



io7/io8 Quick Installation Guide



Scan for full installation guide

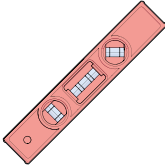
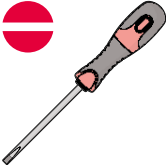
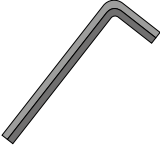
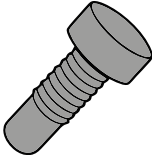

Installation guide:

The installation must be done by a qualified electrician in accordance with local and national legislation and IET regulations.

The electrical installation must be isolated during the entire installation period.

Since this charging unit uses circuits that reference to ground, no insulation resistance testing should be conducted on the unit after connecting to the supply network.

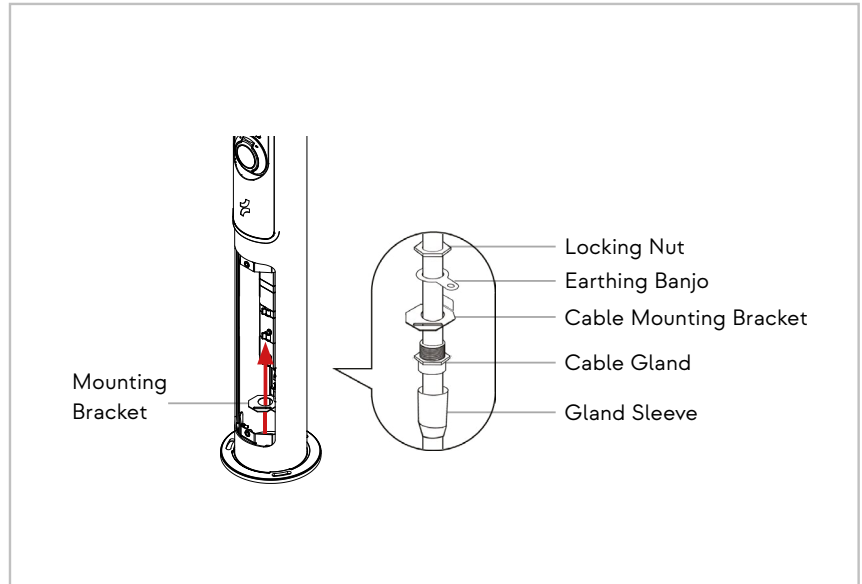
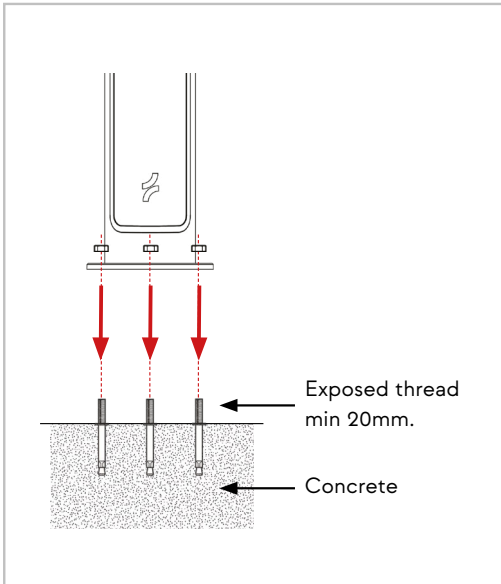
Required tools and items

		
Spirit level	Flat-head screwdriver size 3	H5 Pin Hex Allen key
		
Suitable equipment for ground fixings (M10 advisable)	Installer Label (21LAB10050)	

Prepare the foundation

Prepare the foundations of the ground prior to installing the io7, ensuring it is free from debris as well as any possible water accumulation that may occur. Using 16mm².

⚠ WARNING The io7 should never be mounted onto an insulating material unless an earth electrode is installed.

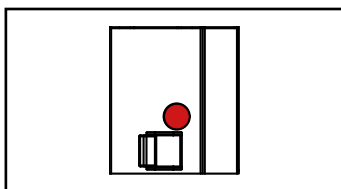


- Earth = Green/Yellow
- N = Blue
- L1 = Brown
- L2 = Black*
- L3 = Grey*

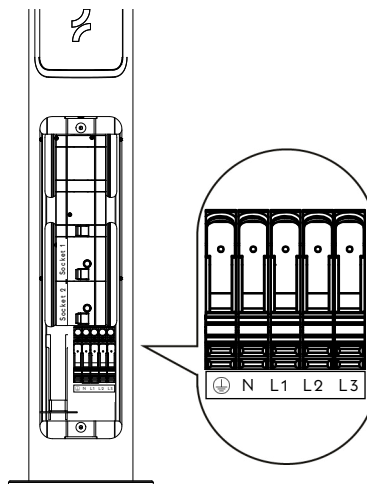
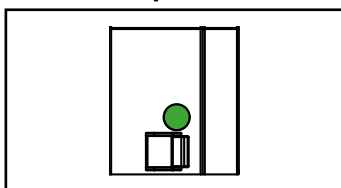
- Ensure the RCBOs are in the “on” position.
- Conduct all other relevant tests, as specified by local regulations.

* for 3 phase installation only.

RCBO on position (Red)

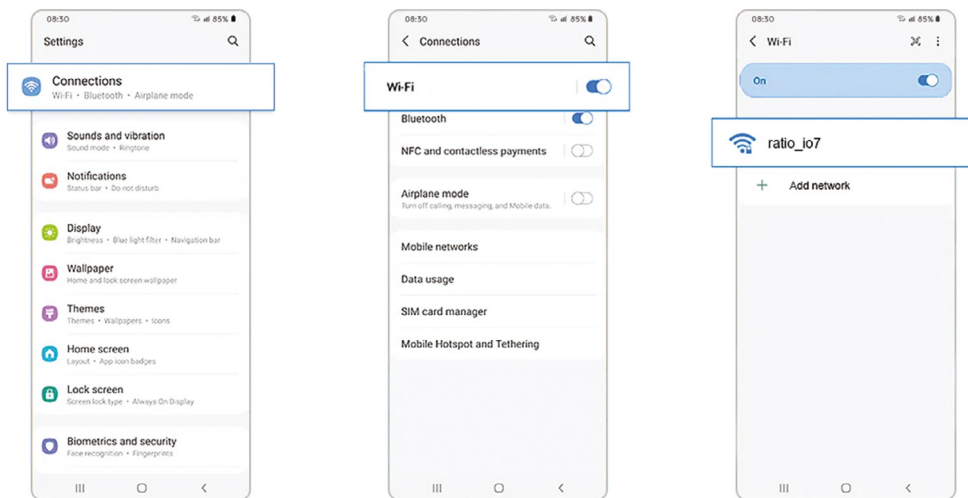


RCBO off position (Green)



Connect to ad hoc Wi-Fi

Using a mobile device or laptop search for the chargers ad hoc Wi-Fi hotspot (ratio_io7 or ratio_io7_xxxxxxxx) as illustrated below. A password window will pop-up, use the ad-hoc Wi-Fi password which can be found in the installer pack.



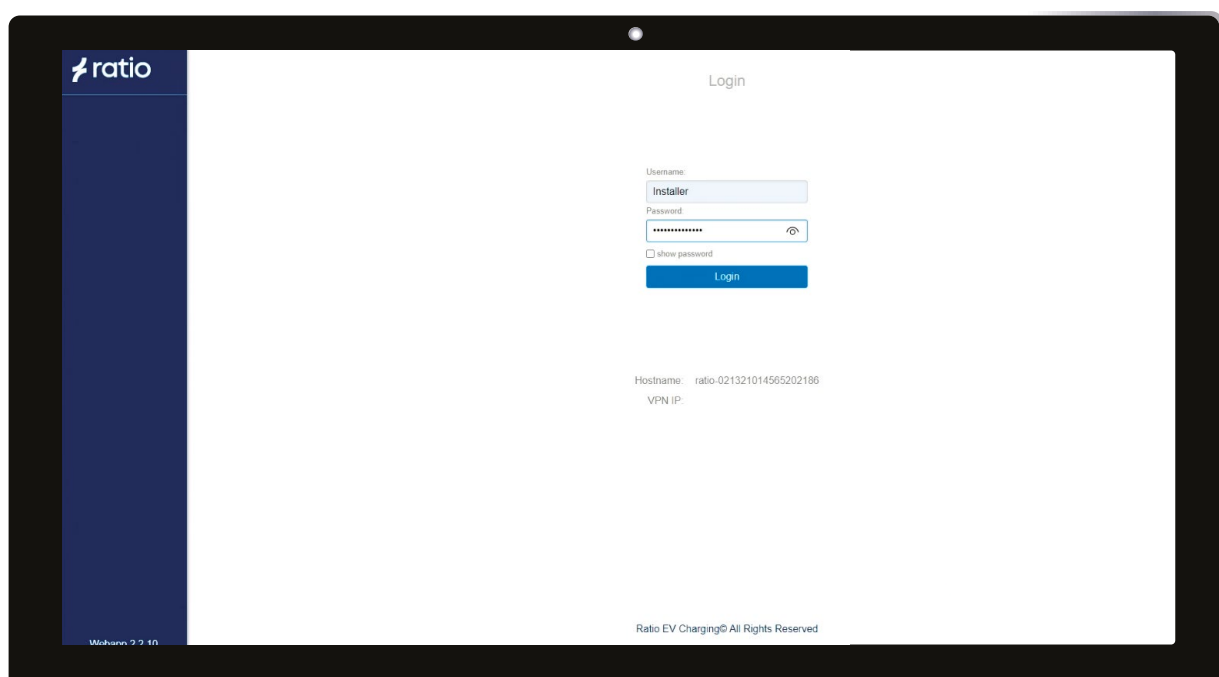
Portal Login

Once connected to the adhoc Wi-Fi, open a web browser and type 10.7.10.7 into the address bar.

If a security warning appears press continue and you will arrive at the charger login.

Enter 'Installer' as the username and then use the password provided in the supplied documentation.

Passwords for the adhoc and web portal can be found on the supplied documentation found within the charger box.



Installer set-up

ratio

Info
Transactions
CSMS
Smart Charging
Connectors
Network
Logs
Admin
Installer
User Settings
Logout

Webasto 2.2.10

Installer Settings

Charger Settings

Timezone
(UTC+00:00) UTC

Charger Current Limit [6 - 63A]
63

Installer Info

Installer Name [text]
Martin Burton

Installer Company [text]
Ratio EV Ltd

Installer Email [email]
support@ratioev.uk

Connector #1/2

Tilt/Bump Detection

Disabled

Bump Acceleration [1 - 15g]
Tilt Angle [1 - 80°]

Phase Settings

Installer Phase Selection
Phase Connection (v1)

1. Navigate to **Installer** on the left hand navigation menu.
2. Change **Charger Current Limit** to the maximum based on cable or supply.
3. Input your installer details.

4. Select **Installer Phase Selection** and chose either single or three phase. If dual socket please ensure you scroll down to update phase selection options for connector 2.

CT Clamps

Clamp #	On/Off	Rating [A]	Type
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Connector #2/2

Tilt/Bump Detection

Disabled

Bump Acceleration [1 - 15g]
Tilt Angle [1 - 80°]

Phase Settings

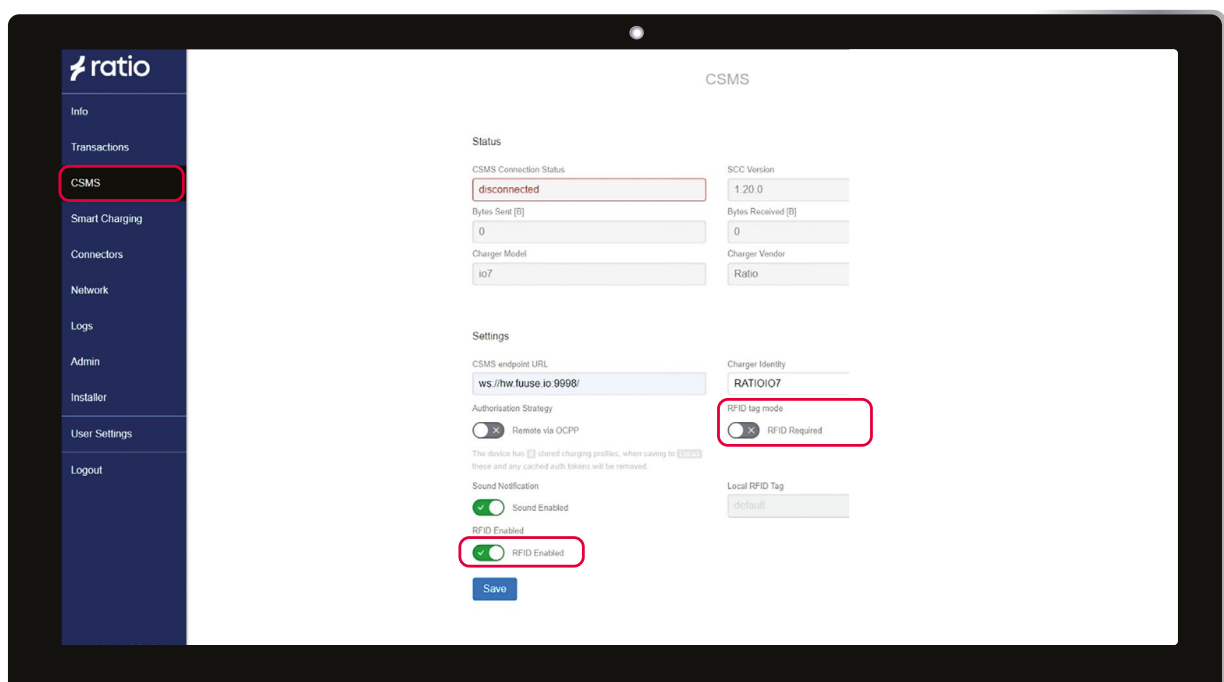
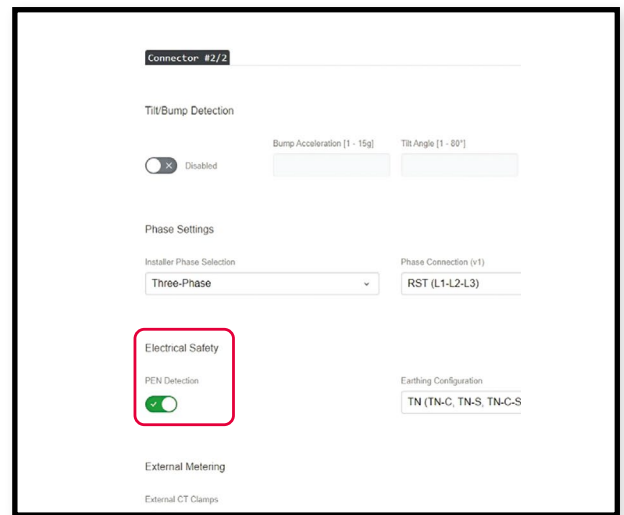
Installer Phase Selection
Three-Phase

Phase Connection (v1)
RST (L1-L2-L3)

Electrical Safety

PEN Detection
Earthing Configuration
TN (TN-C, TN-S, TN-C-S)

5. Pen detection is automatically toggled on for the UK. For the use of the io7 in the rest of Europe, please toggle off.



6. Navigate to CSMS menu bar.

7. The charger is set to free vend out of the box. If using RFID access toggle on **RFID enabled** and toggle **RFID tag mode** to off.

8. Press **Save**.

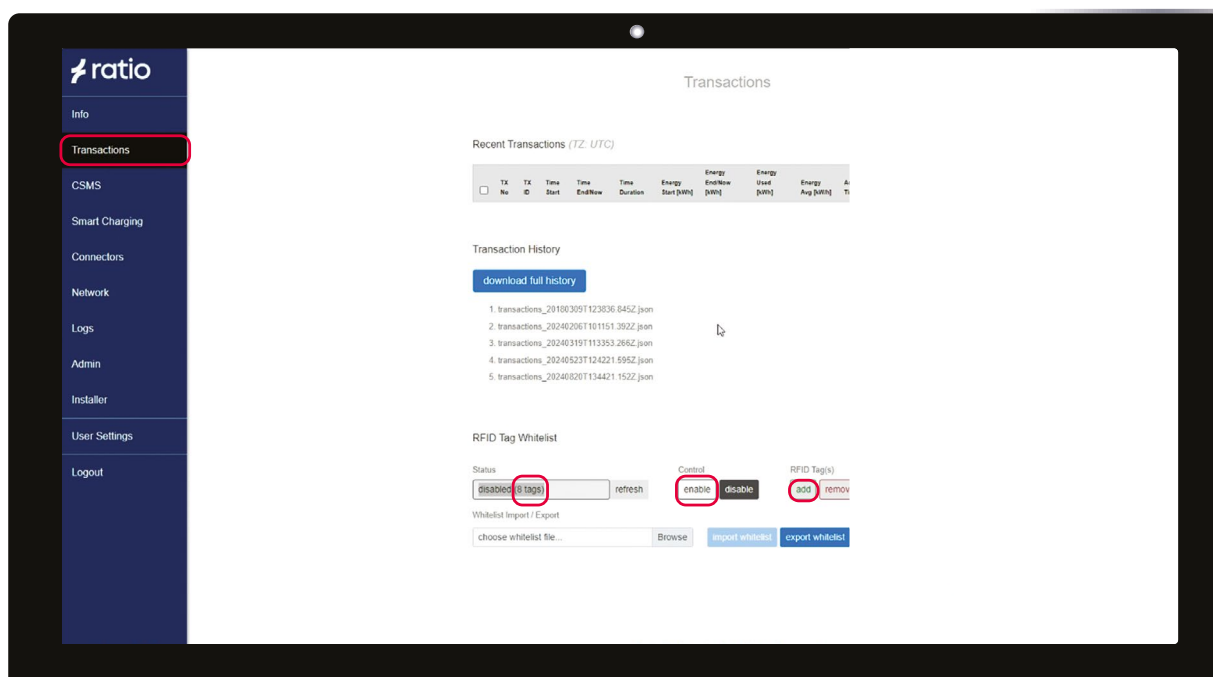
9. If using a back-office management system, toggle off the **Authorisation Strategy** and then input the web socket address into **CSMS endpoint URL**. This will be provided by your back-office provider such as Fuuse, Tap etc.

10. Press **Save**.

How to set up RFID tags without a back office management system

1. Navigate to **Transactions** on the left hand menu bar.
2. Click **add**, once selected the charger LEDs will flicker between blue and green you will then have 60 seconds to scan the RFID card to the charger.
3. Press **refresh**, the status will then indicate that a tag has been added.
4. Once all RFID cards have been added press **enable** to activate the list.

Note: If using a back office management system RFID cards will need to be added through the system and directly with the charger.



Group Load Management

Every charger which is added to the load management group will need to have a separate IP address.

1. Navigate to **Network** on the left hand navigation menu.
2. Manually amend the **INET Address (IP/NETMASK)** number for each charger, for example for three chargers in a group.

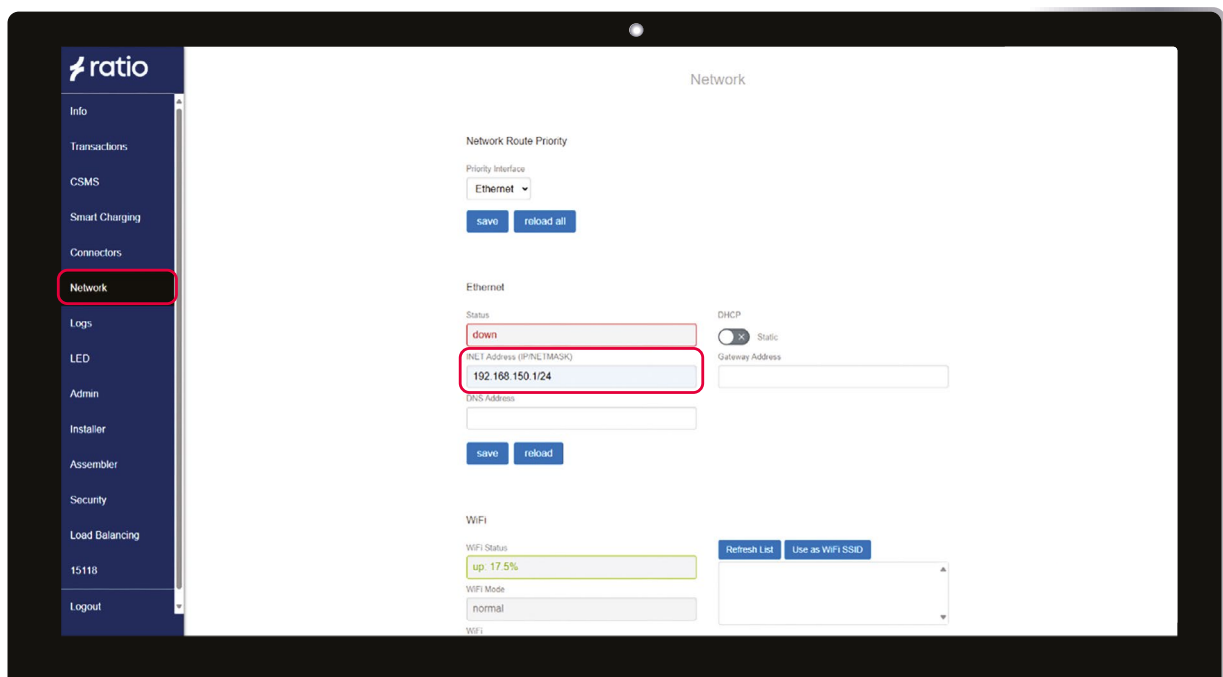
Charger 1 – 192.168.150.**1**/24

Charger 2 – 192.168.150.**2**/24

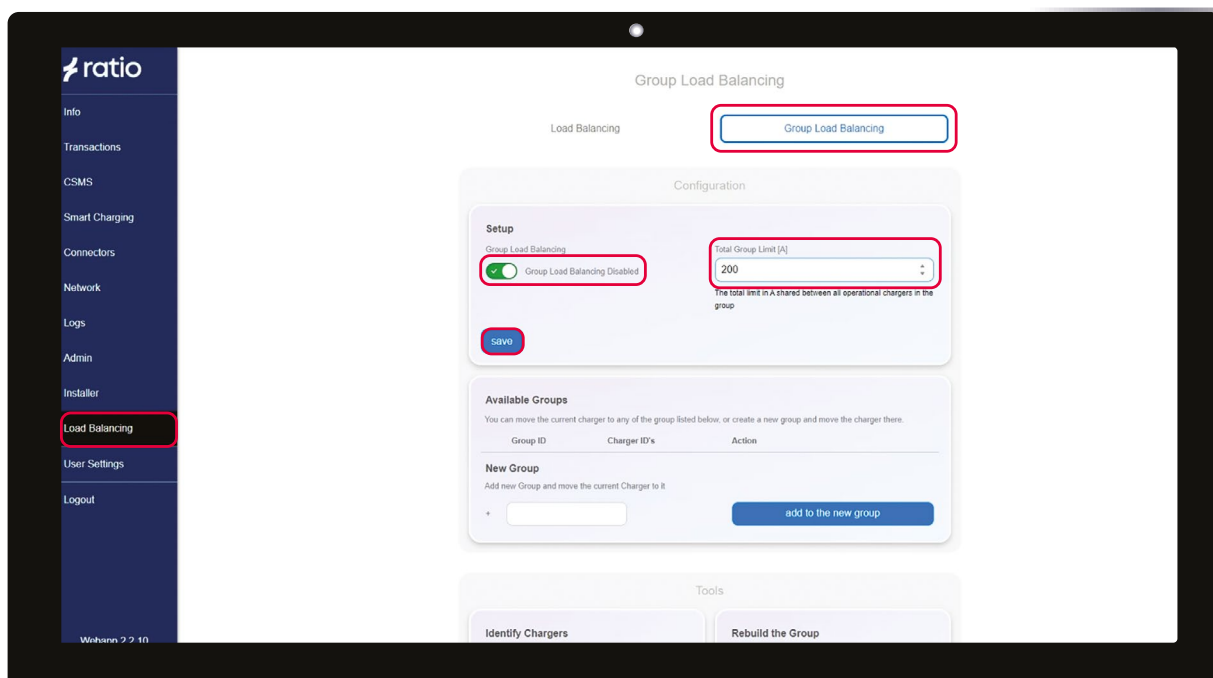
Charger 3 – 192.168.150.**3**/24

Each charger after this would then be changed to 4/24, 5/24 and so on.

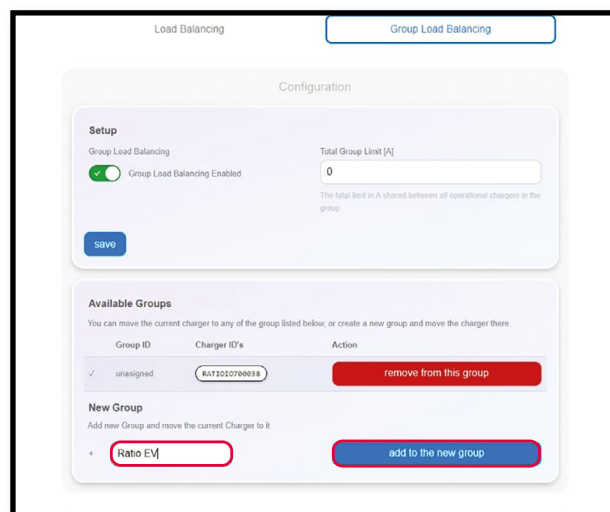
Note: Please ensure the IP address is updated for each charger before completing steps 3-12.



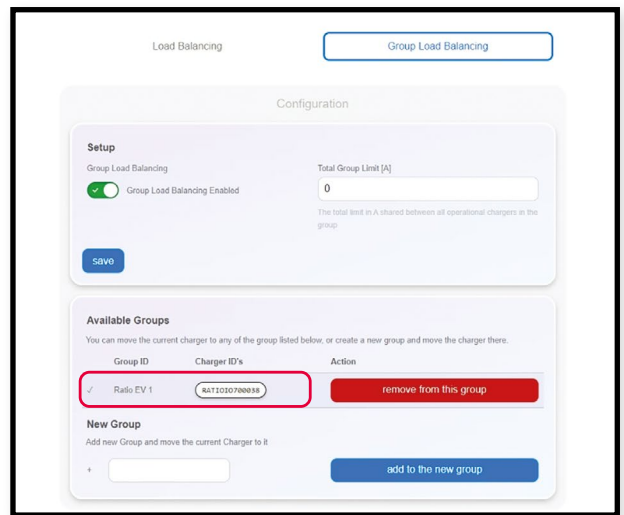
3. Navigate to **Load balancing** on the left hand navigation menu and then **Group Load Balancing**.
4. Toggle on **Group Load Balancing** then set the building amp limit in the **Total Group Limit** box.
5. Press **Save**.



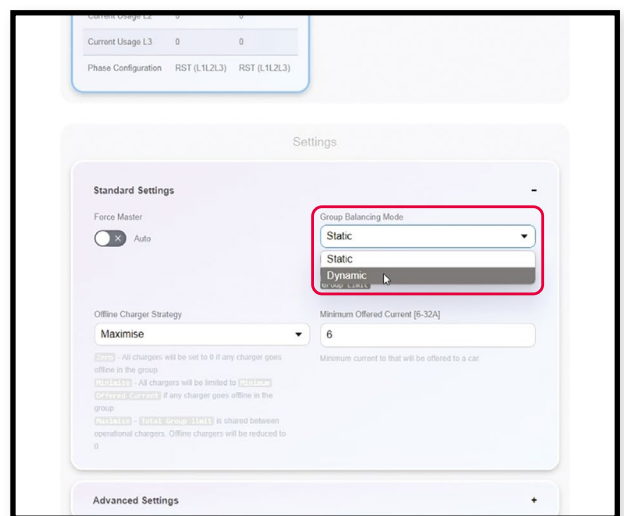
6. The charger will then need assigning to a group. Choose a name and press **add to new group**.



7. The charger has now been assigned to a group.

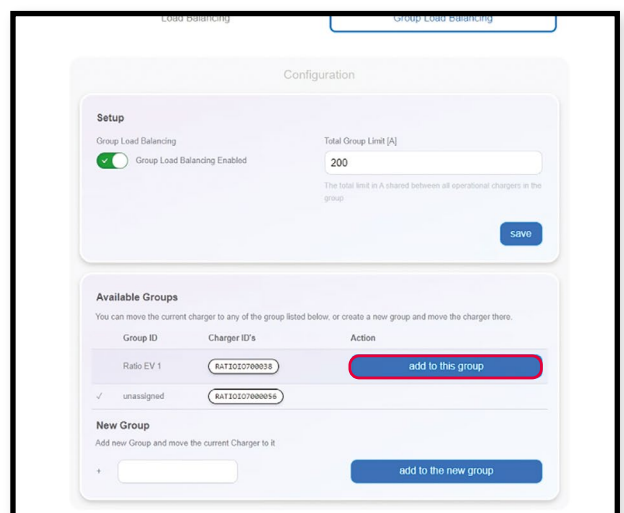


8. The charger will now be pulsing yellow as it is the only charger in the group.



9. The additional chargers now need to be commissioned and added to the same group. Repeat steps 1 to 3 for load management.

10. Any new chargers will need assigning to the existing group, do not create a new group.



- Once all chargers have been assigned scroll down the page to find an overview of all chargers.

Parameter	Connector 1	Connector 2
Current Offered	0	0
Car Authorized	No	No
Current Usage L1	0	0
Current Usage L2	0	0
Current Usage L3	0	0
Phase Configuration	R (L1)	R (L1)

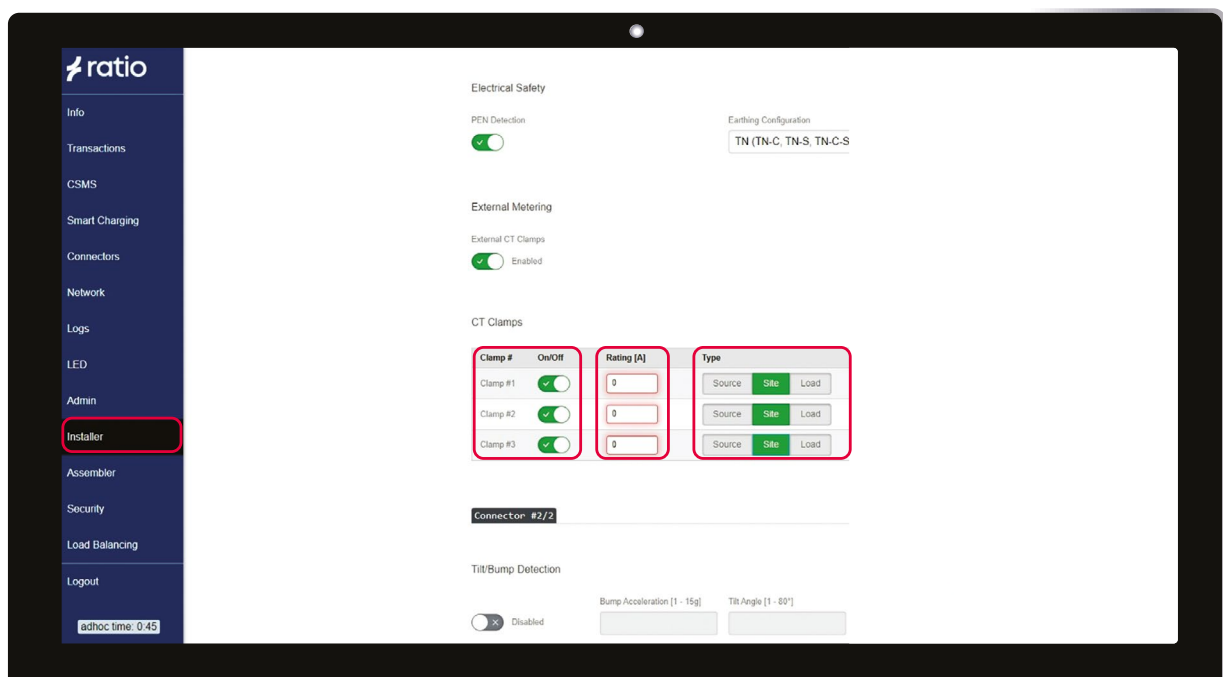
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Current Usage L1	0	0
Current Usage L2	0	0
Current Usage L3	0	0
Phase Configuration	R (L1)	R (L1)

Parameter	Connector 1	Connector 2
Current Offered	0	0
Car Authorized	No	No
Current Usage L1	0	0
Current Usage L2	0	0

Dynamic Load Management set-up

If using dynamic load balancing navigate to **Installer** on the left hand navigation menu, scroll down to connector 1 and **External Metering**.

- Enable **External CT Clamps**.
- Toggle each CT clamp on (1 for single phase and 3 for three phase).
- Input the ratings of the CT clamps with the Sense kit.
- Assign Type as **Site**.





Ratio EV Charging,
Unit 1 Target Park,
Shawbank Road,
Lakeside,
Redditch,
Worcestershire
B98 8YN

+44 (0) 1527 396 900
ratioev.uk
info@ratioev.uk