



COOLAUTOMATION
THE INTERNET OF CLIMATE (IoC)

Control App

User Manual

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Revision History

Version Number	Date	Author/Owner	Description of Change
1.0	Aug-09-21	Mosh Almog	Preliminary Control App User Manual

Acronyms and Abbreviations

Acronym	Literal Translation
HVAC	Heating Ventilation and Air Conditioning
MAC	Media Access Control
VRV	Variable Refrigerant Volume
VRF	Variable Refrigerant Flow

1 About the Control App

The Control App is a monitoring and control application for VRV/VRF, split, multi-split and mini-split air conditioning systems.

The Control App makes your air conditioning system more accessible and easier to use from any device via the Internet*.

The Control App connects to the HVAC system via CoolAutomation devices (CoolMasterNet, CloudBox, CoolPlug & CooLinkHub, or CooLinkBridge gateways).

The Control App includes the following features:

- Monitor and control HVAC (air conditioning) units
- Bi-directional access to HVAC internal communication lines
- Full control of indoor unit operations
- On/Off control (individual or all units)
- Set temperature and room temperature data
- HVAC operation mode selection (Cool / Heat / Fan / Dry / Auto)
- Fan speed control
- Louver position control
- Easy-to-use scheduling function
- Diagnostic display and real-time manufacturer error notifications with fault codes
- Plug-and-Play installation and configuration
- Support for splits, multi-splits, mini-splits, ducted, VRV and VRF HVAC system types

Compatible with the following HVAC system manufacturers: **

- | | |
|---------------------|-------------------------------|
| ▪ Chigo | ▪ Midea |
| ▪ Daikin | ▪ Mitsubishi Electric (MELCO) |
| ▪ Fujitsu (General) | ▪ Mitsubishi Heavy |
| ▪ Gree | ▪ Panasonic |
| ▪ Haier | ▪ Samsung |
| ▪ Hitachi | ▪ Sanyo |
| ▪ Intensity | ▪ Toshiba |
| ▪ Kentatsu | ▪ Trane |
| ▪ LG | ▪ York |

- Each user can manage multiple sites
- Each user can manage multiple devices per site

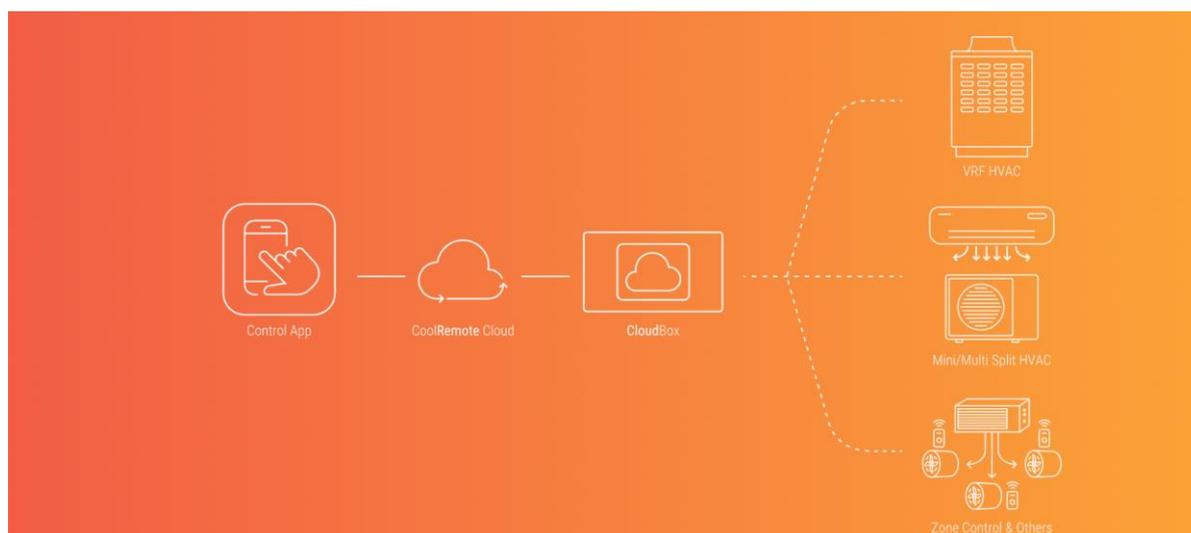
NOTES:

* Requires: CoolMasterNet**, CoolPlug & CooLinkHub** or CooLinkBridge with Internet access for operation.

** For additional information and compatibility contact us at: support@coolautomation.com



2 How the Control App Works



Control App

The Control App is a web-based air conditioner remote app designed to work with CoolMasterNet, CoolPlug & CoolLinkHub, CoolLinkNet gateway solutions and is compatible with any VRF and leading split air conditioning systems.

HVAC Gateways (CoolMasterNet, CoolPlug & CoolLinkHub, CoolLinkBridge)

CoolAutomation hardware communication bridges allow VRF/VRV, split, multi-split, heating, ventilation, and air conditioning system connectivity. The devices enable integration to our cloud-based control software: The Control App.

Internet Connection

After registering your CoolAutomation devices, you can connect and control your air conditioning systems via a smartphone, tablet, or desktop computer. Control is available for iOS, Android, and Windows-based devices.

HVAC System

Inverter-based air conditioners such as VRF/VRV, split and multi-split pose different technological challenges when it comes to connecting to the Internet. CoolAutomation can easily help overcome that challenge. All you need is to select a compatible gateway from our product selection, install it and you are all set!

3 Prior to registering the Control App

First time registration of the Control App requires that you have at least one active CoolAutomation device connected to the Internet, and it should be connected to an HVAC system on its HVAC side.

3.1 Install CoolMasterNet

Follow the instructions provided in the [CoolMasterNet Quick Installation Guide](#).

Connect CoolMasterNet to the Internet via a router.

When the Internet is connected, the **CoolMasterNet** automatically connects to the **CoolRemote** cloud service. Make sure the cloud icon, located at the bottom right-hand corner of the LCD, is colored white. If so, the CoolMasterNet is connected to the Internet.

3.2 Install CoolPlug & CoolLinkHub

Follow the instructions provided in the [CoolPlug & CoolLinkHub Quick Installation Guide](#).

Connect the CoolPlug & CoolLinkHub to the Internet via a router.

When the Internet is connected, the **CoolLinkHub** automatically connects to the **CoolRemote** cloud service. Make sure the cloud icon, located at the upper left-hand corner, is displayed on the screen and there is a line between the two squares. If so, the CoolLinkHub is connected to the Internet.

3.3 Download the Control App from the iOS/Android Store

Prior to registering your Control App account, the Control App must be installed on your phone or opened on the website via the Internet.

To download the Control App:

For iOS: <https://apps.apple.com/us/app/ioccontrol/id1492865391#?platform=iphone>

For Android: <https://play.google.com/store/apps/details?id=com.coolautomation.ioccontrol>

To access from a web browser: <https://control.coolremote.net/>

4 Registration of the Control App

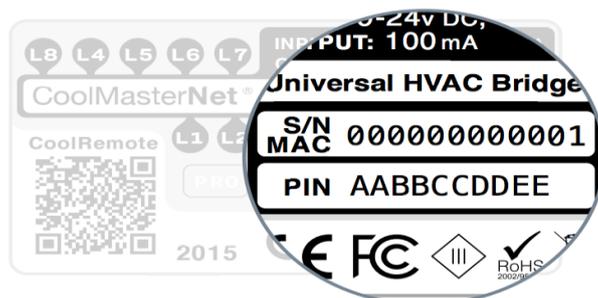
Control App registration consists of the following three steps:

1. Register the CoolAutomation device
2. Create a User account
3. Register your site and add the new device to it

4.1 Register the CoolAutomation device

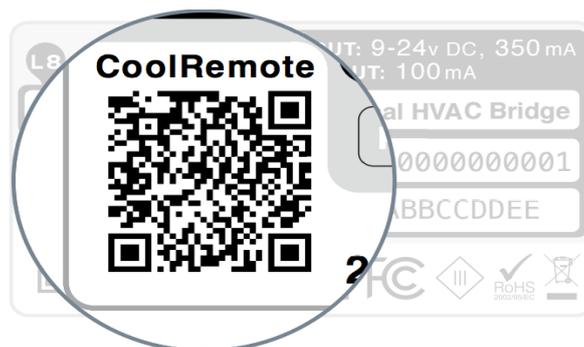
Before you start: Make sure that the CoolAutomation device is properly connected to the Internet.

1. Locate, on the back of the device, the identification label with the product SN and PIN.

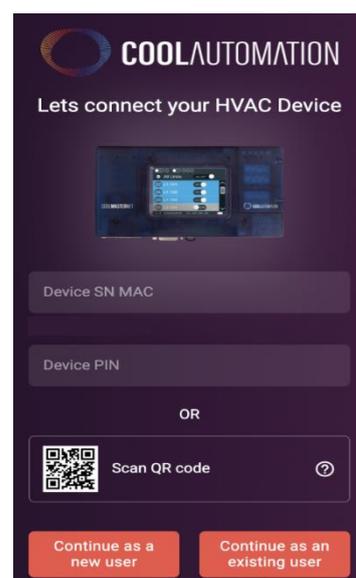


2. Scan the QR code on the identification label. The Control application automatically fills-in all the necessary CoolMasterNet details.

NOTE: If you are not able to scan the QR, go to <https://control.coolremote.net/device-registration> and manually type-in the MAC/SN and PIN numbers from the identification label into the corresponding Control application registration fields.

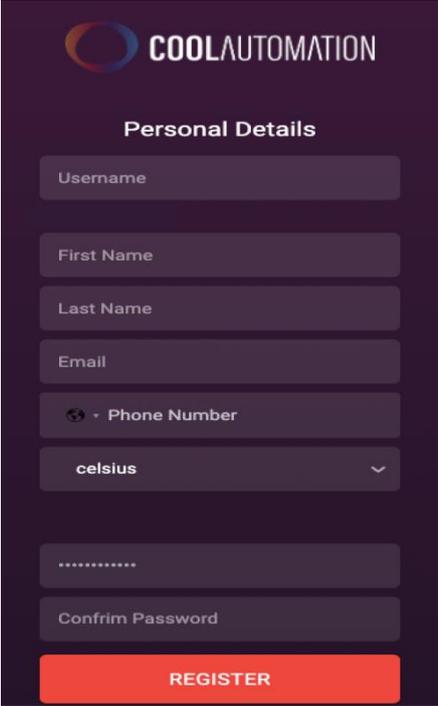


3. Make sure the SN and the security PIN code are correctly entered (after scanning the QR code).
4. Click either the **Continue as an existing user** button (for adding the device to an existing customer account) or **Continue as a new user** button (for creating a new Customer account and adding the new device to the new account).
5. Proceed to the next step if you are a new user (Register your user account).



4.2 Create a New User Account

1. Fill in First Name and Last Name
2. Enter a valid email address (uses the account username)
3. Enter your phone number
4. Select Celsius/Fahrenheit
5. Enter a password and confirm it
6. Click the REGISTER button to proceed to the next step (Register your Location)



COOLAUTOMATION

Personal Details

Username

First Name

Last Name

Email

Phone Number

celsius

Confirm Password

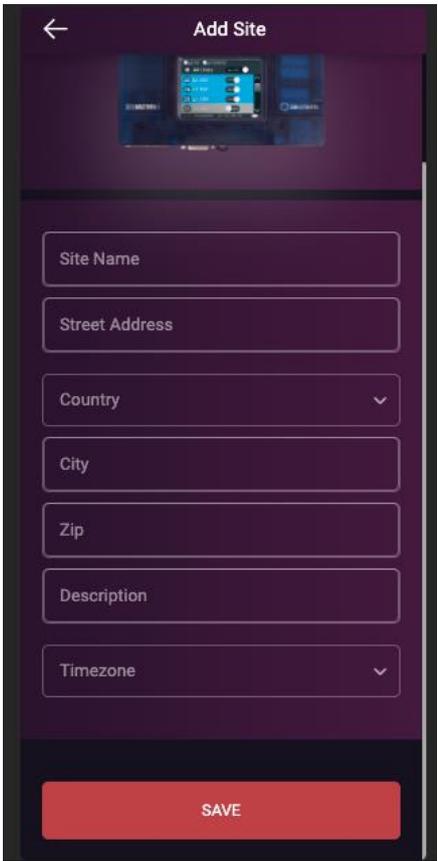
REGISTER

4.3 Create a New Site

Site details will be helpful for navigating in the app and for better understanding of the system operational conditions for saving energy in the future.

Note: The “Time Zone” setting is required for proper operation of the scheduling function.

- Click the Save button to automatically login and start using the application



← Add Site

Site Name

Street Address

Country

City

Zip

Description

Timezone

SAVE

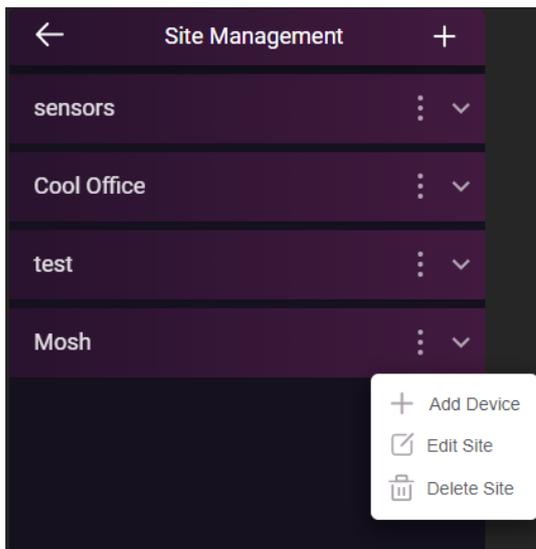
4.4 Add a CoolAutomation Device through the App Menu

Option 1: Scan the QR Code and select “**Continue as an existing user**”

The Control application automatically fills-in all the necessary CoolMasterNet details.

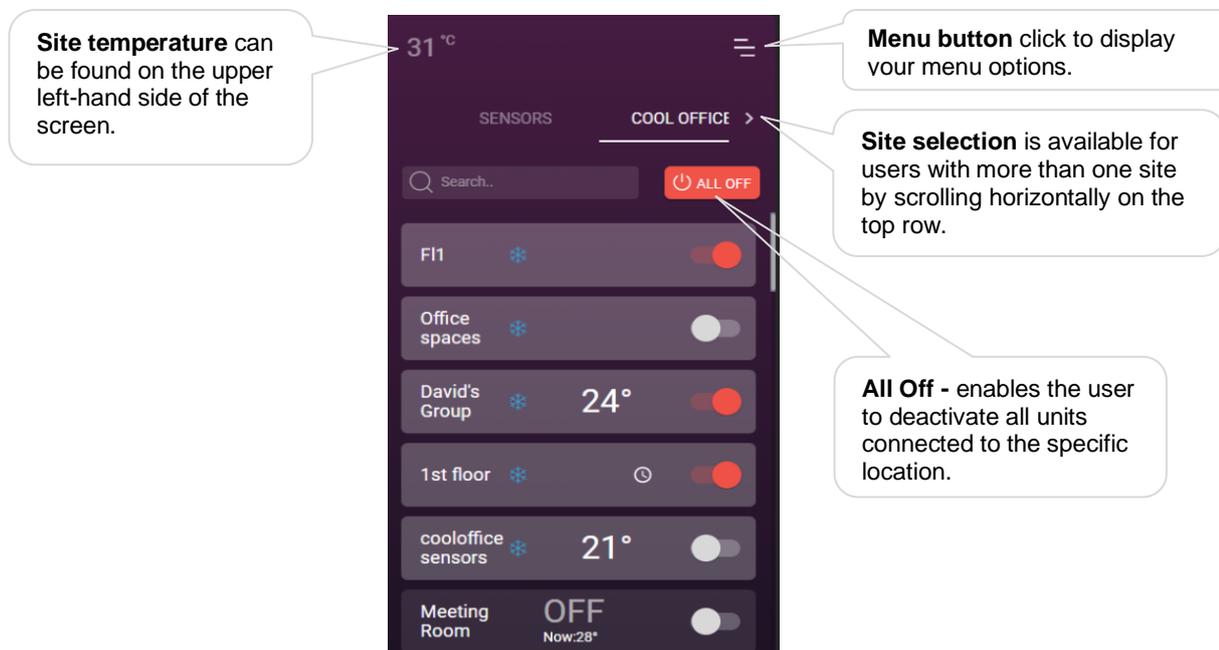
Option 2: Register additional device(s) to your Control account

- Login with your existing Control account
- Click the Menu  button
- From the menu select “**Site/Device Management**”- You should see the other device(s) you have registered
- Click the 3 dots sign on the relevant site and select “Add Device”



5 The Control App User Interface

Indoor Unit operational List View - each line displays the operational status of the selected Indoor Unit. The indoor parameters and status display according to the operational state ON, OFF or Malfunctioning. By clicking one of the units, the unit control screen will be shown.



Show last selected unit - When selecting a unit, the app remembers the last unit selected and displays the last selected control screen each time it's opened.

5.1 The Remote-control Screen

The remote-control screen enables the user to control the HVAC Indoor Unit activity, such as operating modes, power status, set point temperature, and fan and louver modes. The screen also displays the status of all connected units. The screen operates as a unified central controller for all the connected system units.

The remote-control screen includes the following controls and indicators (see images):

On/Off button - enables the user to activate or deactivate an individual Indoor Unit connected to a specific location. The indoor parameters and status display changes accordingly to the operational state ON or OFF.

Temperature control - clicking the ^ arrow increases the temperature of the selected Indoor Unit. Clicking the v arrow decreases the temperature of the selected Indoor Unit. The selected temperature is displayed between the two arrows (6).

Room ambient status - displays the selected indoor unit name and the current room temperature.

Scheduler - opens scheduling settings.

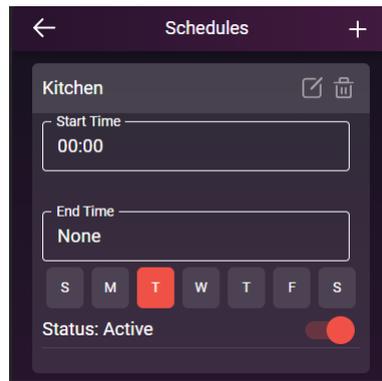
Louver mode selector - clicking the SWING button enables setting the selected indoor louver positions. The user can select one of the following positions: VERTICAL, HORIZONTAL, 30°, 45°, 60°, SWING or NO. Upon selection the Indoor Unit changes to the selected louver mode.

Fan speed selector - the selected Indoor Unit's fan speed selector. The user can select one of the following modes: VERY LOW, LOW, MEDIUM, HIGH, VERY HIGH, TOP or AUTO. Upon selection the Indoor Unit changes operation to the selected speed.

Mode selector - opens the selected Indoor Unit's operational modes selector. The user can select one of the following modes: COOL, HEAT, AUTO, FAN, DRY, AUX HEAT or HEAT & AUX HEAT. Upon selection, the Indoor Unit operation changes to the selected mode.

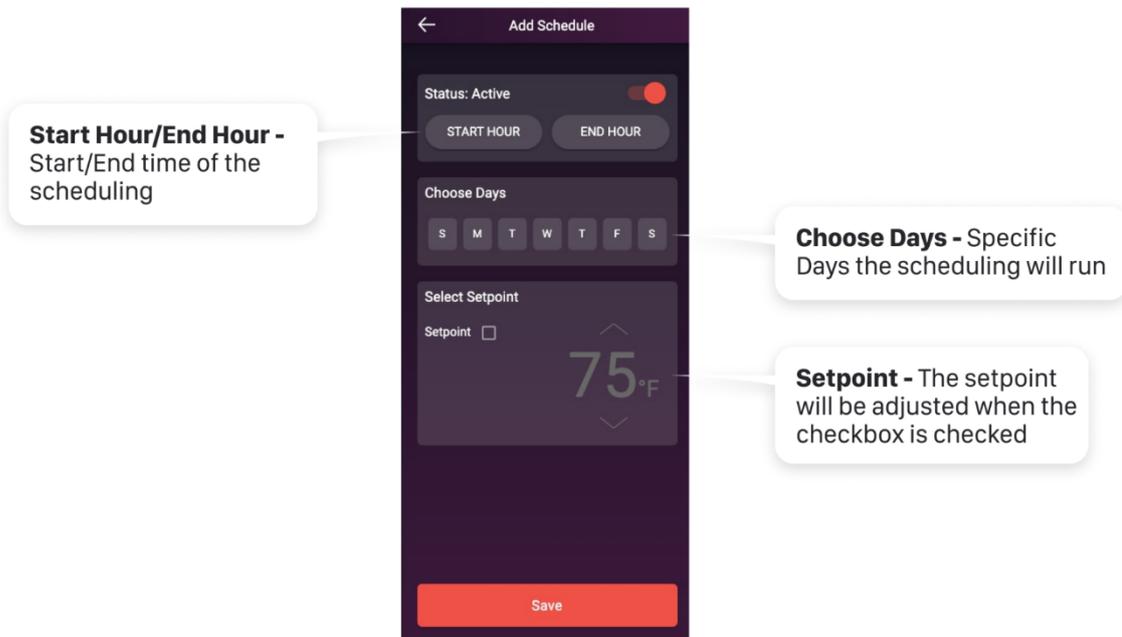
Time to clean the air filter - This feature is available only for units that require periodic filter cleaning.

5.2 The Scheduler Settings



Click the “+” sign to add schedules per unit.

Weekly Scheduling runs if the 'Status' button is active.



Start Hour/End Hour - Start/End time of the scheduling

Choose Days - Specific Days the scheduling will run

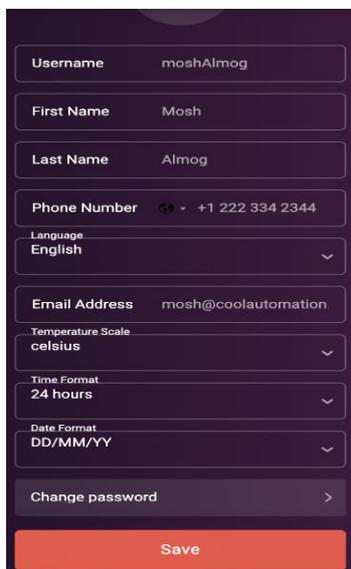
Setpoint - The setpoint will be adjusted when the checkbox is checked

6 My Profile

6.1 My Profile Screen

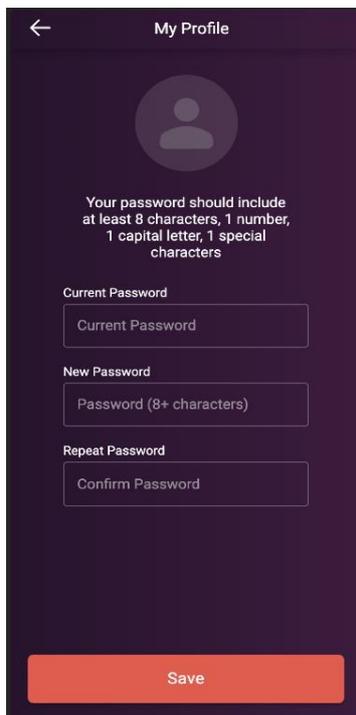
On the My Profile screen you can manage user personal information and preferences.

1. Click the Menu  button and select "My Profile".



A screenshot of the 'My Profile' screen in a mobile application. The screen has a dark purple background. At the top, there is a menu icon. Below it, there are several input fields for user information: Username (moshAlmog), First Name (Mosh), Last Name (Almog), Phone Number (+1 222 334 2344), Language (English), Email Address (mosh@coolautomation), Temperature Scale (celsius), Time Format (24 hours), and Date Format (DD/MM/YY). There is also a 'Change password' button with a right-pointing arrow. At the bottom, there is a large orange 'Save' button.

2. You can modify First Name, Last Name, Phone number, Language, Select the Temperature scale, Time Format and Change Password if necessary.
3. Click the Save button to save the new User Profile.
4. Changing the current password of the user is available by clicking "Change Password". Make sure you click the Save button to save your password change.



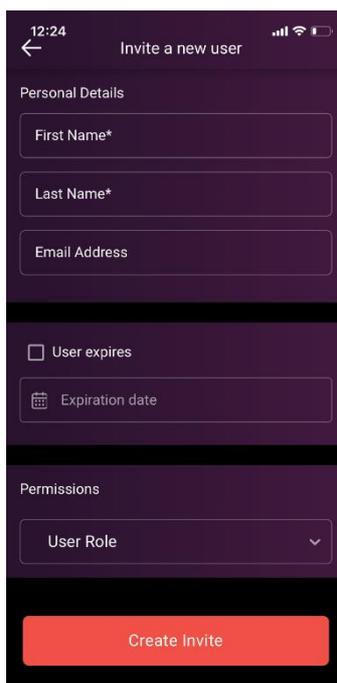
A screenshot of the 'My Profile' screen in a mobile application, showing the password change form. The screen has a dark purple background. At the top, there is a back arrow and the title 'My Profile'. Below the title, there is a circular profile picture placeholder. A message states: 'Your password should include at least 8 characters, 1 number, 1 capital letter, 1 special characters'. There are three input fields: 'Current Password', 'New Password' (with a hint 'Password (8+ characters)'), and 'Repeat Password' (with a hint 'Confirm Password'). At the bottom, there is a large orange 'Save' button.

7 User Management

7.1 Invite new user

Note: Only **Admin** users can view the "User Management" screen.

On the User Management screen you can invite a new user and manage all user personal information. Click the Menu button, then click "User Management". On the displayed screen, click the "+" sign on the upper right-hand side of the screen to invite a new user. Enter the following user's information: First Name, Last Name, Email Address, a User Expiration date, and a user permission role.



Expiration date: By checking the User expires checkbox and setting the date, you can limit how long a user can access the Control App.

Permissions roles:

Admin - The Admin user can control and manage all units and users.

Capabilities available for this permission:

User Management, Site/Device Management, Unit Settings, Group Management

Manager - The Manager user can control and manage unit

Capabilities available for this permission:

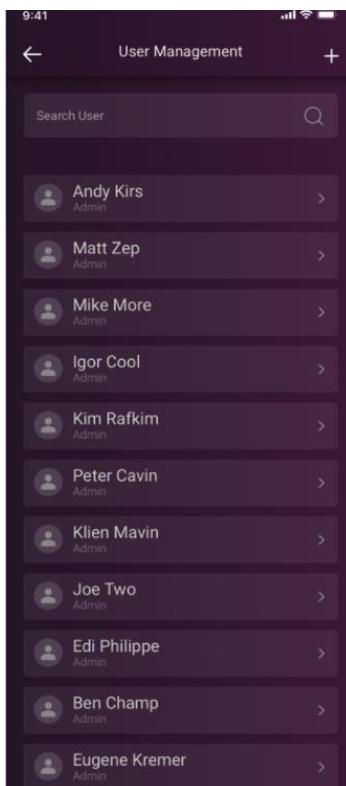
Site/Device Management, Unit Settings, Group Management

Guest - Guest users can control specific units only

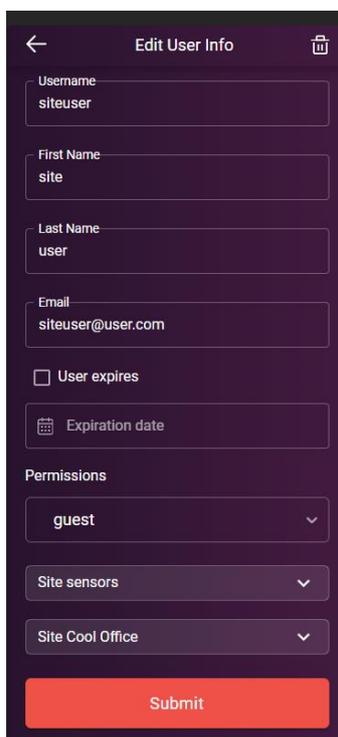
Click the Create Invite button to submit.

7.2 Edit User

To edit an existing user's information, click a specific user on the Users Management screen. You can also search for a user by entering his name on the search field at the top of the screen and then selecting the desired user from the displayed list of users.



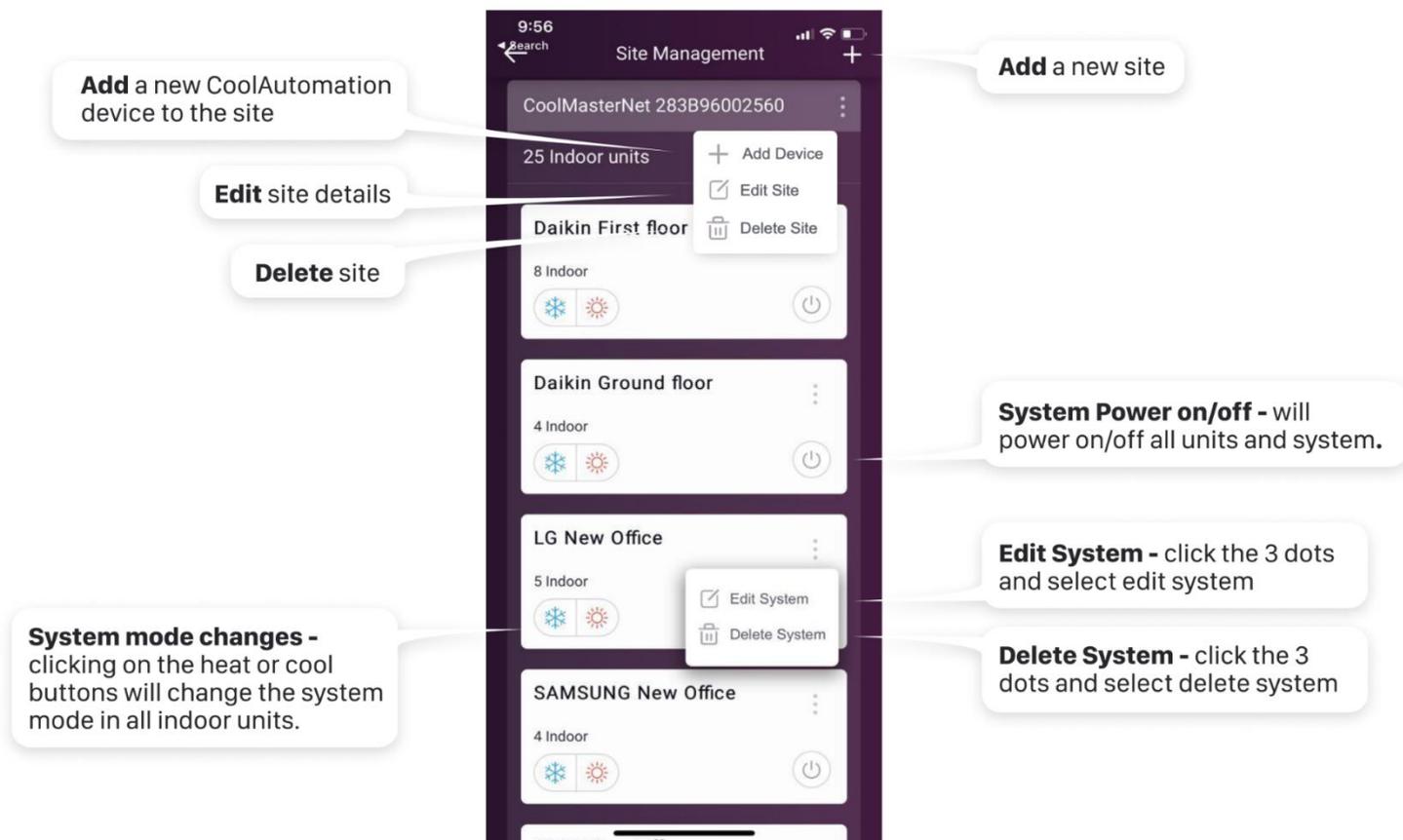
Update the user's settings such as First Name, Last Name, Email, User expiration date and user permission role. To delete the user, click the icon on the upper right-hand side of the screen.

A screenshot of the 'Edit User Info' screen in the application. The screen has a dark purple background. At the top, there is a back arrow on the left and a trash can icon on the right. Below the header are several input fields: 'Username' with the value 'siteuser', 'First Name' with 'site', 'Last Name' with 'user', and 'Email' with 'siteuser@user.com'. There is a checkbox labeled 'User expires' which is currently unchecked. Below this is a date picker icon and the text 'Expiration date'. Under the heading 'Permissions', there are three dropdown menus: the first is set to 'guest', the second to 'Site sensors', and the third to 'Site Cool Office'. At the bottom of the screen is a prominent red button labeled 'Submit'.

To save the changes, click the Submit button.

8 Site/Device Management

Create and manage device and site settings. Click the Menu button, then click "Site/Device Management" to view the list of devices installed per site.



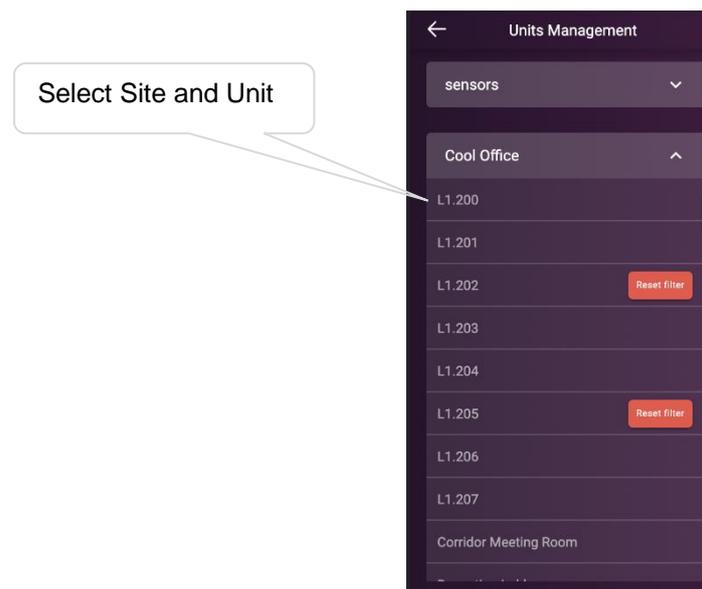
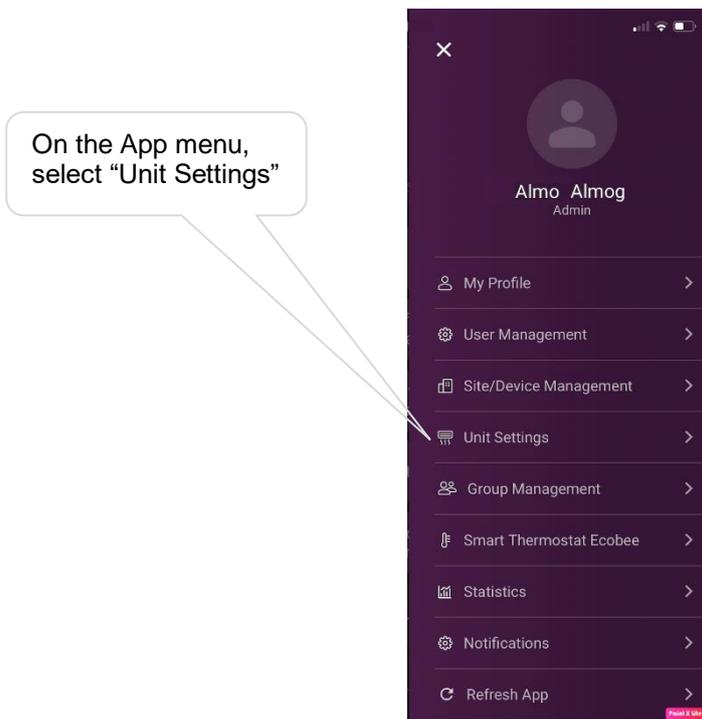
9 Unit Settings

Unit Name Structure - Unit names are constructed from letters and numbers in the following format:

For example, L1.100, the L and number indicate the line number on the Cool device network and the 100 indicates the unit's unique number on that line.

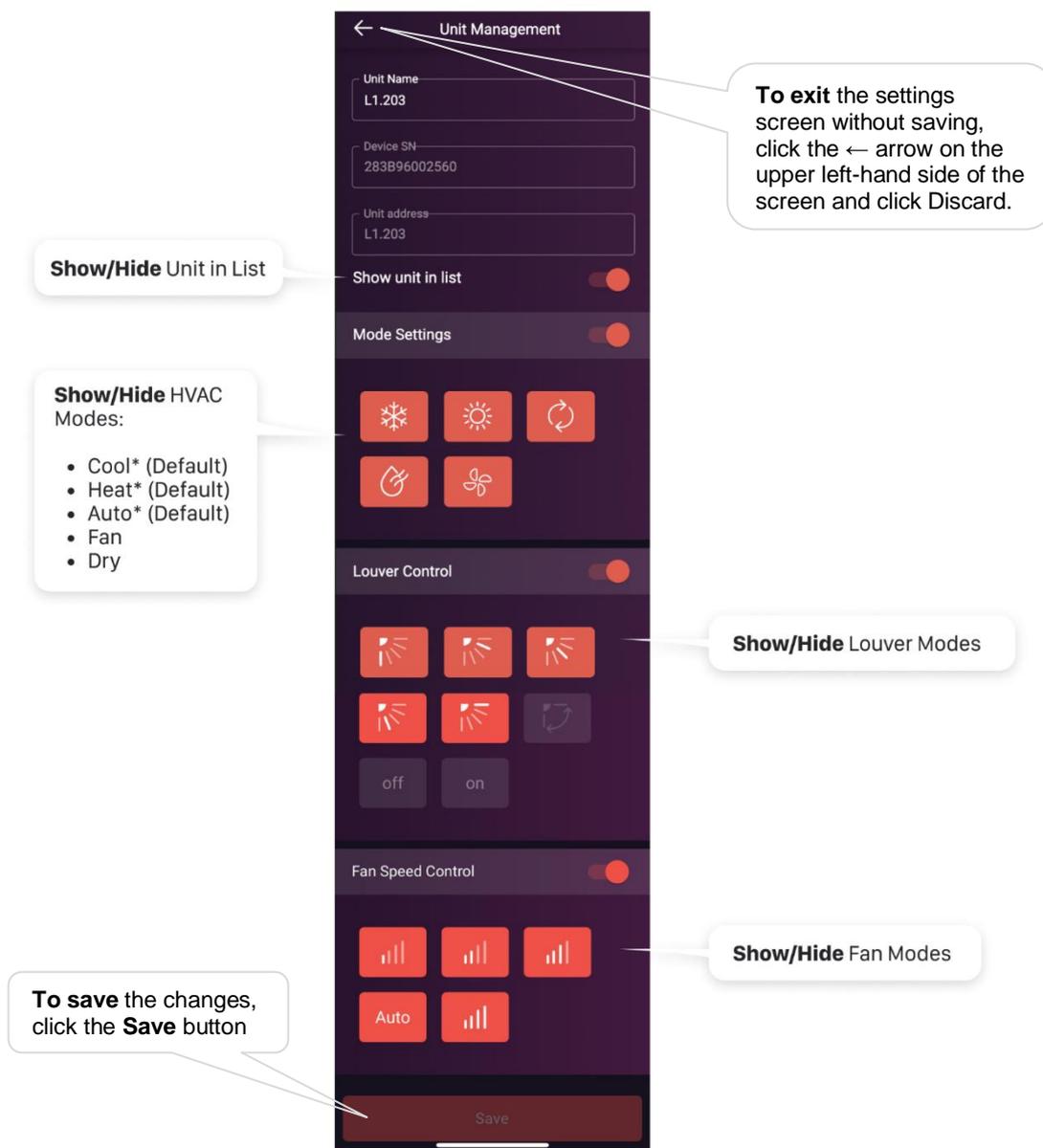
You can change the unit's name to any name (letter/number combination) you wish. There is no need to keep the name as it's displayed in the settings screen.

To edit Indoor Unit Settings



On the following screen, edit the required unit name and click the **Save** button. The new unit's name is saved.

Single Units - You can configure every indoor unit's setting separately. Each unit's configuration screen allows the user to change the following settings:



10 Group Management

A group is a virtual aggregation of units that allows easy control of all the group units with a single action. The functions that are available on the group are setpoint, schedule, ON/OFF.

Groups are seen on the Control App as a 'greyed out' block. To act on a group you should select its item on the list. Groups can contain units from the same site or mixed from multiple sites. When a group contains units from multiple sites, a new "Site" is added called "Groups" and this group will only be visible and controllable through that "site".

Click Menu and select **Group Management**. The following screen is displayed.

Create a new group by clicking on the "+" sign

Enter new group name

Select units (3) per site to define them as a group

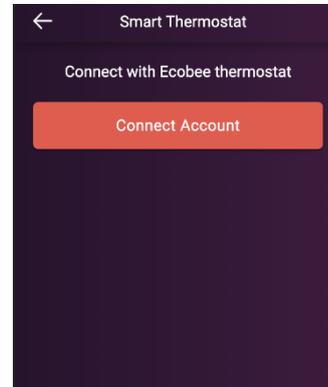
Click Save Changes to save the new group

Click on existing group to add/remove units

11 The Ecobee Smart Thermostat

Connect Ecobee's Smart Thermostat to control VRF and Split HVAC systems. This adds the additional connectivity for VRF and Split HVAC systems, which is not possible through the native Ecobee Smart Thermostat wiring connections.

1. Click **Menu** and select **Smart Thermostat Ecobee**
2. Click "Connect Account"



More info can be found at the following link:

<https://coolautomation.com/wp-content/uploads/sites/2/2019/12/EcoBee-How-To-Connect-with-CoolRemote-V1.0.pdf>

12 Statistics

The Statistic & Graphs screen shows a 1 day/Last 7 Days/ Last 30 days view of Unit Usage by selecting a specific unit.

A total of working hours of the selected unit is displayed at the bottom. This counter accumulates working hours from the time the system is connected to the CoolRemote cloud *

User can see statistics of working hours (bars) with breakdown to Heat/Cool periods, compare it with external site temperature (shaded area) brought from external weather service and the actual setpoint. This allows the user to better plan his system operational regime.

*Counter can be reset to zero by an Admin user through the CoolAutomation Commercial application suite.



13 Support

For technical support contact our Customer Support department at:

<https://coolautomation.com/support/>