

SWITCH
ALWAYS ON

Technical Manual

Switch Always On

AC



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Important Safety Instructions

While every care has been taken to ensure the completeness and accuracy of this manual, Smart Charging Technologies LLC assumes no responsibility or liability for losses or damages resulting from the use of the information contained in this document. Due to technical improvements, some information contained in this manual may change without notice.

Before attempting to install and begin logging data with the Switch Always On unit, please read this manual.

WARNING

Risk of Electrical Shock:

Do not open or attempt to repair the unit. No user-serviceable parts inside!

CAUTION

Risk of explosion if battery is replaced incorrectly:

Use only manufacturer-approved batteries. Do not replace or tamper with cells!

Maximum safe operating temperature:

45°C / 113°F.

Follow proper handling procedures when working with lithium batteries.

Device Specifications

AC INPUT RATINGS

AC Input	110VAC - 240VAC, 50/60Hz, 15A
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AC OUTPUT RATINGS

# of AC Outputs	2 Individually Controlled AC Outlets
AC Outlet 1 Ratings	110VAC - 240VAC, 50/60Hz, 15A
AC Outlet 2 Ratings	110VAC - 240VAC, 50/60Hz, 15A

BACKUP BATTERY

Battery Chemistry	2S1P Li-Po Battery
Nominal Battery Voltage/Capacity	~3.7V/3200mAh

CONNECTIVITY/CLOUD

Wired	Dual Ethernet 10/100 Mbps
Wireless	Wi-Fi IEEE 802.11 b/g/n 2.4GHz
Backup Cell	LTE Cat 1 (PRO Version)
Cloud Connectivity	3 Year Cloud Access & Alerts

OPTIONAL ACCESSORIES

# of Dry Contacts (Optional)	2 Dry Contacts
# of Temperature/Humidity Sensor Ports (Optional)	1 Port

SAFETY COMPLIANCE

CE	DTM CE
ROHS	Compliant
ETL/cETL	DTM UL 60950-1 Information Technology Equipment Safety
FCC	DTM FCC Title 47 CFR 15 Subpart B Emissions Class A

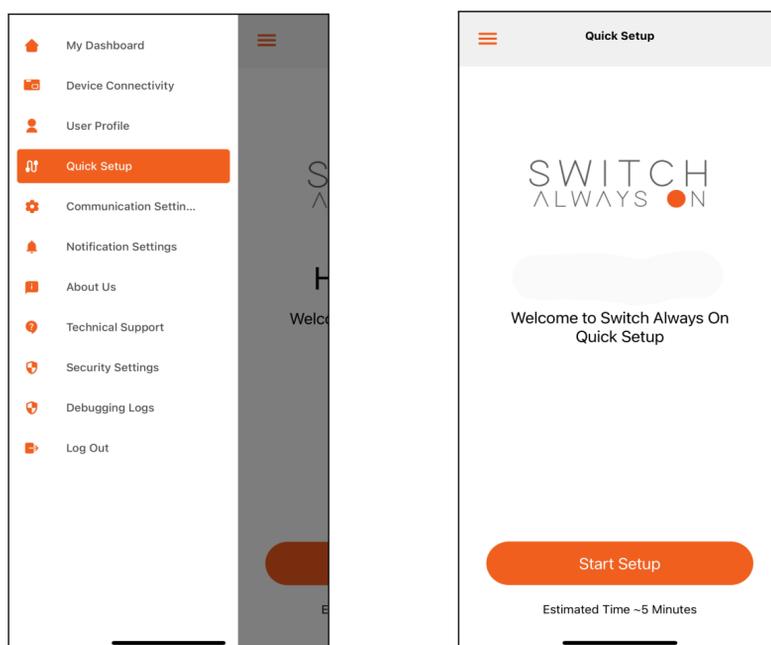
MECHANICAL

Form Factor	Ultra Compact
W x D x H	4.9" x 5.75" x 1.75"
Weight	~1lb

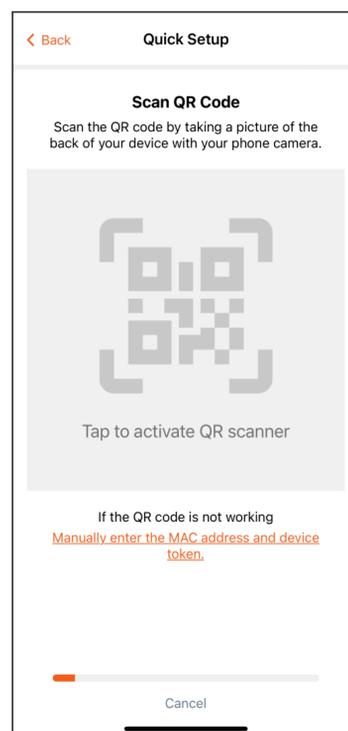
Quick Setup

The **Quick Setup** feature of the Switch Always On App allows the user access to a quick and easy process for setting up and getting started using a new Switch Always On device. The following are steps to setup a new Switch Always On device using the **Quick Setup** option located in the Switch Always On App:

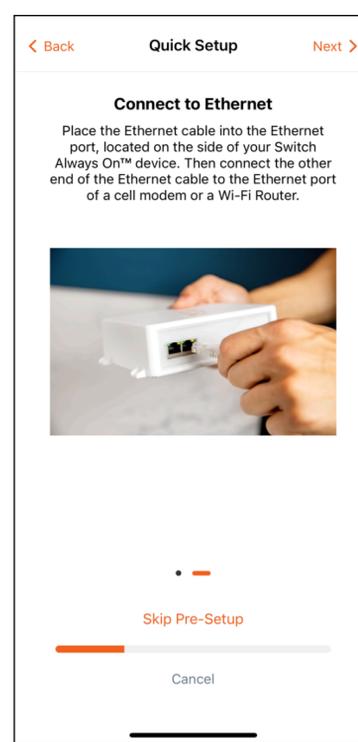
1. Before starting the Quick Setup, make sure to download the Switch Always On App from the App Store or Google Play Store and create a new account. Once the new account is created use the newly created credentials to log into the account.
2. From the User Menu select the **Quick Setup** option. When the page opens, select Start Setup to start the Quick Setup process.



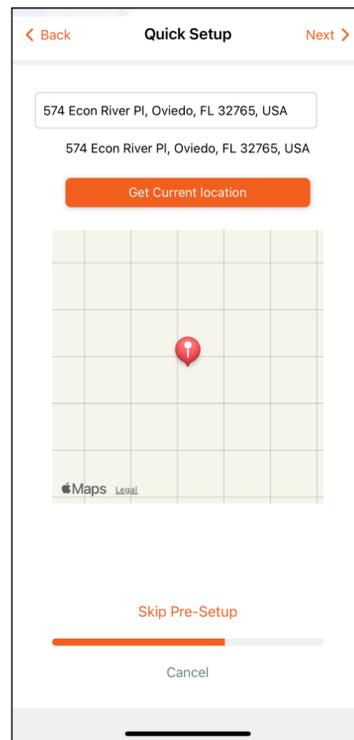
3. The **Quick Setup** screen will first appear and will give the user the option to either scan the QR Code on the device or to enter in the information off of the device manually. It is recommended and faster to use the Scan QR Code method.



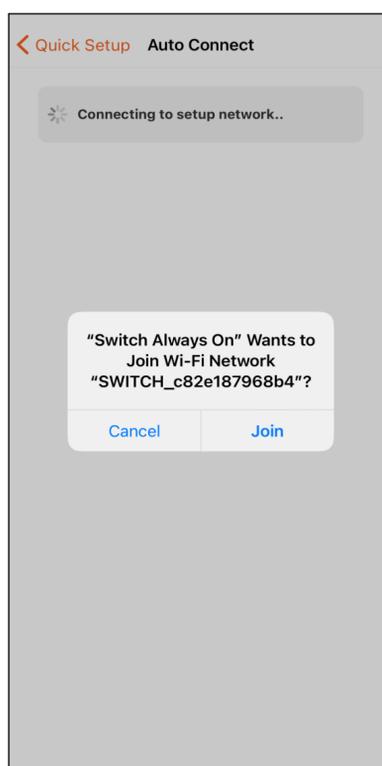
4. Once the QR code is scanned, the "Connect to AC power" screen appears instructing the user to ensure AC power is connected. Next, the "Connect to Ethernet" screen will appear instructing the user to connect the device to Ethernet if a wired Ethernet connection is the desired connectivity type.



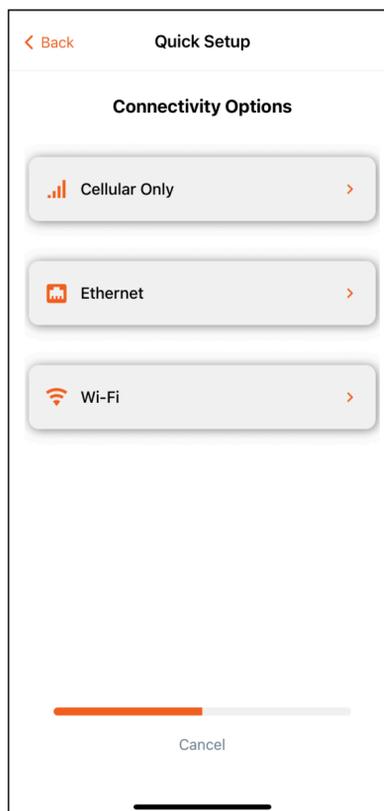
5. Next, the app will instruct the user to get the current location of the device. The app will use the current location of the phone being used to input a location.



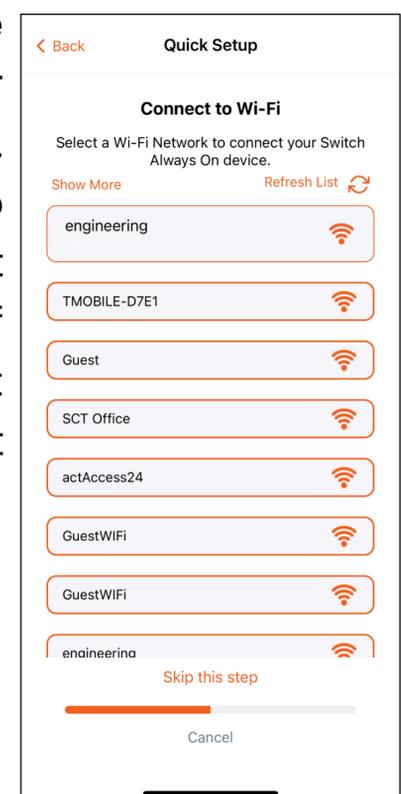
6. On the next step, the user will be prompted to join the Switch Always On device's Wi-Fi setup Network. Select "Join" and allow the Switch Always On App to join the Setup Network of the device.



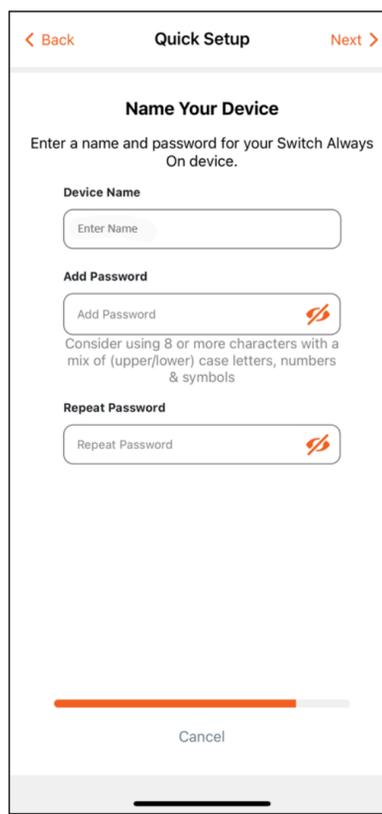
7. After successfully connecting to the Device Setup Wi-Fi Network the user is then given the opportunity to select the desired method of connectivity for the device. The available options are Cellular Only (if the device is equipped with cellular capabilities), Ethernet, or Wi-Fi. Selecting a connectivity option will disable the other options. For example, if a Wi-Fi connection is selected then the Ethernet capabilities will be automatically disabled. The disabled option can be enabled again inside the app once the **Quick Setup** is completed.



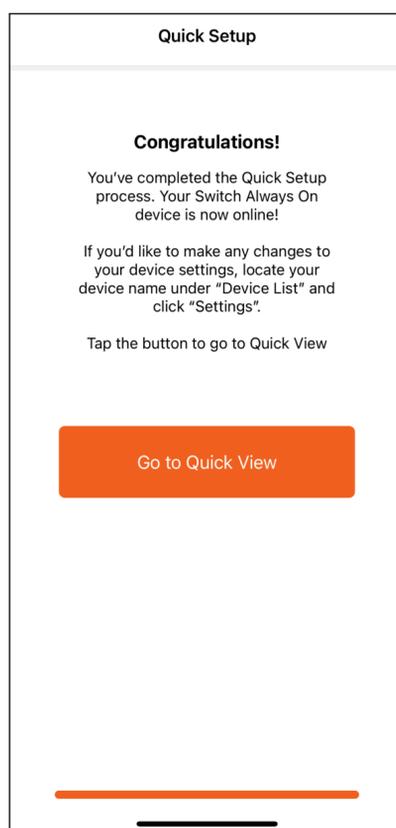
8. If Wi-Fi is selected on the “Connectivity Options” page as the desired connectivity type then the App will then instruct the user to choose and connect to one of the available Wi-Fi networks. Choose the desired Wi-Fi network and enter the password to connect the device to the network via Wi-Fi. If Ethernet connection is selected the app will proceed to the next page. If an Ethernet connection is not detected then the app will instruct the user to connect an Ethernet connection and the app will not proceed until a valid Ethernet connection is established.



9. After selecting and successfully connecting the device via Ethernet, Wi-Fi, or cellular the user is then given the opportunity to name and set a password for the device. The device password is used to add security and help keep unauthorized users from accessing the device. This step is optional at this moment and can be changed at a later time.



10. The last step will congratulate the user on successfully completing the Quick Setup process. The user will be instructed to go to the Quick View screen and start using the Switch Always On device.



Connect to AC Power & Charge the Battery

1. Connect the AC power cable to the AC input port and plug the Switch Always On unit into an AC power outlet.



2. The Switch Always On battery will charge whenever it is connected to utility power and typically requires fewer than five hours to charge fully. The Switch Always On unit will provide a time estimate of how long the battery backup has before it is fully depleted when AC power is interrupted and the unit is operating on the battery power and the main AC input.

Connect Equipment to the AC Ports

The Switch Always On AC unit has two independently controlled 110 – 240VAC AC outputs. The AC outputs come with two standard NEMA Type B 3 prong AC connectors. Each port has its own LED indicator. When the port is enabled on the app, the LED is lit green, otherwise it is not lit.

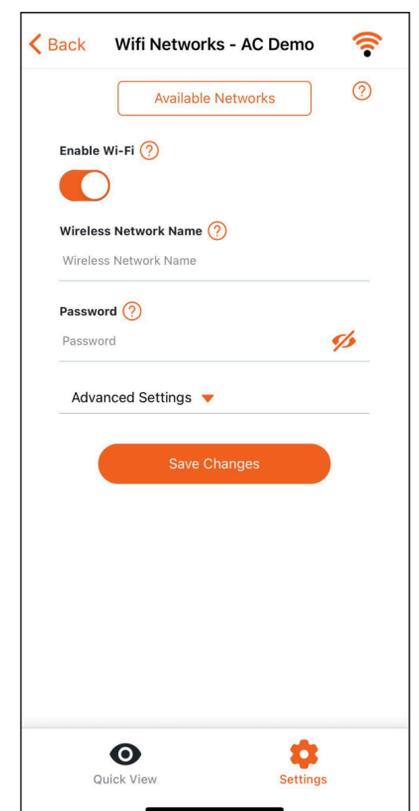
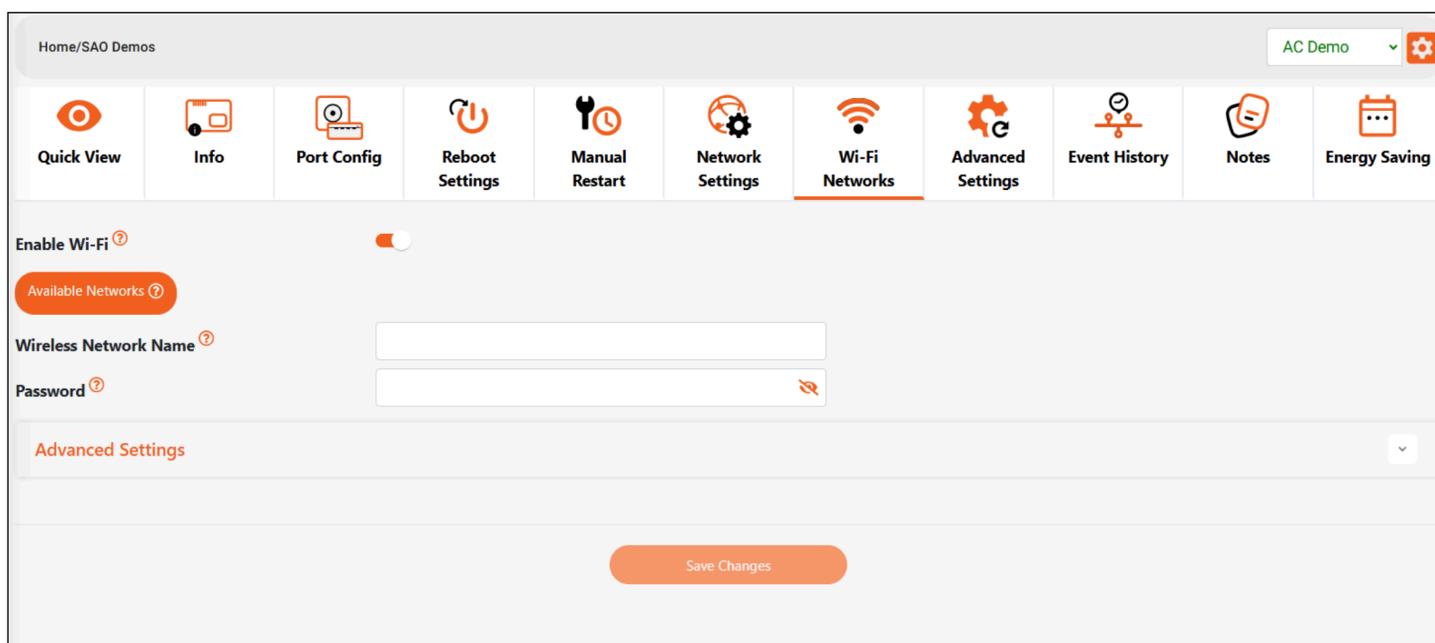


Connect to Ethernet

Connect the respective Router, Modem, Network Switch, etc to the Ethernet “IN” port of the Switch Always On unit if Ethernet is the desired connectivity type. To provide Ethernet access to another piece of equipment make sure to connect it to the Ethernet “OUT” port of the Switch Always On unit. The Ethernet “IN” port will only receive access to the network and the Ethernet “OUT” port will only provide access to the network via Ethernet. The ports are not interchangeable.

Connect to Wi-Fi

During the Quick Setup the user is given the opportunity to connect the device to the network via Wi-Fi. If Wi-Fi is not selected during the Quick Setup, or if the device needs to connect to a different Wi-Fi network then that can be done in the **Wi-Fi Networks** Tab in the App and on the Web Dashboard. The user has the ability to search the available Wi-Fi Networks or manually enter a specific Network Name and Password. A BSSID can be entered under the Advanced Settings section if a connection to a specific access point is required. The Wi-Fi capabilities can be Enabled or Disabled in this section as well. Switch Always On can connect to Open networks as well as secure networks. The Switch Always On device is 802.11 b/g/n compatible.



Switch Always On Unit Access Button

The Switch Always On AC unit has three LED indicators and a reset button located on the side of the unit with dual ethernet ports. The Access Button has multiple functions depending on how long it is pressed. These functions include being able to perform a soft restart, toggle the status of the Wi-Fi setup network, and can perform a factory reset. The table below lists the multi functions of the Access Button and how long to press it to trigger each function.

	<p>Access button. Pressing the button for xx seconds yields:</p> <ul style="list-style-type: none">· 10-seconds → Soft restart· 25-seconds → Toggles status of Wi-Fi setup network· 40-seconds → Factory reset
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Troubleshooting

Use the table below to solve minor Switch Always On unit installation or operational problems. Contact SCT for assistance with more complex issues.

Error	Possible Cause	Procedure
No LEDs are lit when unit is plugged in AC outlet	AC cable not fully seated	Verify AC cable is plugged into unit correctly
Switch Always On unit is OFFLINE	Ethernet cable is not fully seated, or Wi-Fi network is not available	Ensure that the Ethernet cable is fully seated and plugged in or the corresponding Wi-Fi network is active. It is also suggested to check that the Wi-Fi SSID and password are entered correctly as both fields are case sensitive if using Wi-Fi for the desired connectivity type.

Storage

Before storing, charge the Switch Always On unit for at least 5 hours. Store the unit covered and upright in a cool, dry location.

Storage Temperature	Recharge Frequency	Charging Duration
23 to 95°F (-5 to 35°C)	Every 6 Months	5 Hours

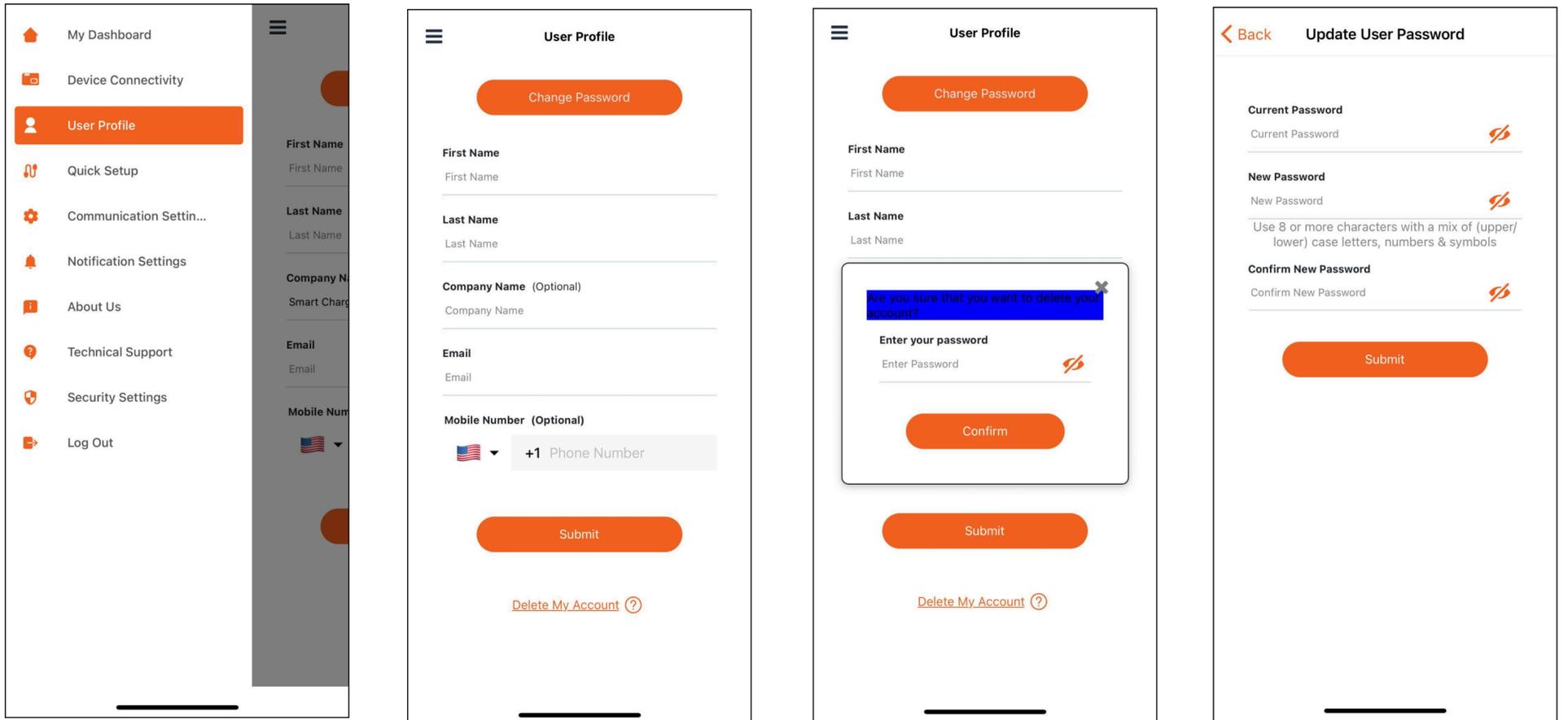
Location & Mounting

Install the Switch Always On unit in a protected area that is free of excessive dust and has adequate air flow. Do not operate the Switch Always On unit where the temperature or humidity are outside the product's environment specifications.

If desired, the Switch Always On unit can be mounted using the four mounting tabs located near each corner of the device. To properly and securely mount the Switch Always On unit be sure to use four screws and washers. Tighten the screws and washers so that they are snug, and the unit does not move. Do not overtighten the screws as they can cause damage to the unit.

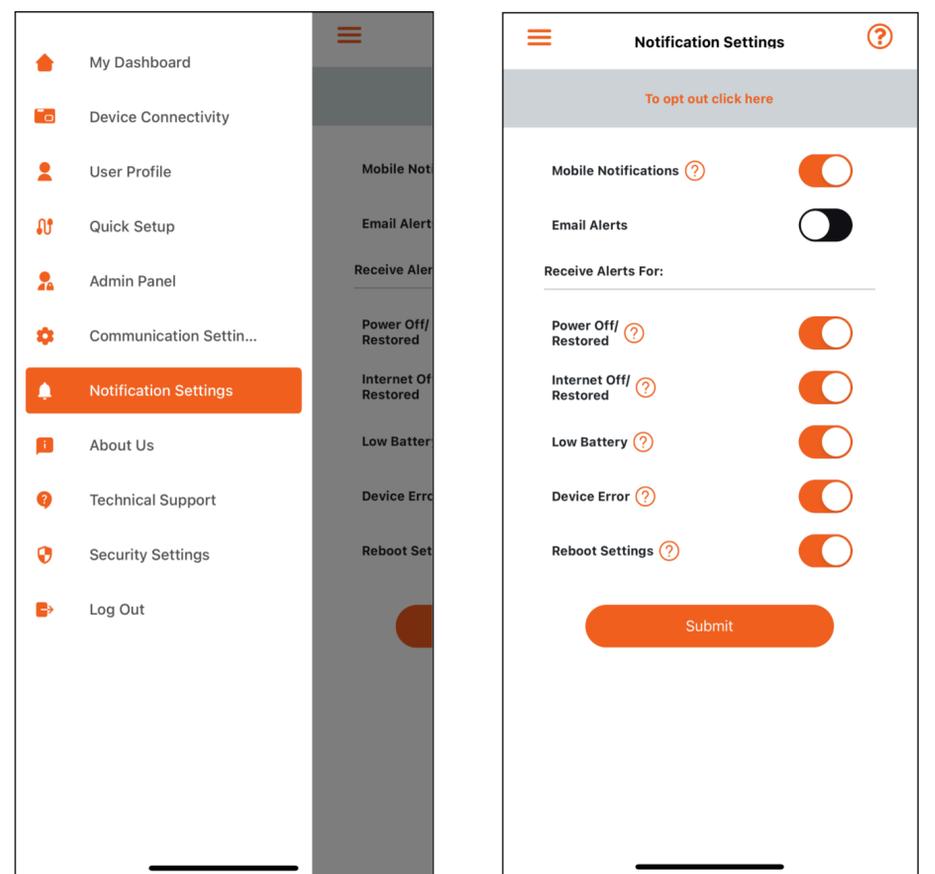
User Profile Settings

This is where to find the user profile information, change password, and delete my account option.



Notification Settings

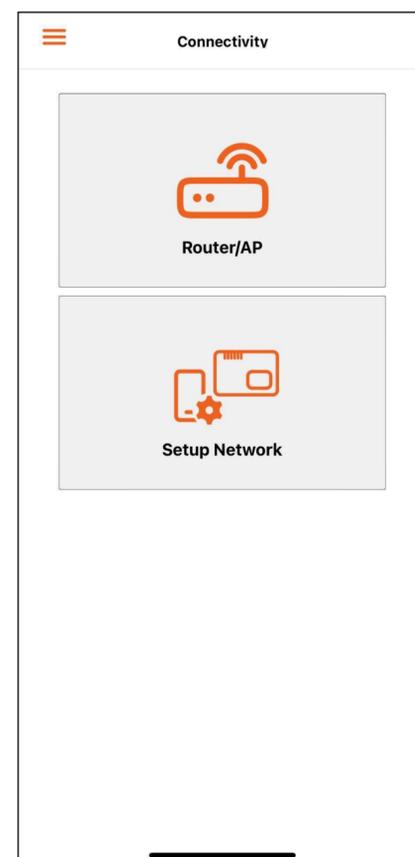
Allows the user to subscribe to available notifications which are triggered by certain events. The Web dashboard also allows the user to configure how s/he receives these notifications, either through email or text SMS.



Connectivity (Mobile App Only)

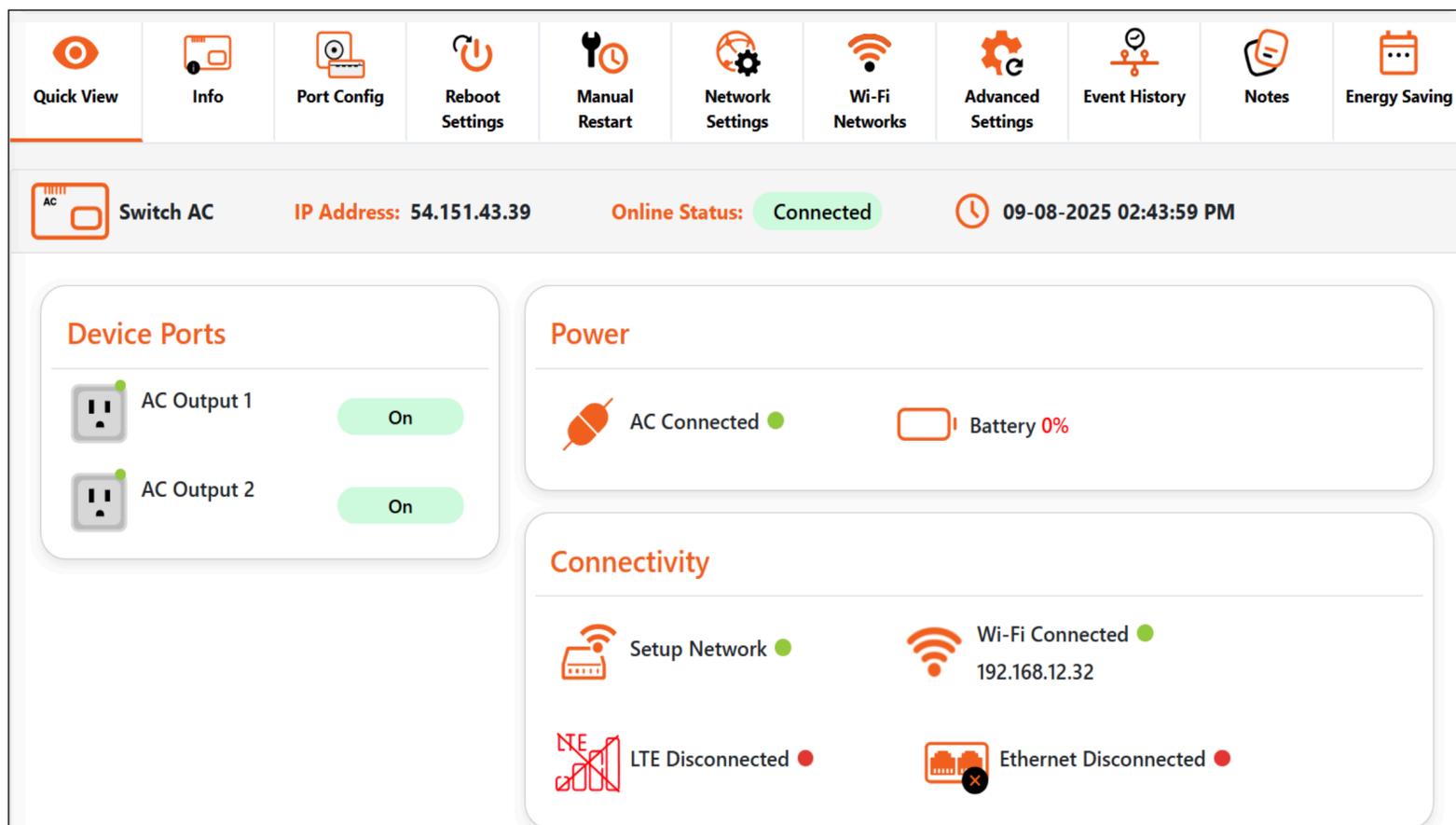
When setting up the device, the mobile app offers 2 different methods to connect to the unit:

1. **My Dashboard/Cloud Access:** The Mobile App will connect to the Cloud App at <https://www.switchalwayson.com> to access devices that are online and groups.
2. **Device Connectivity/Local Access:** The Mobile App can access the Switch Always On Device Directly. To do so, the device's setup network has to be turned on.



Device Operations

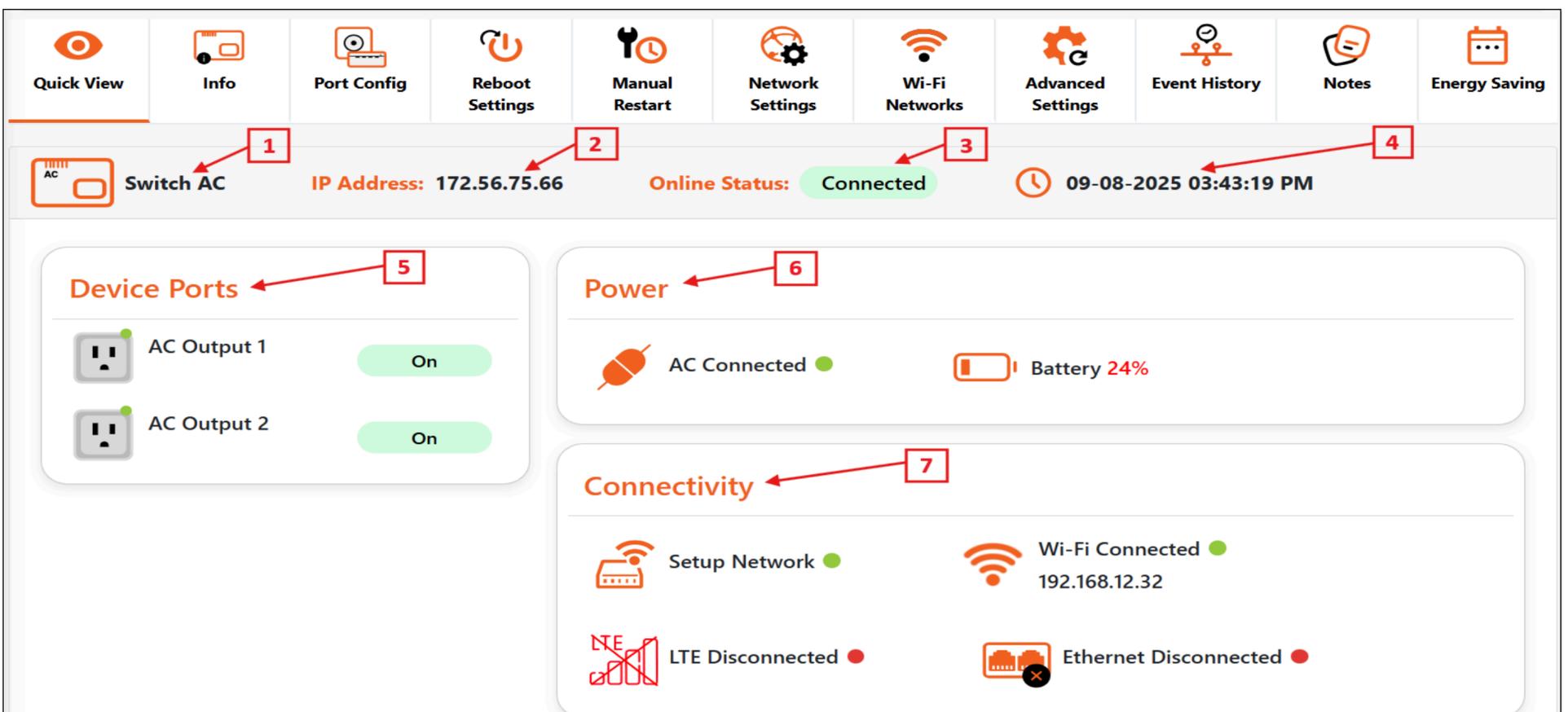
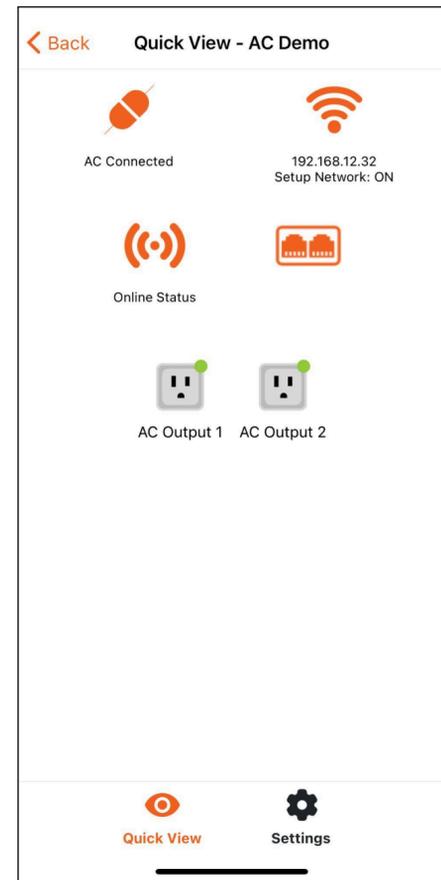
The same accessible operations are available whether using the Mobile or Web App. Some operations have Advanced Settings located within. Simply select the **Advanced Settings** option to access them.



Quick View Tab

Easily view the device status using the mobile or cloud app:

1. Model and Name of Switch Always On device
2. Device Public IP Address
3. Online Status
4. Device Date & Time
5. Available Device Ports
6. Power
7. Device Connectivity



Estimated Battery Backup Time

The Switch Always On device keeps estimating the backup battery time based on the connected load, should the AC get disconnected or interrupted. The estimation may take some time on first time use.

Status Indicators Explained



AC Connected



Online Status



AC Disconnected



Port Shutdown



Wi-Fi Connected



Ethernet connected when IP is shown

192.168.12.64



Wi-Fi Disconnected



Ethernet port is connected but Internet Down



Cellular is connected



Ethernet port is disabled from network settings



Cellular is disconnected



Restarting Ports



Port shut down due to AC disconnect or low battery (check port config. for details)



Restart profile status when a restart profile is getting executed



Custom connectivity restart profile -
Active



Custom connectivity restart profile -
Inactive

Info Tab

Under the info tab, you can find:

1. **Device Name:** A user friendly name for the Switch Always On device.
2. **Device Location:** Optional field to set the device geo location. This can be set to view all devices on the Switch Always On Web application overlaid on a map.
3. **MAC Address:** Switch Always On device unique mac address. The Switch Always On device has 2 mac addresses, one for Ethernet, and one for Wi-Fi. Only the Wi-Fi address is displayed.
4. **Serial Number:** Switch Always On device serial number.
5. **IP Address:** The device IP address (Web Only).
6. **Last Connect Time:** Time of most recent device connection to the Cloud (Web Only).
7. **Warranty Remaining:** The amount of time remaining on the warranty for the device (Web Only).
8. **Subscription End Date:** The current end date for the cloud subscription on the device.
9. **Subscription Remaining:** The amount of time remaining for the cloud subscription on the device.
10. **Firmware Version:** The firmware version of the current Switch Always On device.
11. **HW Version:** The hardware version of the current Switch Always On device.

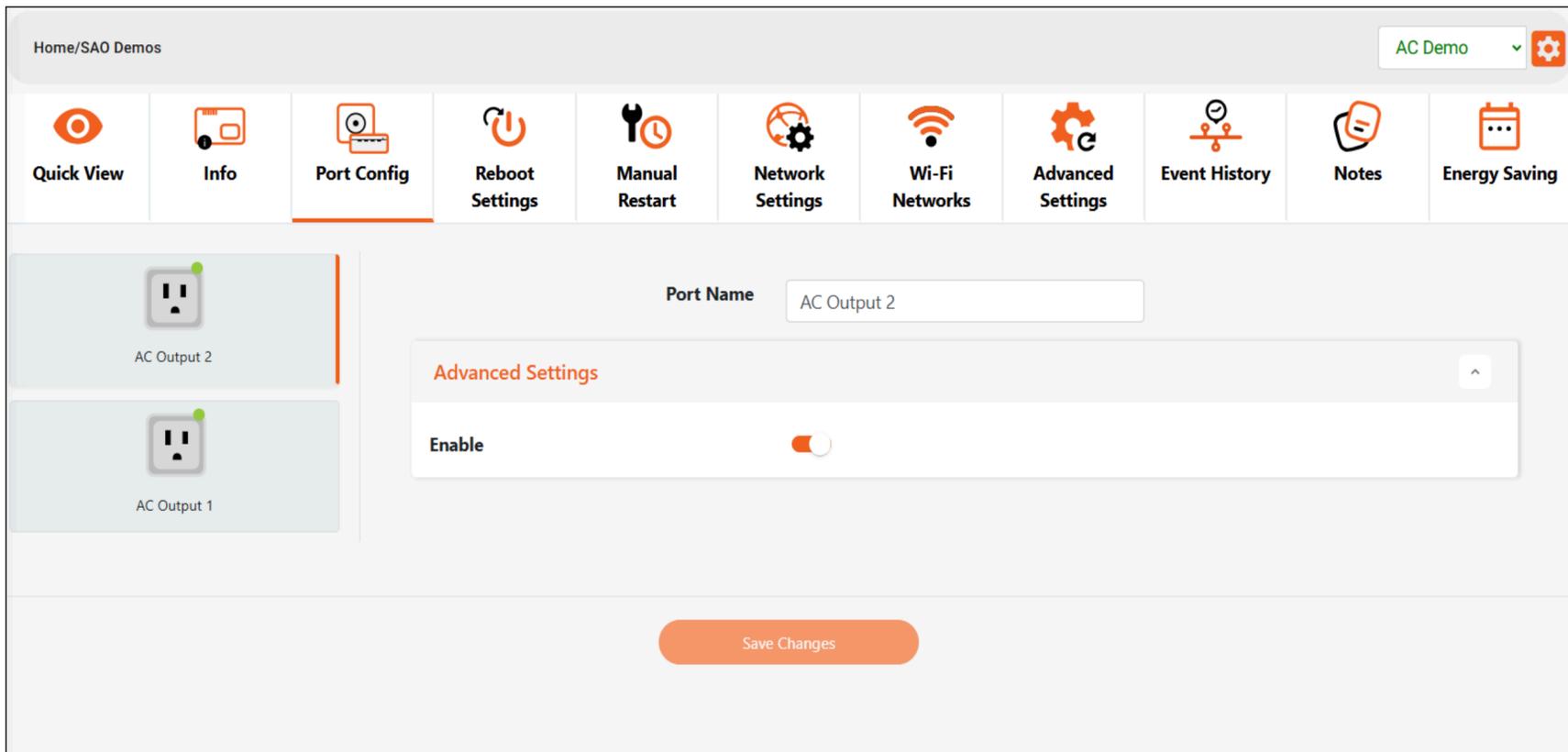
The screenshot shows the 'Info' tab in the Switch Always On web application. The top navigation bar includes 'Home/SAO Demos' and 'AC Demo' with a settings icon. Below the navigation bar is a menu with icons for 'Quick View', 'Info', 'Port Config', 'Reboot Settings', 'Manual Restart', 'Network Settings', 'Wi-Fi Networks', 'Advanced Settings', 'Event History', 'Notes', and 'Energy Saving'. The 'Info' tab is selected. The main content area displays the following information:

Device Name	AC Demo
Device Location	Change
MAC Address	c82e1879ef58
Serial Number	S020425000001
IP Address	172.56.75.66
Last Connect Time	09/09/2025 10:54:27 AM
Warranty Remaining	2 Year(s) 6 Month(s) 16 Day(s)
Subscription End Date	04/14/2030
Subscription Remaining	4 Year(s) 7 Month(s) 5 Day(s)

Below the information is a section for 'Advanced Settings' with a dropdown arrow. At the bottom of the page is a 'Save Changes' button.

Port Config. Tab

Under the port config. tab, you can find:



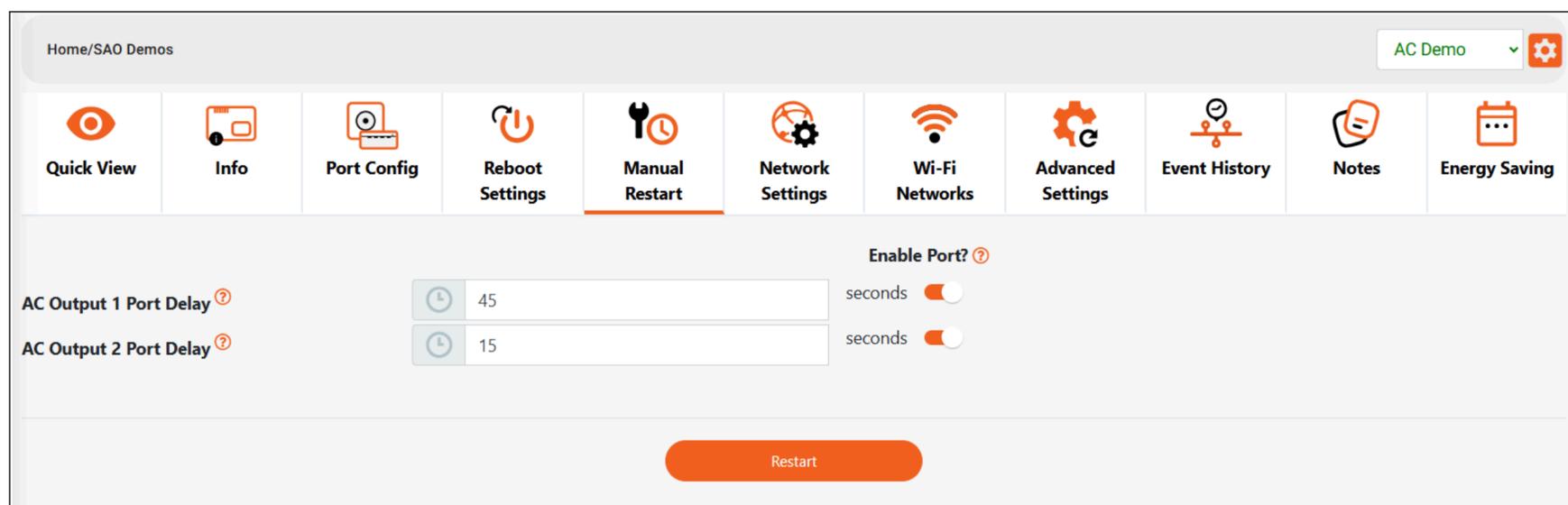
- **Port Name:** User assigned name of each port.
- **Enable:** Allows users to enable/disable AC Port.

Manual Restart Tab

Manual Restart is a way to do a forced (immediate) customized restart for the output ports. Additionally, power up sequencing may be required for some IT equipment. For example, turning on controllers and after 30 seconds connect/turn on APs. Also in some equipment, the power down needs to be more than a few seconds to ensure the equipment is off (internal equipment capacitance).

The Manual Restart functionality is enabled by two types of configurations: (1) What port(s) needs to be restarted and (2) the duration a port(s) is off before it is restarted. These two configurations cover power up sequencing and required shut down time.

As an example, the device plugged into AC Output 1 must connect to the device plugged into AC Output 2, the device on AC Output 1 needs to be powered up/connected 30 seconds after the device on AC Output 2 is powered up. The device on AC Output 2 needs to be off for 15 seconds for a complete restart. The full restart time for the device on AC Output 1 should take 45 seconds (15 seconds to ensure the device on AC Output 2 is Off and an additional 30 seconds after the device in AC Output 2 is on to connect the device in AC Output 1 to it).



The screenshot shows a web interface for configuring the Manual Restart functionality. The page title is "Home/SAO Demos" and the user is logged in as "AC Demo". The navigation menu includes: Quick View, Info, Port Config, Reboot Settings, Manual Restart (selected), Network Settings, Wi-Fi Networks, Advanced Settings, Event History, Notes, and Energy Saving.

The configuration section is titled "Manual Restart" and contains the following settings:

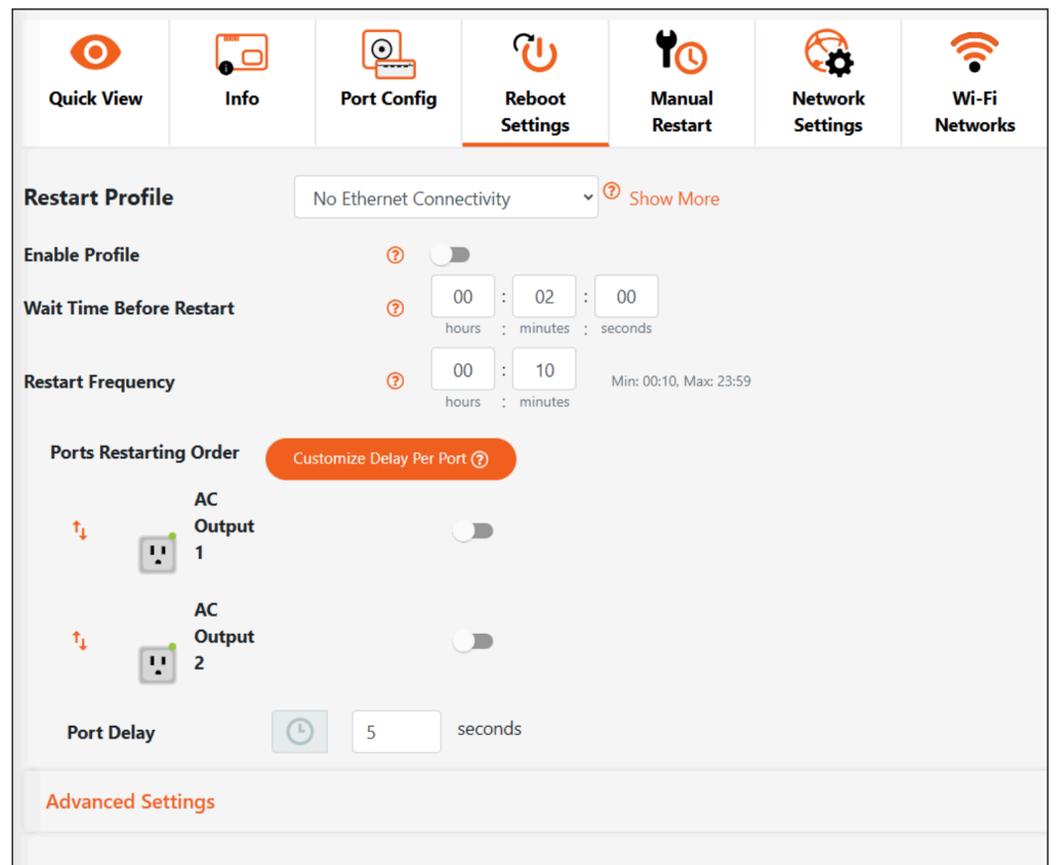
- AC Output 1 Port Delay**: 45 seconds
- AC Output 2 Port Delay**: 15 seconds
- Enable Port?**: A toggle switch that is currently turned on.

At the bottom of the configuration section, there is a large orange button labeled "Restart".

Reboot Settings Tab

Restart Profiles

Restart Profiles are located in the Reboot Settings tab and is a tool to run a customized restart automatically based on specific events. In case of more than one event happening around the same time, the Switch Always On device will run the profile triggered by the first detected event. Once the restart action is completed, it will run the other restart profiles if the triggering event condition is still persisting.



No Wi-Fi Connectivity

If Wi-Fi is enabled, the Switch Always On device can monitor the IT equipment, such as routers and Wi-Fi Access Points (APs), by connecting to it through Wi-Fi and verifying connectivity. It assumes the connectivity is active when it can connect to the AP using the provided Wi-Fi Access Password, receives an IP address through the IT equipment DHCP and can access Switch Always On Cloud via UDP messages (if Check End-to-End Connectivity is enabled). This profile monitors Wi-Fi connectivity and will trigger if the connection is interrupted.

- **Enable Profile:** To enable the auto restart functionality.
- **Wait Time Before Restart:** The wait period before the auto restart will run after the Wi-Fi connectivity is lost. The allowed value is between 1 minute and 24 hours.
- **Restart Frequency:** In case the Wi-Fi is not recovered after the first restart, how often should the auto restart be executed. The allowed value is between the minimum of 10 minutes and the maximum of port delays and up to 24 hours. It is important to note that the value has to be greater than (the max of the port delays + 1 minute).
- **Ports Restarting Order:** Enables the user to select which ports will be restarted and in the order they will be restarted if the restart profile is executed.

- **Port Delays:** Similar to Manual Restart.
- **Check End-to-End Connectivity:** When enabled, the Switch Always On device assumes the connectivity is good if and only if it can communicate with Switch Always On Cloud or (Smart Charging Technologies Cloud infrastructure) over UDP on port 24719. The reason for sending UDP packets is to detect the health of the network. If UDP packets can't reach the Cloud for more than 15 seconds, it means there are issues in the internal network and a restart would be recommended. This option is located in the Advanced Settings section.

No Ethernet Connectivity

If the Ethernet is enabled, the Switch Always On device can monitor the IT equipment such as routers, modems, APs, firewalls, load balancers, etc. by connecting to it through ethernet and verifying connectivity. It assumes the connectivity is active when it receives an IP address through the IT equipment DHCP and can access Switch Always On Cloud via UDP packets (if Check End-to-End Connectivity is enabled).

The following example has the Restart Frequency as 10 minutes and Wait Time Before Restart as one minute.



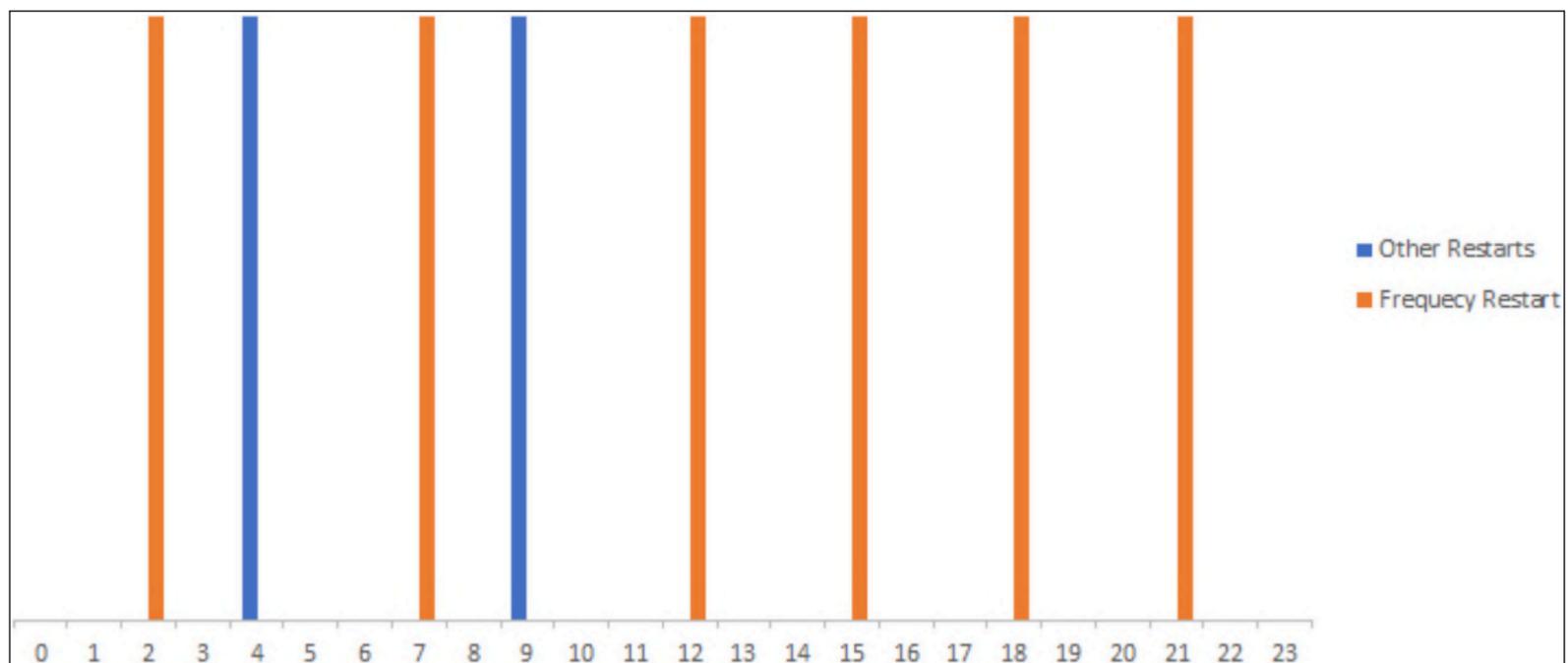
Total Power Loss

This Restart Profile is always enabled. It's triggered by having the Switch Always On device start after total power loss (AC was disconnected and backup battery was completely depleted).

- **Ports Restarting Order:** Enables the user to select which ports will be restarted and in the order they will be restarted if the restart profile is executed.
- **Port Delays:** Similar to Manual Restart.
- **If a port faults, execute "Total Power Loss" Restart Profile:** When enabled, if a port fault is detected (load short/failure), the Switch Always On device will execute the Total Power Loss Restart Profile.

Time Interval

The Switch Always On can restart on a specific interval. The allowed value of this interval ranges between 10 minutes to 24 hours. It is important to note that the value has to be greater than (the max of the port delays + 1 minute). The Time Interval restart profile will count from the last execution of ANY profile. The below example is for a device that is configured to restart every 3 hours, and has other Restarts in between which will delay the frequency restarts.



Day & Time

The Switch Always On device can do a restart on the exact Day and Time of the week needed. If the day and time occurs while the Switch Always On device is performing a restart caused by other events, the Day & Time restart will not take place.

- **Enable Profile:** To enable the auto restart functionality.
- **Time:** The time of day the profile will execute the restart.
- **Day of week:** The day(s) where the restart profile will get executed.
- **Ports Restarting Order:** Enables the user to select which ports will be restarted and in the order they will be restarted if the restart profile is executed.
- **Port Delays:** Similar to Manual Restart.

Custom Connectivity Check 1 & 2

If a network/web service endpoint can not be reached for more than a set period, a power cycle is repeated every set period until the host becomes accessible.

- **Enable Profile:** To enable the auto restart functionality. The Device Wi-Fi or Ethernet has to be enabled to enable this profile.
- **Wait Time Before Restart:** The wait period before the auto restart will run if there is no successful response from the selected IP protocol. The allowed value is between 1 minute and 24 hours.
- **Restart Frequency:** In case no successful response was received after the first restart, how often the auto restart should be executed is entered here. The allowed value is between the minimum of 10 minutes and the maximum of port delays and up to 24 hours. It is important to note that the value has to be greater than (the max of the port delays + 1 minute).
- **Ports Restarting Order:** Enables the user to select which ports will be restarted and in the order they will be restarted if the restart profile is executed.
- **Port Delays:** Similar to Manual Restart.
- **Disable when Wi-Fi and Ethernet are down:** This restart profile can be disabled when Wi-Fi and Ethernet are down.
- **Check Frequency:** How often the network check will be applied.

- **Check Method:** Choose a method (protocol) to check the accessibility of a host on the IP network. The methods (protocols) available are:
 - ICMP ECHO: performing a network ping to a specific endpoint to check reachability to it.
 - HTTP: Performing HTTP GET, the device can be configured to consider the endpoint reachable if any HTTP code response is received.
 - TCP: performing a TCP connection, if the endpoint accepts the handshake connection it's considered reachable, the device can be configured to connect to a specific port.
 - HTTP GET with 200 OK Response: Performing HTTP GET, the device can be configured to consider the endpoint reachable if the HTTP code 200 (OK) is received
 - SNTP: performing Simple Network Time Protocol on a specific endpoint to check reachability.
- **IP Address:** the endpoint IPV4 address or URL.

No Wi-Fi Available

If Wi-Fi is enabled, the Switch Always On device can monitor IT equipment, such as routers and access points, verifying the existence of the Wi-Fi network to which these devices are configured. Switch Always On will passively scan the available Wi-Fi networks verifying the existence of a network without the need to connect. The Switch Always On device supports 802.11 b / g / n. When enabled, this profile triggers when the monitored Wi-Fi network goes down.

By default, the Wi-Fi network monitored is the configured Wi-Fi network under Wi-Fi Network Settings. It's possible to monitor a different network by checking the option "Use a different network than the default".

Use a different network than the default	?	<input checked="" type="checkbox"/>
SSID	?	<input type="text" value="guest_network"/>
BSSID	?	<input type="text"/>

As a common use case, when the Switch Always On device powers two APs, one for Guest and another for Business, the Switch Always On device can be configured to connect to the critical network (Business), however it can monitor the Guest Network if it stops.

- **Enable Profile:** To enable the auto restart functionality.
- **Wait Time Before Restart:** The wait period before the auto restart will run after the monitored Wi-Fi network has failed the probe request. The allowed value is between 2 minutes and 24 hours.
- **Restart Frequency:** In case the Wi-Fi is not recovered after the first restart, how often the auto restart should be executed is entered here. The allowed value is between the minimum of 10 minutes and max port delay up to 24 hours. It is important to note that the value has to be greater than (the max of the port delays + 1 minute).
- **Ports Restarting Order:** Enables the user to select which ports will be restarted and in the order they will be restarted if the restart profile is executed.
- **Port Delays:** similar to Manual Restart.
- **Use a different network than the default:** When enabled, Switch Always On will monitor the Wi-Fi network configured.
- **SSID:** User defined network name (Service Set Identifier)
- **BSSID:** (Optional) In case the same network name (SSID) for other access points are available, BSSID (Basic service set identifiers) can be set to let Switch Always On monitor that specific AP.

Network Settings Tab

Check Frequency

This function selects the frequency of how often the device connects to the web server and checks for updates. This is useful for devices that are connected to a network with a limited data package or on a metered network. Slowing down the check frequency will reduce the amount of data used on a metered network. The four options to choose from here are Continuous, Fast (within 1 minute), Medium (within 5 minutes), and Slow (within 10 minutes). Be aware, when continuous is not selected all interactions with the device will be delayed.

Setup Network SSID

The Switch Always On Setup Network name (SSID) is displayed here. In case the setup network is “on” and the setup is completed, turn off the setup network by pushing the access button for 25 seconds.

Enable Ethernet

Ethernet connection will be enabled by default, if the Switch Always On doesn't need to access the Ethernet Network it can be disabled. The toggle to disable the Ethernet is located within Advanced Settings.

IP Settings

Usually a device obtains IP addresses from router/Access Point using the DHCP protocol. A Switch Always On device user can also assign the device a fixed IP address (Static IP).

- **Ethernet IP Assignment:** After clicking the **Edit** button, select the **Manual** IP assignment method from the drop down list. The user also needs to specify the following static IP Address, the Netmask, and the Gateway.
 - **IP Address:** the static IP address.
 - **Netmask:** the local network mask.
 - **Gateway:** the static IP address.

Additional notes:

- Ethernet IP Assignment is available if:
 - The Switch Always On device is connected and online.
 - The Enable Ethernet toggle is *on*, and the user has write access to it.
- The values of the IP Address, Netmask, and Gateway are subject to applicable validation rules.
- Upon saving the above fields, a device restart is required for the changes to take effect.

Wi-Fi Networks Tab

Enable Wi-Fi

Wi-Fi connection will be enabled by default, if the Switch Always On doesn't need to access the Wi-Fi Network it can be disabled.

Available Networks

Scan available Wi-Fi networks. A list of available networks will be listed by order of signal strength.

Wireless Network Name

The wireless network name, or SSID (Service Set Identifier), that the Switch Always On device connects to.

Password

The wireless network password the Switch Always On device connects to. In case of an open network, leave this field empty.

Wi-Fi Access BSSID (Optional)

If the same wireless network name (SSID) is used by other access points, a BSSID (Basic Service Set Identifiers) can be set to allow the Switch Always On device to connect to a specific AP.

IP Settings

Usually a device obtains IP addresses from router/Access Point using the DHCP protocol. A Switch Always On device user can also assign the device a fixed IP address (Static IP).

- **IP Assignment:** After clicking the **Edit** button, select the **Manual** IP assignment method from the drop down list. The user also needs to specify the following static IP Address, the Netmask, and the Gateway.
 - **IP Address:** the static IP address.
 - **Netmask:** the local network mask.
 - **Gateway:** the local network gateway IP address.

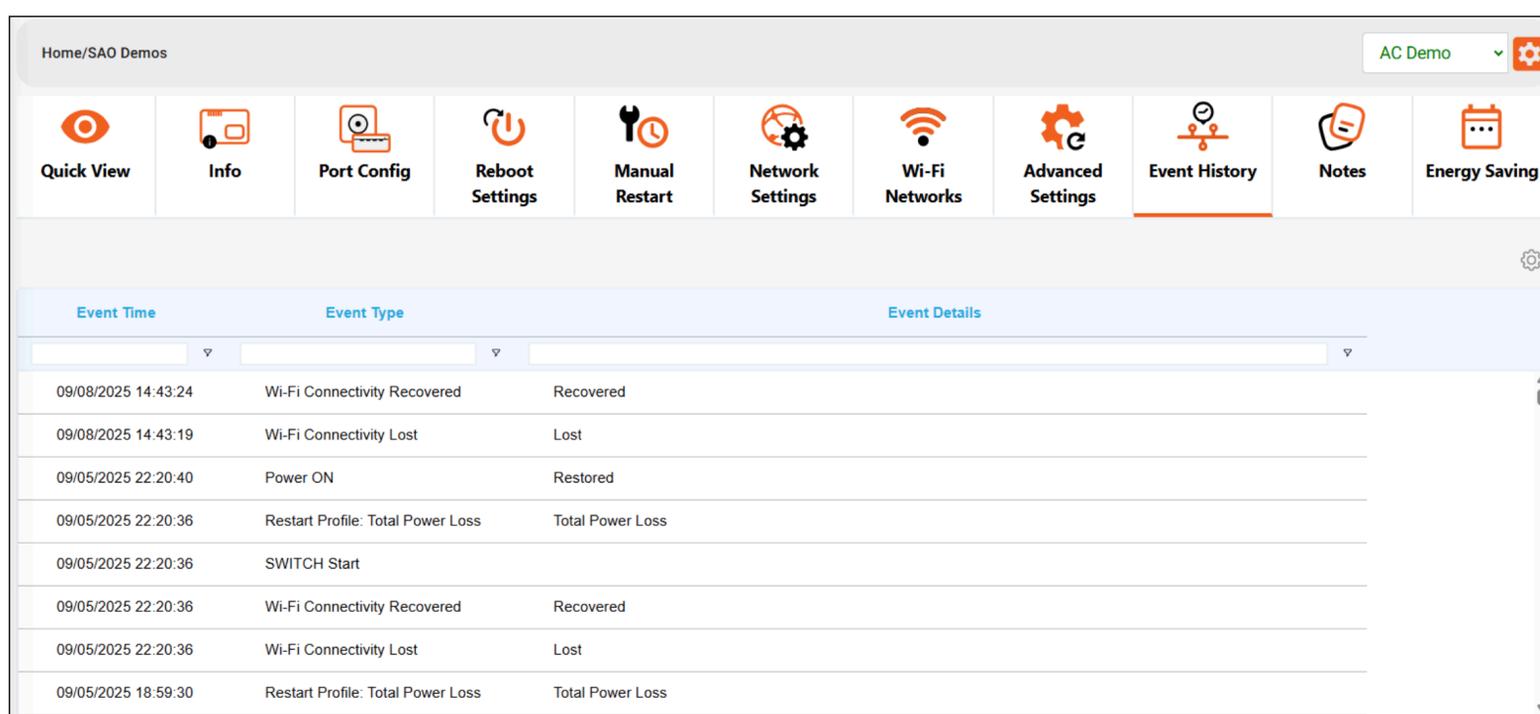
Additional notes:

- IP Assignment is available if
 - The Switch Always On device is connected and online.
 - The Enable Wi-Fi toggle is *on*, and the user has write access to it.
- The values of the IP Address, Netmask, and Gateway are subject to applicable validation rules.
- Upon saving the above fields, a device restart is required for the changes to take effect.
- In case the user changed the Wi-Fi network (new network SSID, or BSSID), and the IP Assignment was Manual, i.e. Static IP:
 - The IP Assignment is reset to Automatic (DHCP).
 - The user is offered to change the IP Assignment to Manual and restart the device.

Event History Tab

Lists all events for a Switch Always On device. The history events include:

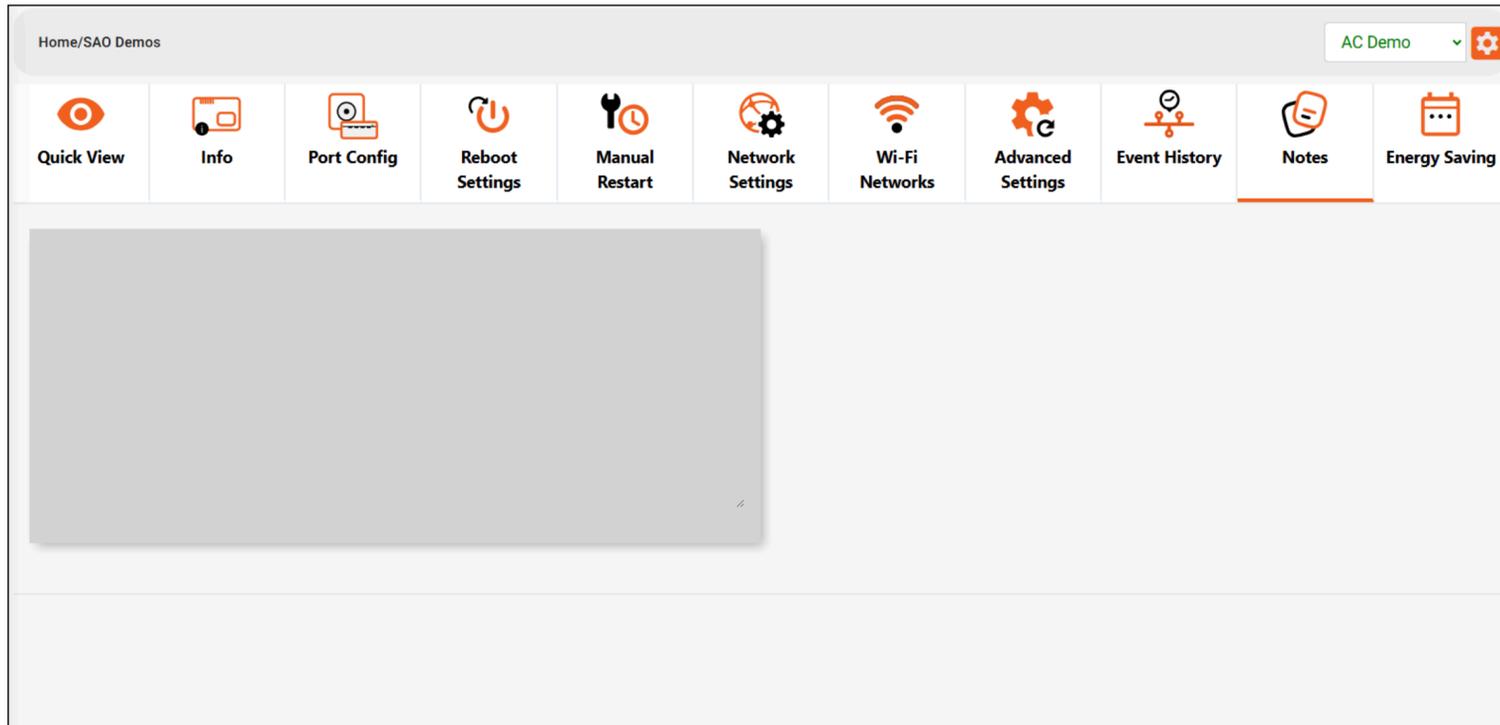
- **System Start:** Indicates that the Switch Always On device starts monitoring. This happens after a restart action, firmware update, full power loss and recovery, and factory reset.
- **Port Start:** Indicates a Restart Profile has been executed.
- **Port On/Off:** Indicates a port has been turned On or Off. This happens when the ports have manually been turned On or Off, or if a port has been turned Off due to a Restart Profile event.
- **Connectivity Status:** Indicates if both Wi-Fi and Ethernet connection has been lost or recovered access to the server.
- **AC Status:** Indicates if AC has been interrupted or recovered.
- **Port Fault:** Indicates if one of the ports has shorted/failed.
- **Restart Device:** Indicates that the Switch Always On device was restarted without running the Total Power Loss Restart Profile.
- **Factory Reset:** Reset Switch Always On device to the factory settings.
- **Restart All:** Indicates that a full power cycle of the Switch Always On device was executed, with port sequencing preferences set in the Total Power Loss Restart Profile.
- **Battery Drop:**
 - **Detected:** Indicates that the Switch Always On device backup battery went below ~20% of its capacity.
 - **Recovered:** Indicates that the Switch Always On device backup battery went above ~20% of its capacity.



Event Time	Event Type	Event Details
09/08/2025 14:43:24	Wi-Fi Connectivity Recovered	Recovered
09/08/2025 14:43:19	Wi-Fi Connectivity Lost	Lost
09/05/2025 22:20:40	Power ON	Restored
09/05/2025 22:20:36	Restart Profile: Total Power Loss	Total Power Loss
09/05/2025 22:20:36	SWITCH Start	
09/05/2025 22:20:36	Wi-Fi Connectivity Recovered	Recovered
09/05/2025 22:20:36	Wi-Fi Connectivity Lost	Lost
09/05/2025 18:59:30	Restart Profile: Total Power Loss	Total Power Loss

Notes Tab

User notes can be added on each device through the Mobile and Web Applications.



Energy Saving Tab

A schedule can be created for the Switch Always On device to perform a restart(s) on a specific day(s) of the week. Unlike the Day & Time restart profile, this function allows the user to schedule multiple recurring restarts throughout the week that can last longer than the Day & Time restart profile will allow. Up to 10 windows can be created and active at one time.

The screenshot shows the 'Energy Saving' tab in the web management console. The interface includes a navigation menu with icons for Quick View, Info, Port Config, Reboot Settings, Manual Restart, Network Settings, Wi-Fi Networks, Advanced Settings, Event History, Notes, and Energy Saving. The main configuration area has a table with columns for Window Start, Duration, Days, Ports Disabled in Window, and Actions. The 'Window Start' column contains input fields for HH, MM, and AM. The 'Duration' column contains input fields for HH and MM. The 'Days' column contains a dropdown menu. The 'Ports Disabled in Window' column contains a dropdown menu. The 'Actions' column contains a 'Delete' button. There is an 'Add Window' button below the table and a 'Save Changes' button at the bottom of the page.

Window Start

Using a 12hr format, the exact time for which the Switch Always On device will begin the restart is entered here.

Duration

Up to 24 hours at a time, the length of time the selected ports will remain disabled before turning back ON.

Days

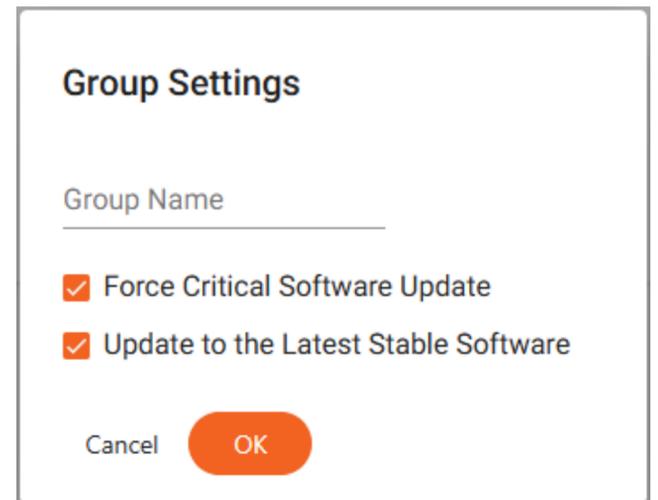
The desired days of the week that the restart is to take place. One to all 7 days of the week can be selected from the drop down menu for a single window.

Ports Disabled in Window

The desired ports to be disabled during the selected window. One to all of the outputs can be selected from the drop down menu to restart during the window.

Update Firmware

The Switch Always On team is always adding new features, enhancing and fixing bugs. If the Switch Always On device is connected to the Switch Always On Cloud, the firmware updates will automatically be offered once after login to the device owner or to a user with proper shared permission to be applied to the device once they become available. The user may choose to Force a Critical Software Update or Update to the Latest Stable Software for an entire group of devices.



However, if the user is eager to get the new features or the Switch Always On device is used only for offline application, the latest software version can be obtained by selecting Update Firmware to the Latest Stable Software. If the button is not visible, it means that either the user doesn't have the latest Mobile App version or the Switch Always On device does have the latest software version already.

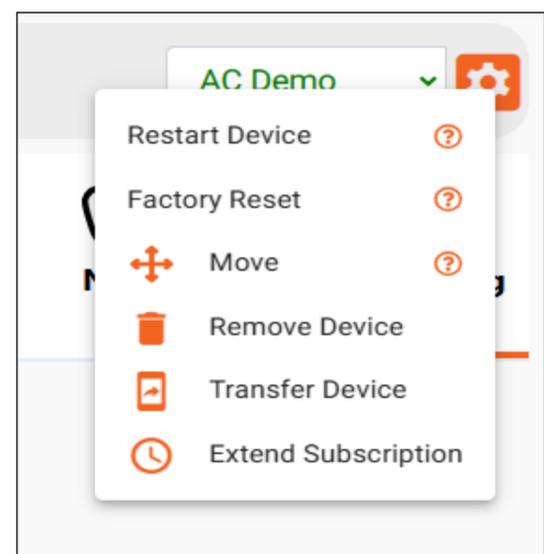
Restart Device

Triggers a full power cycle of the Switch Always On device without any port sequencing preferences.

Factory Reset

Triggers a full reset of the Switch Always On device to the factory settings.

Note: In the Web Application, restart actions are located on the device gear option next to device name.

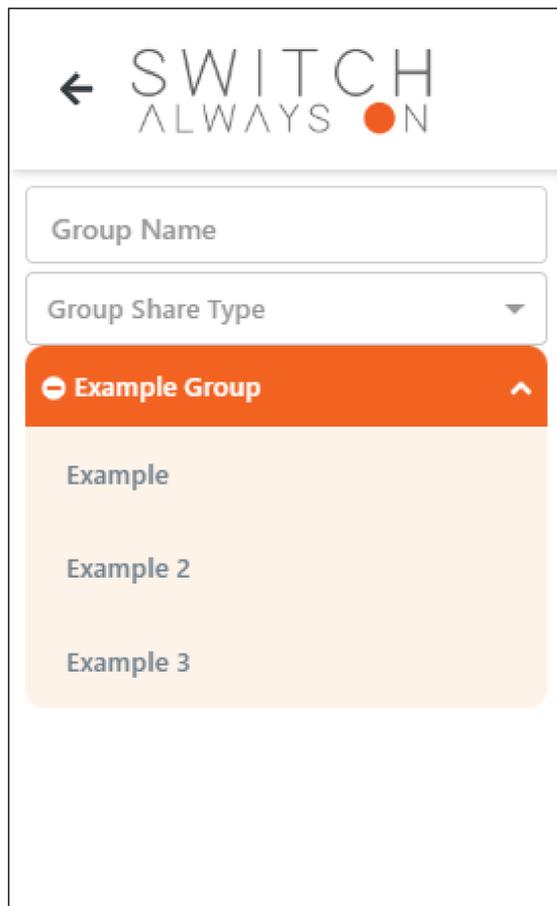


Update Password

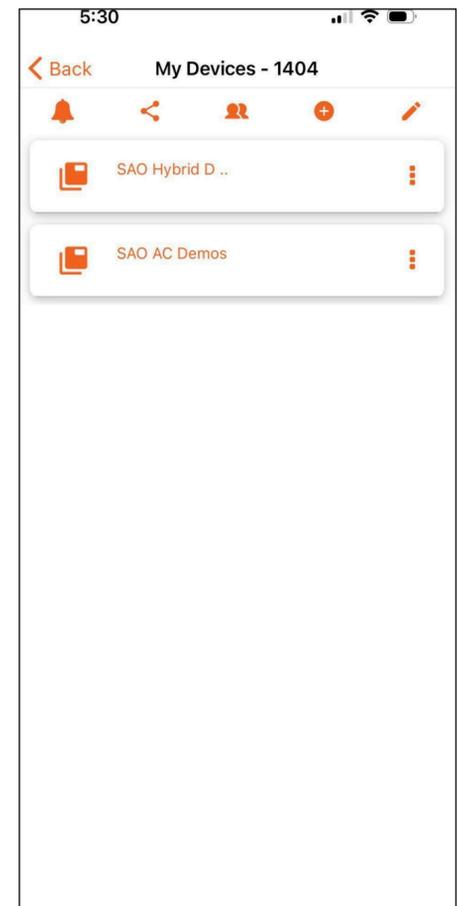
The Switch Always On device can be protected with a password to prevent unauthorized access. Even though Switch Always On and its cloud communication software are secured with various encryption mechanisms, any user using the same network as the Switch Always On device can access it. It's highly recommended to set up a device password to prevent unauthorized access. The option to update the device password is found under the **Advanced Settings tab** on the tab bar.

Device Lists & Groups

The main dashboard page contains the user home group and any groups shared with the user.



Web View



Mobile App

Group Management

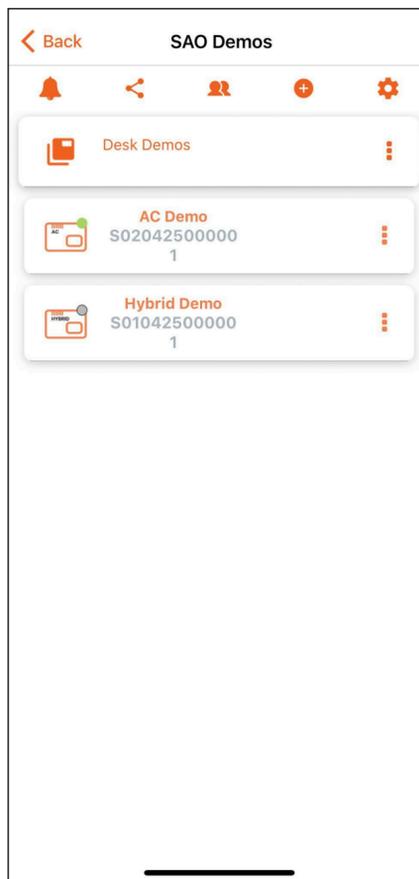
The user can manage Switch Always On devices in Groups. Groups are like desktop folders where other folders and files can be created. Switch Always On folders are called Groups and files are the Switch Always On devices.

Groups can be added, moved, renamed, deleted, removed/rejected, viewed on a map, have specific notification settings, and shared with other users.

The Group Management capability makes the Switch Always On device and application ideal for managing Switch Always On devices on remote sites. A hierarchy of remote sites can be mapped and grouped into regions, where each region has multiple sites, each site has multiple Switch Always On devices, and each device provides the Smart UPS capability to IT Equipment. Assuming the presence of a Network Operation Center (NOC), the application allows you to monitor, manage, and control AC power, provided to IT equipment at remote sites, from the NOC.

Group Operations

Group Operations Selections can be found in one easy location from both the web and mobile app view. From the web view, this selection is to the right of the Group path panel, affecting specific group(s) in a selected path. The selection on the mobile view is found by selecting the options at the top of the screen below the group name, and by the three dots adjacent to the device name, to the right, affecting that particular device.

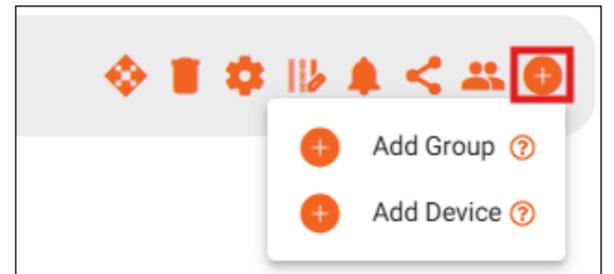


Operations Accessible on the Group Tool Bar:

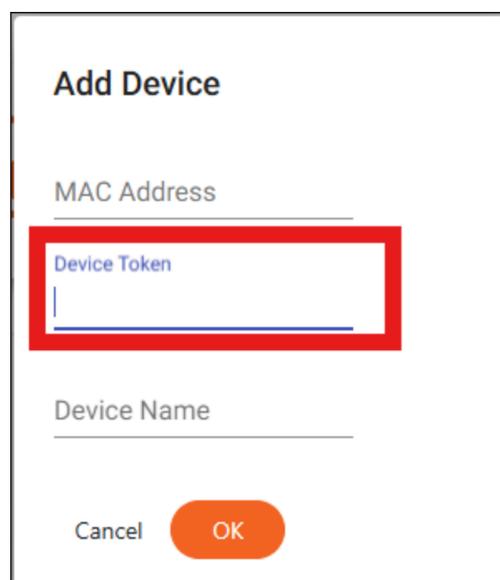
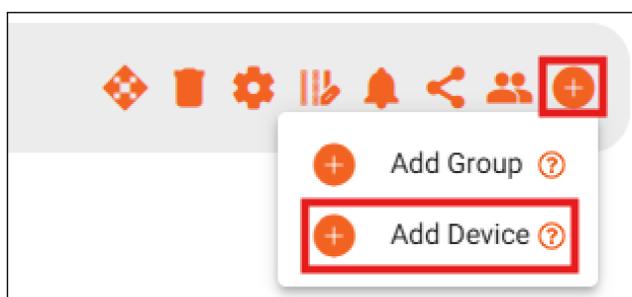
- **Move:** The user can move a group for organizing purposes, unless it is the Home Group. A top-level shared group cannot be moved, however, its shared subgroups can be moved if access permissions allow it. A "Move" is allowed provided that the resulting number of nested group levels does not exceed three.
- **Delete:** The user can delete a group, unless it is the home group. If it is a shared group, the user can delete it if access permissions allow it.
- **Multi Device Updates:** Allows users to enable notifications triggered by selected events if user permissions allow it. These settings are applicable to all Switch Always On devices within this group & its subgroups.
- **Rename:** The user can rename the Group. If it is a shared group, the user can rename it if access permissions allow it. Renaming a group or a subgroup to the name "My Devices" is not allowed; the name is reserved for application use.

Operations by a Specified Group Path:

- **Add Group:** The user can add a new group or add a new device. If the user has access permissions to allow it.



- **Add Device:** There are two ways to add a device. One, from the Mobile App using the Quick Setup procedure, which is highly recommended, and the other being the Add Device operation in the Web App. In this case, the user gets the MAC Address and the Device Token printed on the Switch Always On device label and enters them manually.

A screenshot of the 'Add Device' form in the mobile application. The form has a title 'Add Device' and three input fields: 'MAC Address', 'Device Token', and 'Device Name'. The 'Device Token' field is highlighted with a red rectangular box. At the bottom of the form, there are two buttons: 'Cancel' and 'OK'.

- **Share Group:** To share a Group with a user, the email address used to register the account that the user the profile is being shared with is required. If the user is not registered, an email invitation will be sent.



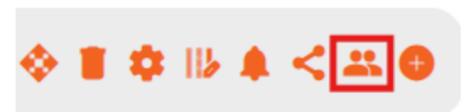
Also, to share a group with a user, the resulting number of groups that user has access to can not exceed 100 groups.

There are 4 types of Group Sharing: Limited, Basic, Advanced, Full. The following matrix defines the permissions of each type.

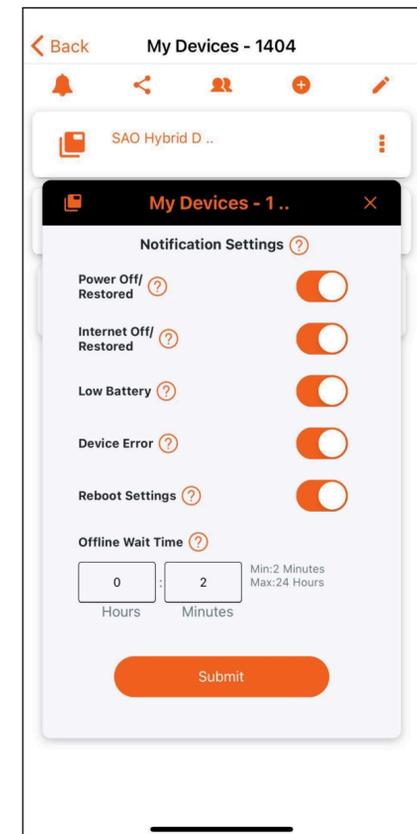
Group Sharing Type	Info	Quick View	View device settings	edit Wi-Fi Networks	Receive notifications	Configure Group notifications	Add devices	Move-out device	Add/delete groups	Edit device settings, except PWD	Update Firmware	Edit PWD	Perform all actions	Remove Group owner
Limited	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Basic	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
Full	<input checked="" type="checkbox"/>													

- **View & Edit Shared Users:** By clicking on the “View and Edit Shared Users” icon, the user will be able to remove users who have been shared with previously or edit the type of sharing.

Note: When sharing with non-registered users, the invitee email address will be shown without the ability to change permissions until the user registers.



- **Notification Settings:** The Group's Notification Settings allow the user to customize their notifications for that specific group and any child group and devices it contains. The group Notification Settings along with user Notification Settings will control what notifications will be received. Check user Notification Settings for more details.

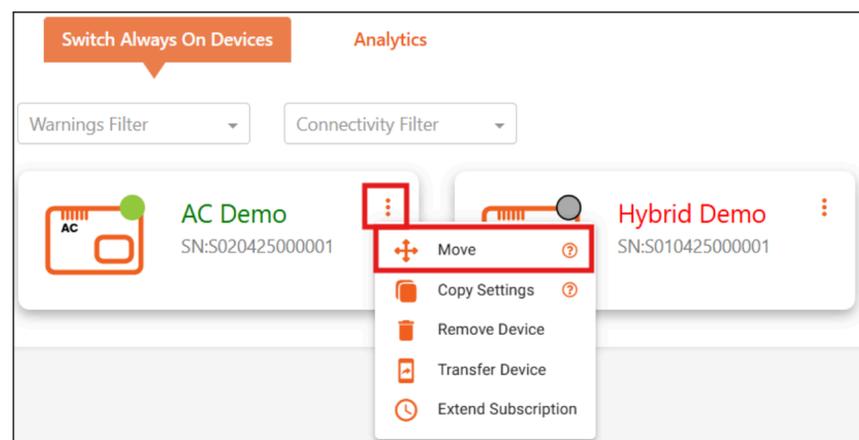


Device Operations

The operations that can be used to manage devices in the Switch Always On Cloud are as follows:

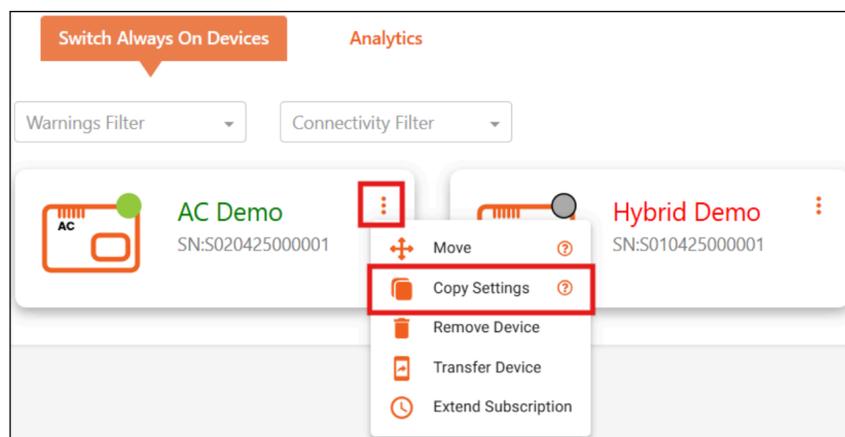
Move Devices Between Groups

The user can Move Devices between Groups or Shared Groups (if assigned Group Share type allows it).

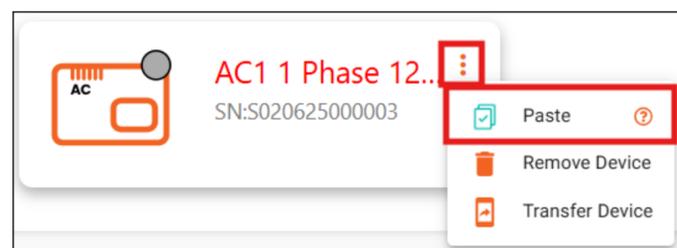


Copy Settings

This operation allows the user to copy one device setting to another device, in case there are multiple devices.



To paste the settings, click on the 3 dots (⋮) on the target device:



The following Device Settings will be copied:

- Device Password
- Wi-Fi Network
- Restart Profiles
- Port Configuration
- Enable/Disable Wi-Fi and Ethernet

Search Group & Devices by Name

This operation allows the user to search for groups and devices by name. In case there is a large number of items resulting from the search, the result is broken into multiple pages, with a limit of 20 items per page. The user can move back and forth between the resulting pages.

Service

Customers may return their defective unit to Smart Charging Technologies LLC (SCT) for repair or replacement during the standard 1-year warranty period. SCT's standard procedure will be to repair the original unit or replace it with a factory-reconditioned unit. Customers who must have the original unit back due to assigned asset tags and set depreciation schedules must declare such a need at first contact with SCT. SCT will ship out a replacement unit once the defective unit has been received by the repair department. The customer pays for the shipping to SCT; SCT covers ground freight transportation costs back to the customer.

If the Switch Always On unit requires service, the following steps should be taken.

1. Consult the Troubleshooting section to eliminate common problems.
2. If the problem persists, contact SCT and prepare to provide the following: the model number of the unit, the serial number, and the date purchased.
 - Be ready to troubleshoot the problem over the telephone with a technician. If this is not successful, the technician will issue a Return Merchandise Authorization Number (RMA#) and a shipping address.
 - If the Switch Always On unit is under warranty, repairs are free. If not, the user will be charged for the repair.
3. Pack the Switch Always On unit in its original packaging. If the original packaging is not available, ask customer service about obtaining a new package set. Pack the Switch Always On unit properly to avoid damage in transit.

Note: Never use Styrofoam™ beads for packaging. Damage sustained in transit is not covered under warranty (ensuring the package for full value is recommended).

1. Write the RMA# on the outside of the package.
2. Return the Switch Always On unit by an insured, prepaid carrier to the address given to you by customer service.

Smart Charging Technologies LLC Limited Warranty

Smart Charging Technologies LLC (SCT) warrants the Switch Always On unit, when properly used and operated within specified conditions, against faulty materials or workmanship for a period of 1-year from the date of purchase. SCT further warrants internal Li-Ion batteries for a period of

1-year from the date of purchase. The warranty covers repair or replacement of the unit at the sole discretion of SCT. The customer is responsible for shipping costs associated with the defective product to SCT while SCT will pay for ground shipment of the repaired or replacement unit. This warranty applies only to the original purchaser.

This warranty shall be void if (a) the Switch Always On unit is repaired or modified by anyone other than SCT; or (b) the Switch Always On unit is damaged by the customer, subjected to adverse operating conditions, operated outside the electrical specification limits, or improperly used or stored (i.e. the unit has been used or stored in a manner contrary to the equipment's operating manual intended use or other written instructions).

EXCEPT AS STATED ABOVE, IN NO EVENT SHALL SCT BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF SCT EQUIPMENT, including but not limited to, any costs, lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, cost of substitutes, or claims by third parties. Purchaser's sole and exclusive remedy for breach of any warranty, expressed or implied, concerning SCT equipment, and the only obligation of SCT under this warranty, shall be the repair or replacement of defective Switch Always On unit, components, or parts; or, at SCT's sole discretion, refund of the purchase price.