DESIGN | DEVELOP | MANUFACTURE | DEPLOY

REMOTE MANAGEMENT SYSTEM I-RMS330-IOT



SETUP AND INSTALLATION GUIDE

Warnings

- Do not allow any liquids to spill on the unit. Keep the battery control unit away from direct heat e.g. stove, candles or open flames.
- Do not use system externally where it is exposed to direct sunlight, wind or rain.
- Note that this unit contains no user serviceable parts and disassembly will void your warranty.
- Do not connect any 220V AC appliances to the charger (e.g. kettles, stove, iron, fridge) 12VDC/48VDC System ONLY, no other voltages allowed.
- Do not connect any other power source to the solar input except for the solar panels (18V-50V) (input DC ONLY!).

Operational Safety Notes (Implied Best Practices)

- Do not exceed max battery input: 100Ah 12V.
- Minimum solar input voltage: 18V.
- Max ambient temperature: 65°C. Minimum operating temperature: -30°C.
- Keep the unit properly ventilated using fan and louvre systems in enclosures.
- Always use the correct cabling (pre-fitted 10mm ring lugs on 1.3m battery cables).
- Ensure firm and secure mounting to prevent tilt-based false alarms or physical damage.

24 Month Warranty

This Limited Warranty applies to physical goods, and only for physical goods in the RMS product range.

What does this limited warranty cover?

This Limited Warranty cover any defects in material or workmanship under normal use during the Warranty Period.

During the Warranty Period, MXTech will repair, at no charge, products or part of a product that prove defective because of improper material or workmanship, under normal use and maintenance.

How long does the coverage last?

The Warranty Period for Physical goods purchased from an approved RMS Dealer is 24 Months from date of purchase. Where Physical Goods are provided as part of an installation the Warranty Period for Physical goods is 24 Months from date of installation.

What does the limited warranty not cover?

This Limited Warranty does not cover any problem where: physical goods are not kept in the recommended conditions, malfunctions or damage caused does not result from defects in material or workmanship, malfunctions or damage is caused by unapproved tampering or modifications, the Warranty Void seal is broken.

What do you have to do?

To obtain warranty services, you must first contact your dealer or installer to determine the problem and the most appropriate solution.

Warranty Extension

This warranty is extended to a period of 3 Years when purchased with A MX-Tech Maintenance Contract.

RMS330 OVERVIEW

The RMS330 is a smart power management device designed for 12V/48V remote camera systems. It ensures reliable battery charging and power distribution, especially in off-grid or solar-powered setups.

Key Features & Functions:

- Advanced Battery Charging: Uses a customizable 3-stage charging process to suit any battery type, protecting against under-voltage and overcharging.
- Dual Power Input: Supports both solar panels and a 48V power supply. It prioritises solar during the day and switches to the power supply at night.
- Efficient Solar Charging: Instead of standard MPPT, it uses a Fixed Operating Point (FOP) method for better performance with one or two solar panels.
- Smart Outputs: Includes 7 remotely controllable 12V outputs with protection features (short circuit, overheat, etc.). These can be used to power or reset connected devices like cameras.
- Security & Monitoring:
  - Input triggers for motion sensors or tamper switches.
  - Built-in accelerometer detects impacts or tilting (e.g., if a pole is being moved), with customizable sensitivity.

INSTALLATION EQUIPMENT

In the box you will find the following:

1x RMS330 Unit

Optional packages:

- GSM and Tracking card
- External GSM Antenna
- External GPS Antenna
- 48V PSU for 220VAC Installation
- MX1-S Rack Mount Cabinet

Hardware Installation requirements:

- 12" Secure Cabinet or installation Rack
- 48V PSU for 220VAC Installation
- 12V 100Ah LiPo Battery (Max)
- 18V-50V Solar Panels, 400W Minimum Recommended
- Router with Internet connection - required for IoT features
- Laptop/PC or mobile device with WiFi and internet access

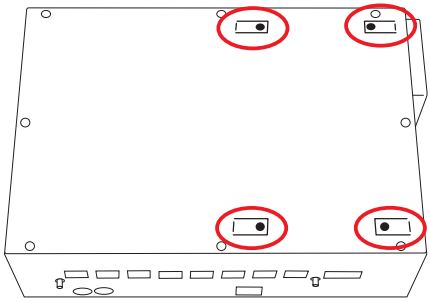
Supported peripherals:
The RMS supports a large range of 12V devices including but not limited to: CCTV Cameras; PIR Sensors, Door Sensors, Emergency buttons, Routers, Switches, WiFi Antennas and ONT Devices

48V PSU INSTALLATION

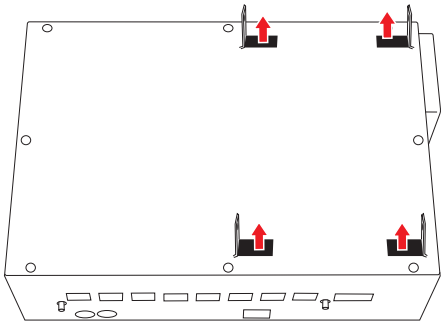
HOW TO MOUNT AND WIRE THE OPTIONAL 48V PSU FOR 220VAC FALLBACK INSTALLS

In cases where sites have a 220VAC power connection available and 48V PSU can be installed to the RMS for use as fallback power source for times when solar power is insufficient or unavailable.

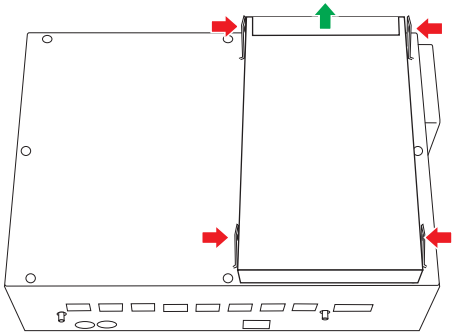
The 48V PSU can be mounted and wired to the RMS unit as per below instructions:



There are 4 tabs located on the top of the RMS housing



Using a pair of pliers or similar tool, bend the tabs up into a 90° position



The PSU will fit perfectly between the tabs and line up with the mounting holes on the side of the PSU. Ensure the PSU input and output is facing towards the back of the RMS for easy wiring.

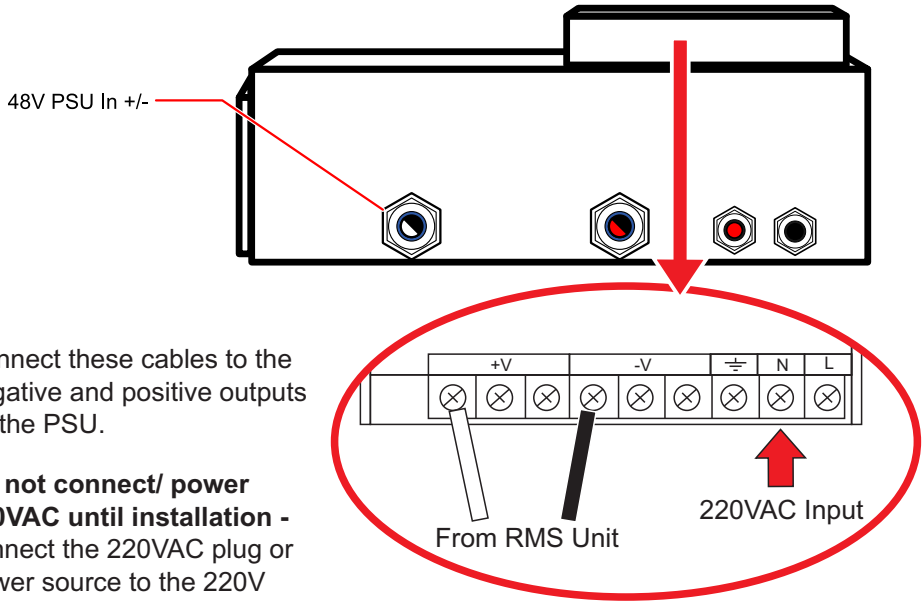
Secure the PSU in place with 4 screws.

48V PSU INSTALLATION

HOW TO MOUNT AND WIRE THE OPTIONAL 48V PSU FOR 220VAC FALLBACK INSTALLS

Once the 48V PSU is secure it can be wired to the RMS unit and a 220VAC source.

There is a pair of black and white cables on the back of the RMS, these are the 48V inputs, where black is negative and white is positive.



Connect these cables to the negative and positive outputs on the PSU.

Do not connect/ power 220VAC until installation - connect the 220VAC plug or power source to the 220V Input on the PSU as shown

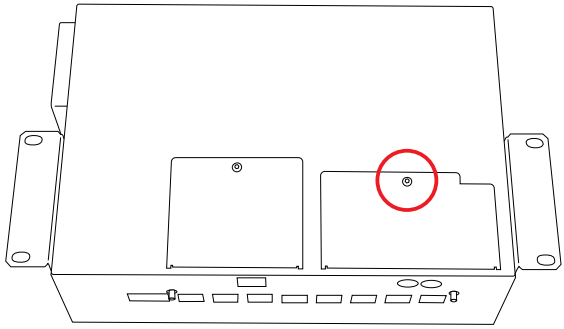
Your RMS330 now has 48V input with 220VAC fall back.

RMS330 GSM SETUP

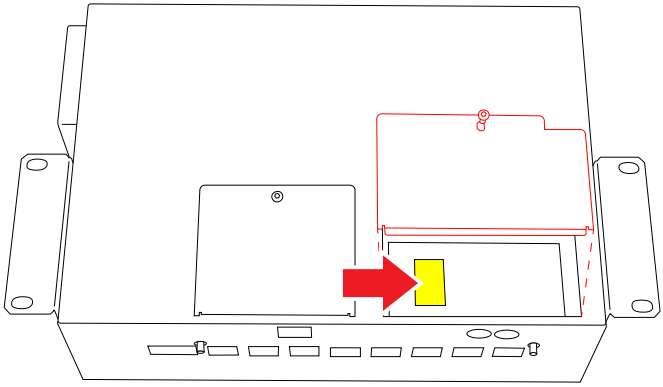
SIM CARD INSTALLATION FOR GSM FAILOVER (OPTIONAL GSM MODELS ONLY)

*If retrofitting to an already installed unit please disconnect the unit from the battery, solar panels and all over power sources
**Ensure SIM card is activated and working with data loaded before inserting into the RMS

1. Remove the screw on the right hand side cover plate on the back of the unit



2. Remove cover plate to reveal the GSM card and SIM card holder. Insert the activated SIM card into the SIM card holder using the slide and lock mechanism.



3. Once SIM card is inserted and locked in replace the cover and tighten the screw.

4. Unit is now ready for installation.

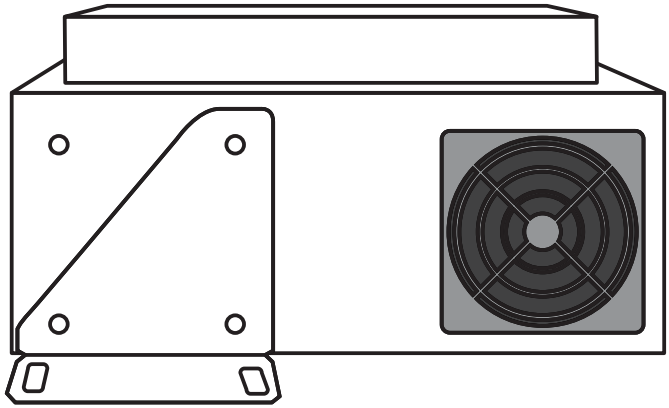
RMS330 MOUNTING

HOW TO ADJUST THE FLANGES INTO RACK MOUNT OR FLAT MOUNT

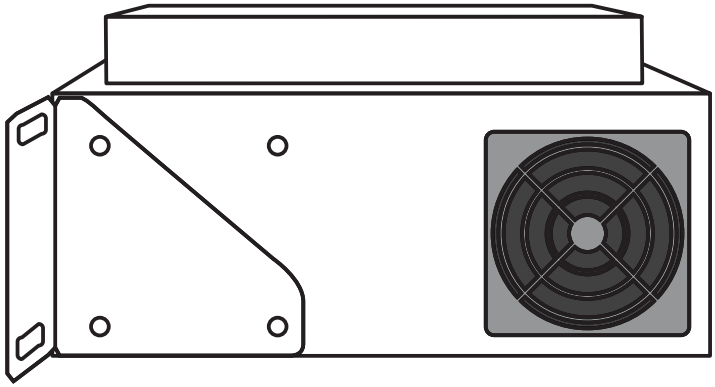
The flanges on the RMS330 can be adjusted into one of two positions depending on your mounting situation, with 12" Rack mount or flat surface mount.

Loosen the 3 screws securing the flange and rotate as needed

Flange in surface mount configuration



Flange rotated 90° into 12" Rack Mount configuration

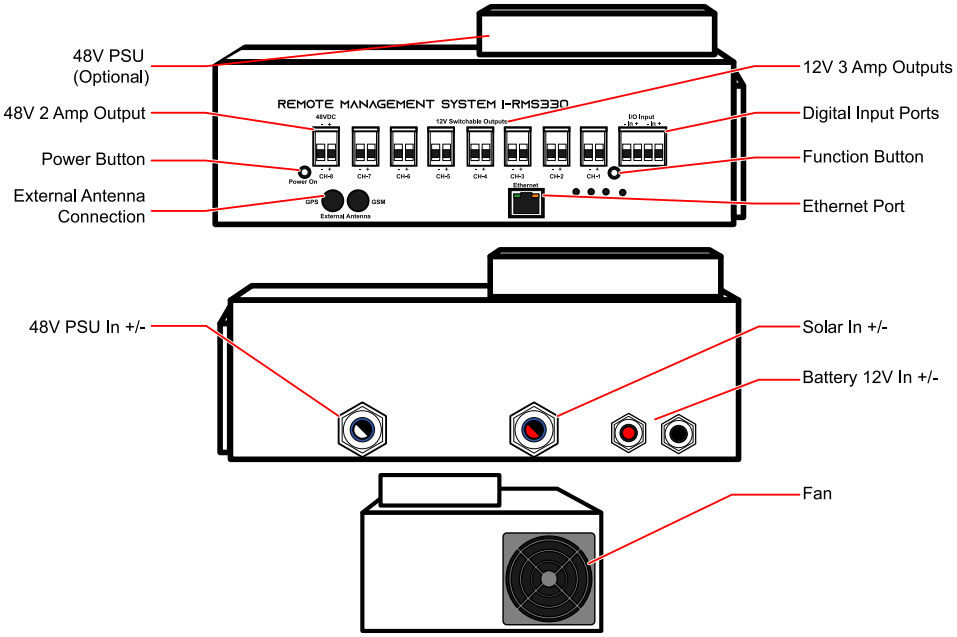


Re-tighten the scews so that the flange is secured in to configuration that suites your installation needs

RMS330 CONNECTION
INPUTS AND OUTPUTS

*Setup will vary depending on cabinet and installation site

See below connection details
Please check all polarities before connection
GSM and GPS antennas to be routed from outside of cabinet (via drill holes) or installation site to connections on the front of the unit. Note the smaller unit is for the GPS and the larger for the GSM.



RMS330 INSTALLATION

BATTERY, SOLAR PANEL AND PERIPHERAL CONNECTION BEFORE CONFIGURATION

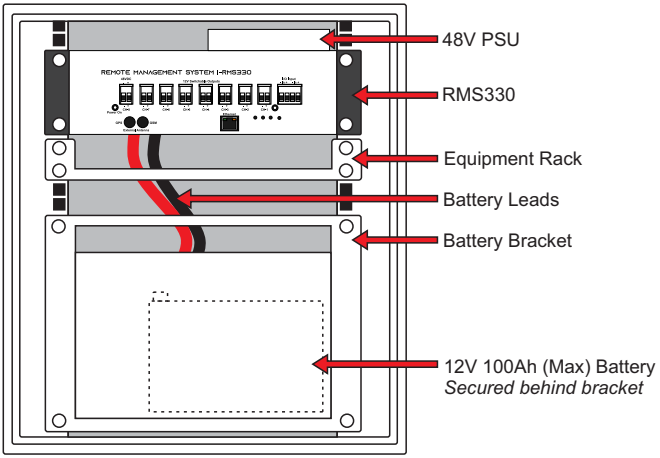
Your RMS should now be prepped for installation following the previous instructions.

- ✓ 48V PSU installed (if needed)
- ✓ GSM backup SIM installed (if needed)
- ✓ Flanges in correct mounting position

Cabinets and installation sites vary however the general procedure should be as follows:

1. Install Cabinet where needed, either on a pole or other site.
2. Mount RMS unit in cabinet. MX1-S recommended
3. Place battery in cabinet and connect battery terminals from RMS to the battery
   !This step must be done before Solar Panel or 220VAC connection, and disconnected last if removing the RMS
4. Connect 220VAC power to the 48V PSU (if present)
5. Connect Solar input from Solar panels
   !The RMS unit will automatically turn on when power from the Solar panels or 48V PSU is detected.
6. Connect peripherals to the 12V Outputs as needed
   We recommended connecting your router/ switch and or ONT devices to priority CH-1 to CH-4
7. For IoT connectivity connect a CAT5 flylead from the Ethernet port on the RMS to your router/ switch
8. Using a laptop or other device connect to the same network as the RMS unit and proceed to unit configuration

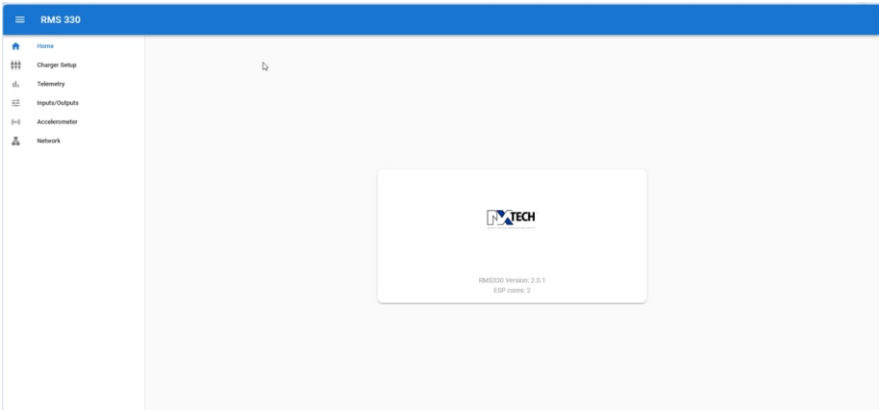
MX1-S Cabinet



RMS330 CONFIGURATION

INITIAL STARTUP AND CONFIGURATION VIA WEB INTERFACE

Once connected, the following page will load:

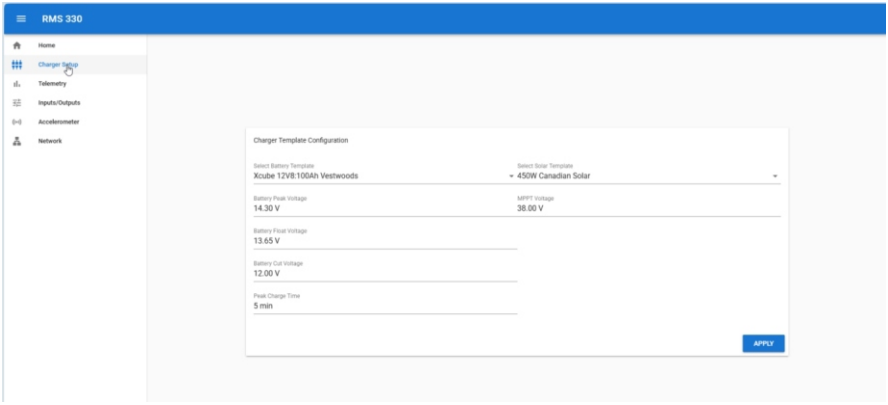


The homepage displays your RMS unit's firmware version and ESP cores..

Setting Up Your RMS Charger

Click on the Charger Setup menu option.

If the menu is hidden, press the menu button to reveal it. ☰



The system comes pre-loaded with common battery and solar configurations.
If your specific setup is not listed, please contact MXTech with your battery and solar panel specifications so a custom profile can be created for you.
If you select a profile that is not compatible with your device, the Apply button will be greyed out.

Please double-check your settings to ensure compatibility.

RMS330 CONFIGURATION

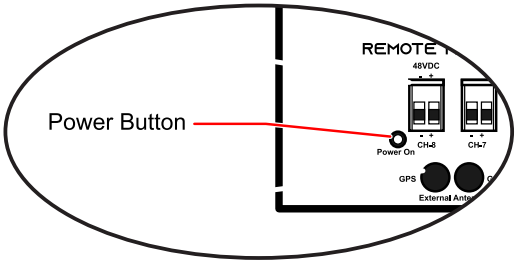
INITIAL STARTUP AND CONFIGURATION VIA WEB INTERFACE

Requirements:

- A laptop or PC with an Ethernet port, or an Android/iPhone (iOS) device for WiFi setup
- The serial number of your RMS unit

Setup Instructions

- Power on the battery connected to the RMS (if using a battery with its own on/off button).
- Turn on the RMS 330 by pressing the power button located on the left-hand side of the unit. If not already powered on.



- Observe the green heartbeat LED on the right side of the RMS 330—it should begin flashing.
- After approximately 10 seconds, the blue LEDs next to the output ports will turn on, indicating that power is being supplied. Any connected equipment will also power up.

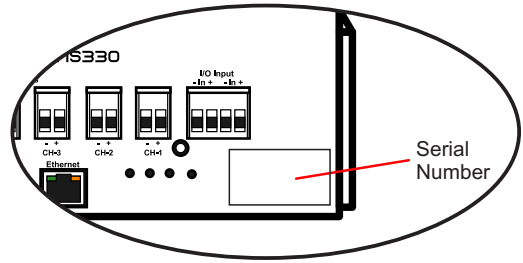
Connecting to the RMS

You can connect via Ethernet cable or WiFi.

- Ensure your PC/laptop or device and the RMS are on the same network, either directly via a switch or through a shared WiFi router.
- Open your preferred web browser and navigate to:

http://rms330_xxxxxxxx.local

Replace xxxxxxxx with your RMS unit's serial number, which can be found on the right-hand side of the unit's front panel.

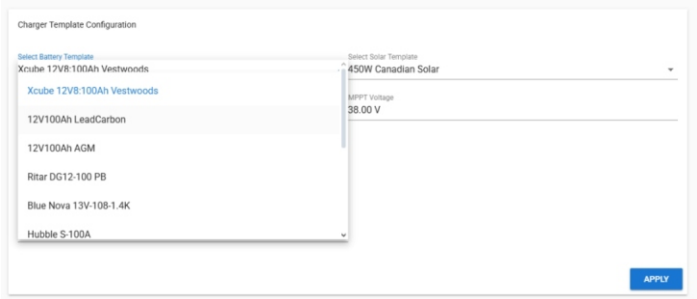


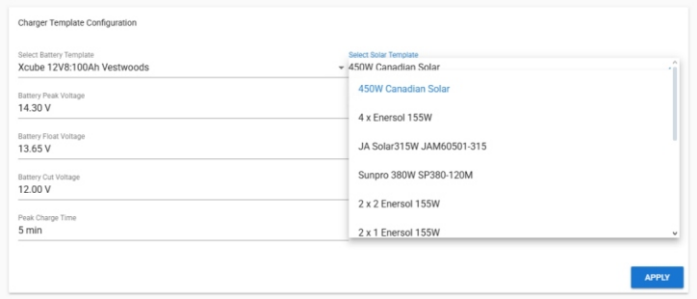
Note: The web interface may take 1–2 minutes to load on the first boot.

RMS330 CONFIGURATION

INITIAL STARTUP AND CONFIGURATION VIA WEB INTERFACE

Select your battery and solar panel from the drop-down list.
Click Apply to confirm your selection.





✅ Basic configuration of the RMS is now complete.
We'll now walk through the advanced settings and features available on the web portal.

The Telemetry option in the menu displays live data from the RMS unit you're connected to. This information is also accessible via the RMS-Solar.io web porta



RMS330 CONFIGURATION

CONFIGURATION VIA WEB INTERFACE – ADVANCED OPTIONS

The Telemetry page offers multiple views for monitoring your RMS.

The default view displays basic live metrics.
You can add or update the RMS GPS location:
Use your current location by allowing the site to access your device's location information,
Or manually enter the location using a map service to retrieve the unit's latitude and longitude.



A live graph displays various performance metrics:



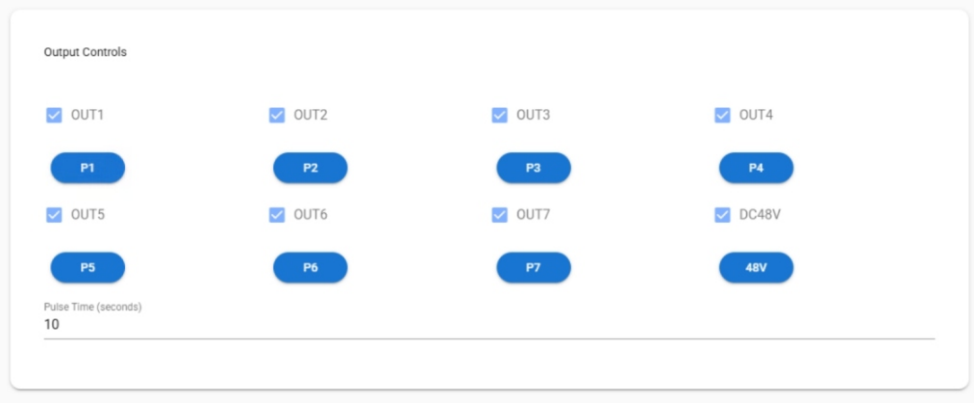
Click on the labels above the graph to choose which metrics to display.
To clear your selection, click the "×" (close) icon.

RMS330 CONFIGURATION

CONFIGURATION VIA WEB INTERFACE – ADVANCED OPTIONS

Inputs/Outputs Control

From this page, you can manage the outputs on your RMS unit.



Use the checkboxes next to each output to toggle them on or off:

- ☑ Checked = Output is on
- ☐ Unchecked = Output is off

You can also send a reset pulse to an output:
The Pulse button temporarily powers off the output for the number of seconds specified in the Pulse Time setting (default is 10 seconds), then restores power. This feature is useful for resetting a specific output.

To send a pulse, press the P1–P7 and/or 48V blue buttons corresponding to the output you want to reset.

When activated, the output will show as off, the button will pulse for the defined duration, and then power will be restored.

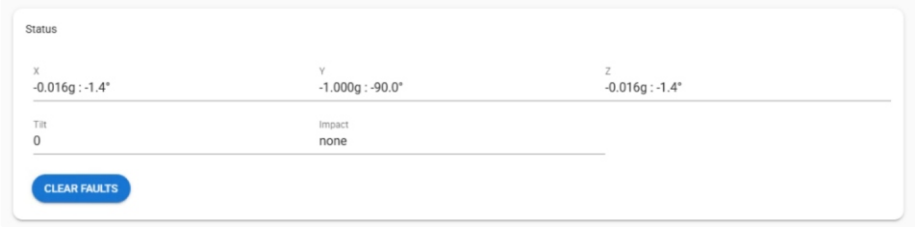
RMS330 CONFIGURATION

CONFIGURATION VIA WEB INTERFACE - ADVANCED OPTIONS

Accelerometer & Alarm Settings

From this page, you can configure the accelerometer and alarm settings on your RMS. This feature allows you to set up alerts if the RMS unit is tampered with.

The first box displays the current status of the unit:
If the unit is stable, the window will appear white and show live accelerometer readings.



If a recent event (e.g., movement or impact) has been detected, the box will have a red tint.



During installation, an event may be triggered. To clear this, click the CLEAR FAULTS button.

The next window shows the impact detection parameters:It is recommended to leave these settings at their default values, unless on-site calibration is required due to uneven terrain or windy conditions.

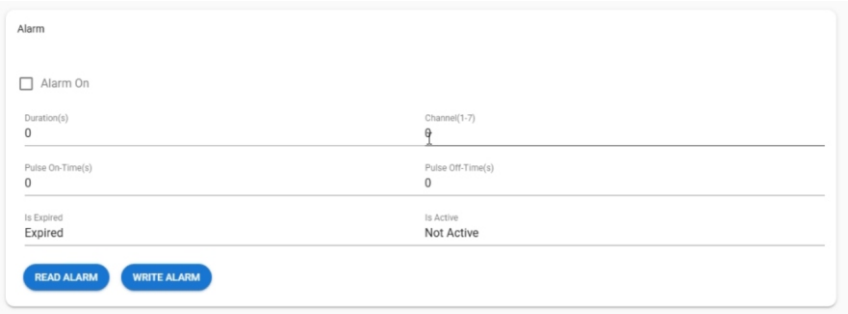


RMS330 CONFIGURATION

CONFIGURATION VIA WEB INTERFACE – ADVANCED OPTIONS

Setting Up an Alarm

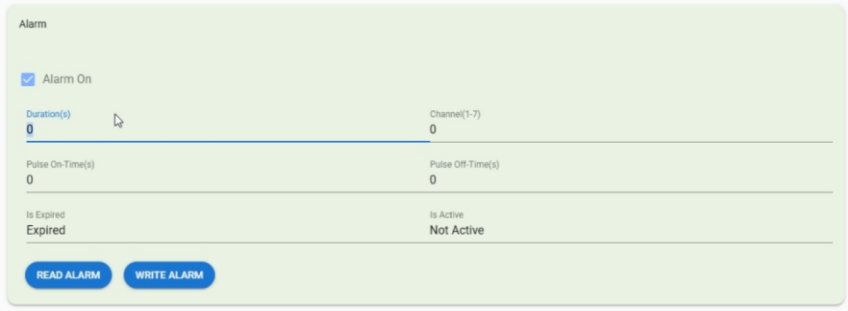
From the Accelerometer page, you can configure an alarm alert. By connecting a light, siren, or similar device to one of the RMS outputs, the alarm function can be used to trigger that device.



To set up the alarm, enter the following parameters:

Duration: The length of time (in seconds) the alarm will remain active. Default: 120 seconds (2 minutes)
Channel: The output channel on the RMS to which the alarm device (e.g., light or siren) is connected.
Pulse On Time: The number of seconds the alarm device remains on during each pulse (useful for strobing lights or sirens).
Pulse Off Time: The number of seconds the alarm device remains off between pulses.
Is Expired / Active: Indicates whether the alarm has already been triggered and expired, or if it is currently active.

Once you are satisfied with your settings, press WRITE ALARM to apply them to the RMS. The Active Alarm block will turn green to confirm the settings have been saved.

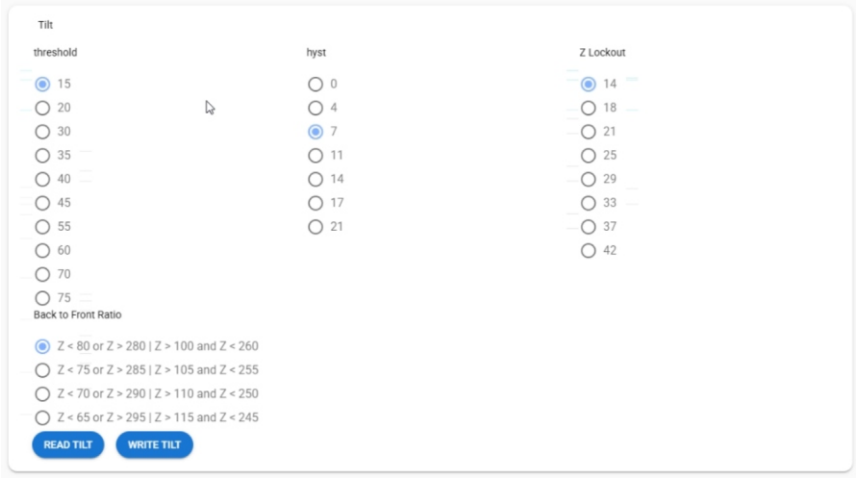


RMS330 CONFIGURATION

CONFIGURATION VIA WEB INTERFACE – ADVANCED OPTIONS

Within the Accelerometer options, you'll find the calibration settings.

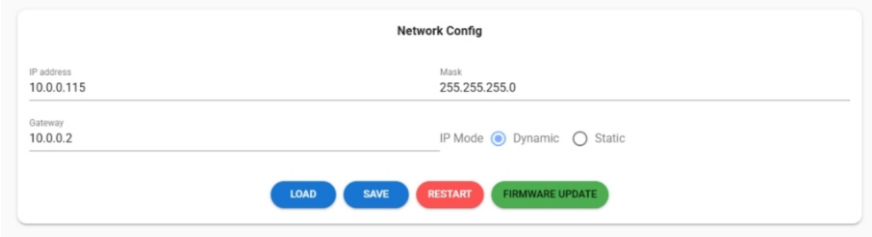
⚠ It is highly recommended to leave these values at their default settings.



Only adjust them if the RMS is installed at a known tilt or if site-specific calibration is required.

Network Config

This section displays the network configuration of your RMS.
By default, the RMS uses Dynamic IP (DHCP), meaning it will automatically be assigned an IP address by your network.
It's important to note the assigned IP address if you plan to manage the RMS via



the web portal. You can switch to a Static IP if you prefer more control over your network settings. A restart is required after changing IP settings.

From this page, you can also check for firmware updates:
When checking for updates, the device will temporarily disconnect. If updates are available, they will be downloaded and installed automatically. After a few minutes, you can reconnect by refreshing the page.

RMS-INSELE WEBPORTAL
REGISTERING AND ADDING YOUR RMS

Congratulations! Your RMS is now set up, and the basic configuration is complete.

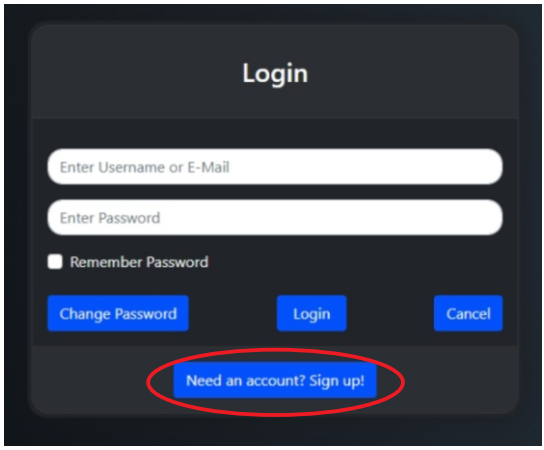
➡ Next Steps: Register on the RMS-Insele Web Portal

This section will guide you through registering on the RMS-Insele web portal, where you can add, manage, and monitor multiple RMS units across your organization.

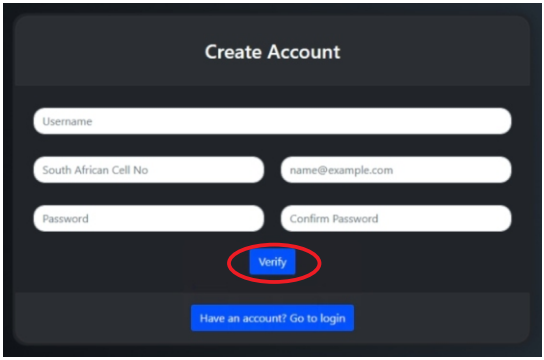
To begin:

Open your preferred browser and go to: https://rms-solar.io

Or scan the QR code below.



If you don't have an account, click the Sign Up! button.



Fill in the registration form with:

Username, Cellphone number, Email address and your Preferred password

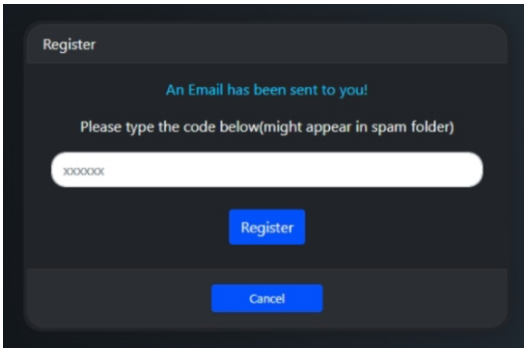
Click Verify to proceed.

A verification code will be sent to your email from: rmsautomated@gmail.com

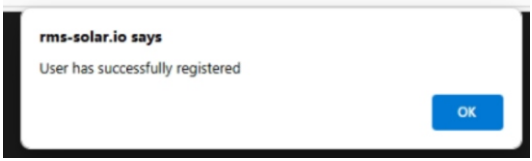
✉ *Check your spam folder if you don't receive the email in your inbox.*

RMS-INSELE WEBPORTAL
REGISTERING AND ADDING YOUR RMS

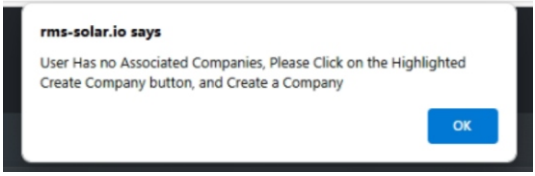
Once you receive your confirmation code, enter it into the designated field on the web portal. And Click Register



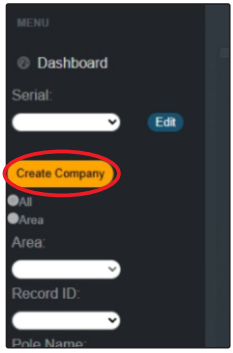
A pop-up message will confirm that your user registration was successful.



You can now log in using your newly created credentials.
Upon your first login, you will see the below pop-up message:



If you are an Admin setting up a new company:
Click the Create Company button, highlighted in the menu sidebar, to begin the setup process.



If you are a Standard User:
You can ignore the message. Inform your company's Admin of your registered username so they can add you to the existing company group.

RMS-INSELE WEBPORTAL
REGISTERING AND ADDING YOUR RMS

Select your Power Source and Battery Type as previously configured during the initial setup.

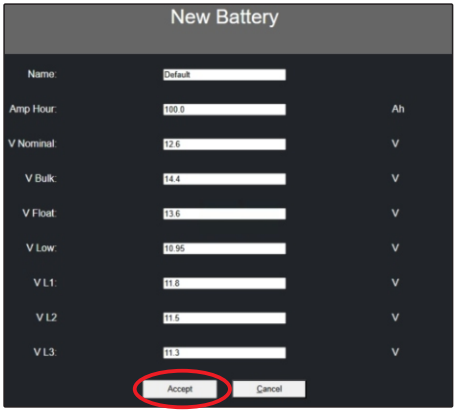


If using a custom setup, click the Edit button to enter your custom configuration:



For Source, choose whether you're using an AC-DC Converter PSU or a Solar Panel, and enter the relevant details.





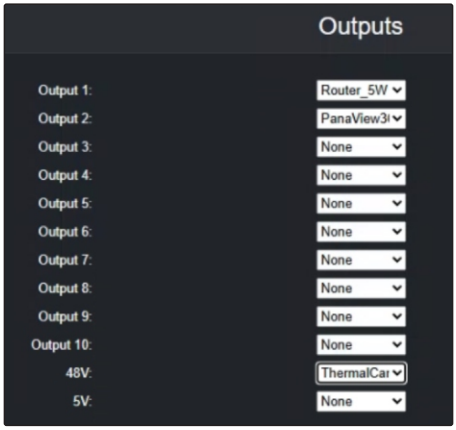
For Battery Type, input the appropriate battery specifications.

Press Accept to save your custom settings.

Adding Devices to Outputs

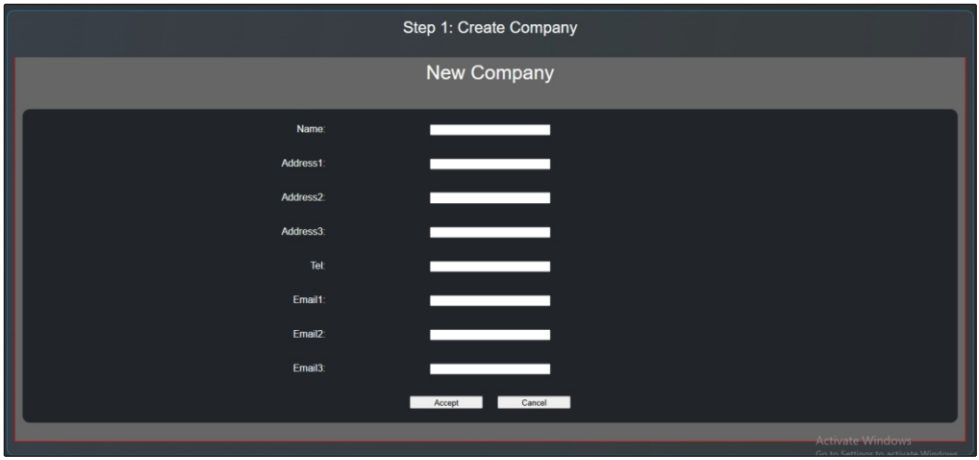
Assign your devices to the appropriate output channels.

You can choose from a variety of presets, or use a custom device by clicking the Edit button and entering the required specifications.

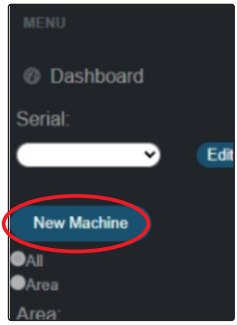


RMS-INSELE WEBPORTAL
REGISTERING AND ADDING YOUR RMS

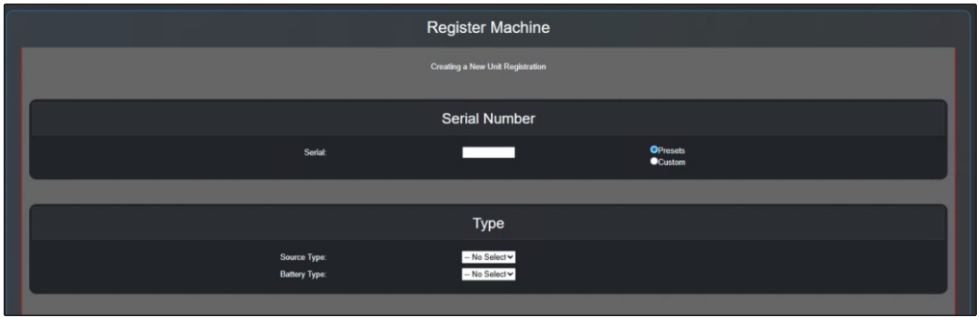
To register a new company, enter your company details on the Create Company screen. Press Accept to complete the setup.



Registering Your RMS to the Web Portal
Once your company is created, you can register your RMS unit to the web portal: Click the New Machine button in the sidebar menu.
Ensure you have the following ready: Your RMS unit's serial number, the IP address of the RMS, your initial setup settings
If you are on the same network still you can access your RMS directly at: http://rms_xxxxxxxx.local
Replace xxxxxxxx with your RMS unit's serial number if you need to recheck any settings.

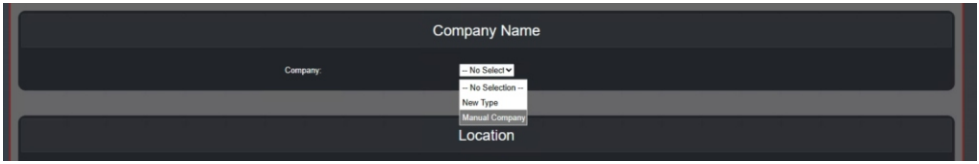


Enter your RMS's serial number in the Serial Number field.
Choose whether to use presets as defined on the RMS interface, or add a custom setup (recommended for advanced users only)

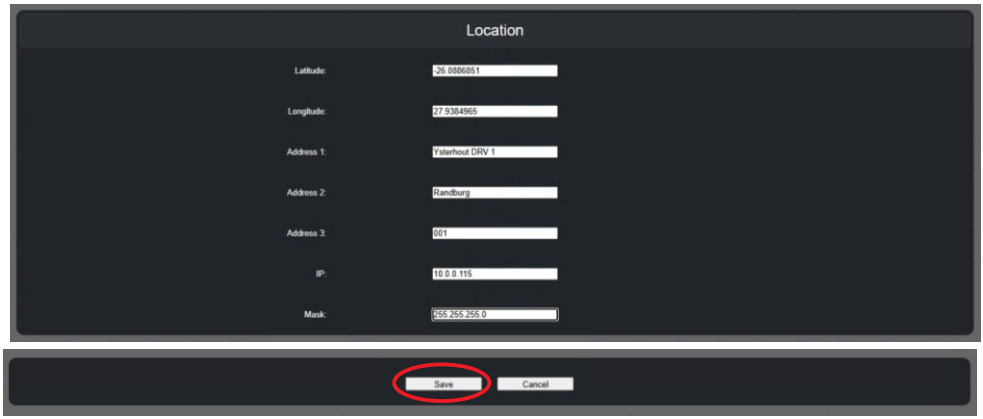


RMS-INSELE WEBPORTAL
REGISTERING AND ADDING YOUR RMS

In the next dashboard, assign the RMS unit to your existing or newly created company. Once assigned, the RMS will be visible to all users within the company group.



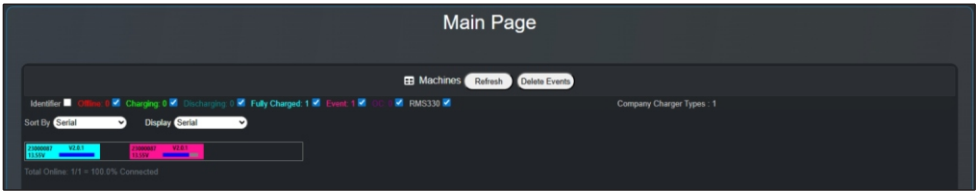
Enter the location details, GPS Coordinates, Physical address, IP address and Subnet Mask



Click Save to store the information and add the RMS to the system.

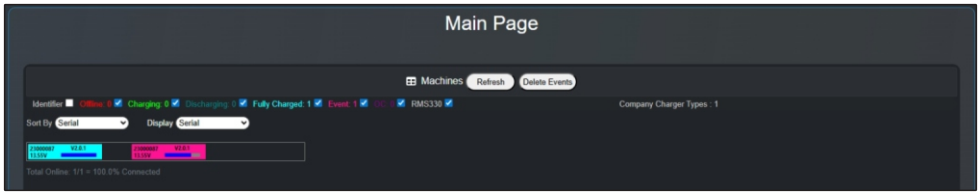
The RMS will now appear on the Main Page dashboard, where you can:
View key parameters, Monitor performance and Control outputs

To add another RMS, simply click the New Machine button and repeat the process.



RMS-INSELE WEB PORTAL
ADVANCED FUNCTIONS AND MONITORING

Now that you have an RMS unit registered on the system, we'll explore some of the advanced monitoring and functionality available on the https://rms-solar.io web portal.



The main "Machines" page displays all registered RMS units and their current status. Status indicators are shown using filters and color codes at the top of the dashboard. For example, the image above shows one RMS unit that is fully charged and also displaying a tilt event.

Selecting an RMS opens the "Report" dashboards, which provide detailed information and status updates for the selected unit.

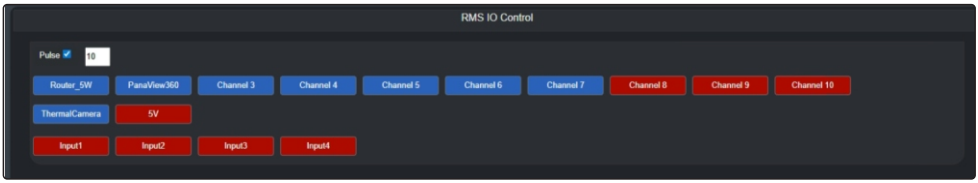


Below the reports, you'll find the live "Gauges" dashboard, which displays key data in real time. The "RMS Controls" dashboard is also available for direct interaction with the unit.



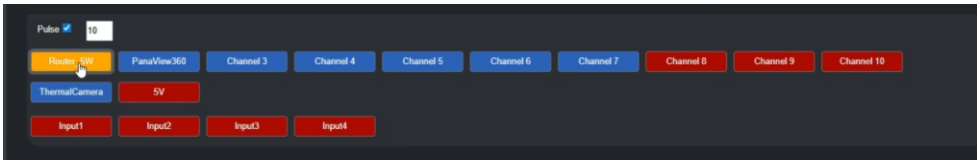
RMS-INSELE WEB PORTAL
ADVANCED FUNCTIONS AND MONITORING

The “RMS Controls” dashboard allows you to remotely manage the inputs and outputs on your RMS unit.



Key Functions:
You can toggle channels on and off or send a reset pulse to specific outputs. Outputs are named automatically based on the devices assigned during the RMS registration process, making management easier.

Using the Pulse Function:
By default, Pulse is enabled and set to 10 seconds.
When Pulse is ticked:
Clicking on a channel will turn off the output for the number of seconds specified in the Pulse Time field. After the set time, power is automatically restored. The channel button will turn orange to confirm the pulse signal was received.



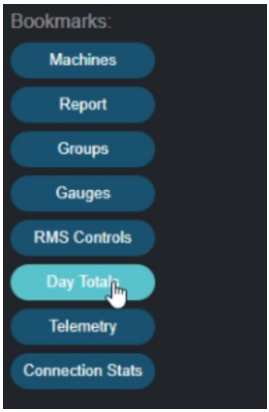
This is useful for resetting devices without needing to manually power them back on.

Toggling Channels Manually
To manually toggle channels:
Untick the Pulse checkbox.
Click on a channel: It will turn red to indicate the output is off.
Click again to turn it blue, indicating the output is on.

⚠ **Important Note**
We strongly recommend using the Pulse system to reboot devices.
Avoid turning off power to communication devices (e.g., switches, modems, routers). If these are powered off manually, you may lose the connection to the RMS, and the only way to restore it would be to physically access the unit.
The Pulse system prevents this by automatically restoring power after the specified time.

RMS-INSELE WEB PORTAL
ADVANCED FUNCTIONS AND MONITORING

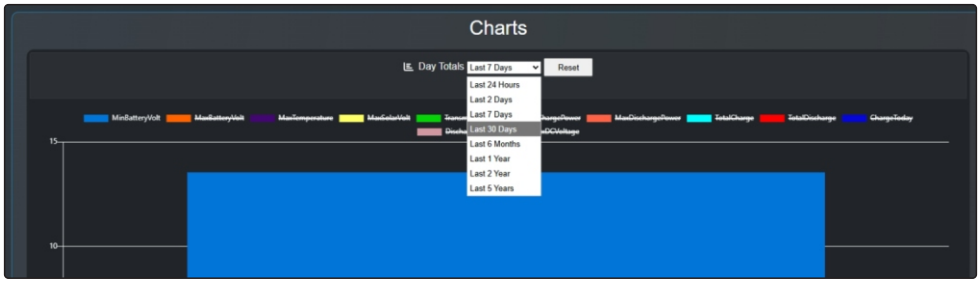
Accessing Dashboards via Bookmarks: The previously mentioned dashboards can also be accessed quickly using the Bookmarks section in the side menu.



This menu also provides access to advanced monitoring dashboards, including: Day Totals, Telemetry, Connection Status

Day Totals Dashboard

The Day Totals dashboard displays various metrics over a selected number of days for a specific RMS unit, allowing for historical comparisons.

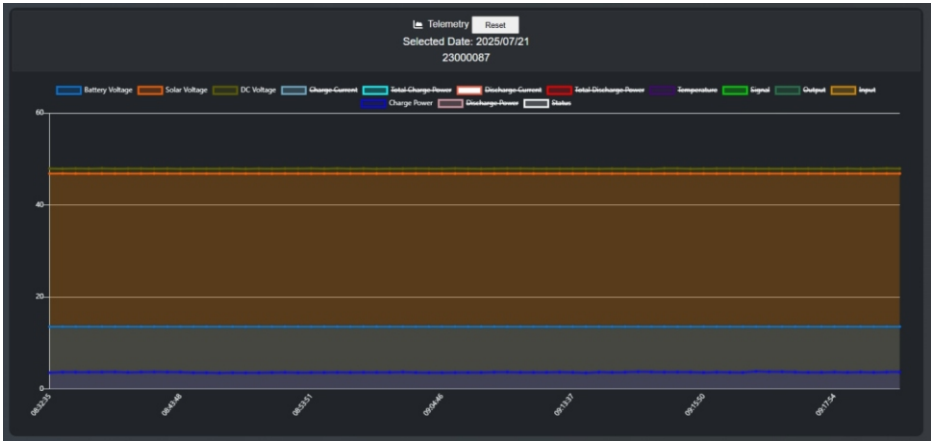


Use the drop-down menu to select the desired time period.
You can toggle metrics on or off by clicking the data types in the key above the chart. Hover your mouse over any chart bar to view a popup dialog showing the exact value being displayed.



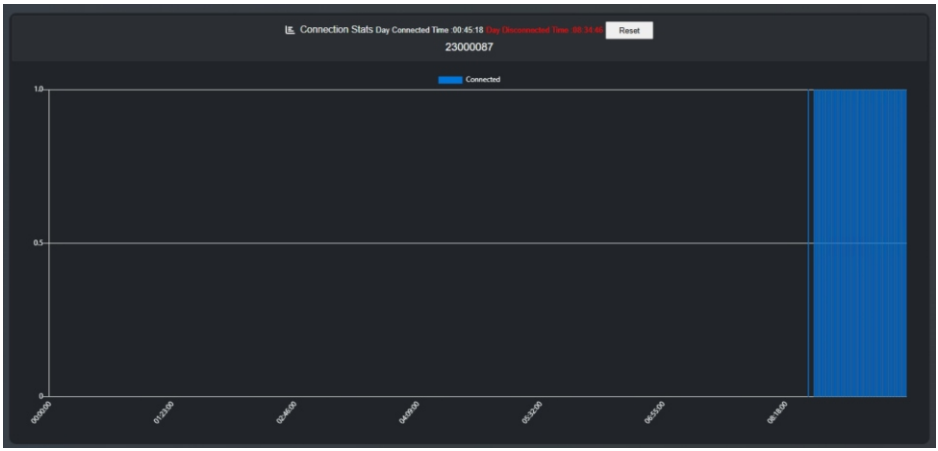
RMS-INSELE WEB PORTAL
ADVANCED FUNCTIONS AND MONITORING

Telemetry Dashboard
The Telemetry dashboard provides a live data feed from the RMS unit over a 45-



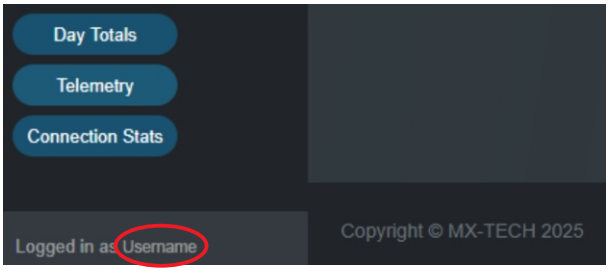
minute time span.
You can toggle metrics on and off by clicking the keys above the chart area. The chart updates in real time, allowing for active monitoring of various performance metrics.

Connection Stats Dashboard
The Connection Stats dashboard displays the network connection status of the RMS unit. It shows uptime and downtime at the top of the dashboard. A connectivity graph for the last 24 hours is also displayed, helping you monitor

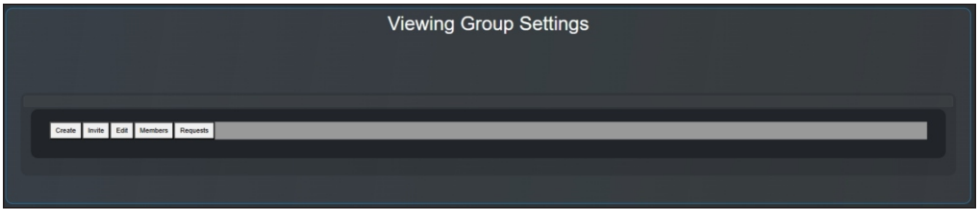


RMS-INSELE WEB PORTAL
ADDING OTHER USERS TO A COMPANY GROUP

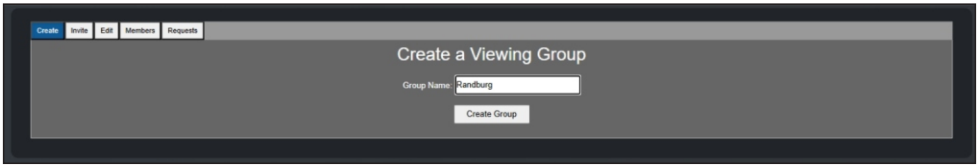
Managing Users and Groups
Multiple users can be assigned to a single company, allowing several people to monitor and manage the RMS units linked to that company.
To add a user:
The user must first register on the portal as described earlier in this manual.
It's important that they take note of their Username.
If unsure of the username, it is displayed in the bottom-left corner of the portal when logged in.



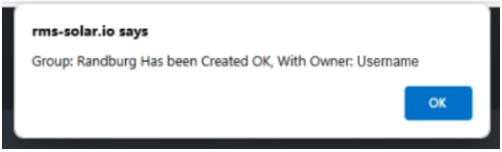
Creating a Group
Click the "Groups" bookmark link in the sidebar.



Click the Create button to start a new group.

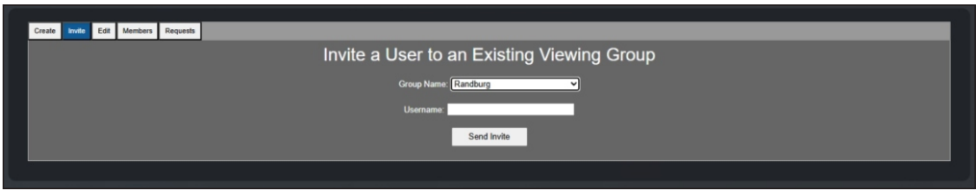


Enter a name for the group and click Create Group.
A pop-up will confirm that the group has been successfully created.

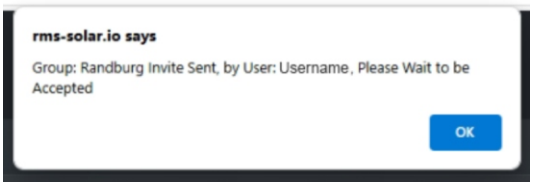


RMS-INSELE WEB PORTAL
ADDING OTHER USERS TO A COMPANY GROUP

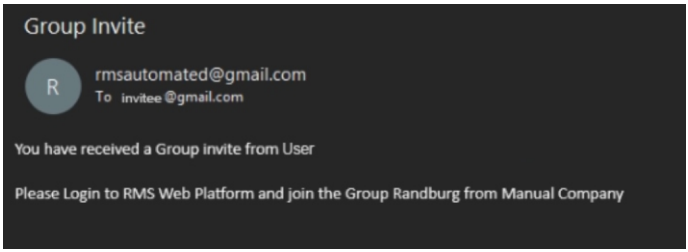
Once your group is created, you can invite users to join: Click the Invite button.



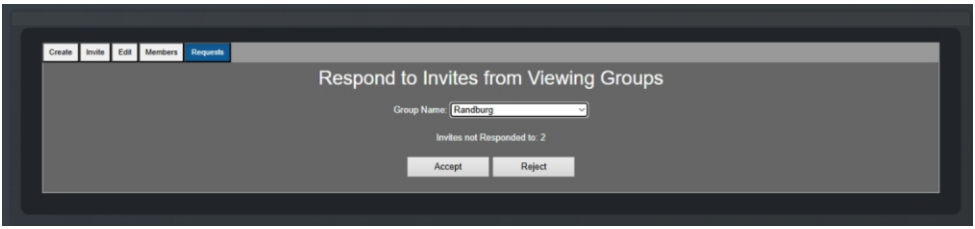
Select your Group name from the drop-down menu. Enter the username of the person you want to invite. Click Send Invite.



A pop-up will display confirming the invitation has been sent.



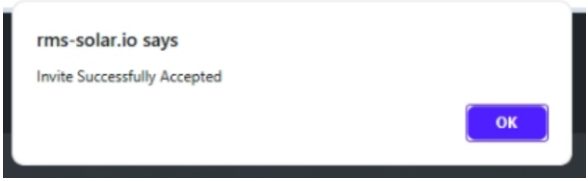
The user will receive an email notification informing them of the invitation.
The invited user must log in to the web portal.



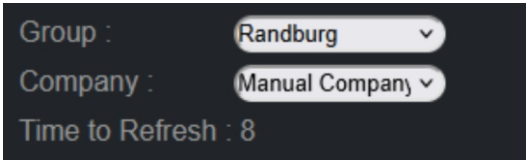
Then navigate to the Groups page. Click the Requests button. Select the Group name from the drop-down (if multiple invites are present). Finally click Accept to join the group.

RMS-INSELE WEB PORTAL
ADDING OTHER USERS TO A COMPANY GROUP

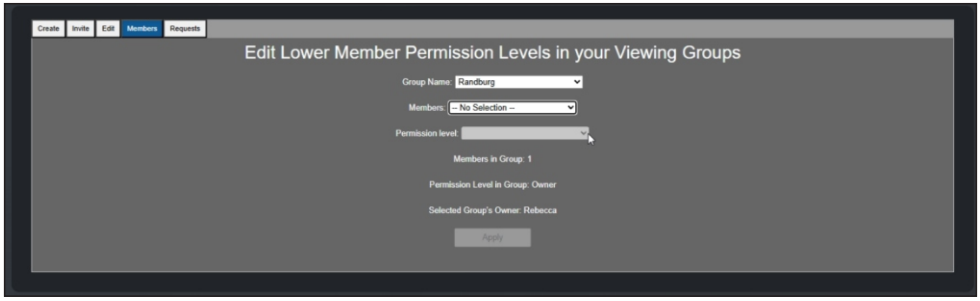
After a user accepts the group invitation, a confirmation pop-up will appear.



The user can now view RMS units assigned to the company group by selecting the appropriate Group and Company from the drop-down menus in the top-left corner of the screen.



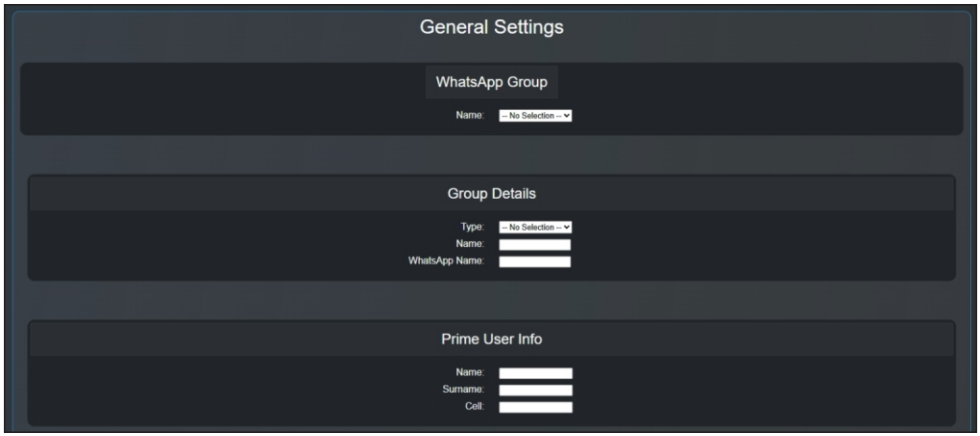
Group managers can manage users by navigating to the Members tab on the Group page.



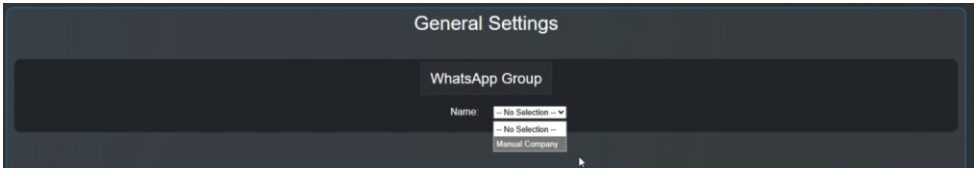
From here, they can assign permissions to users based on their roles and responsibilities within the company.

RMS-INSELE WEB PORTAL
CREATING ALERT WHATSAPP GROUPS

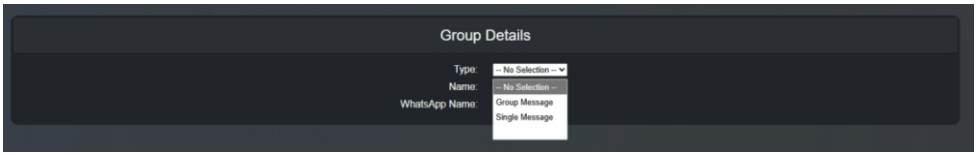
On the WhatsApp Group Settings page:



From the WhatsApp Group Name drop-down, select the company for which you want to create the WhatsApp group.

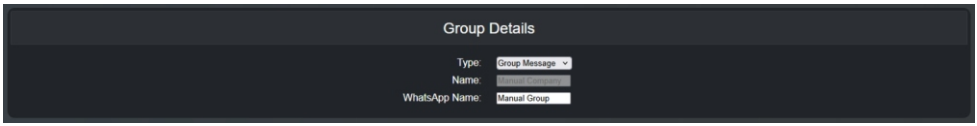


Next, fill in the Group Details.



You have two options for message delivery type:
Group Message – to send alerts to a WhatsApp group.
Single Message – to send alerts to an individual user.

The Name field will auto-fill with the company name.
Enter the WhatsApp Name of the group or user who will receive the messages.



RMS-INSELE WEB PORTAL
CREATING ALERT WHATSAPP GROUPS

Now that you know how to monitor your RMS, you can set up WhatsApp alert and reporting groups. This feature allows the system to send notifications for: Tilt events, Alarms, Battery low warnings, Daily system reports

This ensures users are informed of issues without needing to actively monitor the web portal.

Before setting up a WhatsApp group: All group members must be registered on the web portal. Each member must also register with the WhatsApp Gateway API. A smartphone with WhatsApp access is required.

Registering with the WhatsApp Gateway

Add the following contact to your phone:
Name: RMS Gateway
Number: +852 5476 4971

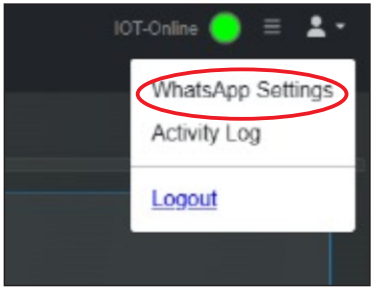
(You can also scan the QR code provided.)

Once saved, send a WhatsApp message saying “Hi” to the contact.

The gateway will respond, confirming your registration.

Setting Up the WhatsApp Group on the Portal

Navigate to WhatsApp Settings on the web portal.
Click the down arrow in the top-right corner of the screen (next to the user icon).

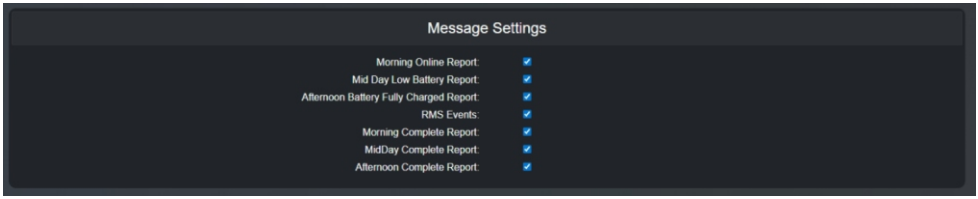


RMS-INSELE WEB PORTAL
CREATING ALERT WHATSAPP GROUPS

Prime User Details
Enter the details of the Prime User — this person will act as the administrator of the WhatsApp group.This user will be responsible for creating the WhatsApp group once setup is complete.
IMPORTANT: Ensure the cell number includes the international dialing code (e.g., +27 for South Africa).



Message Settings
In this section, you can choose which types of messages the system will send to the WhatsApp group or user:

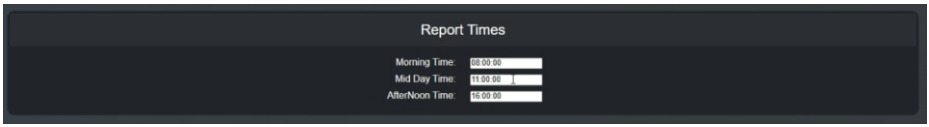


- Morning Online Report – Sends a morning report of all online units.
- Midday Low Battery Report – Sends a midday report of any units with low battery status.
- Afternoon Battery Fully Charged Report – Sends an afternoon report of all fully charged units.
- RMS Events – Sends notifications for tilt, tampering, or alarm events per unit.
- Morning Complete Report – Sends a morning summary of all units reporting any issues.
- Midday Complete Report – Sends a midday summary of all units reporting any issues.
- Afternoon Complete Report – Sends an afternoon summary of all units reporting any issues.

☑ It is recommended to enable all reports initially, and then refine your selection over time based on your specific needs.

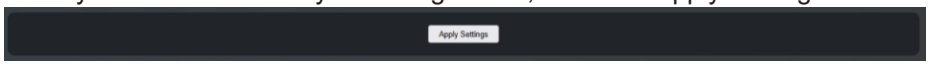
RMS-INSELE WEB PORTAL
CREATING ALERT WHATSAPP GROUPS

Next you can now adjust the Morning, Midday, and Afternoon report times.

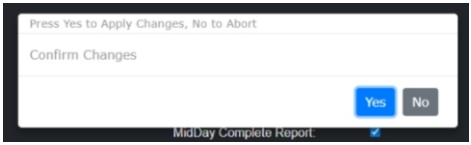


✔ It is recommended to keep these at their default times, as they are optimized for solar performance monitoring. This helps identify issues before units lose power and ensures optimal data collection.

Once you're satisfied with your configuration, click the “Apply Settings” button.



A confirmation pop-up will appear — click Yes to proceed.
The portal-side setup is now complete.



Creating the WhatsApp Group
The Prime User must now switch to their mobile device and create a new WhatsApp group.

To do this, follow the official WhatsApp instructions available via the QR code or at: https://faq.whatsapp.com/3242937609289432/?cms_platform=web

Once the group is created: Add the RMS Gateway contact (saved and registered earlier). ⚠ This step is essential to receive alerts. Lastly add any additional members as needed.

Congratulations!

Your RMS system is now fully set up on the portal — complete with:

- ✅ Registered users
- ✅ Real-time monitoring tools
- ✅ Remote control capabilities
- ✅ Alert and reporting groups
- ✅ Historical data dashboards

You're now equipped to efficiently manage and monitor your RMS units with minimal manual intervention.

RMS-INSELE SPECS

Power	
Rating	330W Charger. Maximum Charge @ 14.5V 25A 93% Efficiency
Protection	Dual 50V Max Surge Protected Input For Solar Or 48V AC/DC Converter.
Maximum Input Current:	20A
Max Discharge Power:	348W (12V @ 3A X 7 Channels + 48V @ 2A)
Unit Power Consumption (No Load)	4.5W
AC Frequency Range	46-65Hz
I/O	
12V 3A Solid State Outputs With Over Current And Over Temperature Protection.	7
12V Output Efficiency	99.20%
Variance On 12V Outputs	Equal To Battery Voltage
48V 2A Boost Converter Fuse Protected.	1
Ethernet Port, RJ45 10/100	1
Digital Input Ports	2
Digital Input Ports	Opto-isolated Digital Input For Standard Door Switch Normal Closed Type. 5-24VDC
Solar	
Max Solar Input Voltage	50V
Charger Type	MPPT
Minimum Solar Input Voltage:	18V
Solar Connection Type	Wires With Terminal Screw Connectors
Battery	
Battery Types Supported	All Types Lead Acid And Chargeable Lithium Chemistries
Recommended Battery Input	100Ah 12V Max
Battery Protection Low Voltage Cut Off	Programmable
Battery Charging Modes And Stages For Diff Battery Types	3 Stage "bulk Cc Charge Followed By Peak Cv Followed By Absorption Time And Finally Float Stage" All 3 Settings Are Programmable.
Battery Cables	Battery Cables 1.3m Each, 10mm2 Pre-fitted With 10mm Ring Lugs.
Features	
Auto Power Mode Switch Over	Yes
Anti-Tamper System	Yes, Accelerometer Programmable Impact And Tilt
Internal Temperature Sensor (PCB Monitor)	Yes
Remote Firmware Upgrade	Yes
Cooling System	Automatic Forced Air Cooling Is Implemented To Keep The Rms Cool. Designed For Max
Misc.	
Weight	Weight: 3.0kg (RMS Controller Only)
Dimensions	285mmx86mmx190mm
Operating Tempreture	65° Ambient Temperature. Minimum Operating Temperature -30°
Operating Humidity	55% Normal 95% Non-condensing * on Request Coastal Spec
Enclosure Material	Powder-coated Sheet Metal And Anodized Aluminium
Warrenty	24 Month Warranty On Outright Purchase. 3 Year Warranty Offered With MX-Tech Maintenance Contract

DESIGN | DEVELOP | MANUFACTURE | DEPLOY

Remote Power Backup is Our Business - 24/7 - 365

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www.mxtech.co.za