HYDRA®

ELECTRIC VEHICLE CHARGERS

HYDRA CUBUS APP USER GUIDE

H CHARGER APP

The H Charger app is often used by the installer in order to connect the Hydra Cubus to the network whether this be Wifi, 4G or Ethernet. It is important to keep the password on hand so you can use it again when you change network, add solar compatibility and setting up dynamic load balancing.

You can view the guide to setting up the app on pages 2 to 12.

NEXUS CLOUD APP

The Nexus Cloud App is used by the customer to start the charge, change smart charging options (what time you start and stop charging) and more.

You can view the guide to setting up the app on pages 13 to 19.

V0001 30/06/2023

HYDRA®

ELECTRIC VEHICLE CHARGERS

H CHARGER

Connecting the charger to the network

H CHARGER APP
USER GUIDE

V0001 30/06/2023

CONTENTS

HYDRA®
ELECTRIC VEHICLE CHARGERS

DOWNLOAD & LOGIN **4**
- Download the APP 4
- Log In 4

CONFIGURATION & CONNECTING VIA WIFI **5**
- Configuration 5
- Connecting Via Wifi 5
- Wifi Confirmation 6
- Wifi Final Checks 6

CONNECTING VIA 4G **7**
- Connecting Via 4G 7
- 4G Confirmation 7
- 4G Final Checks 8

CONNECTING VIA ETHERNET **8**
- Connecting Via Ethernet 8
- Ethernet Confirmation 9
- Ethernet Final Checks 9

LOAD BALANCING & SOLAR **10**
- Need To Knows 10
- Load Balancing 1 10
- Load Balancing 2 11
- Adding A Slave Cubus 12
- ECO and ECO+ 12

HYDRA NEXUS **13**
- Hydra Nexus Guide 13

SUPPORT **19**
- Technical Support 19

DOWNLOAD & LOG IN

HYDRA® ELECTRIC VEHICLE CHARGERS

DOWNLOAD THE APP

For iPhones, please use App store to search "**HCharger**" to download and install the app.
For Android phones, please use Google Play to search "**HCharger**" to download and install the app.

	GET IT ON Google Play	Android phone	Android 6.0 and above *(8.0+ recommended)*
	Download on the App Store	iPhone 6 and above	IOS 12.4 and above

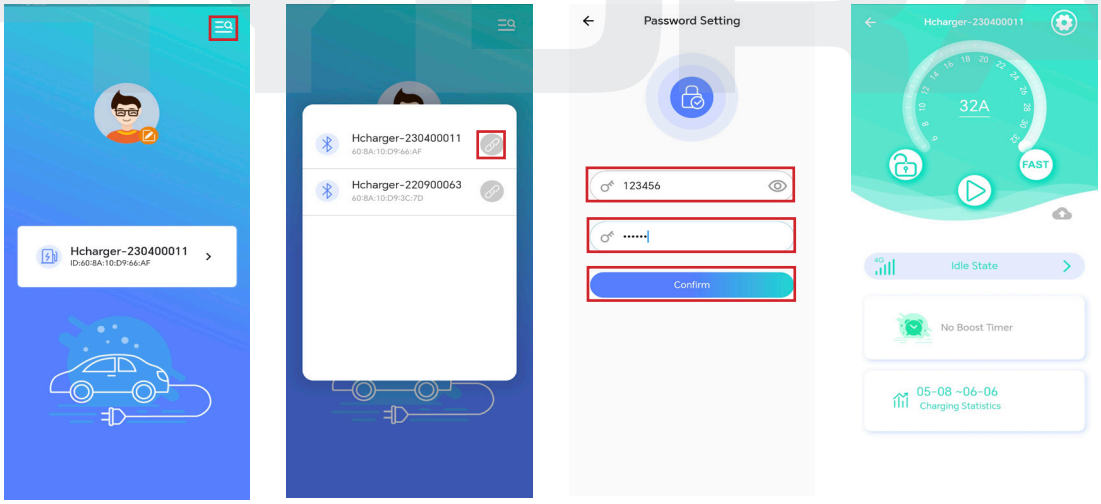
Scan these QR codes for easy access:

App Store

Google Play

LOG IN TO THE APP

Log in to the Hcharger APP, click the Menu to find your charge point, pair the device and create a password. Please write the password down on the first page of the installation manual provided in the charger's box and hand it to the customer. Be sure to make this something memorable as it will be needed should the network connection details change such as changing WiFi provider or if additional features are required such as solar compatibility



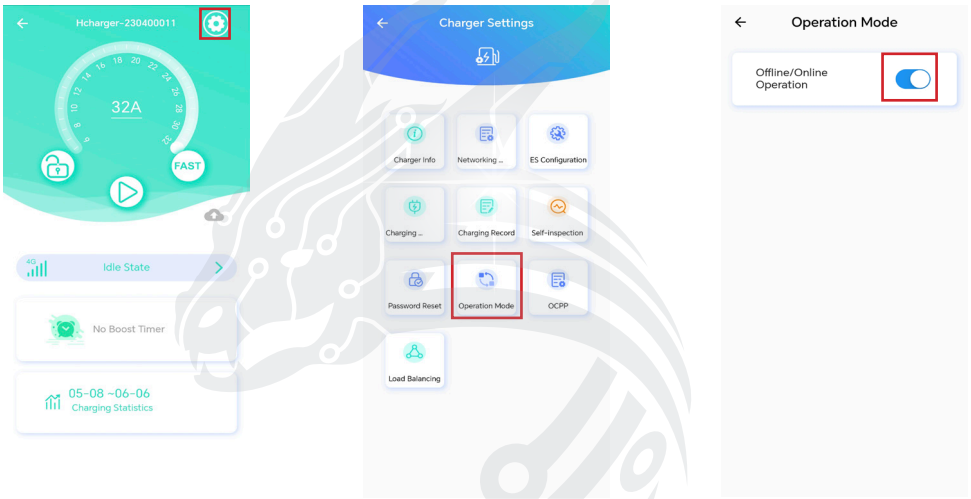
CONFIGURATION & CONNECTING VIA WIFI

HYDRA®
ELECTRIC VEHICLE CHARGERS

OPERATION MODE CONFIGURATION

Click the settings wheel on the top right of the page, then Click Operation Mode, then toggle the operation mode of the charger to online. (Only when the charger is idle. No charging plug is inserted)

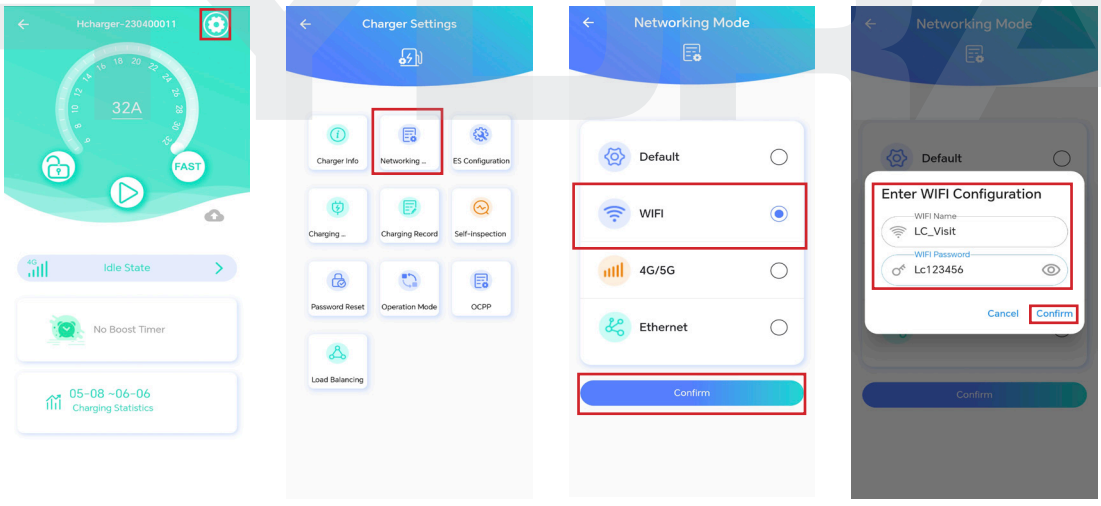
Click the back button 2 times to return to the charging screen.



CONNECTING VIA WIFI

Click the settings wheel in the top right to enter the charge points configurations. Connect to the OCPP platform through WiFi or 4G or Ethernet by clicking network. Connecting to the OCPP platform through WiFi:

Configure WiFi (input the WiFi name and WiFi password) and Click confirm.



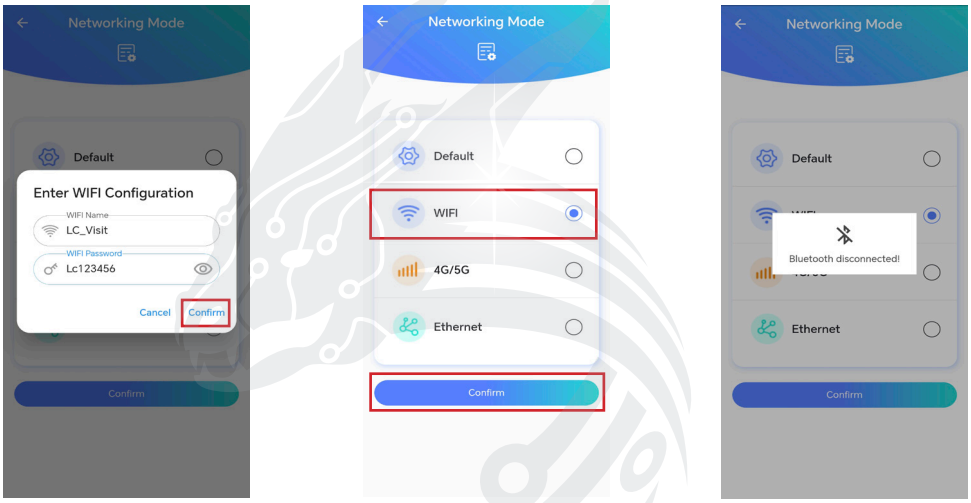
Click to confirm and the WiFi module restarts (wait for approximately 15 seconds);

WIFI CONFIRMATION & FINAL CHECKS

HYDRA®
ELECTRIC VEHICLE CHARGERS

WIFI CONFIRMATION

Click confirm again on the WiFi configuration and on the network mode screen. A pop up of bluetooth disconnected will appear.

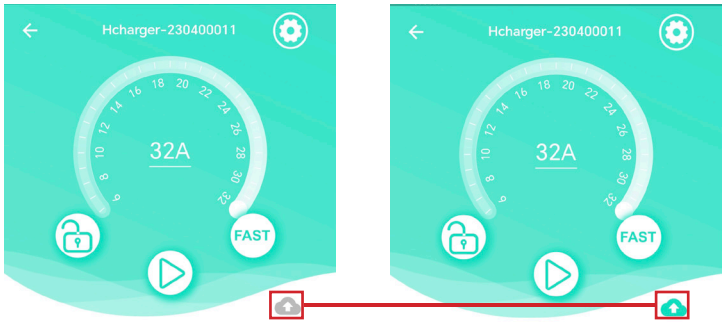


WIFI FINAL CHECKS

Power on the charger and wait until the LED light turns green(slow flashing) Log back into the Hcharger APP.

The following symbol represents a successful connection to the network through WiFi;

The following symbol indicates successful connection to the OCPP platform. This can take up to a maximum of 5 minutes.



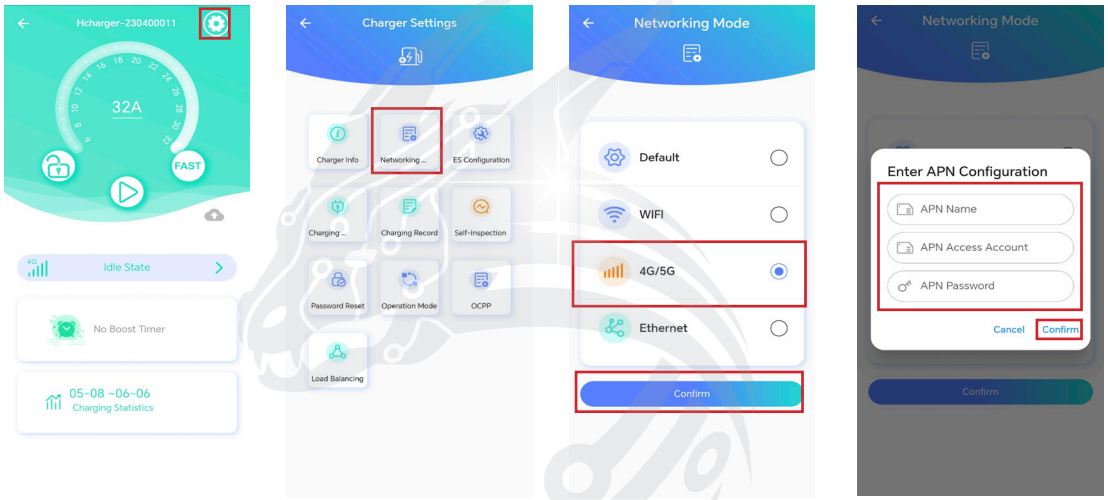
You can now Exit out of this app and dowload the Hydra Nexus app (please see page 10)

CONNECTING VIA 4G & 4G CONFIRMATION

HYDRA®
ELECTRIC VEHICLE CHARGERS

CONNECTING VIA 4G

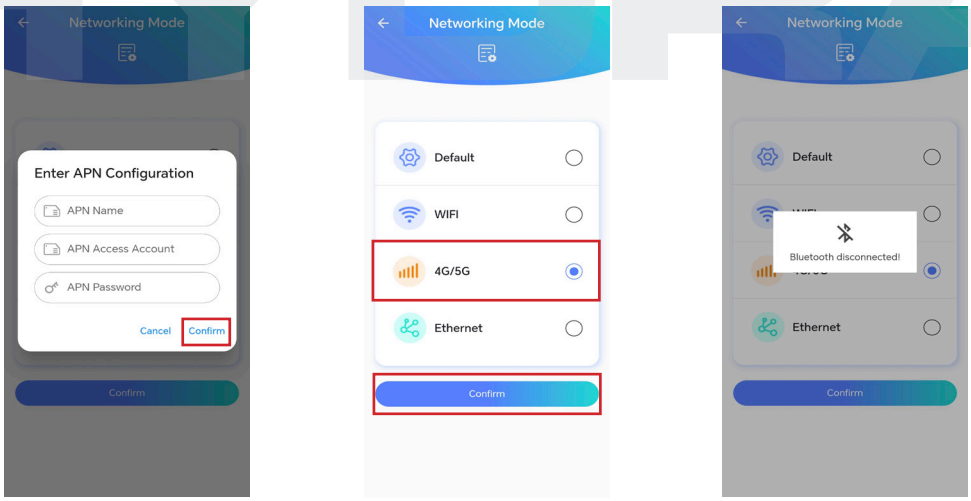
Configure 4G (if the SIM card needs to configure APN, write the APN parameter in the 4G option; If the SIM card does not need to be configured with an APN, no content will be written in the 4G option. Simply click confirm);



Click to confirm and the 4G module restarts (wait for approximately 15 seconds);

4G CONFIRMATION

Click confirm again on the wifi configuration and on the network mode screen. A pop up of bluetooth disconnected will appear.



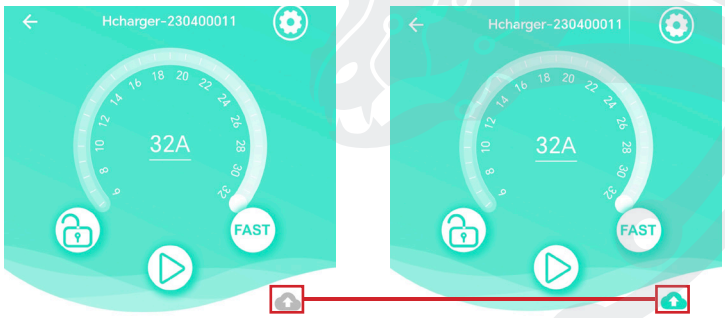
4G FINAL CHECKS & CONNECTING VIA ETHERNET

4G FINAL CHECKS

Power on the charger and wait until the LED light turns green(slow flashing) Log back into the Hcharger APP.

The following symbol represents a successful connection to the network through 4G;

The following symbol indicates successful connection to the OCPP platform. This can take up to a maximum of 5 minutes.

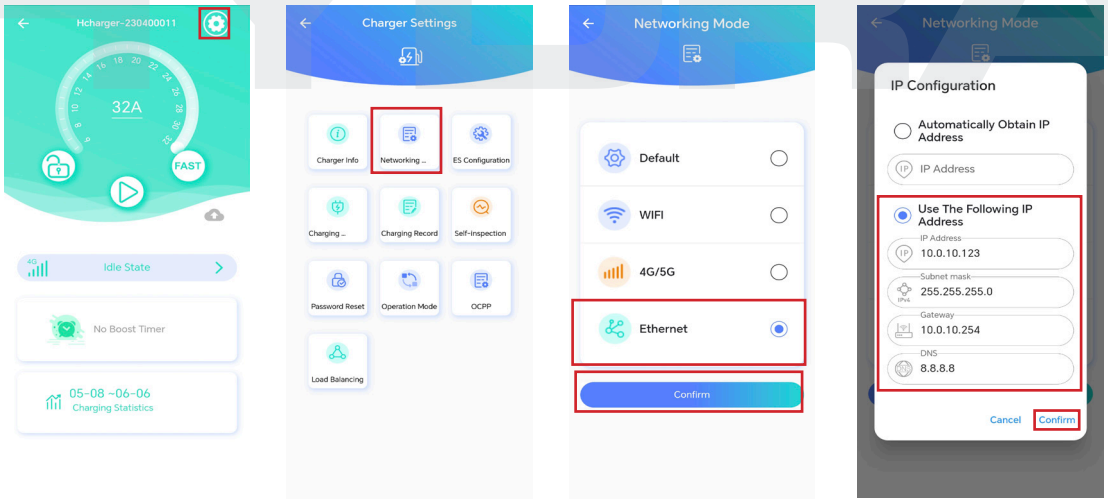


You can now Exit out of this app and dowload the Hydra Nexus app (please see page 10)

CONNECTING VIA ETHERNET

Connecting to the OCPP platform through Ethernet:

Configure Ethernet (Enter Ethernet IP address);

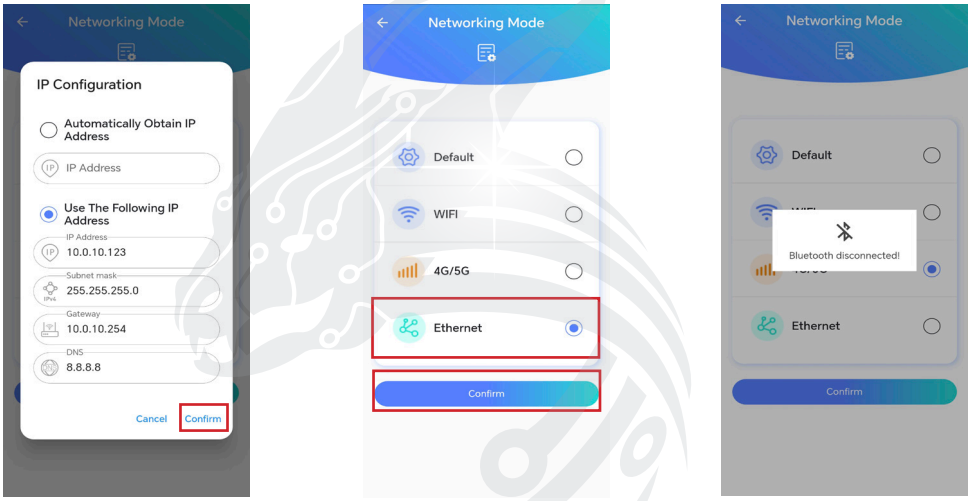


Click to confirm and the Ethernet module restarts (wait for approximately 15 seconds);

ETHERNET CONFIRMATION & ETHERNET FINAL CHECKS

ETHERNET CONFIRMATION

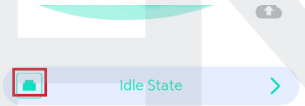
Click confirm again on the wifi configuration and on the network mode screen. A pop up of bluetooth disconnected will appear.



ETHERNET FINAL CHECKS

Power on the charger and wait until the LED light turns green(slow flashing) Log back into the Hcharger APP.

The following symbol represents a successful connection to the network through Ethernet;



The following symbol indicates successful connection to the OCPP platform.

You can now Exit out of this app and dowload the Hydra Nexus app (please see page 10)

NEED TO KNOWS AND LOAD BALANCING

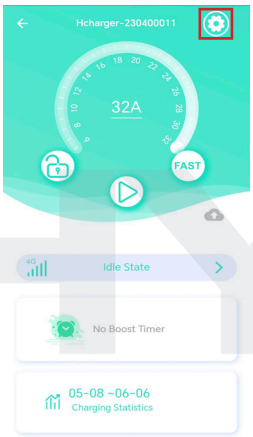
HYDRA®
ELECTRIC VEHICLE CHARGERS

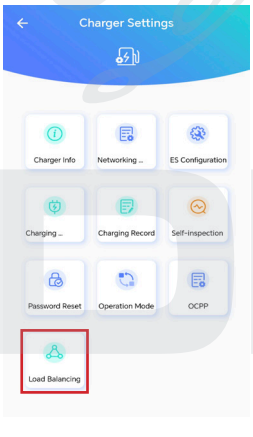
NEED TO KNOWS

- There always needs to be 1 and only 1 master charger whether there is only a single unit load balancing or if there is multiple, if there are multiple units on the same setup then the rest of the units will be slaves.
- Any slaves **MUST** be connected to the exact same network as the Master.
- The charger will automatically reset once the settings have been successfully saved.
- The maximum amount of Cubus' on 1 circuit is = 32.
- In order to achieve load management and/or solar compatibility, you must have 1 x CT (1ph) or 3x CTs (3ph) connected to the charge points internal terminal block. **Wiring details can be found in the full installation manual included in the chargers box (page 66/67)**
- The CT or CTs MUST be clamped around the live phase or phases
- Do NOT set load management if a CT(s) have not been connected, this will affect the chargers ability to dispense max power
- You can mix 3 phase Cubus and 1 phase Cubus on the same load management circuit, in this scenario a 3 phase Cubus MUST be the Master.
- If you are installing 3 or more Cubus' you MUST install each one with an ethernet cable direct to the router.

LOAD BALANCING

Tap the settings cog icon on the homepage, then tap load balancing to see all the load balancing settings.





1- Toggle the 'Load Balancing Enable' button to enable the feature

2- A) If the Cubus is a 3 phase unit on a 3 phase supply then you do not need to change anything here
B) If the Cubus is a 1 phase unit on a 3 phase supply, select which phase the Cubus has been placed on (A = L1, B = L2, C =L3)

3- Toggle the 'Master' button so that the charger knows it is the Master Cubus

4- Leave the Charging Mode on 'FAST' if you are not using Solar functionality, if you are using Solar functionality then place on 'ECO' mode for now and we will come back to this later in this manual (page 12)

More steps on the next page...

HYDRA®
ELECTRIC VEHICLE CHARGERS

LOAD BALANCING 2

5- This network setting is completely separate from the standalone 'Networking Mode' option within settings, do not confuse the two.

Please check which of the below scenarios matches your installation setup and configure the load management as stated:

If your Cubus unit/s are using Wi-Fi/4G Sim in the Networking Mode settings, please select from the below option in load balancing -

- a) 1 x Cubus: select Ethernet: Use the Following IP Address and DO NOT EDIT THE ADDRESS

- b) 2 x Cubus', here you will need to connect the 2 x Cubus with an ethernet cable:

Master Setting = select Ethernet: Use the Following IP Address and DO NOT EDIT THE ADDRESS.
Slave Setting = select Ethernet: Use the Following IP Address and increase the IP address by 1, for example if the master is 10.0.10.123 then the slave will be 10.0.10.124. Do not change anything else.

If your Cubus unit(s) are using Ethernet in the Networking Mode settings, please select the below option in load balancing-

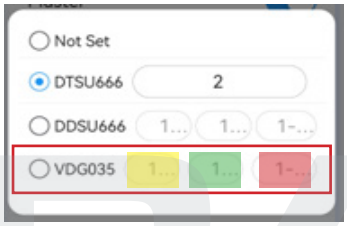
- c) Any quantity of Cubus up to 32 units:

Select Ethernet to Automatically Obtain IP Address

6- This part only relates to Solar functionality which we will come to later in this manual (page 12)

a)

b)



7- Click 'Grid Side Meter' and you will be taken to the page shown in image (b).
Select VDG035, below are the different requirements depending on the supply to the unit:
- 1 phase Cubus on a 1 phase supply = Enter '2' into the yellow highlighted field only
- 1 phase Cubus on a 3 phase supply = Enter '2' into the field that represents the phase that the Cubus is on (Yellow = L1, Green = L2, Red =L3)
- 3 phase Cubus on a 3 phase supply = Enter '2' in the Yellow field, '3' in the Green field and '4' in the Red field

8- Set the 'Grid Side Fuse Blowing Current' to the rating of the fuse at the supply board

9- Only toggle this for 3 phase Cubus units

ADDING SLAVE CUBUS AND ECO AND ECO+

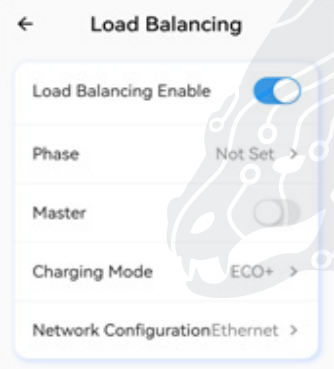
HYDRA® ELECTRIC VEHICLE CHARGERS

ADDING A SLAVE CUBUS

ONLY FOLLOW THIS STEP IF YOU'RE LOAD BALANCING MORE THAN ONE UNIT

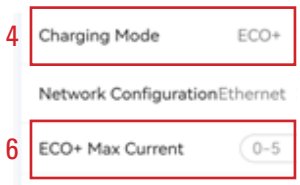
Any additional units added to the load balancing circuit will now be treated as slaves. It is vital to remember that the slaves **MUST** be connected to the exact same network as the master

After connecting any slave to the Hcharger app please go back to the Load Balancing settings and the page will look like the below.



Mirror the exact same settings as **YOUR** Master Cubus but **DO NOT** toggle the 'Master' toggle, leave it as it is in the screenshot.

ECO AND ECO+



There are only 2 functions you need to alter below when using Solar functionality which are points 4 & 6.

Point 4 = Select 'ECO' or 'ECO+'
Point 6 = This only requires an entry only when 'ECO+' mode has been selected. 'ECO+ Max Current' settings is for the grid – the max current drawn from the grid and will only be operable when 'ECO+' is selected on point 4.

ECO	Continuous charging mode. The charger will prioritise using all the available solar power and then it will make up the rest of the power from the grid, so the charger outputs the maximum that it has been set to. For example, if the maximum current is set to 32A, and there is 12A of solar available, 20A will be drawn from the grid to charge at the maximum of 32A.
ECO+	Green and Economic Mode When solar power is sufficient(≥6A), the charger will only use the solar power. When the solar power is insufficient(6A), the charger will use all of the available solar power then make the rest up using the grid so the charger will charge at its minimum. When the solar power + grid power is less than 6A, the charging session will be suspended. For example, if the "ECO+ Max Current" is set to 2A and there is only 3A of solar available, then the charge will be suspended. We recommend "ECO+ Max Current" to be set to 5A or great so the vehicle receives some charge, this works out to approximately 1.3kW

Note: The minimum working current of the charger is 6A, if the current is less than 6A, the charger will suspend the charging.

HYDRA®

ELECTRIC VEHICLE CHARGERS

Nexus Cloud

Hydra Cubus EV Charger SmartPhone APP

NEXUS CLOUD APP
USER GUIDE

V0001 30/06/2023

CONTENTS

HYDRA®
ELECTRIC VEHICLE CHARGERS

DOWNLOAD & REGISTER 15
Download The APP 15
Register And Login 15

PAIRING & BASIC CHARGING 16
Pairing 16
Basic Charging 16

SMART CHARGING & PLUG AND CHARGE 17
Smart Charge 17
Plug and Charge 17

CHARGING & CUBUS COLOURS 18
Charging 18
Cubus Colours 18

SUPPORT 19
Technical Support 19

DOWNLOAD & REGISTER

HYDRA®
ELECTRIC VEHICLE CHARGERS

DOWNLOAD THE APP

For iPhones, please use App store to search "**Nexus Cloud**" to download and install the app.
For Android phones, please use Google Play to search "**Nexus Cloud**" to download and install the app.

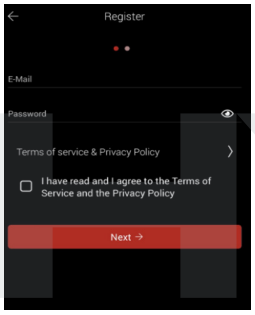
HYDRA	GET IT ON Google Play	Android phone	Android 6.0 and above *(8.0+ recommended)*
	Download on the App Store	iPhone 6 and above	IOS 12.4 and above

Scan these QR codes for easy access:

APP Store

Google Play

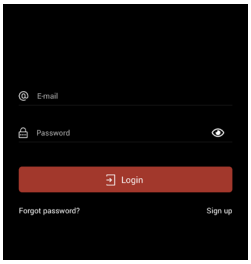
REGISTER AND LOG IN



REGISTER

In order to **Sign Up** to the Nexus Cloud App you would need to complete the registration. An **email** and **password** is required, followed by a box to tick for the the agreement of the terms and conditions.

Your password must be a minimum of 8 characters and contain at least 1 upper case letter and 1 lower case letter. You can also include special characters such as !@£$%^&*()_+



LOG IN

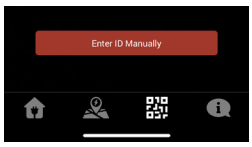
Enter your **Email Address** in the '**Email**' section and enter your password in the '**Password**' section then click '**Login**' to log in.

Please note - only one individual Nexus account can be used to operate the charge point, so each potential user will need to use the same login details as the owner.

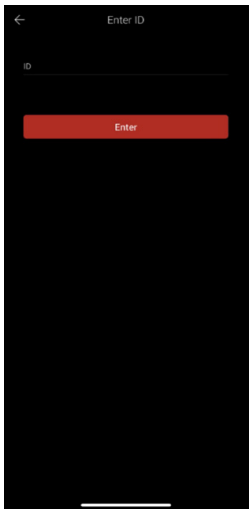
PAIRING & BASIC CHARGING

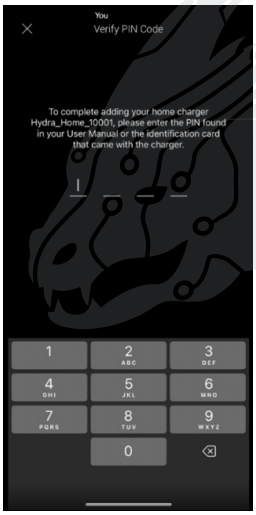
HYDRA®
ELECTRIC VEHICLE CHARGERS

PAIRING



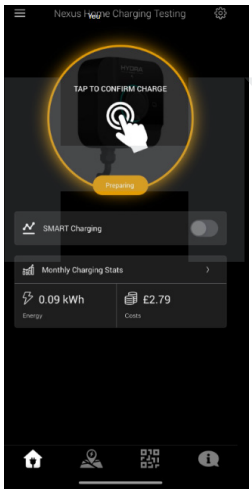
To initially pair the Hydra Cubus to your app you will need to click QR code symbol which can be seen at the bottom of the app (2nd in from the right)





Then enter the 5 digit EVSE ID code which can be found on your installation/user manual. You will then be prompted to enter the 4 digit pin found with the ID code, also found in the mentioned manual.

BASIC CHARGING



Once paired, your Hydra Cubus will be found in the house symbol which can be found at the bottom of the app (1st in from the left), this is where you will complete all operations for your Hydra Cubus.

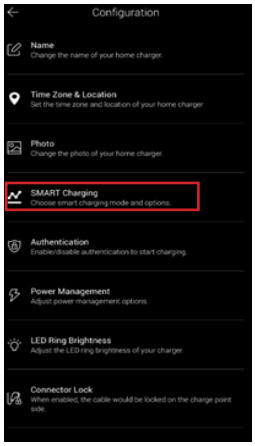
To start a charge with no smart charging, its as simple as plugging in the car and pressing the image prompt pictured.

✆ 01268 205 121 | www.hydraev.co.uk | support@hydraev.co.uk

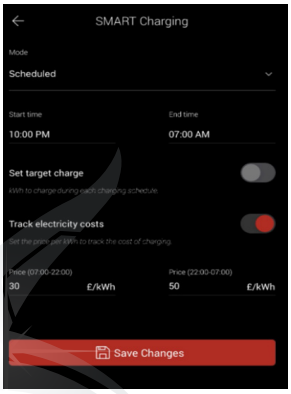
SMART CHARGING & PLUG AND CHARGE

HYDRA®
ELECTRIC VEHICLE CHARGERS

SMART CHARGING



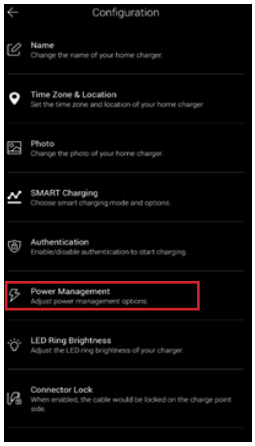
To enable smart charging features such as scheduled charging, cost tracking and target kWh charges you will need to click the settings cog in the top right corner of the home page then click 'SMART Charging' with a graph symbol next to it.



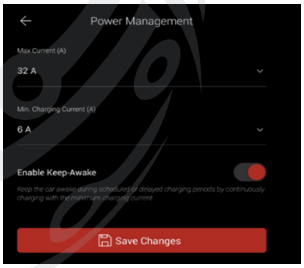
Click the drop down and select scheduled.

From here you can select your scheduled charging times, set kWh targets for charging sessions in addition to entering your electricity cost so that you can track them.

Please remember to save any changes.

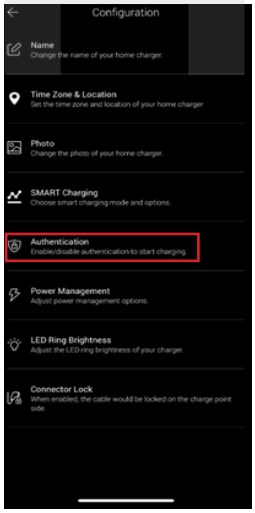


For scheduled charging to work the electric vehicle needs to be awake, this can be done via toggling the option found in power management. This is so the vehicle is awake to accept the charge during the timed profile you set.

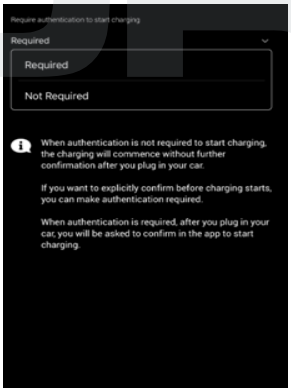


Please note, to keep the vehicle awake a small current is required, the minimum a car accepts is 6A. As a result, some electricity will be used in this process, but it is very minimal.

PLUG AND CHARGE



If you would like to plug and charge you can go to the cog wheel on the home charging main menu to get to the settings where you will find 'Authentication' with a lock symbol next to it.



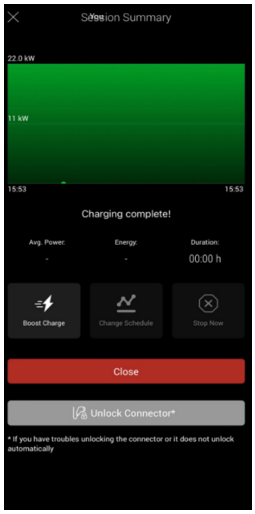
Changing this to not required will allow you to start charging as soon as you plug the charging lead in.

Please note you can stop the charge either via the app or by unplugging the car first.

CHARGING & CUBUS COLOURS

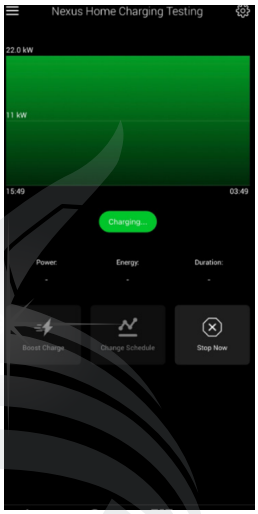
HYDRA®
ELECTRIC VEHICLE CHARGERS

CHARGING



Once the charge has started the app will display a graph where you can see the kW over time. There is an option here to stop the charge as well.

You can stop the charge either via the app or via your EV.



If you stop the charge via the app please remember to unlock the connector.

Please note on the socketed models you may need to slightly push in the tether into the charger before pulling it out to remove the tether.

CUBUS COLOURS

Green flashing light – not connected to network.

Solid Green – Connected to network and ready to charge

Blue light with fast flash – Plugged and waiting to charge

Blue light with slow flash – charging

Red light – fault detected

Please note that the charger may be a pink colour on initial load but it will change to green to connect to the network.

SUPPORT

HYDRA®
ELECTRIC VEHICLE CHARGERS

TECHNICAL HELP

If any issues arise during the servicing or you notice anything wrong with the chargers, please call 01268 205 121 and ask for the Technical Department. If the issue isn't urgent, you can also email support@hydraev.co.uk.

You can also access technical support via our website: **www.hydraev.co.uk/support**

HYDRA

HYDRA®
ELECTRIC VEHICLE CHARGERS

HYDRA EVC Ltd
Telephone: 01268 205 121
Email: sales@hydraev.co.uk
Unit 11, Totman Close, Rayleigh, Essex SS6 7UZ

V0001 30/06/2023