIUS VIEW Description:28
 - 6.2.1 Top Banner:.....29
 - 6.2.2 Module Status Banner:29
 - 6.2.3 Application Banner:30
 - 6.2.4 Dash Board:.....32
 - 6.2.5 Graph Analysis:37
 - 6.2.6 Cell Voltages:.....37
 - 6.2.7 Module Statistics:.....38

6.2.8 Event Logs:38

6.2.9 Calibration Status:.....39

6.2.10 Sirius VIEW Bottom Banner:39

7. Sirius View System Configuration:40

7.1 SD Card Settings:.....40

7.2 Combiner Settings:.....41

7.3 E-Mail Settings:42

8. Remote Monitoring:.....43

8.1 Login Procedure:43

8.1.1 OTP Generation by Sirius Mobile Android Application:.....44

8.1.2 OTP Generation by Sirius WEB Application:47

Introduction

The Sirius Module Combiner operates as a gateway between the storage system and Sirius Module Combiner (SMC) monitoring and analysis software. It collects energy and performance data from all Sirius Modules at the site, and it forwards that data to SMC software, via the Internet, for statistical reporting and system control.

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Safety Instructions:

This manual contains instructions for unpacking, mounting, installation and operation of a Sirius Module Combiner. Please read this manual carefully before operating the system and follow all warnings and safety instructions to prevent accidents. The Sirius Module Combiner must be installed by trained personnel.

1.1 Symbols Convention:

Safety instructions and general information that appears in this manual are described.



Caution!

“Caution” indicates hazardous situation which, if not avoided could result in minor or moderate injury.



Warning!

“Warning” indicates hazardous situation which, if not avoided could result in major injury or death.



Danger!

“Danger” indicates hazardous situation which, if not avoided could result in serious injury or death.



Note!

“Note” provides tip that are valuable for optimal operation of your

1.2 Safety Precautions:

The Sirius Module Combiners are designed to provide years of trouble-free operation. Proper handling is required to avoid damage to the Module Combiner. In particular the following precautions should be observed.

- **Personal Safety:**

- Always wear proper personal protective equipment (eyes protection, gloves and safety shoes).
- Always make sure charger is set as recommended.

Sirius Module Combiner– User Manual

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- **System Safety:**

- Do not subject the system to strong impact.
- Do not operate the system above the specified voltage.
- Do not install the system near a heat source, such as a fireplace.
- Do not touch the system with wet hands.
- Do not expose the system to moisture or liquids.
- Keep the System away from children and animals.
- Ensure precautions to prevent short-circuit under all circumstances.
- Do not connect or disconnect terminals from the System without first disconnecting the load.
- Do not touch the terminals with conductors while the Module Combiner is charged. Serious burns, shock, or material fusing may occur.
- Protect surrounding electrical components from incidental contact.
- When connecting to external devices ensure that galvanic isolation does not exceed 1000V.
- Do not use the System in open-environment, in rain or in a place exposed to water and other liquids.
- Do not subject the System to high pressure.
- Do not stack Modules once they have been removed from the packaging, instead the Modules should be placed on shelving of rack.

1.3 Modules Connection Safety Precautions:

- All Modules must be at 100% SOC before connecting in series or in parallel with Module Combiner.
- The Module Combiner input depends on system Voltage. Using a system voltage other than the input capacity of Module Combiner might damage it.
- It is not recommended to connect more than 16 Modules to Module Combiner.
- Modules cannot be connected in series-parallel combination under any circumstance.



Note!

Please inform your Reseller if you want to connect Module combiner to a system voltage other than 48Vdc.

1.4 Shipping:

Sirius Capacitor Modules and Module Combiner are shipped out via Air and Sea.

- If the Modules are shipped via Air, please follow the instructions given below:
 - Carefully remove the nails from all the four sides of the wooden box and open it.
 - Remove the foam and cling wrap and open the carton box and lift the Module manually.
- If the Modules are shipped via Sea, please follow the instructions below:
 - Carefully remove the Module from the pallets after cutting the packing strips that are holding the Modules to the shipping pallets.
 - Open the carton box and lift the Module manually.

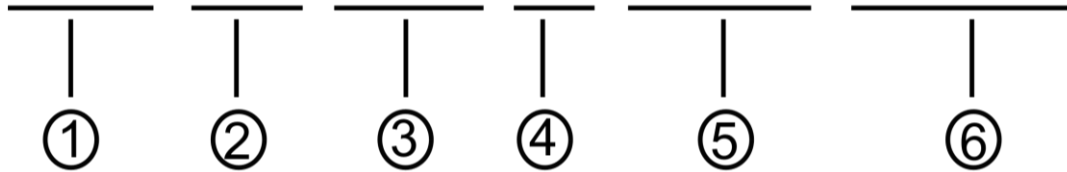
1.5 Qualified Installer:

Selling and installation of this Module Combiner is only through the Company's Resellers who are trained on installation, operation and maintenance of the Sirius Modules.

1. Product Introduction:

2.1 Part Number:

MC-48-F05-B-V1.2-1020

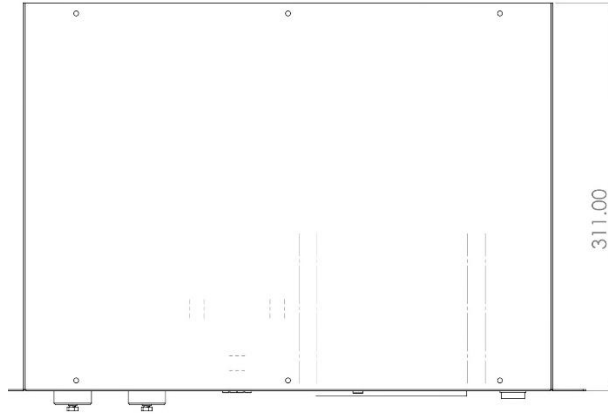


- 1) Module Combiner
- 2) Nominal Voltage of the System
- 3) Terminals Type
- 4) Terminals are on the Front Side
- 5) Version 1.2
- 6) First two digits represent Month
Last two digits represent Year

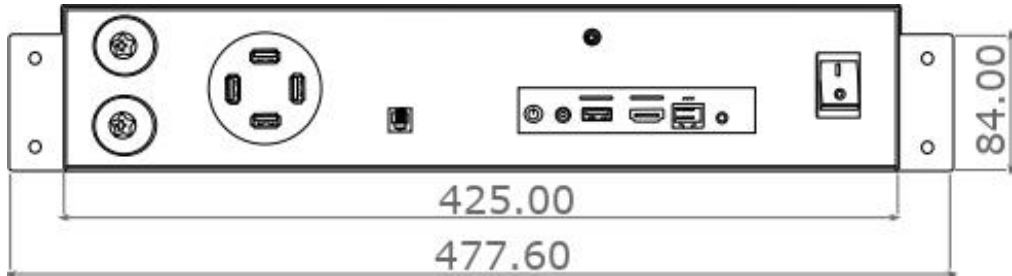
1.2 Product Mechanical Appearance:



Width	477.60 mm
Depth	311.00 mm
Height	84.00 mm

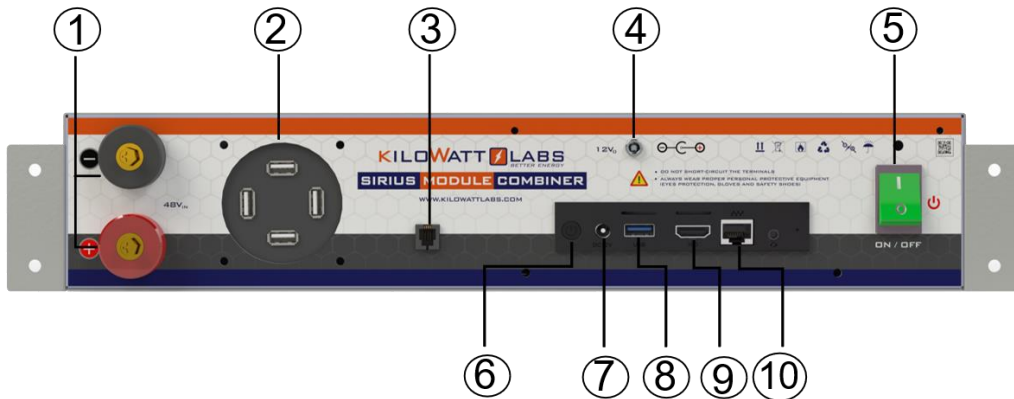


Top View



Front View

1.3 Product Description:



Object	Mark	Description
1	48 V Terminals	48V DC Input (36V to 75V Range)
2	USB Hub	USB External Devices
3	Aux Combiner	Module Combiner Plug (RJ11)
4	12 V _o	12V DC output to power the controller
5	Switch Button	Switch ON/OFF the Module Combiner
6	Power	Power ON the controller
7	DC 12V	Input from 12V _o
8	USB Port	USB External Devices
9	HDMI Connector	Display Interface for HDMI Screen
10	Ethernet Port	External Communication Port

1) 48V Terminals:

F05 terminals are used to power the Module Combiner using the Sirius Module. There are positive and negative cables in the jumper cable set. The red one is positive (+), the black one is negative (-).



Note:

Never connect the red cable to the negative terminal of the Module.

2) USB Hub:

Module Combiner has only 1 USB port. If you want to connect more than 1 electronic devices (e.g. mouse and keyboard at the same time), then use USB Hub.

3) Aux Combiner:

Module Combiner plug is used to daisy chain all Modules connected in parallel or in series.

4) 12Vo:

12Vo is used to power the controller. Do not use this to power anything other than the Module Combiner.

5) Switch Button:

Switch button is used to power ON/OFF the Module Combiner.

6) Power Button:

Power button is used to power ON the controller of the Module Combiner. Hold the power button for 3 to 4 seconds to power the controller.

7) DC 12V:

DC 12V is used to take power from 12Vo.

8) USB Port:

USB port is used for electronic devices interfacing.

9) HDMI Connector:

Use HDMI screen to serve as a display panel for the Module Combiner. Any HDMI Panel will work.

10) Ethernet Port:

Ethernet port is used to connect the device to a wired network. If you want to connect Sirius Module with internet then use the ethernet port.

2. Module Installation:

3.1 Inspection:

Inspect the shipping carton for visible damage including cracks, dents, deformation and other visible abnormalities prior to unpacking the Module. Document (e.g. photo/photos) any damage and report this to your Reseller as well as to the shipping agent immediately. Remove the Module from the shipping carton and retain the shipping materials until the unit has been inspected and is determined to be operational.

3.2 Safety Gear:

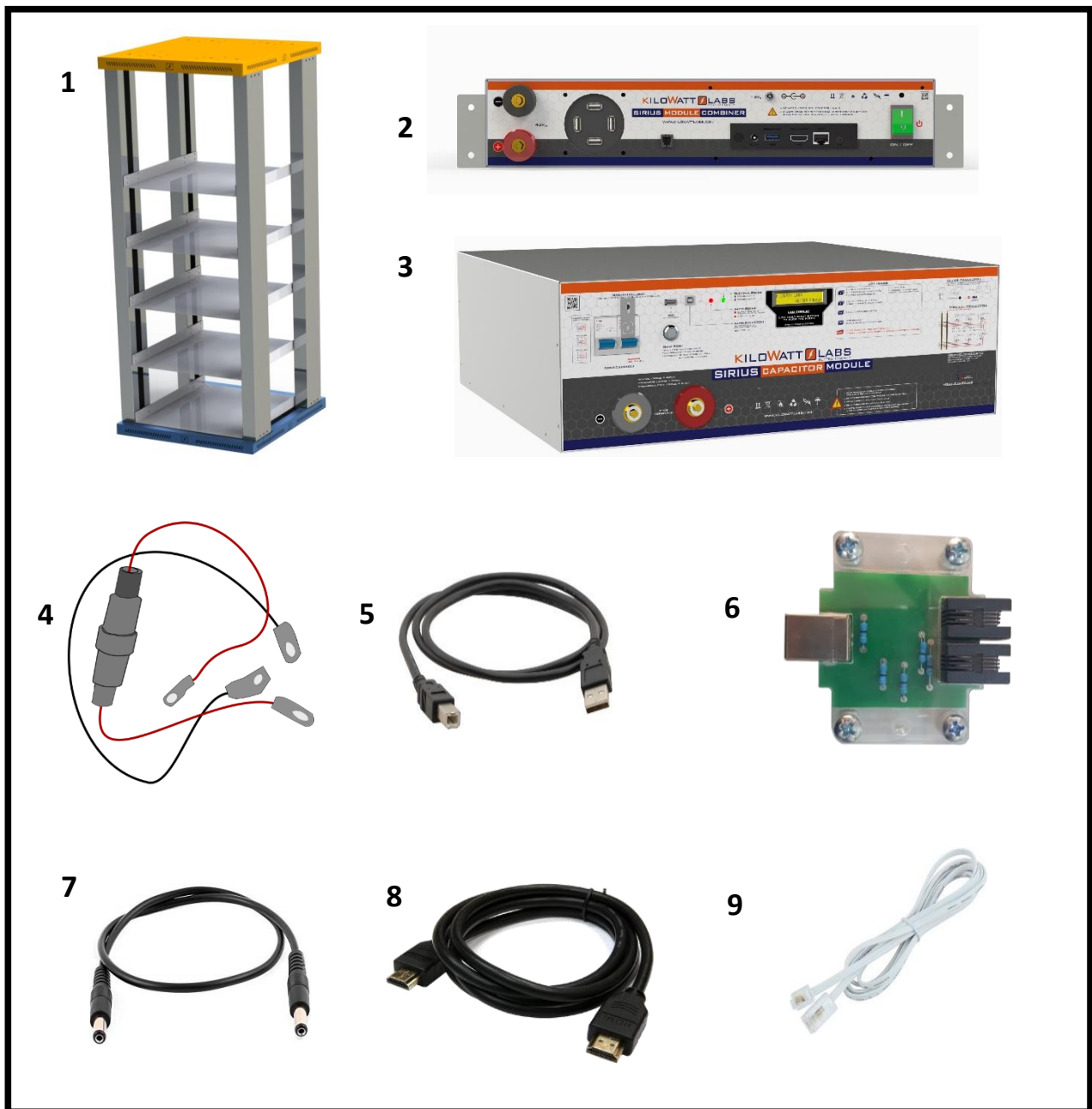
Installation must strictly follow the national safety regulations in compliance with the enclosure, installation, creepage, clearance, casualty, markings and segregation requirements of the end-use application. Installation must be performed by professional installers only. Switch OFF the system and check for hazardous voltages before altering any connection! Sirius Module Combiner must be handled only by qualified and trained personnel. Installation should not exert bending or twisting torque to the Module enclosure.



Note!
Read the safety instruction section before installation.

3.3 PACKAGE CONTENTS:

Please check the package contents carefully.

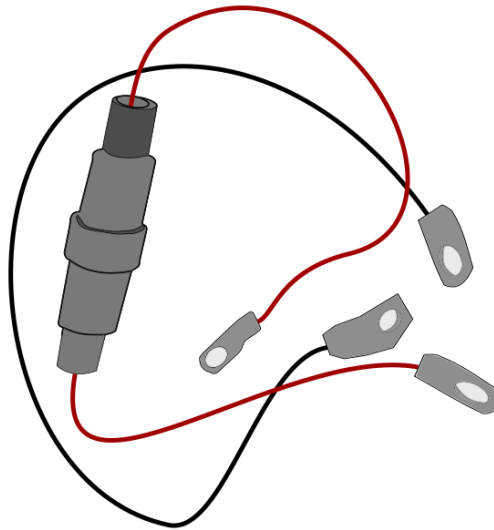


1. Rack (if available)	2. Sirius Module Combiner	3. Sirius Module
4. Terminal Cables with 5A Fuse	5. USB Cable A-B	6. Combiner Converter (2 pieces)
7. 12V Jack Cable	8. HDMI Cable	9. RJ11 Cable

3. Electrical Installation:

4.1 Cable Size:

- **Sirius Module Combiner:** Two terminal cables (Red and Black) of size 0.75 mm² and length 1m long each are provided in the packaging for Module Combiner. The Red cable has a 5A fuse as illustrated.



- **Sirius Modules:** We recommend a cable size of 35mm² thick and 1m length to hold current up to 150A. Please use thick cable size for lengths longer than 1m.

4.2 Connecting Cable Lugs, Washers and Bolts to Module Terminals:

Follow the sequence below to connect the washers, lugs and bolts to the positive and negative terminals of the Sirius Module. Make sure connection is not loose.

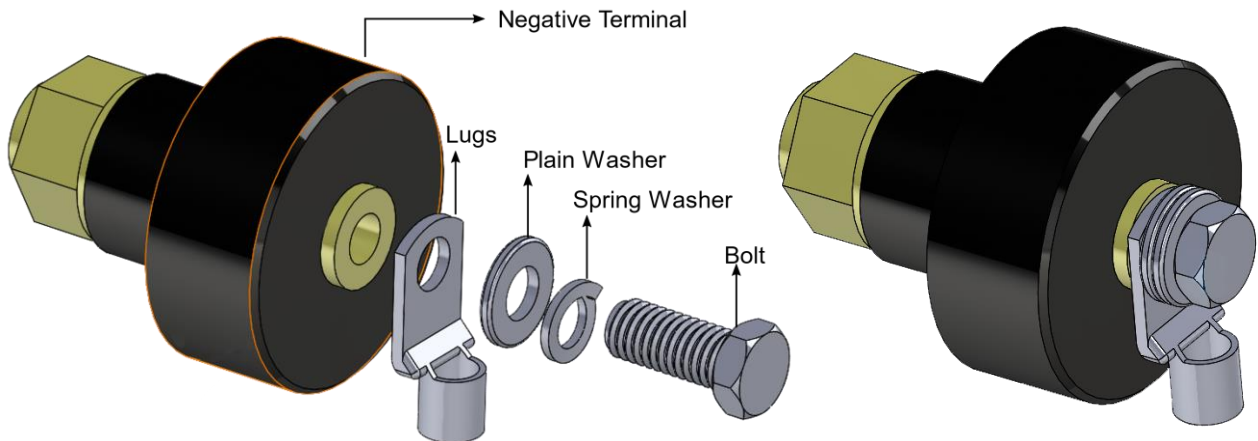


Figure 1. Connecting washers, lugs and bolts to negative terminal of Module

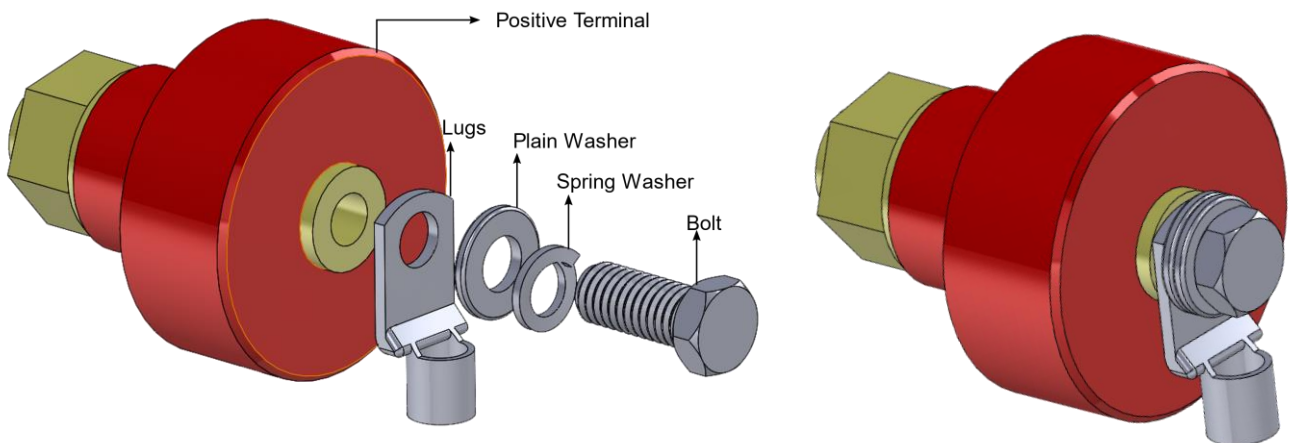
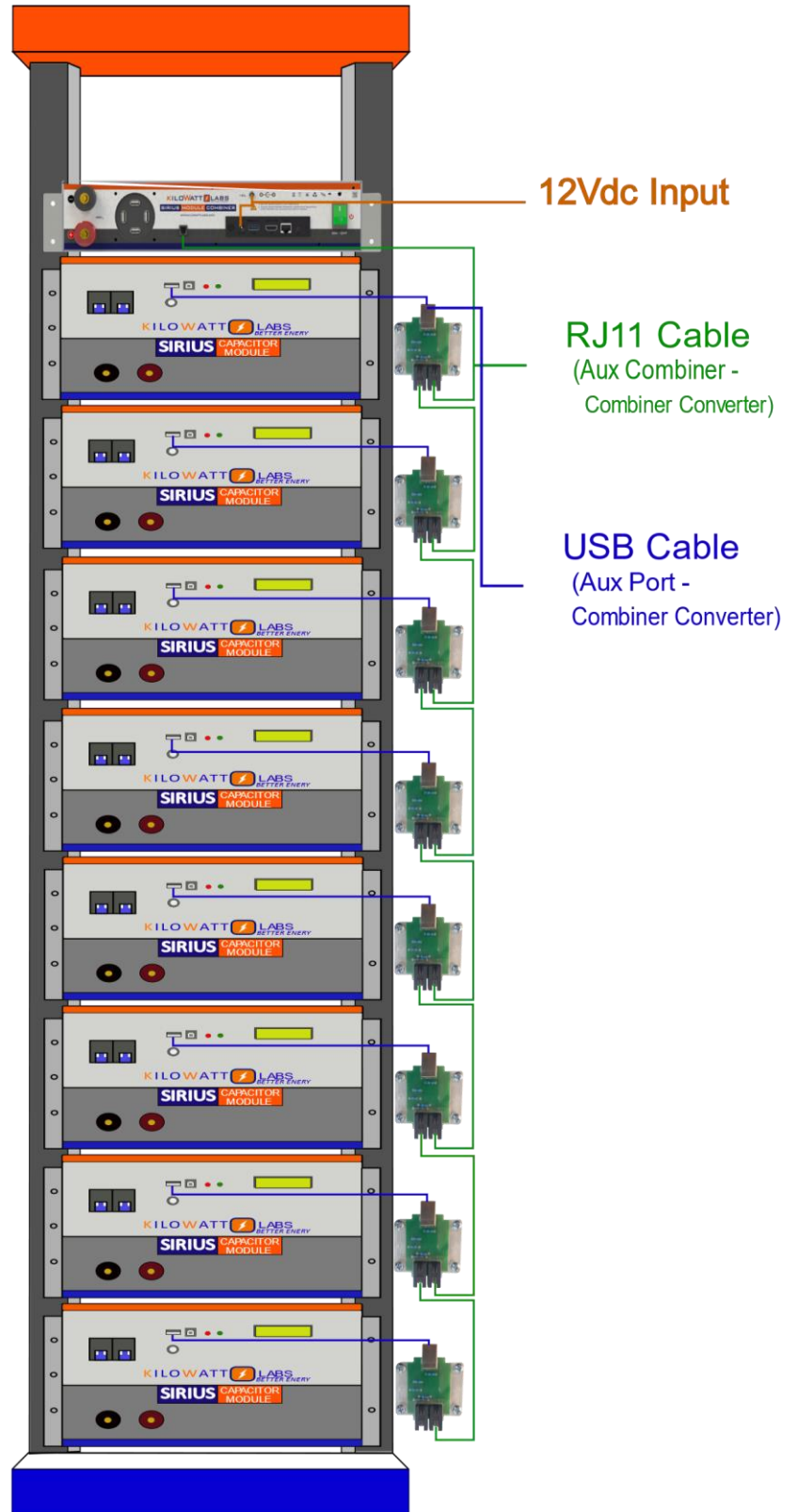


Figure 2. Connecting washers, lugs and bolts to positive terminal of Module

4.3 Installation:

1. Unpack all the Modules and the Module Combiner and mount them in a rack (if available). Tighten all Modules and the Module Combiner in a rack.
2. Connect the 12V_o port to 12V DC port via 12V jack cable.
3. Combine all the Modules using combiner convertor. Connect one end of RJ11 to Aux Combiner port of the Module combiner and the other to the combiner Converter. Then, connect all the combiner converters via RJ11 cable as illustrated.
4. Connect the Aux port of the Sirius Module to the Combiner convertor with the help of USB cable.
5. Switch ON all the Modules by turning ON the Circuit breakers. Please refer to section 5 (Operation Procedures) in the user Manual.
6. Ensure that the 12Vo DC Output of the Module Combiner is connected to the controller.



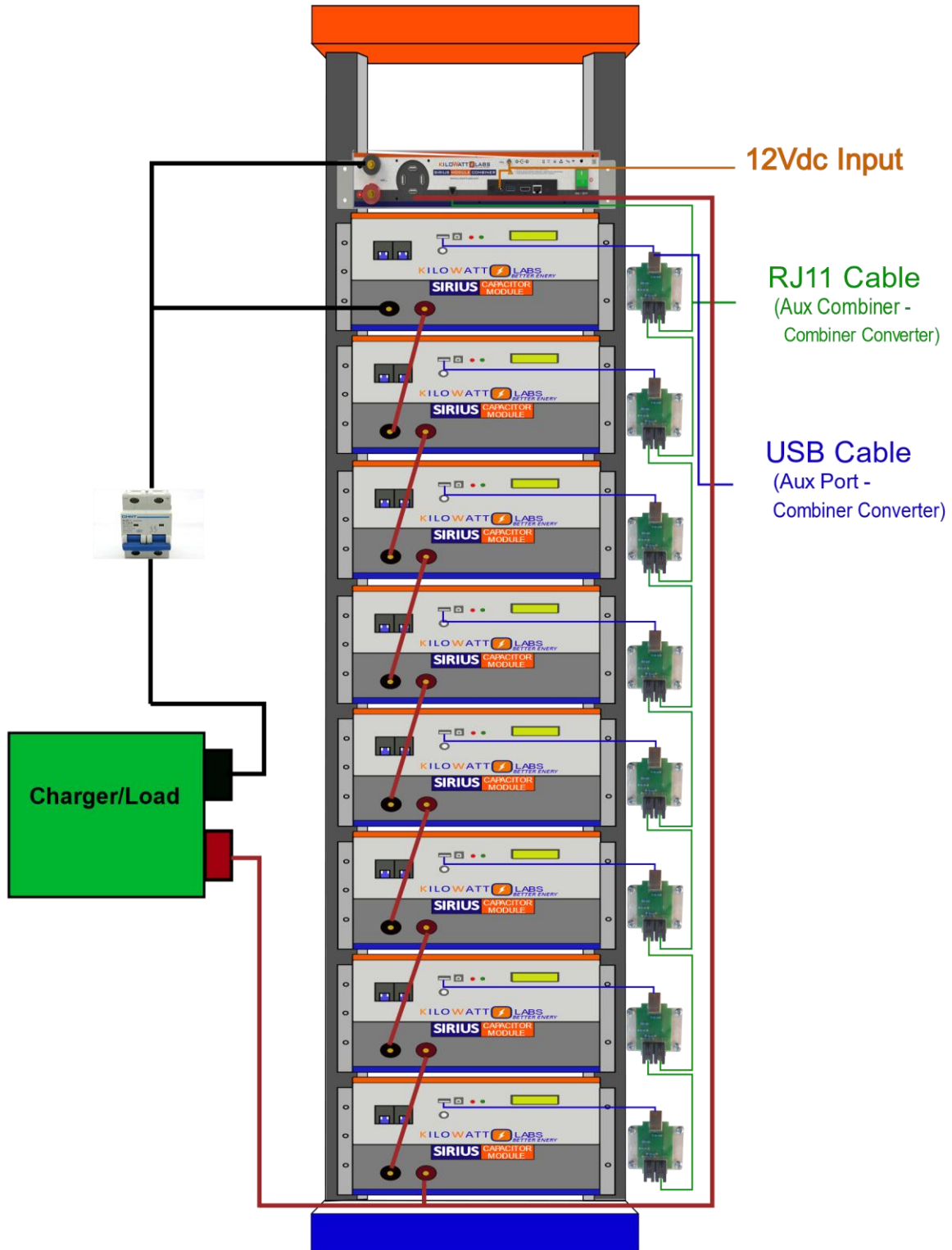
7. Turn ON the Module Combiner by turning ON the switch button and click/hold power button for about 3 to 4 seconds or until Intel is displayed on the screen.



Note!

The packaging of the Module Combiner includes only two combiner convertors. If you need more than two, you have to buy them. Kindly contact kilowatt Labs support for ordering.

4.4 Modules Connected in Series:



Please carefully follow the installation instructions:

1. Connect all Modules in series. See figure 1 for wiring layout.
2. Connect the positive (+) of the F08 terminal of the first Module with the negative (-) of F08 terminal of the next Module.
3. Take the output negative from first Module and output positive from the last Module.
4. Switch ON all the Modules by turning ON the circuit breakers. Please follow the steps to operate the Modules in Series.
5. Ensure that the 12Vo DC output of the Module Combiner is connected to the controller.
6. Turn ON the Module Combiner by turning ON the switch button and click/hold power button for about 3 to 4 seconds or until Intel is displayed on the screen.



Note!

The Module Combiner input depends on system voltage. Using a system voltage other than the input capacity of Module Combiner might damage it.

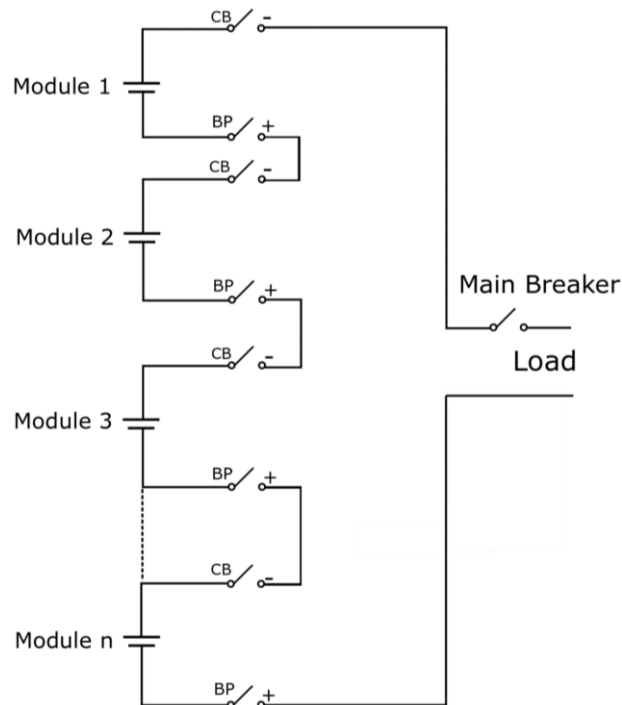


Note!

Please inform your Reseller if you want to connect Module combiner to a system voltage other than 48Vdc.

4.4.1 Steps to Operate Modules in Series:

The figure given below shows “n” number of Modules connected in series.



1) Steps to turn ON the Modules:

1. Turn ON the bypass breakers of all the Modules.
2. Turn ON the circuit breakers of all the Modules.
3. Turn ON the Main breaker.

2) Steps to turn OFF the Modules:

1. Turn OFF the Main breaker.
2. Turn OFF the circuit breakers of all the Modules.
3. Turn OFF the bypass breakers of all the Modules.



Warning:

Not following the steps in sequence may damage the Module.



Note!

Switch ON the bypass circuit breaker when connecting in series, otherwise it will damage the electronic switch.



Caution!

The bypass circuit breaker is not protected with electronic switch, therefore during over-voltage, under voltage and high temperature conditions, the terminals will not shutdown. It only gives protection for over current condition.



Caution!

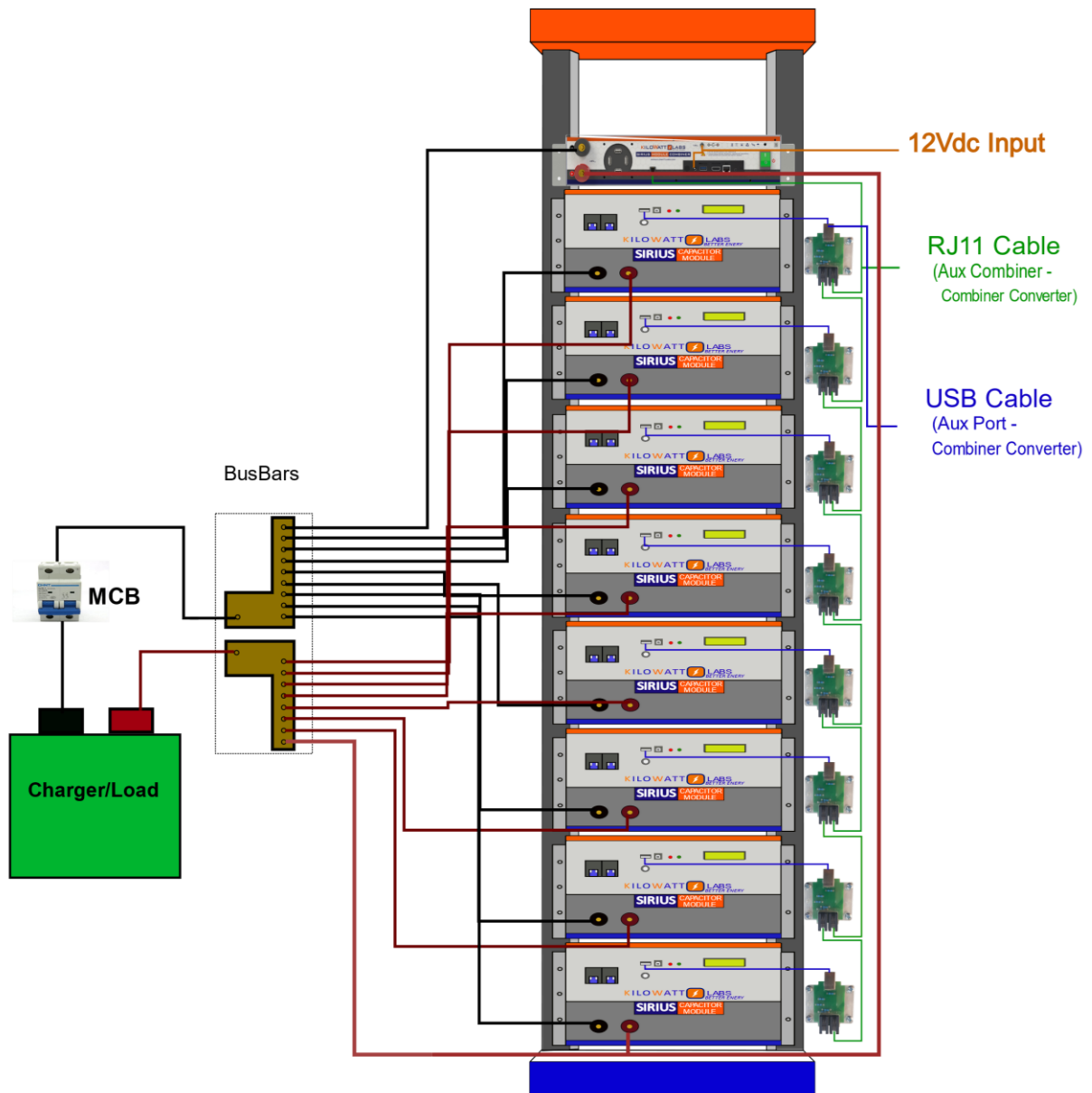
Charge all the Modules to 100% SOC or same voltage level before connecting them in series.



Note!

Modules cannot be connected in series-parallel combination under any circumstance.

4.5 Modules Connected in Parallel:



1. Connect the positive (+) of the F08 terminal of all the Modules to the positive busbar.
2. Connect the negative (-) of the F08 terminal of all the Modules to the negative busbar.
3. Ensure that the 12Vo DC output of the Module Combiner is connected to the controller.
4. Turn ON the Module Combiner by turning ON the switch button and click/hold the power button for about 3 to 4 seconds or until Intel is displayed on the screen.



Note!

Switch ON only the circuit breaker when connecting in Parallel.



Caution!

Charge all the Modules to 100% SOC or same voltage level before connecting them in parallel.

4. Post Installation Check:

1. Terminal Voltage:

Check the voltage on the terminals of Module Combiner. If there is no voltage on the terminals, change the 5A fuse.

How to Check Terminal Voltage:

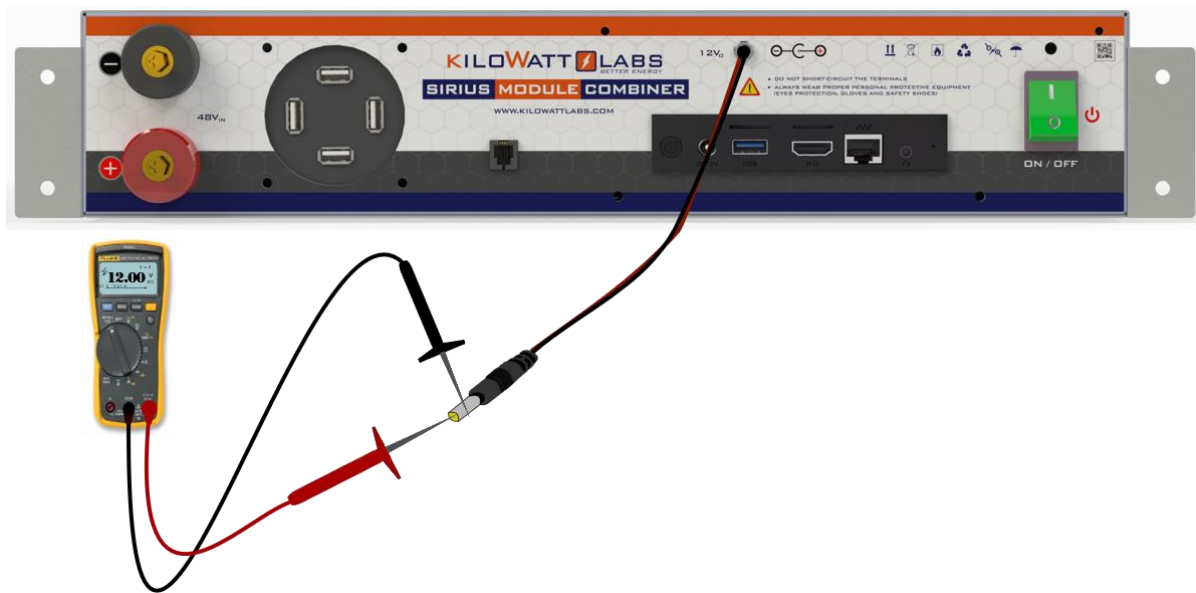


1. Touch the red probe of the multimeter to the positive terminal, and the black probe of the multimeter to the negative terminal of the Module Combiner. The terminals of the Module Combiner are color coded (red for positive and black for negative) and marked with plus (+) and minus (-) signs.
2. If you are getting a reading with a minus in front of it (-48.2) instead of 48.2, this means that you've got the probes incorrectly or the wrong way.

2. DC 12V port:

Check the 12V input with multimeter.

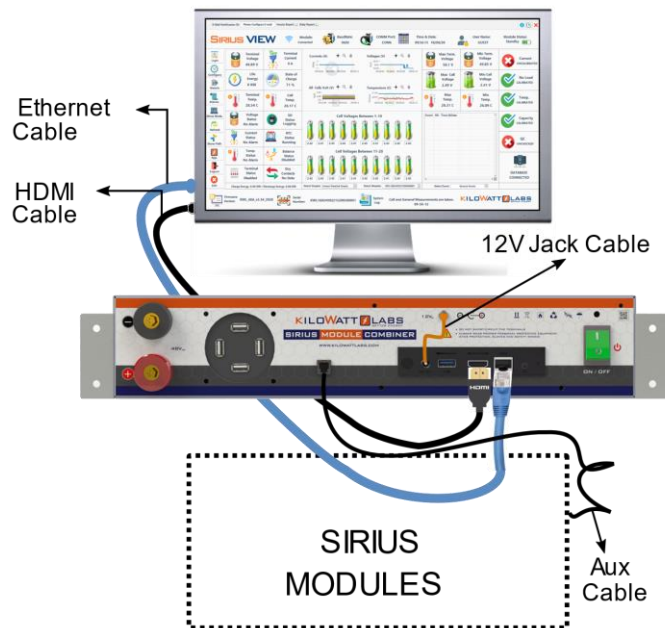
How to Check the 12V Input:



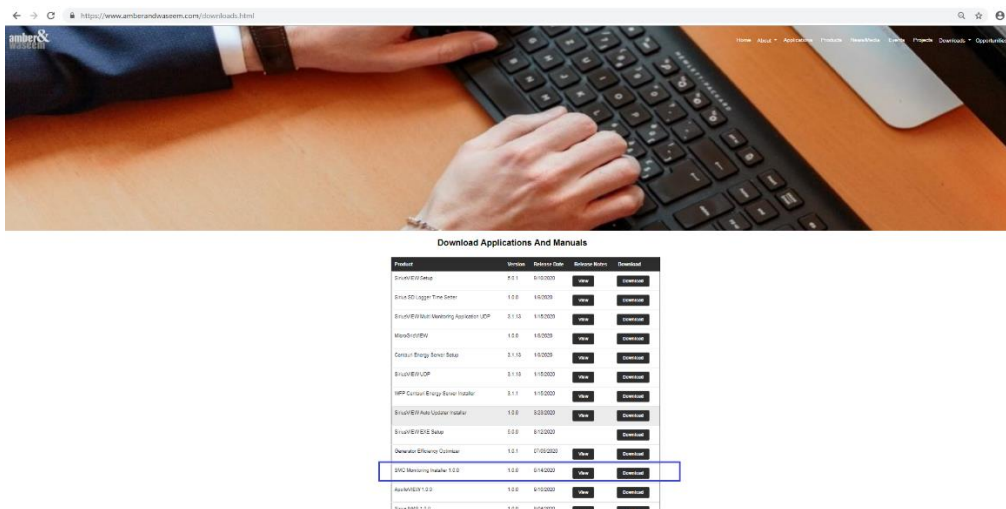
1. Insert the red probe of the multimeter in the pin of the 12V cable jack and the other on the body of the jack, then the multimeter will show 12V reading. If the multimeter does not show reading in the range between 11.5V-12V then charge the Module combiner.

5. SMC Monitoring Software:

6.1 Interfacing:



1. Connect HDMI cable with the Module Combiner and PC.
2. Connect ethernet cable to the ethernet port of the Module Combiner and PC.
3. Download SMC software from Amber & Waseem website. Follow the step by step procedure:



Sirius Module Combiner– User Manual

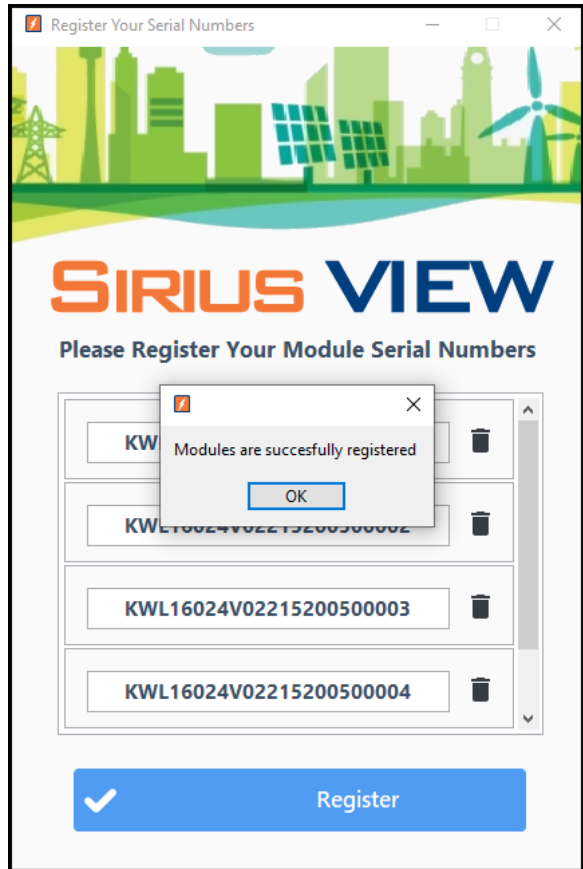
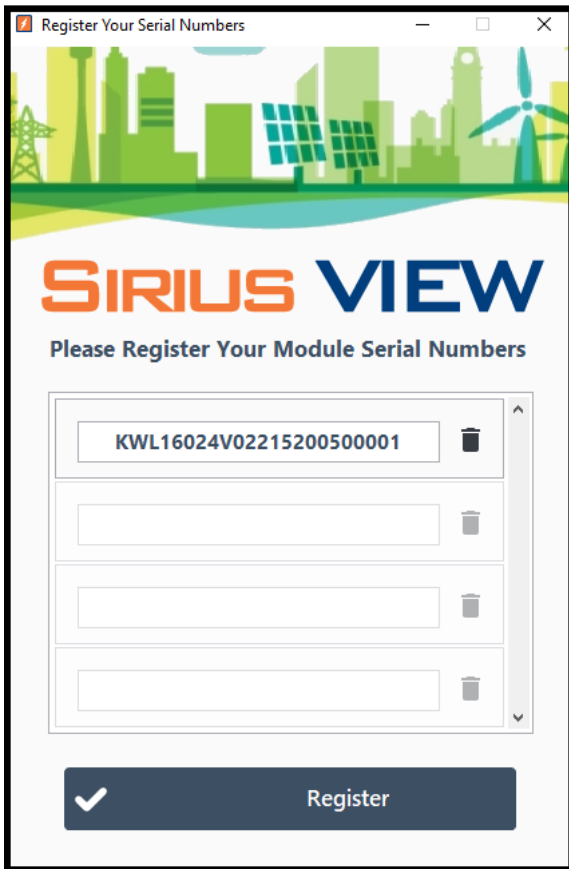
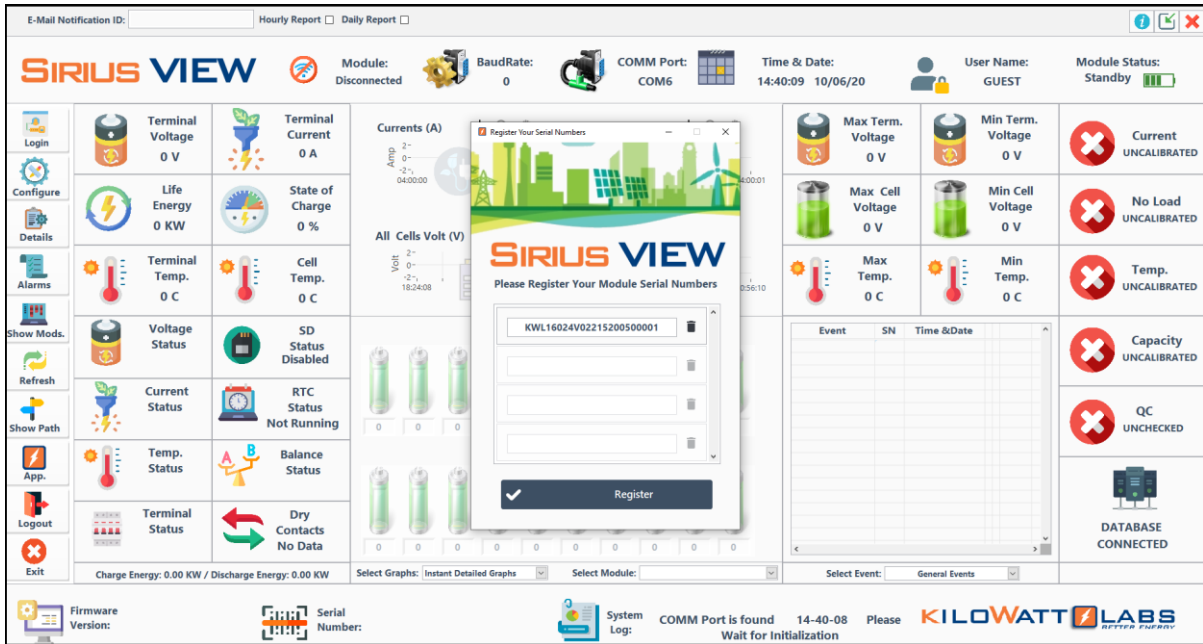
Model Number: MC-48-F05-B-V1.2-1020


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4. Double click on SIRIUS VIEW Monitoring Application to execute it. A log-in screen will appear as illustrated below.

5. Enter the Serial number of all the Modules and click on “Register” button as shown below.



 **Note!**
Sirius VIEW requests for registration one time only. Once you enter the serial numbers of the Modules it will be saved.

 **Note!**
A maximum of 3 Modules can be communicated with Module Combiner for online monitoring. Use SD card, if you want to monitor more than 3 Modules.

 **Note!**
We recommend to extract data from SD card 3 times per month.

6. Wait till the SIRIUS VIEW gets all the Module details. It takes 2 seconds to get one Module data, so the duration of obtaining data is based on the size of Module array on rack.
7. Once all the data is obtained, user will see SIRIUS VIEW screen as shown below.

6.2 SIRIUS VIEW Description:



The screenshot displays the SIRIUS VIEW monitoring dashboard. At the top, it shows system information like 'Module: Connected', 'BaudRate: 9600', and 'Time & Date: 17:44:04 10/06/20'. The main area is divided into several sections:

- Terminal Voltage (49.93 V) and Terminal Current (0 A):** Indicated by callout 4.
- Life Energy (0 KW) and State of Charge (79 %):** Indicated by callout 5.
- Terminal Temp. (30.06 C) and Cell Temp. (27.76 C):** Indicated by callout 6.
- Currents (A) and Voltages (V) graphs:** Indicated by callout 7.
- All Cells Volt (V) and Temperature (C) graphs:** Indicated by callout 8.
- All Modules by Serial Number:** A grid showing individual module status (V, I, T, E) for each. Indicated by callout 9.
- Event Log:** A table for recording events. Indicated by callout 10.
- Right-hand status indicators:** 'Current UNCALIBRATED', 'No Load CALIBRATED', 'Temp. CALIBRATED', 'Capacity CALIBRATED', 'QC UNCHECKED', and 'DATABASE CONNECTED'.

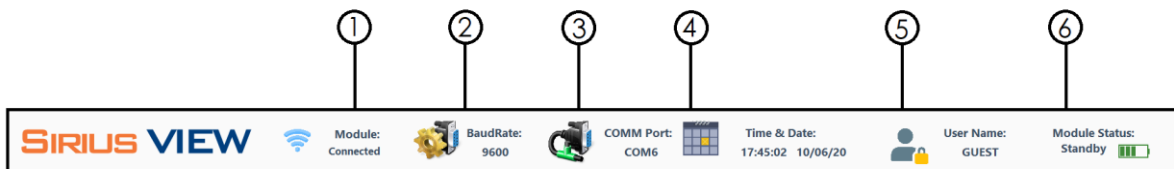
 The bottom status bar shows 'Firmware Version: KWL_48A_v3.34_2020', 'Serial Number: KWL16024V02215200500001', and 'System Log: Cell and General Measurements are taken. 17-44-02'.

6.2.1 Top Banner:



- 1) E-mail Notification ID:** Sirius Module has auto e-mail feature that will notify user(s) about terminal status (if disabled), alarm status (Voltage, Current, Temperature) and daily report of the Module(s). Select the respective check boxes for hourly and daily report files.
- 2) INFO:** Click on info to download the user manual.
- 3) Minimize:** Click on this button to minimize the screen.
- 4) Exit:** It is used to close the application.

6.2.2 Module Status Banner:



- 1) Module Status Indicator:** Indicates the status of the Sirius Modules.
- 2) Baud Rate:** Sirius VIEW baud rate speed status indicator represents communication speed between PC and Sirius Module.
Default speed rate is 9600 bps.
- 3) COMM Port:** Sirius Modules uses USB interface to establish serial communication. COM port indicator shows the port name of the connected Module.
- 4) Time & Date:** It shows the time and date details of the Module.
- 5) User (Account) Name Indicator:** Sirius VIEW will open as GUEST account by default. User Name icon will show the current account in use.
- 6) Module Status Standby:** Module status indicates the status of the Sirius Modules.
 - **Standby:** No Load condition or terminal is disabled.
 - **Charging:** Charger is connected to the Module.
 - **Discharging:** Load /Discharger is connected to the Sirius Module.

6.2.3 Application Banner:

1. LOGIN Button: Sirius VIEW starts as Guest account to monitor, configure and calibrate Sirius Module.

2. Configure Button: This is used to open configuration main panel which allow user(s) to configure and calibrate Sirius Modules. Please refer to section 7 for the details.

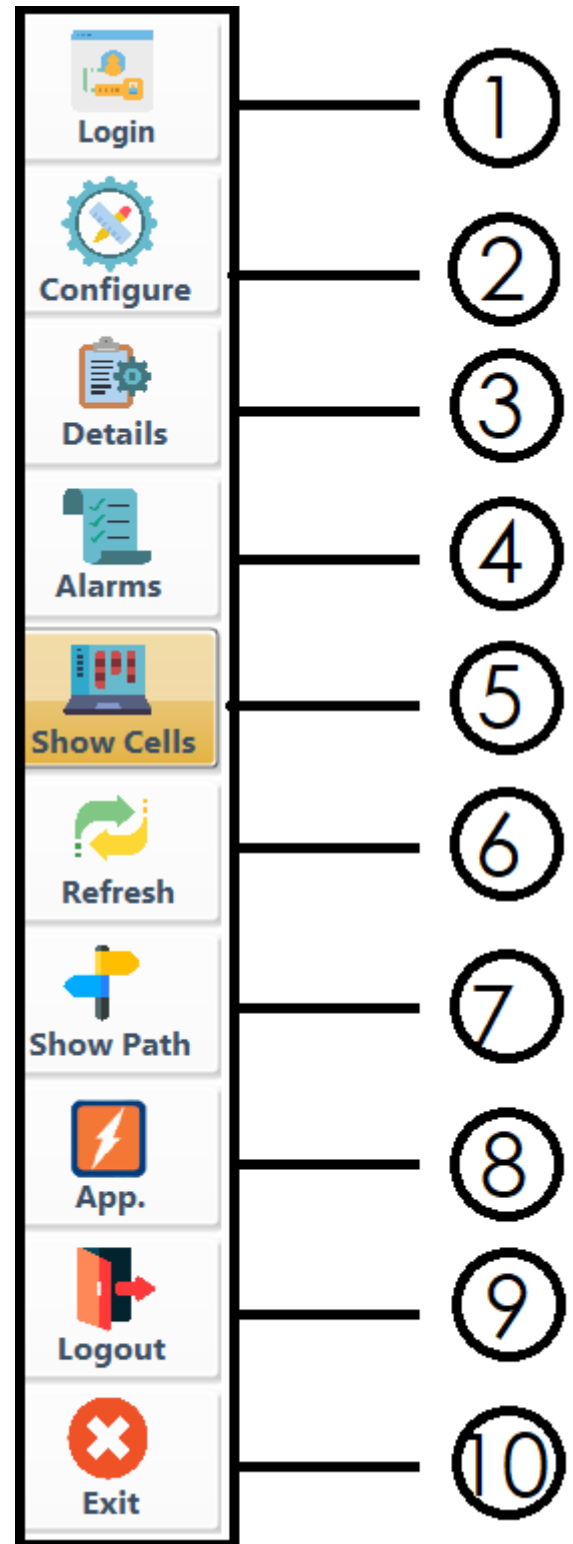
3. Details Button: This enables the user(s) to know the Module’s technical specifications such as:

- Communication Type
- Protection Mode
- Nominal Voltage
- Production Date
- Monitoring Type
- Capacity of Module

4. Alarm Button: Alarm feature shows the last alarm, and protection condition of parameters of Sirius Module. This page will display alarms of the selected Module from the scroll down menu. Each Sirius Module’s parameters have different alarm and protection conditions which are set according to their specifications.

5. Show Modules/Cells Button: This button has two functions.

- **Show Modules:** This feature shows the measurement window of the selected Module(s).
- **Show Cells:** This feature shows the cell voltages of the selected Module(s).



6. Refresh Button:

Refresh feature has two functions:

1) Sirius VIEW collects all Modules measurement data over serial communication. In case of fault conditions, Sirius VIEW will not be able to detect Sirius Modules. After maintenance, user(s) need to click on “Refresh” button to enable serial communication.

- Click on the square box to enable serial communication.

2) Sirius VIEW continuously record charge and discharge cycles energy. If user(s) want to refresh the energy counter, please see below guidelines:

- Click on the “Refresh” button.
- Click on the square box to reset energy counter.



7. Show Path Button:

Sirius VIEW logs all details, events, actions, daily measurements, hourly measurements of data in .CSV format. All report files will be saved in Sirius VIEW application folder.

- Click on “Show Path” button to access the folder directly.

8. Mobile App Button:

Sirius VIEW publishes Module data to Sirius Online Database which is secured and can only be accessed by our customers. By using this feature, user(s) can monitor their Modules anywhere in the world if they have internet access.

User(s) have two options to access the online monitoring of Sirius Module:

1) Sirius VIEW Mobile application:

- Download Sirius VIEW Mobile application from **Google Play**.

Note: Click on “MOBILE APP” button to access download page quickly.

2) Sirius WEB application:

Click the Sirius WEB application link below to register and start monitoring.

<https://www.amberandwaseem.com/SiriusWeb/SiriusWebHome.html>

Online monitoring procedures is explained in detail in section 8.

9. Log Out Button:

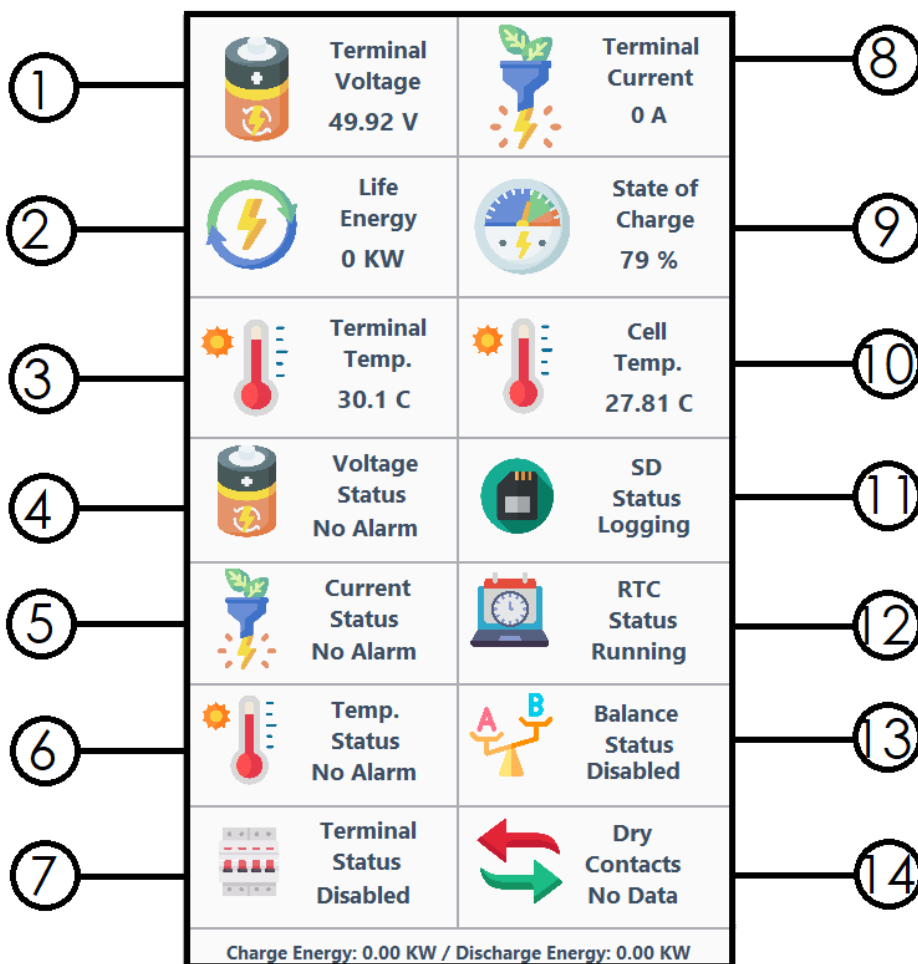
This Feature is for future purpose.


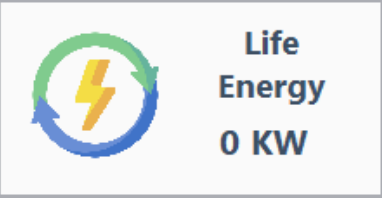
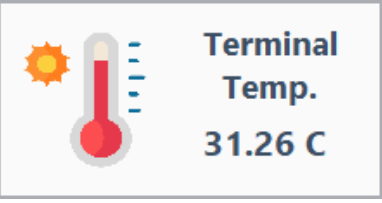

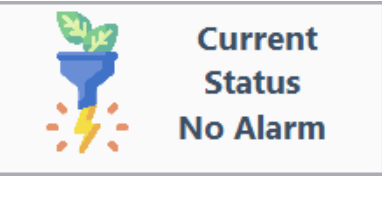
10. Exit Button:





Exit feature is used to terminate the application (Sirius View) by clicking the “Exit” button

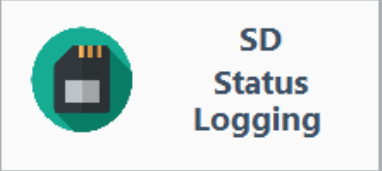
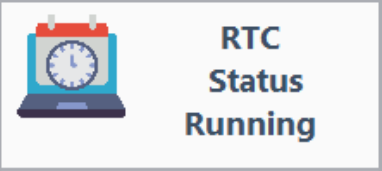
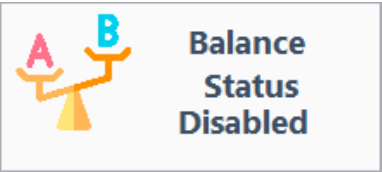
6.2.4 Dash Board:

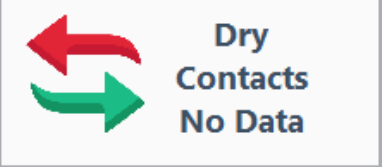

Dashboard page shows the key performance indicators and graphs of the Sirius Module.



Sr.No	ICON	NAME	DESCRIPTION
1		Terminal Voltage indicator	Indicates calibrated terminal voltage of the Sirius Module.
2		Life Energy indicator	Indicates the total amount of energy consumed (in KW) from the beginning.
3		Terminal Temperature indicator	Represents the temperature of the terminals of Sirius Module.
4		Voltage Status Indicator	Indicates voltage alarms of Sirius Module. Voltage alarms are: Cell Too Low, Low Battery, Batt Full, and Contact Service.
5		Current Status Indicator	Current status indicates current alarms of Sirius Module. Current alarms are: Over Current, and Tolerate (tolerating till alarm flag rise).

6	 <p>Temp. Status No Alarm</p>	Temperature Status Indicator	<p>Indicates temperature alarms of Sirius Module.</p> <p>Temperature Alarms can be: Cell Over Temperature and Terminal Over Temperature.</p>
7	 <p>Terminal Status Disabled</p>	Terminal Status Indicator	<p>Indicates whether terminal is enabled or disabled.</p> <p>Terminal should be enabled for charging/discharging the Module.</p>
8	 <p>Terminal Current 0 A</p>	Terminal Current indicator	<p>Indicates calibrated terminal current of the Sirius Module.</p>
9	 <p>State of Charge 1 %</p>	State of Charge indicator	<p>Shows the remaining capacity as a percentage of maximum capacity of the Module.</p>
10	 <p>Cell Temp. 28.86 C</p>	Cell Temperature indicator	<p>Represents the temperature of cells inside the Sirius Module.</p>

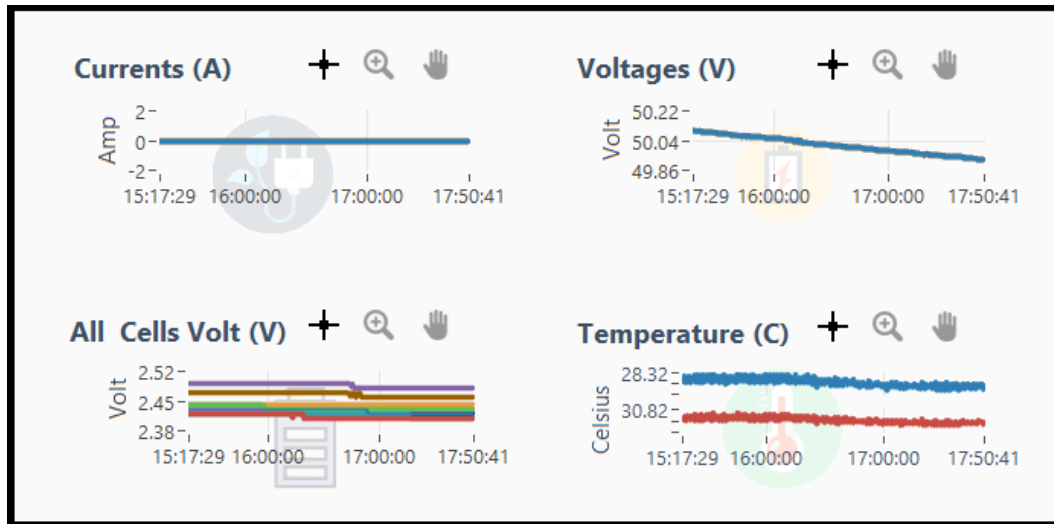
11		SD Card Status Indicator	<p>Indicates whether internal SD card data logging is working properly or not.</p> <p>SD Status can be:</p> <ul style="list-style-type: none"> • Logging: SD card is logging the main measurements while Module is turned ON. • Standby: SD card is functional but data logging is disabled. <p>Error: SD card hardware may be damaged or RTC value needs to update the time.</p>
12		RTC Status Indicator	<p>RTC status indicates whether RTC is working properly or not.</p> <p>RTC Status can be:</p> <ul style="list-style-type: none"> • Running: RTC is functional and working properly. • Needs to be set: RTC is functional but needs calibration. • Not Running: RTC may be not functional or needs calibration.
13		Balance Status Indicator	<p>This icon indicates whether cell balancing is enabled or disabled.</p> <p>Cells balancing can be activated if user is logged in as ADMIN or ENGINEER.</p>
14		Dry Contact Status Indicator	<p>Some Sirius Modules has Dry Contact output feature. This indicator shows whether Dry</p>

	 <p>Dry Contacts No Data</p>		<p>contacts are activated or not. Dry contact configuration setup can be activated by pressing “CONFIGURE” button and selecting “Terminal Configuration”.</p>
<p>15</p>	 <p>Charge Energy: 0.00 KW / Discharge Energy: 0.00 KW</p>	<p>Charge/Discharge Energy Indicator</p>	<p>This indicator shows the charged and discharged energies of the Module. The charge and discharge energies will keep on calculating when Sirius VIEW application is running (no interruptions).</p> <p>If you want to restart the energy counter, click on “REFRESH” button and enable “REFRESH ENERGY” option.</p>

6.2.5 Graph Analysis:

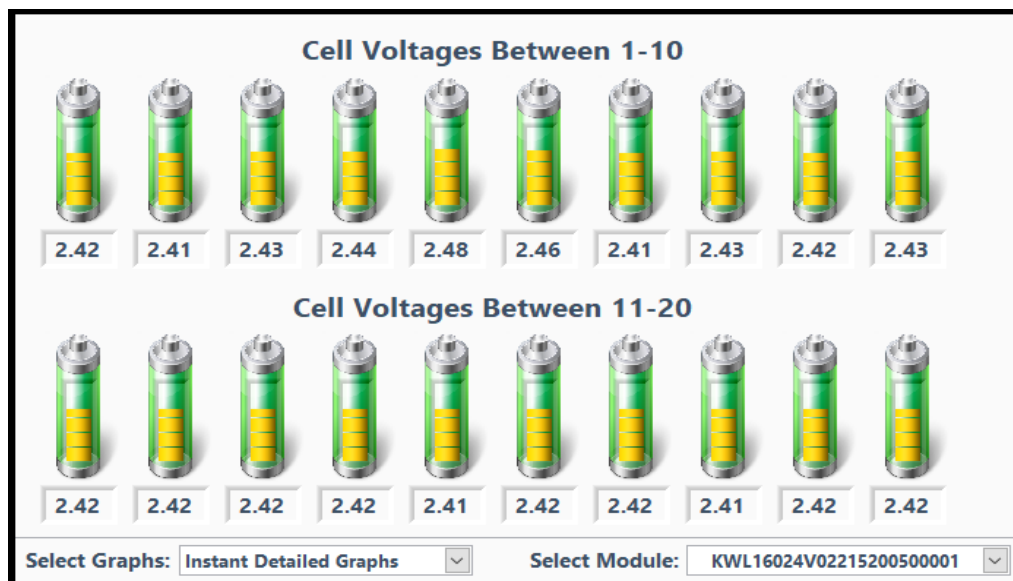
By clicking on the “Graph Analysis” button, you will see the following screen.

Sirius VIEW collects measurement of the Sirius Modules and generate graphs of Current(A), Module Voltage, All Cells Voltages and Temperature(C) with respect to time. It can represent maximum 15 minutes of data at a time. This graph shows graphical data of the selected Module from the control.



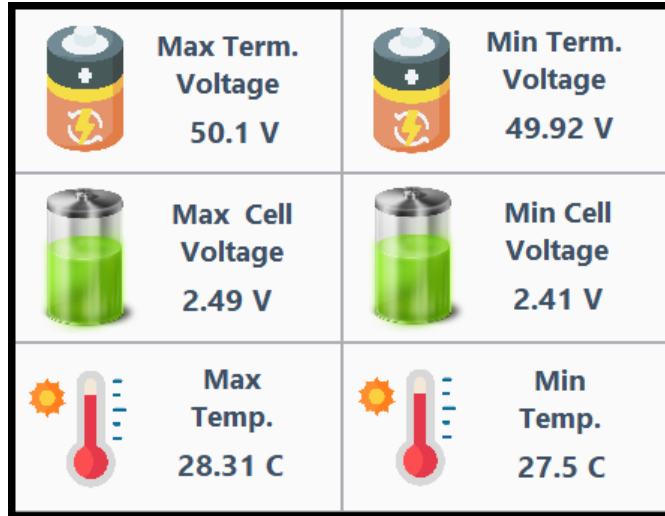
6.2.6 Cell Voltages:

This feature is only available for Modules that have individual cell monitoring. This page helps the user(s) to know about the unbalancing and under/over voltage of the cells. The voltage range of supercapacitor cell is from 2.2V to 2.7V. This page shows the individual cell voltage level of 20 cells. The number of cells may vary depending on the model of the Sirius Modules.



6.2.7 Module Statistics:

This feature shows the maximum and minimum values of Module Voltage, Cells Voltage and temperatures.



6.2.8 Event Logs:

Event log table gives all information of the Modules with time stamp and serial number details. These events can be:

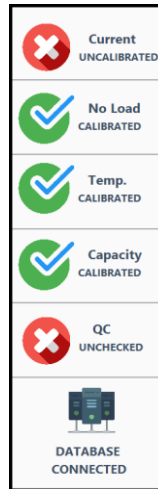
- Terminal Status
- Calibration Status
- Configuration Status
- Alarm Status
- Communication Status

Event	SN	Time &Date

Select Event: General Events ▾

6.2.9 Calibration Status:

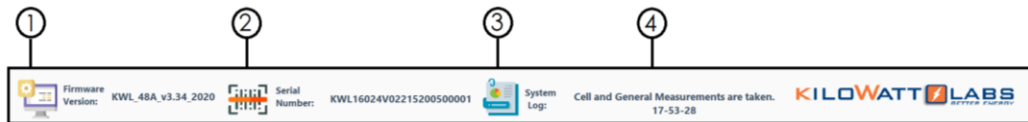
This feature shows the status of calibrated parameters.



6.2.10 Sirius VIEW Bottom Banner:

Bottom banner shows the following details:

1. Module’s Firmware Version
2. Module’s Serial Number
3. System Log
4. Event Log Table



1. Module Firmware Version:

This indicator shows the firmware version of Sirius Module.

2. Module Serial Number:

Each Sirius Module has a unique serial number to let user(s) identify the specific Module monitored by Sirius VIEW.

3. System Log Indicator:

System Log indicates the software status, steps or errors to user(s).

- Terminal Status
- Calibration Status
- Configuration Status
- Alarm Status

6. Sirius VIEW System Configuration:

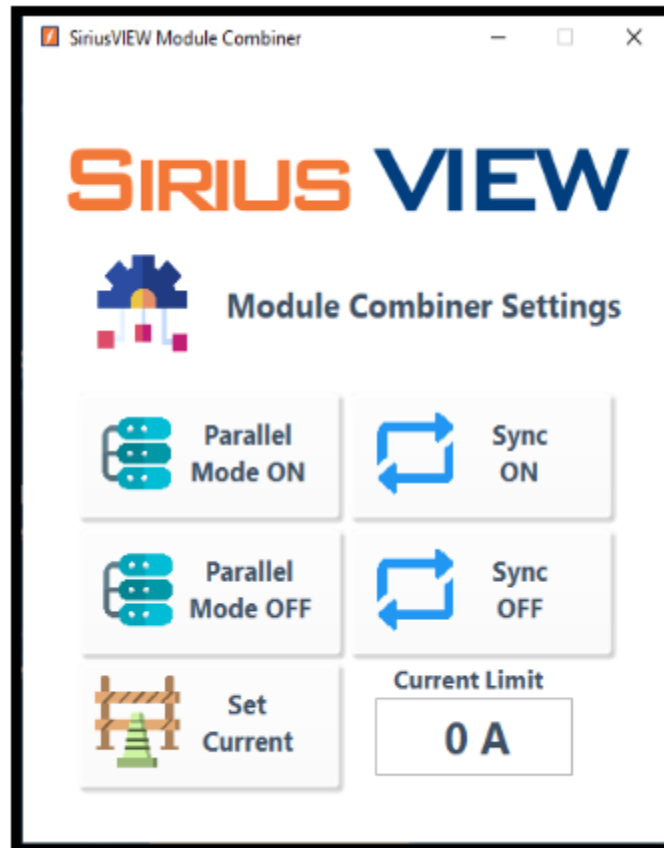


7.1 SD Card Settings:

Sirius Module has a built-in SD card which records every minute data of the measuring parameters. Sirius VIEW reads SD card data and save it in multiple .CSV files for post processing.

User(s) need to click on SD Card Settings for post processing of all the logged SD card measurements.

7.2 Combiner Settings:



1. Parallel Mode ON/OFF:

Parallel Mode ON/OFF buttons are used to start/stop the parallel balancing of all the Modules.

Note: If there is less than 1V difference between all Modules, then no need to enable parallel balancing.

2. Set Current:

If the difference between all Modules is more than 1V, set the Current limit and click on Set Current, then click on Parallel Mode ON.

When parallel balancing is enabled, the algorithm starts balancing two Modules having the lowest SOC of all the Modules. When the two Modules get balanced, it will look for the third Module having higher SOC than the two Modules and will start balancing them. This process continues until all the Modules get balanced. Afterwards that the parallel balancing is disabled automatically.

3. Sync ON/OFF:

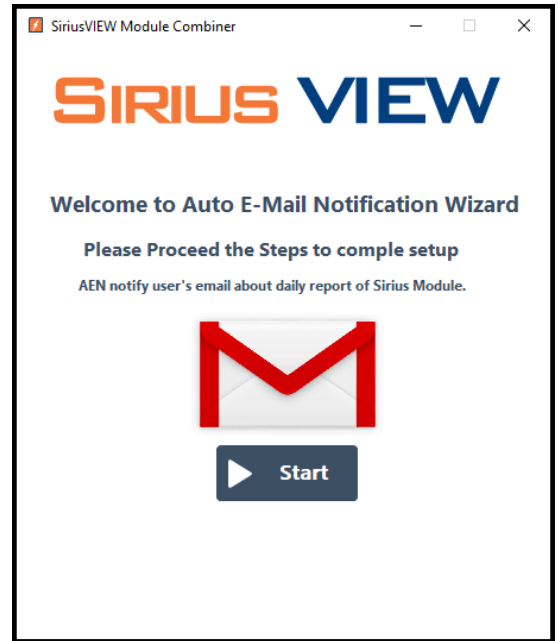
User(s) can turn ON or turn OFF all Modules at the same time.

Click on Sync ON or Sync OFF respectively.

7.3 E-Mail Settings:

Sirius Module has auto e-mail feature that will notify user(s) about terminal status (if disabled), alarm status (Voltage, Current, Temperature) and daily report of the Module at the end of the day.

- Fill out the e-mail address and the cc email address boxes.
- Click on next arrow, it will ask for test e-mail.
- Click on send and next button, a test e-mail will be sent to your e-mail address.



7. Remote Monitoring:

Login process has two steps:

1. Local password protection
2. OTP code protection

1. Local Password Protection:

Enter “TECHNICIAN” password by default.

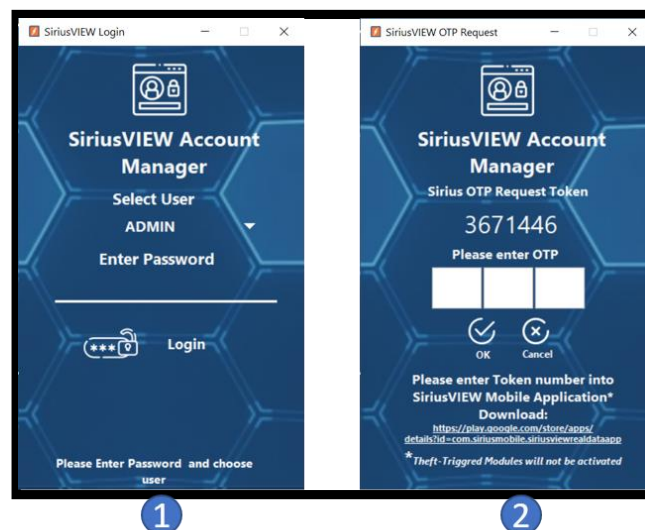
2. OTP Code Protection:

If local password is entered correctly, Sirius VIEW will generate token number for OTP code and user(s) will be asked to enter OTP code which has specifications as below:

1. Code can be used only one time.
2. Code will be changed every hour.
3. Each Sirius Module will have a unique password.
4. Code is only generated by Sirius VIEW Android Mobile App or Sirius WEB application on Amber & Waseem website.
5. In case of any suspicious conditions (e.g. Module is stolen), user(s) may inform A&W support team to block the user(s).

8.1 Login Procedure:

1. Click on “LOGIN” button and select user(s) account name and account’s password correctly as mentioned in table 3.
2. Sirius VIEW desktop app will generate TOKEN number for OTP code.



After second step, user(s) should generate OTP code regarding TOKEN. The OTP code can be generated in two ways.

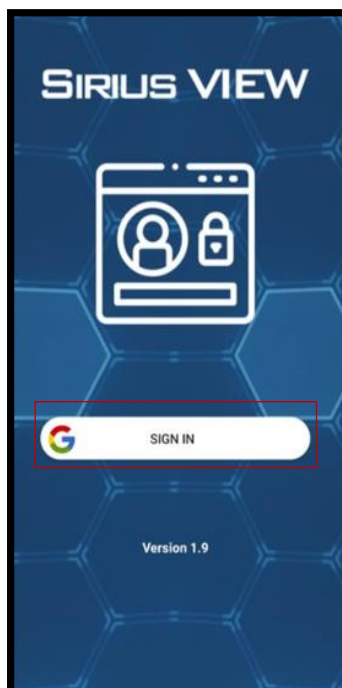
1. OTP Code Generation by Sirius Mobile Android Application
2. OTP Code Generation by Sirius WEB Application

8.1.1 OTP Generation by Sirius Mobile Android Application:

1. Open Sirius Mobile Android Application.



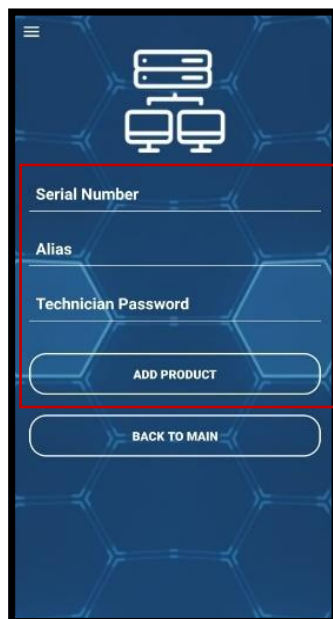
2. Sign in/up with your Gmail Account.



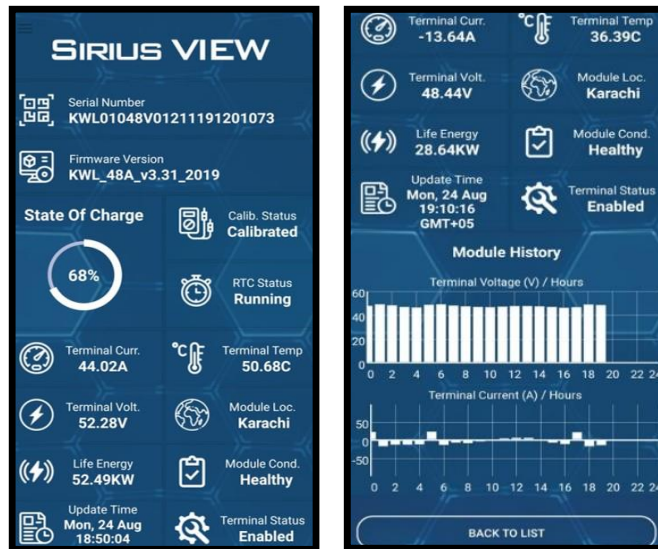
3. If you are using the application for the first time, add your Module and click on “ADD Product” button.



4. Enter Module’s Serial number, Alias name and TECHNICIAN account password. Click on “ADD Product” button again. If serial number and password are entered correctly, Module will be added.



5. You can now monitor the Module remotely.

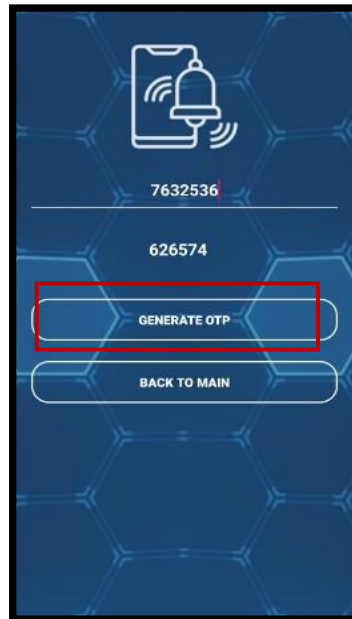


6. Click on “BACK TO MAIN” button and go to “LIST PRODUCTS”. Select the Module you want to configure and click on “GENERATE OTP” button.



7. Enter the TOKEN number generated by Sirius VIEW into the Token bar.

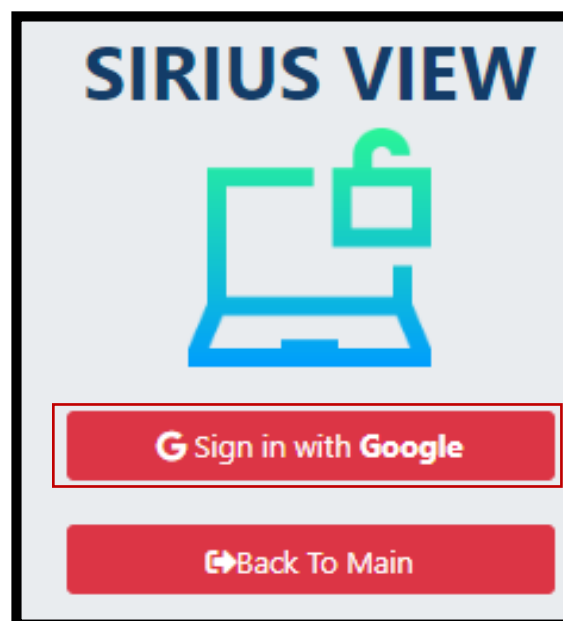
8. Click on “GENERATE OTP” Button, an OTP code will be generated. Enter the OTP Code in Sirius VIEW code bar.



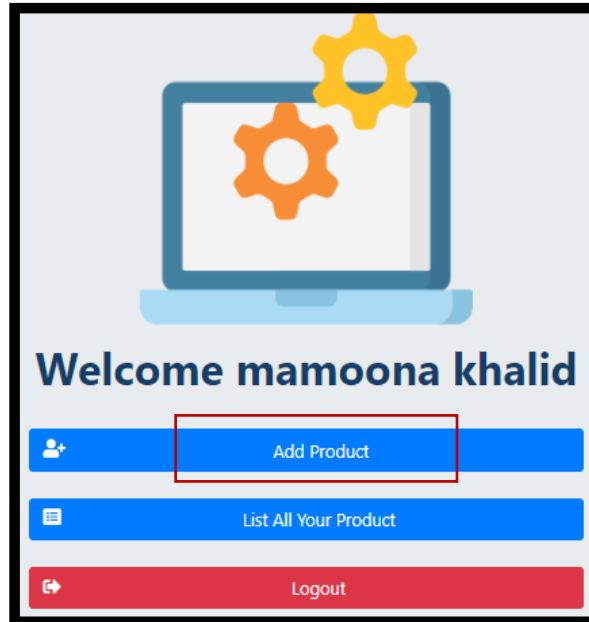
9. If all the steps are done successfully, user(s) will be enabled to login and do Sirius VIEW configurations.

8.1.2 OTP Generation by Sirius WEB Application:

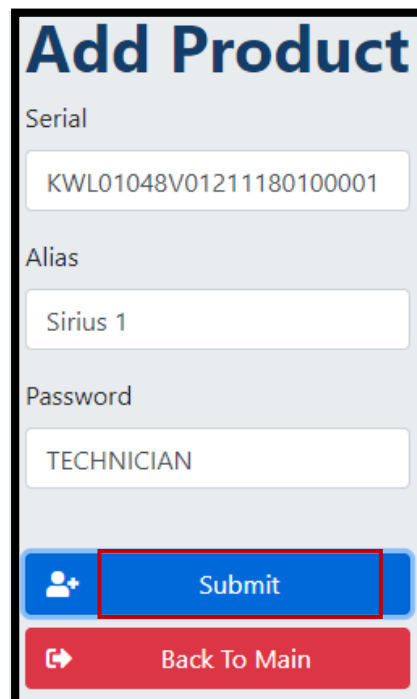
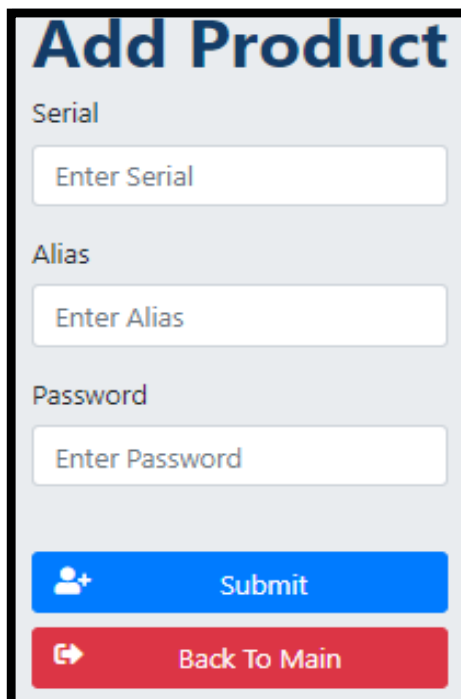
1. Click on the link to open Sirius Web page :
<https://www.amberandwaseem.com/SiriusWeb/SiriusWebHome.html> or go to
<https://www.amberandwaseem.com/> and select Sirius WEB option from dropdown menu.
2. Login or Sign up with your G-Mail account.



3. If you are using the application for the first time, add your Module and click on “Add Product” button.



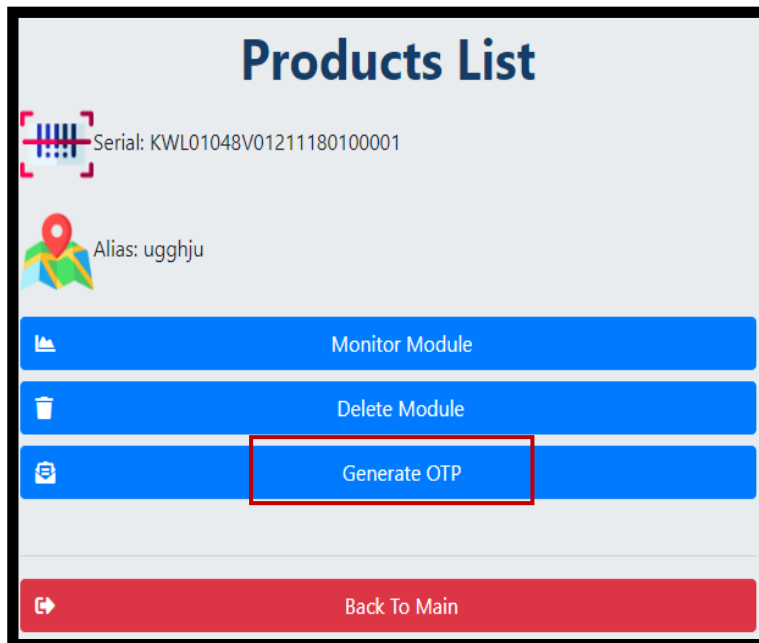
4. Enter your Module’s serial number, Alias and TECHNICIAN account password and click SUBMIT.



5. Click on “List All Your Product” button to select the Module already added.



6. In the list click on “GENERATE OTP” button to generate OTP code from TOKEN.



7. Copy generated OTP code and paste it on Sirius VIEW to login.

