



# Owners Guide

## CATCH Control & Monocle App



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# Table of CONTENTS

Introduction to CATCH Power	Page <b>03</b>
Downloading The Monocle	Page <b>04</b>
Understanding Main Menu	Page <b>05</b>
The Monocle	Page <b>06</b>
Device Connectivity	Page <b>10</b>
Load Control	Page <b>11</b>
EV Control	Page <b>14</b>
Battery Controls	Page <b>15</b>
Energy Trading	Page <b>16</b>
Solar Analytics	Page <b>17</b>
Wi-Fi	Page <b>18</b>
API	Page <b>19</b>
Additional Resources	Page <b>20</b>

## Introduction

The following guide describes how to measure and control solar, batteries and loads using the Monocle app.

When used correctly, CATCH Powers hardware and software can save solar owners hundreds of dollars extra each year and includes a variety of valuable tools and calculators designed to help you find additional savings opportunities.

The settings in the Monocle app can instruct compatible and connected loads to behave in many ways based on a variety of interrelated priorities. Your CATCH installer will configure this for you.

Loads can be controlled directly via the CATCH Control hardware when installed with optional contactors, and some loads may be controlled via cloud software such as compatible EV chargers and batteries. Please note that the full functionality of our services requires a reliable Wi-Fi connection and may require firmware updates to CATCH Control and other hardware from time to time to maintain connectivity and full functionality.

Our latest software and app is automatically applied to new sites. Existing sites can be updated to use our latest software but may require changes to CATCH Control hardware, inverter or other hardware on site.

The Monocle app allows automatic and manual control of an ever-widening range of devices. Please note that complex systems with many devices and settings require careful management.

We strongly recommend that you seek advice from your CATCH installer and or CATCH Power support staff before adjusting complex systems to avoid the possibility of device damage or unexpected system behavior.

Some settings are required by regulation and must not be changed (eg dynamic export limits and dynamic control limits).

All CATCH Control hardware and optional contactors must be installed by a licensed electrician.

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# Getting Started

## Congratulations on the installation of your CATCH Control!

CATCH Control hardware is operated via the Monocle app. Follow this guide to learn how to use the Monocle which allows you to monitor and control your solar, batteries and loads.

**Step 1** - Download the Monocle app from the app store

**Step 2** - Follow the steps in your welcome email (Your CATCH Power installer will create a site for you)

**Step 3** - Login to the Monocle app

Apple Store Mac iPad iPhone Watch AirPods TV &

App Store Preview

Open the Mac App Store to buy



**The Monocle** (4+)

CATCH Power Energy Monitor

CATCH Power

Designed for iPad

★★★★★ 2.3 • 32 Ratings

Free

Google Play Games Apps Movies & TV Books Children



# The Monocle

CATCH Power

2.8★  
24 reviews

1K+  
Downloads

Rated for 3+  
16

Install

Share

Add to wishlist

# Main Menu

The main menu provides access to all our pages within the Monocle.

**Home:**

Return back to the home screen at any point

**Utilisation:**

A summary of your energy profile

**Markets:**

Access to Wholesale markets

**Passwords:**

Manage your account passwords

**Solar Analytics:**

Free Access to Solar Analytics platform

**Logout:**

**Control:**

Brief overview at the devices you have connected

**Site List:**

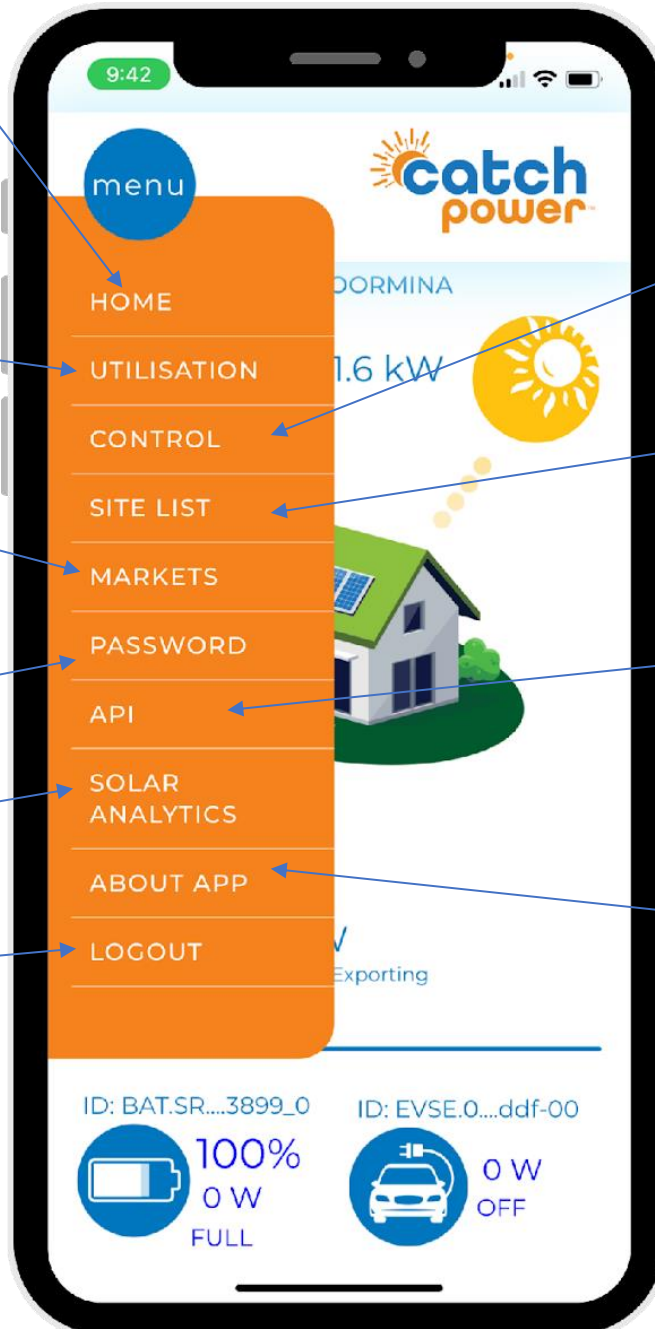
For installers to easily keep track of their connected sites

**API:**

Write your own code on how your system operates

**About App:**

App version



# Home Screen

The home screen provides a real-time overview of your site, energy flows and connected devices.

## Solar Production:

- The sun icon reflects your current solar production. The dots should flow from the sun to the house, if this is reversed it can indicate a CT placement issue.

## Roof Color Indicators:

- Green:** Indicates that you're exporting energy to the grid.
- Red:** Indicates that you're importing energy from the grid or your batteries are discharging.

## Energy Flow:

- The direction of energy flow is shown by the movement of dots. The dots move towards or away from the grid, depending on whether you're importing or exporting energy. The corresponding values represent the amount of energy moving in that direction.



## Home screen (cont.)

By scrolling down on the home page you will find detailed daily power graphs and a summary of the energy produced or used by each measured device..

The level of detail in the graph depends on the equipment installed at your site. The more individual circuits measured, the more detailed the breakdown will be. You can toggle these tabs on and off to view individual loads more clearly.

You can tap any part of the graph to bring up a summary box, providing you with detailed load information for that specific time. You can select your preferred date to view a particular day.



## Home Screen (cont.)

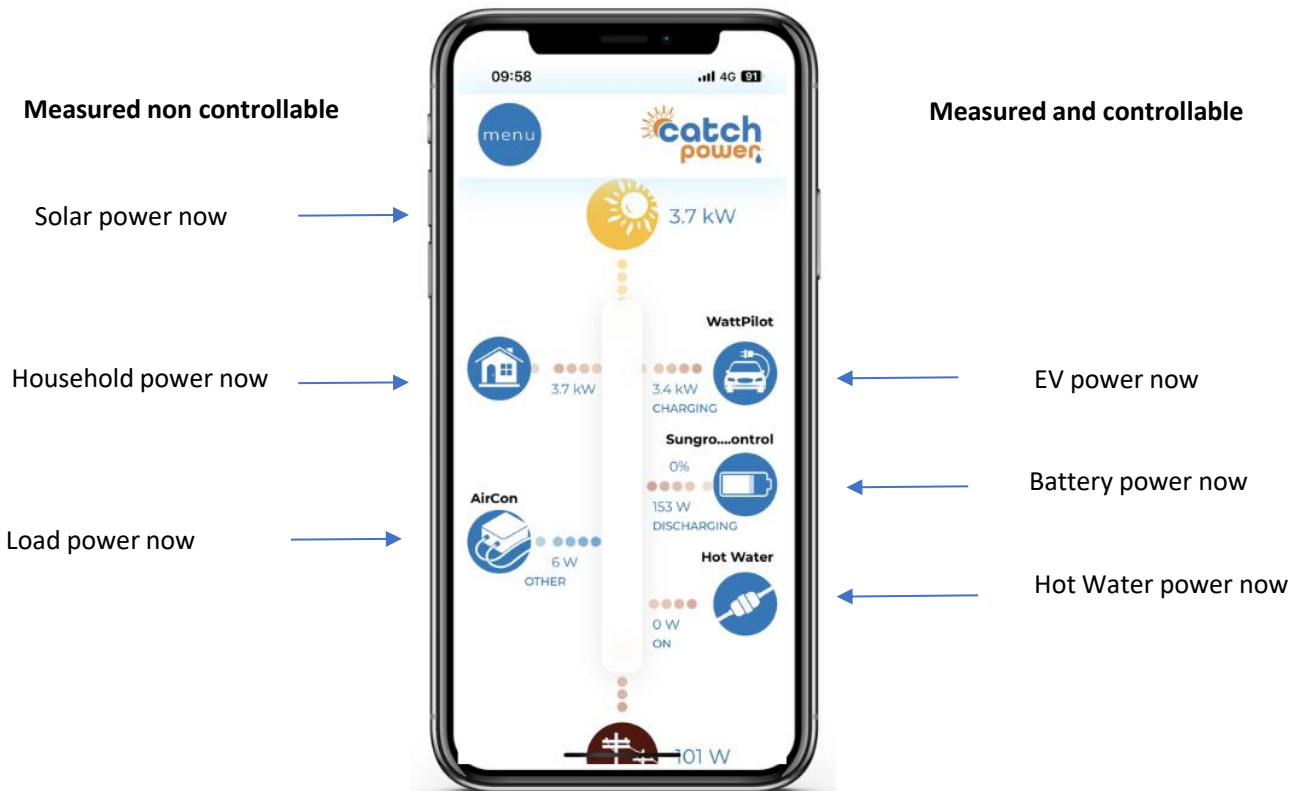
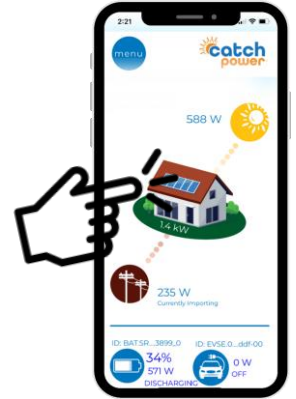
By clicking on the house icon, you can enter a summary screen of all connected and measured devices in your home, see power flows and explore more detail.

Devices on the right hand side are measured loads and non controllable.

Devices on the left hand side are measured and controllable.

By clicking on controllable devices you can launch a control menu to each device to customise settings. (see the control menu section for more detail)

Ask your CATCH installer to help add and configure new controllable hardware or, to measure specific loads.





# Utilisation

The **Utilisation** page allows to see how much of your solar energy you are using, exporting and purchasing. You can view the data as % or as kWh and select a desired date range.

Utilising energy within the home (self consumption) generally provides increased savings compared to exporting energy and as a consequence, higher utilization rates are generally going indicate higher savings levels.



# Control

The control page provides a summary of all controlled devices and the current status.

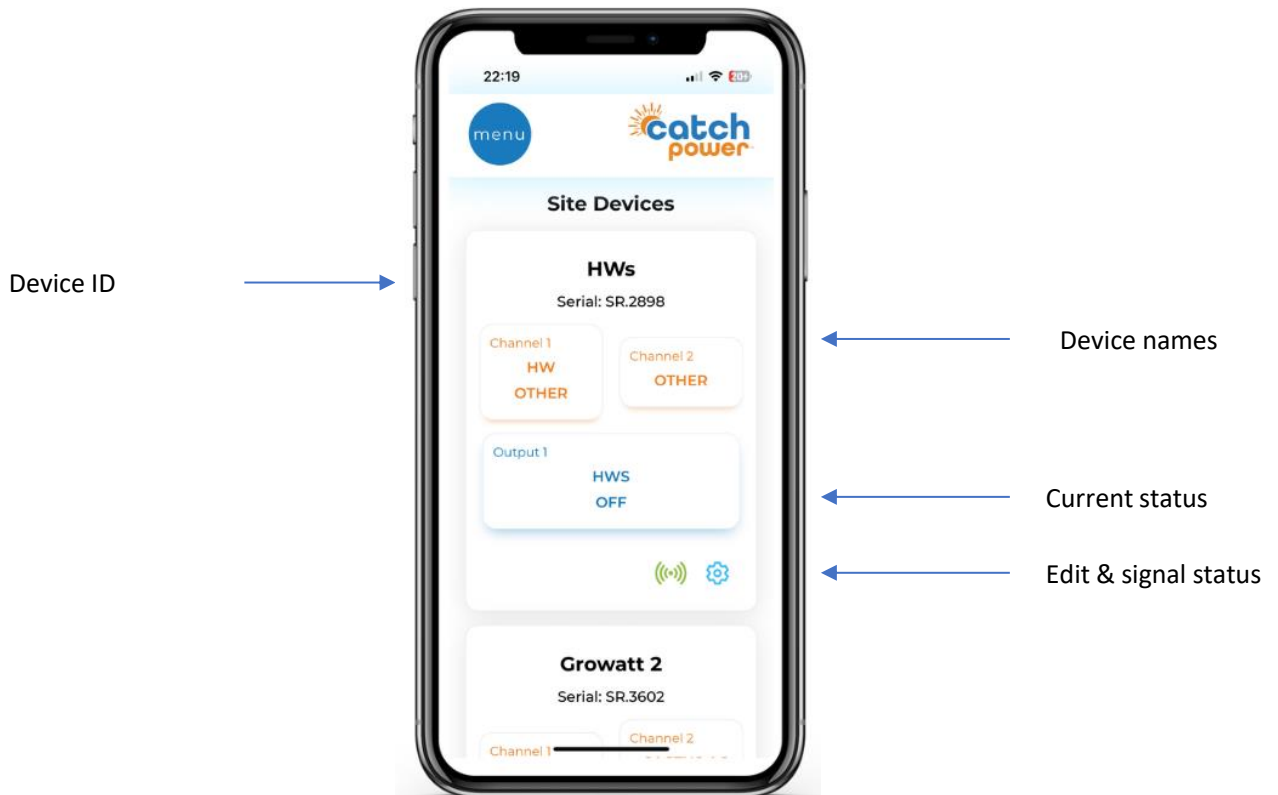
This page allows you to overview and name devices.

To explore or adjust device settings, go to the home page and click the house button, then measured and controllable loads.

The initial system settings will be configured by your installer during installation, focusing on export mode to optimise control using surplus solar energy—this is the most economical way to operate.

**Schedules** take priority over the default mode, allowing you to customise the system’s operation to suit your needs.

**Overrides** take precedence over any active schedules, giving you immediate control over the system’s behavior.



## Control (cont.)

During installation, your CATCH installer will set the initial parameters for how you want your loads to operate, typically in a default export mode, which is the most efficient setting. This allows exported energy to be directed to your desired loads.

Click on any of the icons on the right hand side to see the details of specific controlled and measured devices.

When you make changes in the Monocle app, these adjustments will override the default settings for that specific time slot. Any changes you make should be seen as additional cycles, and it's generally advisable to avoid overlapping schedules during solar production periods, as your unit should be focused on solar/export mode during these times.



# Control Overrides

Control overrides allow you to override scheduled or automated behaviour on loads that are controlled via contactor or cloud connections.

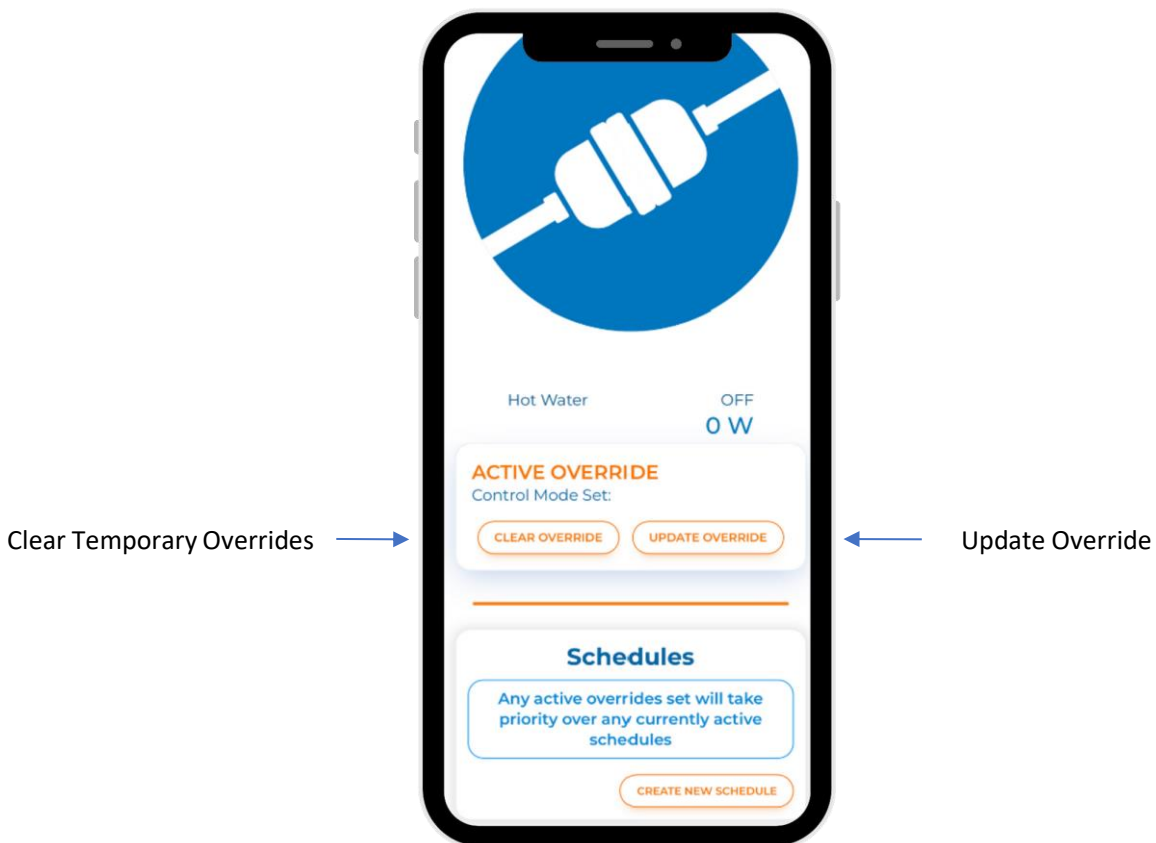
Within each measured and controlled load you are able to see all settings by scrolling down below the main icon.

Below the icon the Active Override section allows you to set immediate overrides.

You can set immediate changes to how you would like the system to operate. You can also clear these overrides to return the device to default mode or preset schedules.

**Clear Temporary Override** allows you to remove any active overrides, and returns the system to its default settings or follow preset schedules.

**Update Override** allows you to take overrule any other schedules, providing immediate adjustment to the behaviour of your system.



# Control Schedules

**Schedules** allow you to set ongoing or regular device triggers for devices that are controlled by a contactor or advanced loads such as compatible and connected EV chargers and batteries.

You can use the calendar to schedule a date or seasonal range or simply choose set schedule forever to maintain indefinite operation.

You can also include or exclude specific days for the device to operate using the day selector and set start and stop times using the time selector.

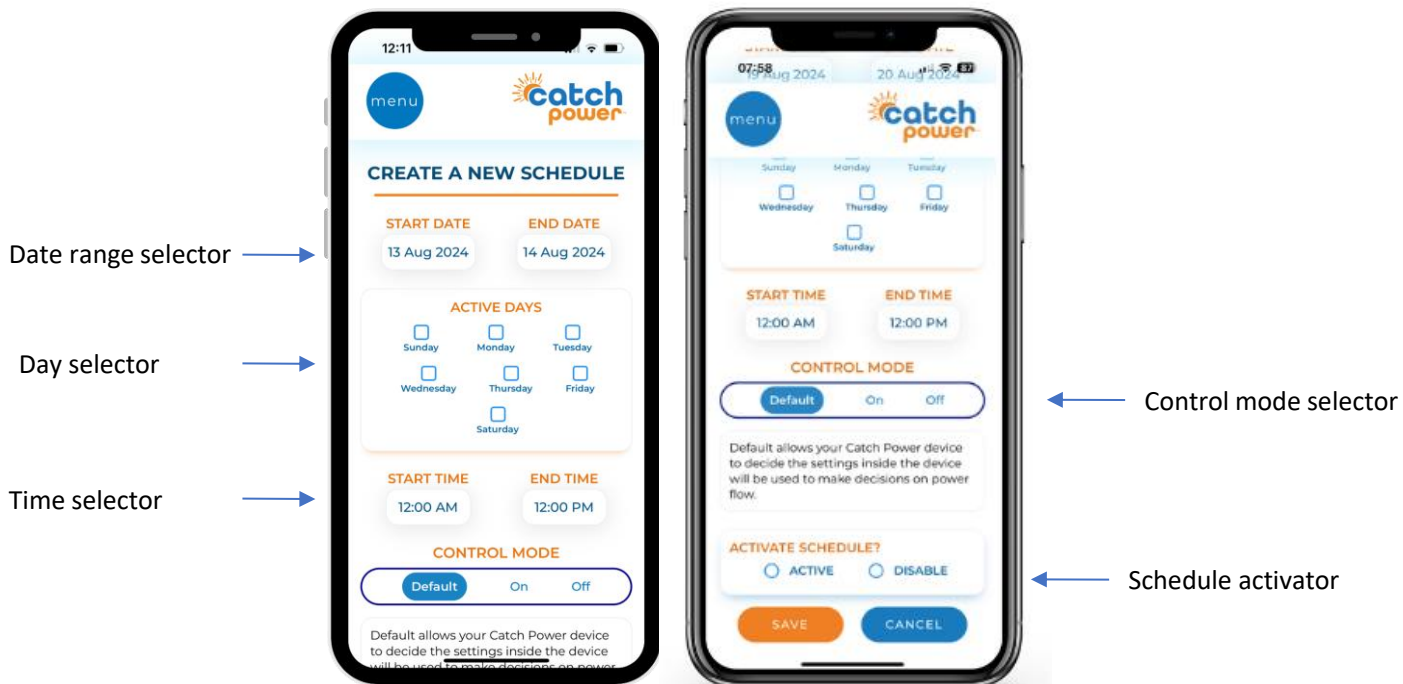
Once you have selected your preferred schedule, you can then choose the type of control mode you want utilised.

The **Default** mode enables CATCH Power to automatically decide the ideal decisions for power flows based on our analysis of the site. Note, some advanced loads such as EV chargers and batteries will provide additional options.

The **On** and **Off** modes allow you to manually decide power flows based on the schedules you set.

Once you have set the preferred schedule and mode, make sure you **Activate** and **Save** your schedule, which then operate automatically.

Once set, you can easily enable, disable, edit or delete schedules.



## Control EV Chargers

The Monocle can be used to provide advanced EV charger control. Clicking on the EV charger icon enables you to see and modify EV charger settings.

When used with a compatible EV charger, our **Control** settings can enable four different modes of control to help optimise your charging and ensure you are using the most affordable energy sources including excess solar or specific tariffs.

EV charger behaviour can be configured via the **Override** and **Schedule** controls described in previous sections including the ability to remotely turn the EV charger On or Off. However, EV charger behaviour also has several advanced control options.

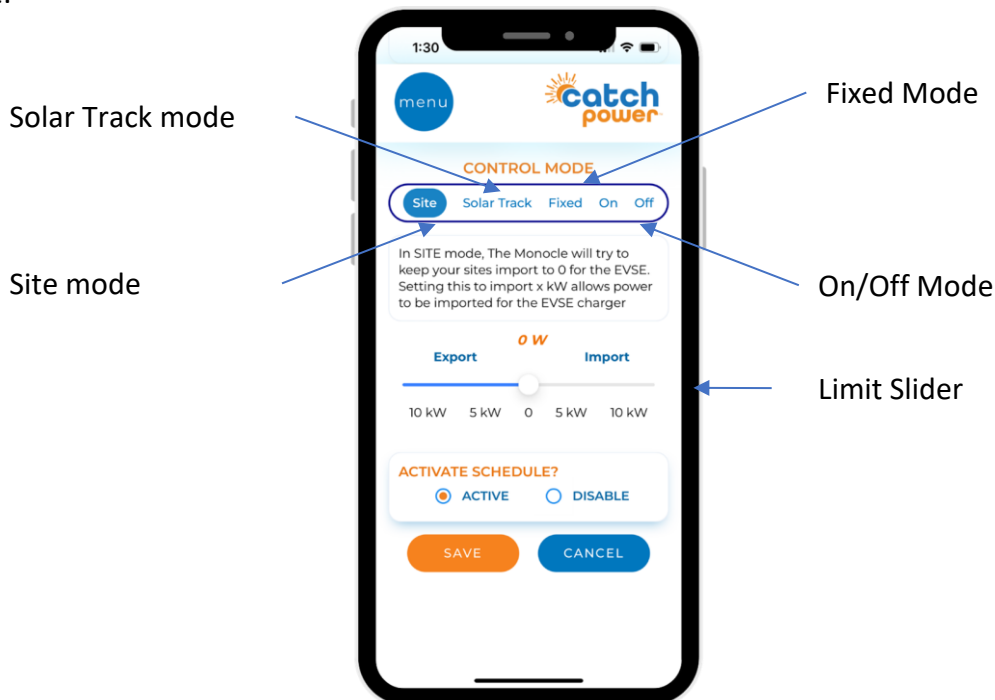
**Site** mode allows you to adjust how much surplus solar is used for EV charging via a **Limit Slider** that controls your import and export limits.

**Solar Track** mode allows you to choose a percentage of surplus solar that will be used to charge your EV. You can set your charge to operate up to this threshold or, only above this threshold.

**Fixed** mode allows you to set a specific power level for charging using a **Limit Slider**, irrespective of where the power comes from (eg solar or grid)

**On or Off** mode allows you to **Schedule** charging based on time periods (for example when tariffs are lowest) and or, exclude time periods (for example when tariffs are highest).

Once you have selected your preferred mode, remember to **Activate** and **Save** the mode and schedule.



## Control EV Chargers (cont.)

There may be times when your vehicle is mid-charge, but you need to disconnect and leave unexpectedly using an active **Override**.

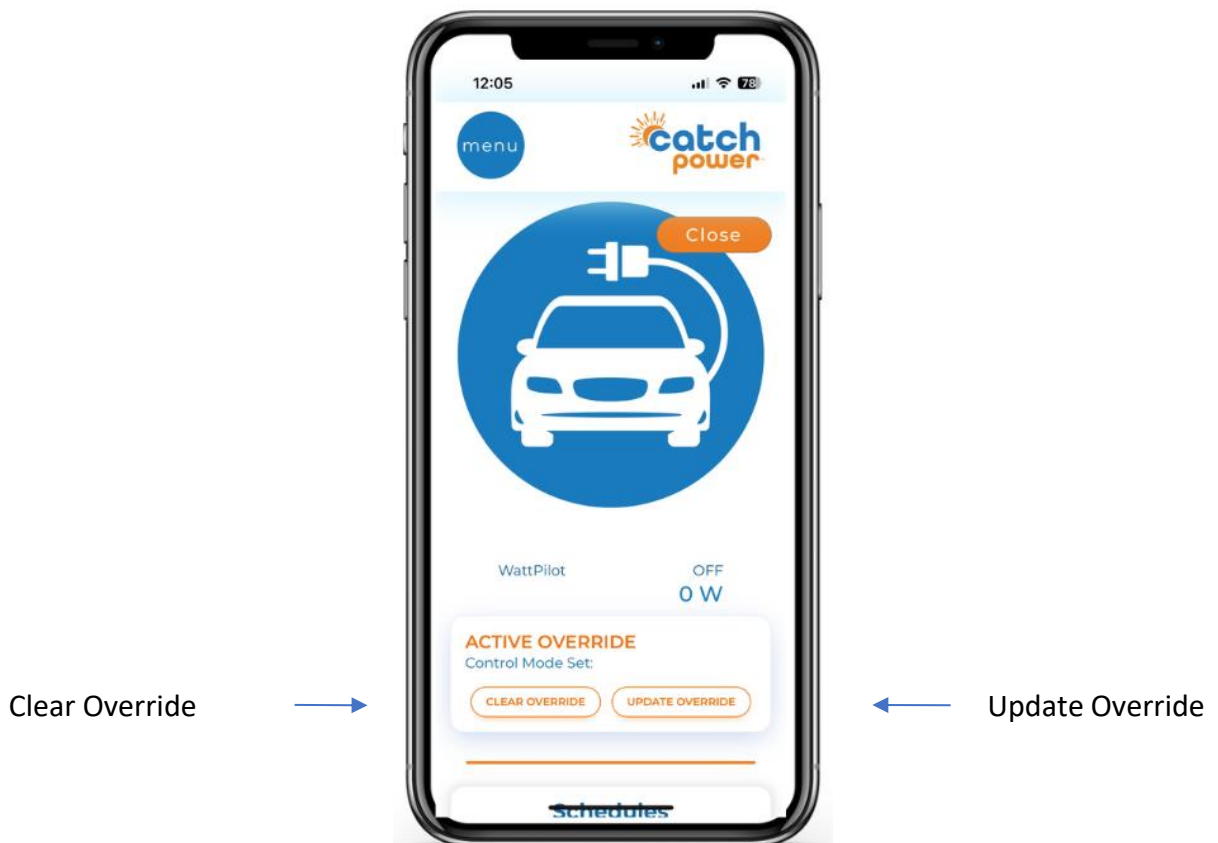
By clicking on the EV Icon you can see the current mode that is set and **Clear Override** or **Update Override**, which allow you to temporarily adjust your charging settings without disrupting your overall **Schedule**.

To disconnect your vehicle, simply select the **Update Override** option which will manually turn off the charging session and allow you safely unplug your vehicle.

When you reconnect your vehicle, you can simply select the **Clear Override** option, which will turn on the charging session and revert the charger back to its normal operating **Schedule**.

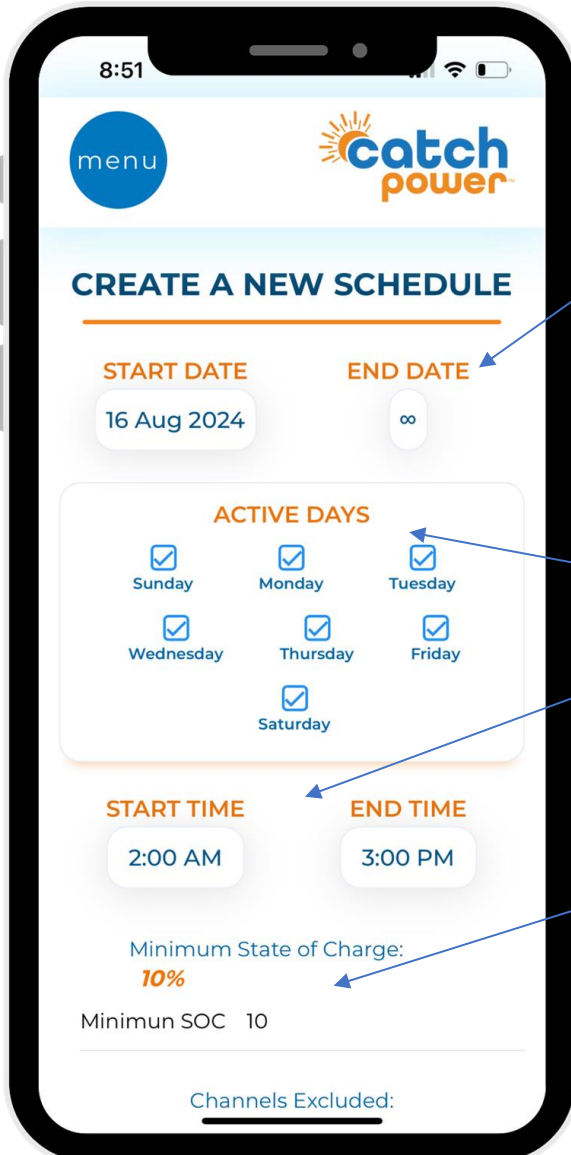
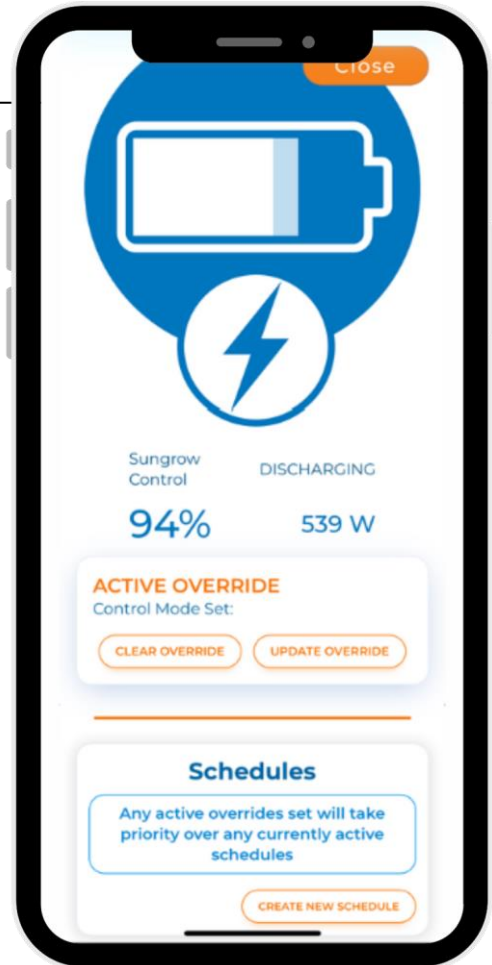
Please note that some jurisdictions have regulations in place for control of EV chargers which are designed to manage the impact of loads on the grid. Your CATCH installer may if required, configure you CATCH Power system to receive **Dynamic Control** signals from the local electricity distributor to ensure your system is compliant. Dynamic Control will automatically override all others settings.

Please note that EV charge management via CATCH Power has a minimum **Activation threshold** of 1400 Watts.



## Battery Controls

CATCH Control provides robust battery management features, allowing homeowners to optimise their battery usage with tailored charge and discharge profiles. This flexibility lets you strategically schedule additional charging cycles during off-peak periods when electricity rates are lower, reducing your overall energy bills even if your battery capacity isn't large enough to cover all your energy needs. Additionally, CATCH Control offers the ability to set up exclusion zones, giving you control over where your battery discharges its energy. This feature allows you to prevent your battery from discharging into heavy loads like EV chargers or hot water systems, ensuring that your energy is used in the most efficient way possible. This smart management maximises battery efficiency, helps you avoid unnecessary energy waste, and ultimately boosts your savings.



### Start and End Dates

Selecting the date will open a calendar view, allowing you to choose the date range during which you want the device to operate. You can set up summer and winter schedules, extend the operation period for holidays, or select 'Set Schedule Forever' to maintain the device's operation indefinitely.

### Active Days

You can choose specific days for the device to operate

### Start and End Times

Set the specific times you want the load to operate. This feature is particularly useful if you have time-of-use metering, as it allows you to take advantage of lower energy rates during off-peak hours.

### Minimum State of Charge

Set a minimum energy reserve for your battery to ensure you always have enough power on hand. This feature allows you to specify the lowest level of charge you'd like to maintain, helping to protect your battery's lifespan and ensuring it can meet your energy needs when required.



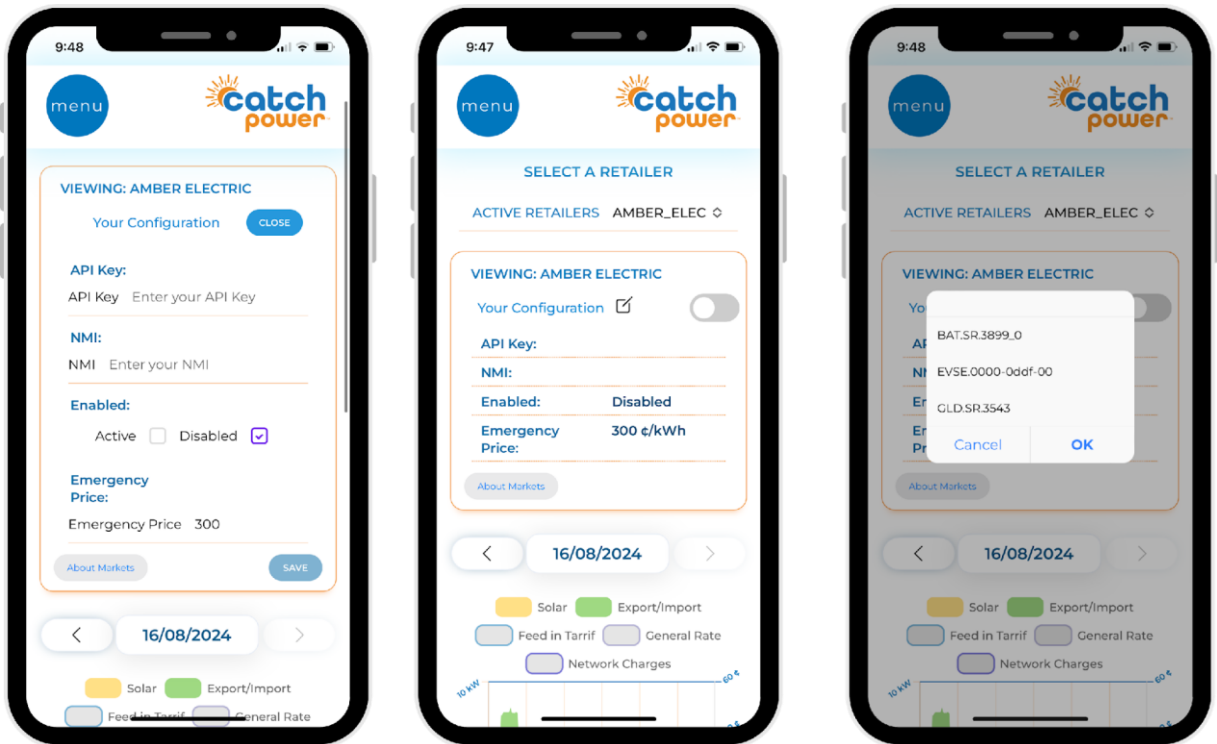
# Markets

## Wholesale Energy Market

CATCH Control integrates with Amber's API to help you manage energy use based on real-time 5-minute data from AEMO. As an Amber customer, CATCH Control can adjust your inverter, batteries, EV chargers, and other connected loads to optimise energy use.

## Market Price Control

CATCH Control lets you automatically or manually adjust your solar inverters, batteries, and loads in response to real-time wholesale price signals. This helps you save money and maximise profits by reacting to fluctuating energy prices.



### Emergency Buy Price Site Threshold:

Set a threshold price where CATCH automatically switches all controlled loads on, reduces or turns off solar generation, and consumes energy during low or negative price events.

### Emergency Sell Price Site Threshold:

Set a threshold price where CATCH automatically switches off all controlled loads, discharges the battery, and exports solar energy to take advantage of high price events.

### Emergency Buy Price Load Threshold:

Set a threshold price where CATCH only switches on specific controlled loads, reduces or turns off solar generation, and consumes energy during low or negative price events.

### Emergency Sell Price Load Threshold:

Set a threshold price where CATCH only switches off specific controlled loads, discharges the battery, and exports solar energy during high price events.

## Solar Analytics

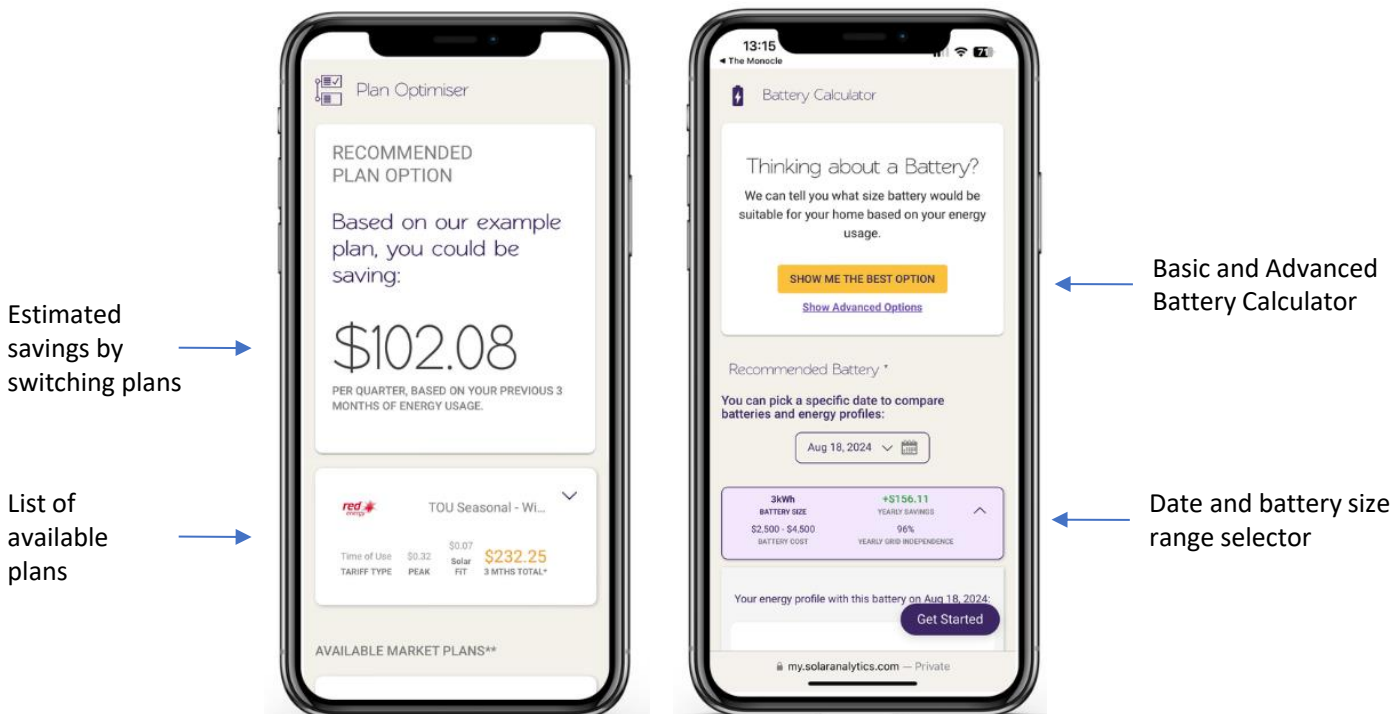
**Solar Analytics** is a suite of tools and calculators included with CATCH Control and within the Monocle.

By following the links, you will be taken to the Solar Analytics dashboard which is provided free of charge to CATCH Control to enable extra functionality. You will find energy flow graphs and savings pages where you can input your tariffs for accurate savings and electricity bill predictions.

One of the most valuable features is **Plan Optimiser** which searches the market for all available tariff plans and calculates the potential savings by switching retailers or tariff plans using your actual data. You can then view details of the plan and contact your preferred retailer to switch.

**Plan Optimiser** can be used on the day your system is connected to help choose a new retail tariff for your solar, by using a simulated consumption profile. As the system collects more actual data from your site it gets increasingly accurate.

Solar Analytics also includes an Advanced **Battery Calculator** for users without batteries. Using your actual data, Battery Calculator models what sized battery would suit your current system, a number of tariff and usage options to choose from and estimated annual savings.



## API, About & Logout

### API Access

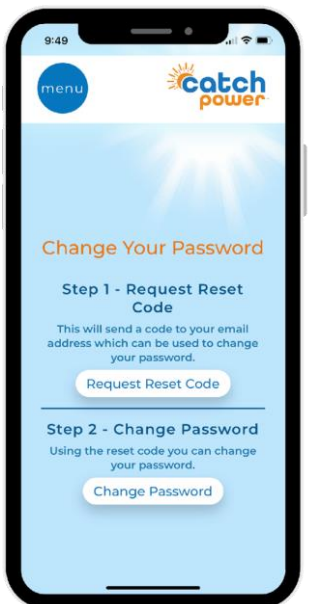
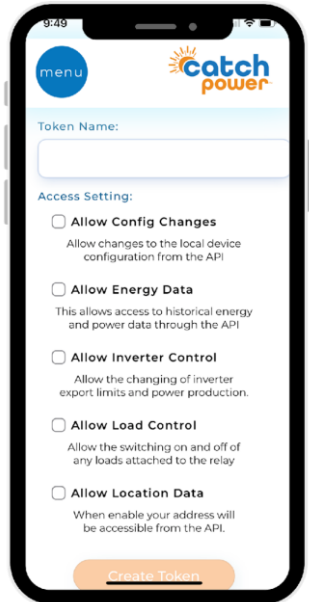
The API menu allows advanced users to share and edit access with other services providers using data collected by the Monocle.

CATCH Power current offers limited support or functionality for APIs but expects to expand this service in the future.

### About

The About menu describes the current version of our app which can be important for supporting you in reliable operation.

It also allows you to delete your data and account, should it be required.



### Logout

The logout page allows you to login or out of the Monocle. It is also where you can request a forgotten password, change your password or register for the first time.

## Appendix 1 - Important notes on WiFi

The operation of CATCH Control and the Monocle app requires a strong Wifi signal. The signal strength where your CATCH Control hardware is installed should be at least **-64dB** or better, noting that metal switchboard enclosure can have a dramatic negative impact on signal strength.

Even small changes in signal strength can have a big impact. For example, a drop of just -3dB halves the signal strength. So, a signal at -60dB is twice as strong as one at -63dB, and ten times stronger than -70dB.

If you are having reliability problems with your WiFi connection, we suggest using a Wifi signal checker app like "WiFi Analyzer" at the location of your CATCH Control. If you find that the signal is too weak, consider adding a Wifi booster to strengthen the connection to the device, ensuring reliable operation of your system.

Here's why this matters:

**-30dB to -60dB** indicates a strong, reliable signal.

**-60dB to -70dB** is average, which might work but could lead to occasional issues.

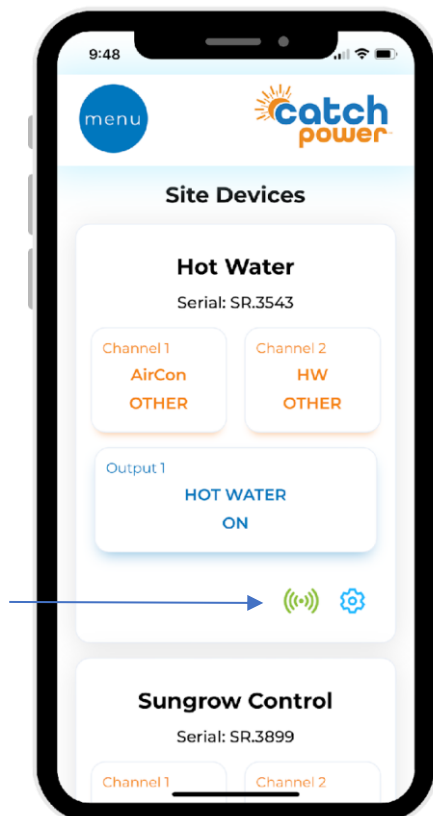
**-70dB to -80dB** is weak and could cause trouble, leading to potential disruptions.

**-90dB** or worse means the signal is almost non-existent.

CATCH Control utilises 2.4GHz WiFi, so it is essential that your router supports this.

In the main menu, under the **Control** tab, you can view an overview of your devices and Wi-Fi connection status.

A green symbol indicates that your device is connected to the internet. If the symbol is grey, it means the device is currently offline and not connected to the internet.



## **Additional Resources**

### **The Monocle App Tour**

<https://youtu.be/bvScaqWaZGs?si=sVrR02CBLNeGwp->

### **Registering Your Account**

[https://youtu.be/\\_WAmK0Ilf1M?si=iZoO8rDvjK\\_ksQER](https://youtu.be/_WAmK0Ilf1M?si=iZoO8rDvjK_ksQER)

### **Connecting your device to the internet**

[https://youtu.be/Z74J9YjnclI?si=-PU-ry\\_OCKURXUKR](https://youtu.be/Z74J9YjnclI?si=-PU-ry_OCKURXUKR)

### **Reset your Password**

[https://youtube.com/shorts/9M7QyA\\_xUWs?si=OIMPL8HXxl\\_Llf6n](https://youtube.com/shorts/9M7QyA_xUWs?si=OIMPL8HXxl_Llf6n)

More Information on API's

[Edde.world](http://Edde.world)