

 **Versinetic**
versatile ev charging solutions

Versinetic V4 LinkRay
Load Balancing
Controller



Versinetic V4 LinkRay Load Balancing Controller User Guide

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Versinetic V4 LinkRay Load Balancing Controller



Product Information

Specifications

- Firmware Version: 1.3.11
- Network Settings available
- Charger Configuration in multiple parts
- Supports RFID Tags (Optional)

Product Usage Instructions

1. Connecting the Device

Connect the power and ethernet cables according to the wiring diagram provided. Ensure proper Modbus connections.

2. LED Patterns

Solid green light indicates starting up, blinking green light indicates normal operation, and solid red light indicates a fault.

3. Device Startup

The device will take about 2 minutes to boot up. Once the LED is blinking green, it is operating normally.

4. Remote Access

Log onto the online remote access tool using the provided email and password. Select the device from the list to access the user interface.

5. User Interface

Use the default credentials to log into the LinkRay device's user interface. Customize settings as needed.

6. Charging Configuration

Set up charging options based on your requirements, such as enabling new charging while offline and controlling charging limits.

7. IP Configuration

Set a static IP address for the device and reserve it in the routers for stability. Ensure proper IP configuration for seamless operation.

8. Charger Connection

Get the IP address of the LinkRay device, format it correctly, and use it to connect your charger to the system

for charging sessions.

FAQ

- **Q: Why is setting a static IP address important?**

A: Setting a static IP address ensures that all chargers can reliably connect to the LinkRay device without any IP conflicts, providing stable operation.

- **Q: How do I connect a charger to the LinkRay device?**

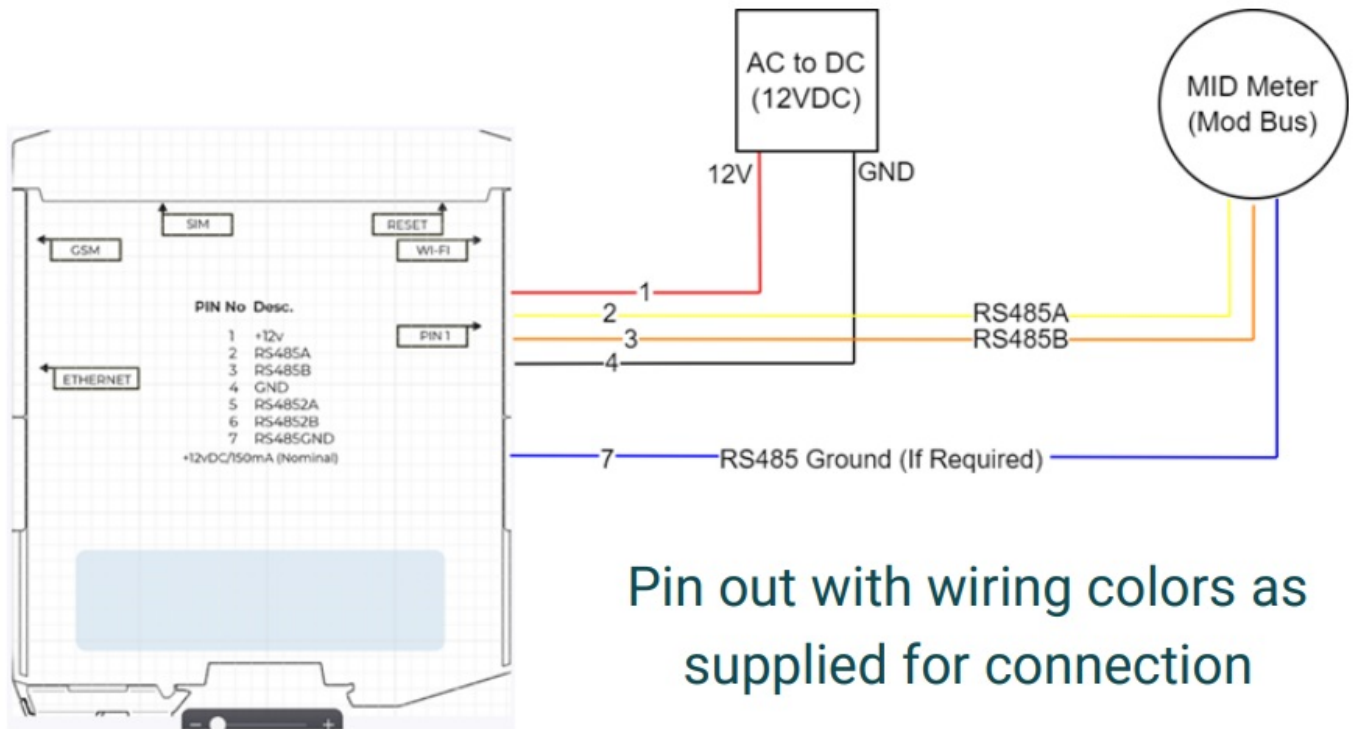
A: Download the Autel Charge -EV Charging app, connect to the charger via Bluetooth by scanning the provided QR codes for easy setup.

Physical Setup

Connect the power and ethernet cables



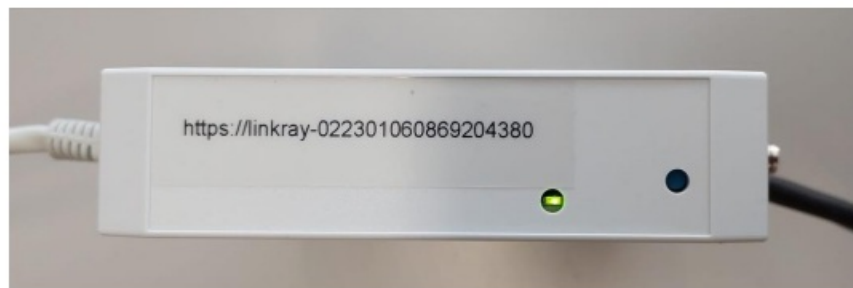
In the wiring diagram there is also Modbus connections to a mid-meter RS485A & RS485B, this is only applicable on relevant installs



Initial Startup

LED Patterns:

- solid green – starting up
- Blinking green – normal operation
- solid red – Fault



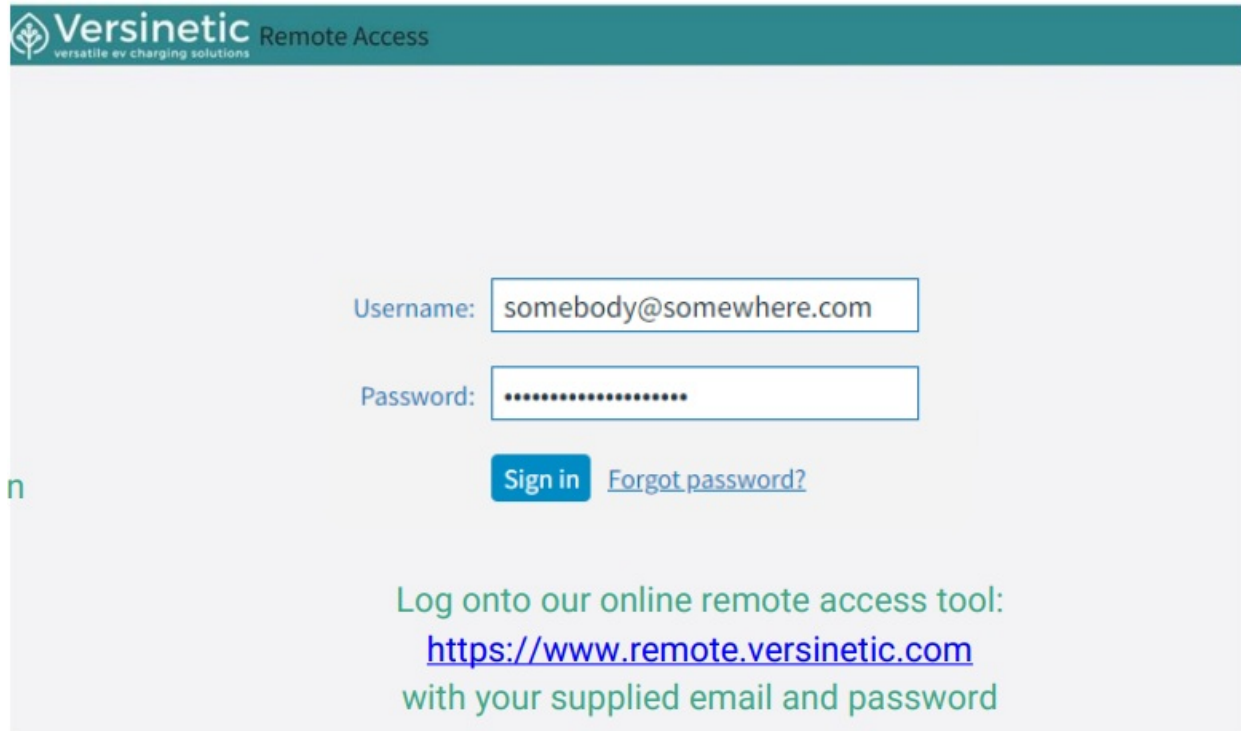
The LinkRay device will follow this procedure given no faults occur:

1. It will take about 2 minutes to boot and start up – LED will be ON (If the LED is still UNBLINKING after this, it is most likely updating to the most recent software version – the time this takes varies as devices with older software versions need to update multiple times)
2. Then it will be operating normally – LED will be FLASHING green

Remote Access

The LinkRay device should automatically start once provided power and connection to the internet, it can now be

connected to remotely



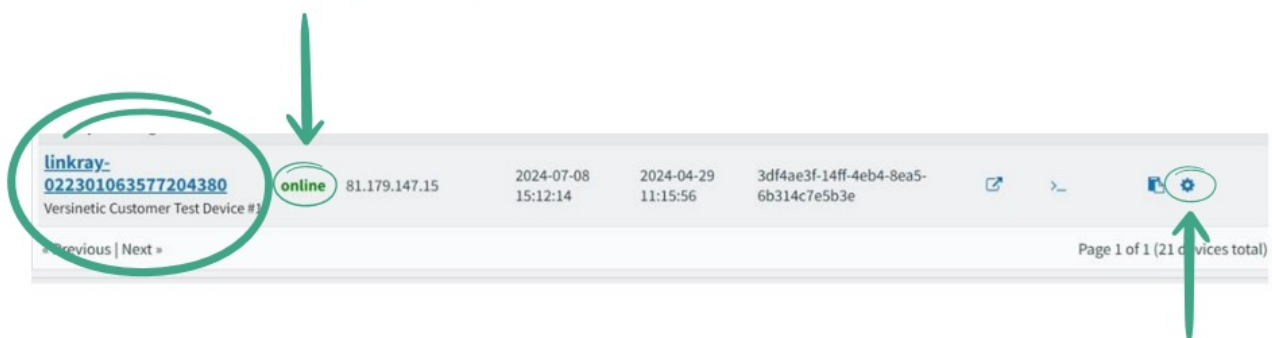
The image shows the Versinetic Remote Access login interface. At the top, the Versinetic logo and 'Remote Access' text are displayed. Below this, there are input fields for 'Username:' and 'Password:'. The username field contains 'somebody@somewhere.com' and the password field is filled with dots. Below the password field is a blue 'Sign in' button and a link for 'Forgot password?'. At the bottom, there is a green text prompt: 'Log onto our online remote access tool: <https://www.remote.versinetic.com> with your supplied email and password'.

Log onto our online remote access tool: <https://www.remote.versinetic.com> with your supplied email and password

Log In I LinkRay User Interface

Select the LinkRay name to connect. This will take you through to the LinkRay User Interface

All devices on your account will be shown with their availability (on/offline)

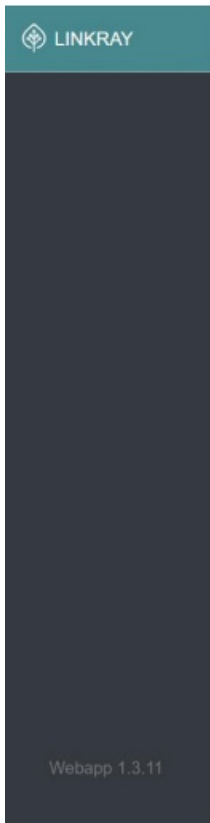


The image shows a table of LinkRay devices. The first device is highlighted with a green circle around its name and a green arrow pointing to its 'online' status. Another green arrow points to a cog icon in the rightmost column, with a text annotation below it stating 'Sites can be renamed here with the cog symbol'. The table has columns for device name, status, IP address, and two dates. The first device is 'linkray-022301063577204380' with status 'online' and IP '81.179.147.15'. The second device is 'linkray-022301063577204380' with status 'offline' and IP '81.179.147.15'. The third device is 'linkray-022301063577204380' with status 'offline' and IP '81.179.147.15'. The table also includes a 'Page 1 of 1 (21 devices total)' footer.

LinkRay Name	Status	IP Address	First Date	Second Date	Third Column	Fourth Column
linkray-022301063577204380	online	81.179.147.15	2024-07-08 15:12:14	2024-04-29 11:15:56	3df4ae3f-14ff-4eb4-8ea5-6b314c7e5b3e	[Cog Icon]
linkray-022301063577204380	offline	81.179.147.15	2024-07-08 15:12:14	2024-04-29 11:15:56	3df4ae3f-14ff-4eb4-8ea5-6b314c7e5b3e	[Cog Icon]
linkray-022301063577204380	offline	81.179.147.15	2024-07-08 15:12:14	2024-04-29 11:15:56	3df4ae3f-14ff-4eb4-8ea5-6b314c7e5b3e	[Cog Icon]

LINKRAY USER INTERFACE

Default User: Assembler Default Password: 2WW%[4%9nU`HWhGe



Login

Username:
Username

Password:
Password

☐ show password

Login

Type: LR

Hostname: linkray-022301030997204380

Firmware Version: linkray-1.3.11

Versinetic 2024

Log into the LinkRay device

Configure the Site Power Limits

No CSMS URL (or default: ws://:80) means LinkRay is running without payment backend

Configuration Settings

CSMS / Cloud Billing Platform

CSMS Server Address
ws://:80

☒ Allow charging without cloud billing platform / in the event of internet failure

Site Configuration

Voltage [V] (L-N)
248

Split Mode (Line to Line)
Disabled

Total Power [kW]
44.46

L1 [A]
100

L2 [A]
100

L3 [A]
100

Measurement Interval [s]
10

Line to Line Voltage (208V / 240V)
240V (Dual Phase)

PFC Charging Mode
Disabled

Use Meter
Disabled

Save All

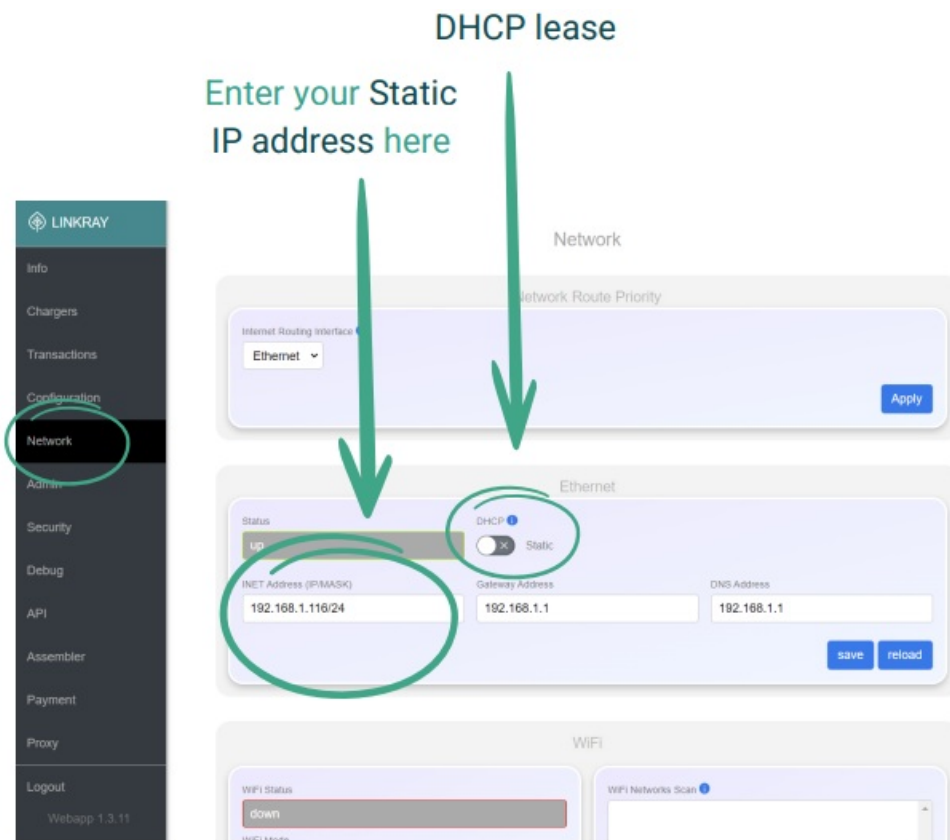
'Allow New Charging While Offline' ENABLED indicates the LinkRay can authorise charging sessions itself (required when running offline mode)

'Use meter' disabled means that the LinkRay will control charging limits without monitoring for additional power usage (such as building power). In this mode, ensure that the limits cannot be exceeded by lowering the total by a safe margin

In this example:
Site power is set to '100A' on each of the three phases to the site: L1, L2, L3

Network Settings

Set a Static IP address & ideally also reserve the LinkRay IP in the routers DHCP lease
(If you leave this option as dynamic, an IP address is automatically assigned)



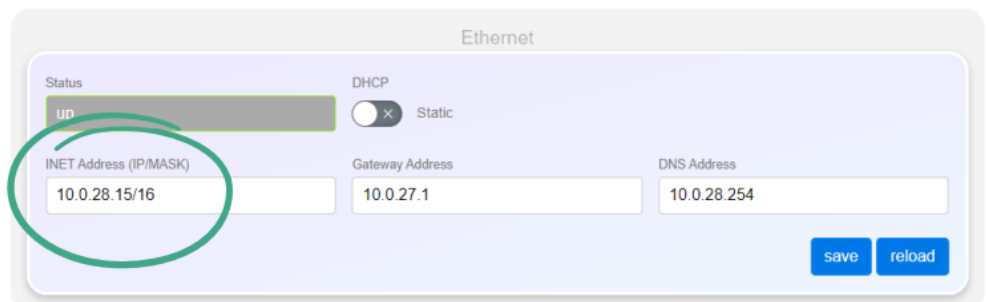
NB: after swapping between DHCP & Static, the LinkRay will need to be rebooted

Why is this important?

All chargers need to be configured to point to the LinkRay. The IP address must stay at a fixed IP for LinkRay to function

Charger Configuration [Part 1]

Get the IP of the LinkRay from Network -> ethernet



Add the prefix "ws://" OR "wss://"
Remove the backslash and all subsequent numbers
Add the suffix ":8887" OR ":8886"

E.G., "10.0.28.15/16" becomes "ws://10.0.28.15:8887"

You will need to copy this or write it down to enter it into a charger later, it will be referred to as CSMS URL or Server URL or

It should be in the format of: ws://aaa.bbb.ccc.ddd:8887 OR wss://aaa.bbb.ccc.ddd:8886 (where each section of numbers can be 1, 2, or 3 long)

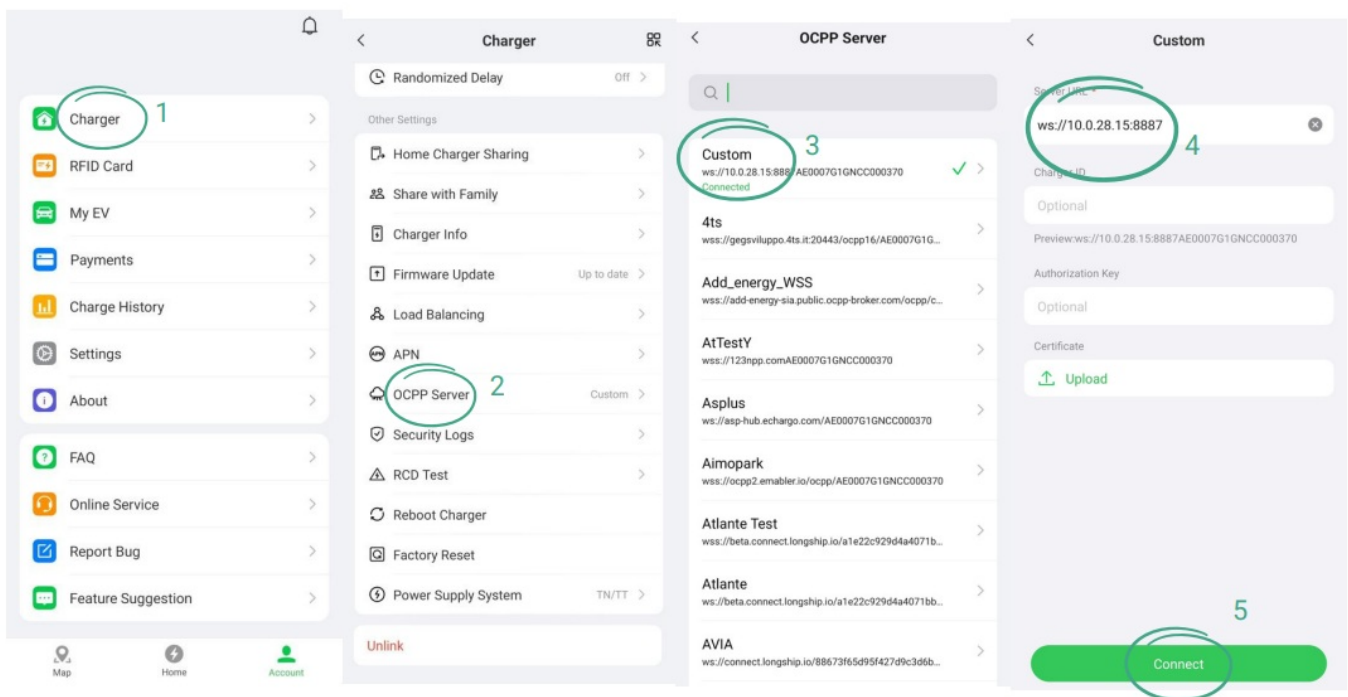
- ws indicates a web socket (like http) – more likely to work (better for initial setup)
- wss indicates secure web sockets (like https) – more secure (more advanced)

The Subsequent 3 pages all cover the same thing: connecting a charger to the LinkRay device. They are from 3 different chargers and are only examples, your charger may differ in the steps themselves, but the principle is the same

Charger Configuration [Part 2 – Example 1: AUTEL]

Download the “Autel Charge -EV Charging” and connect to the charger via Bluetooth (done easily by scanning the QR code on the charger and then the QR code with the manual)

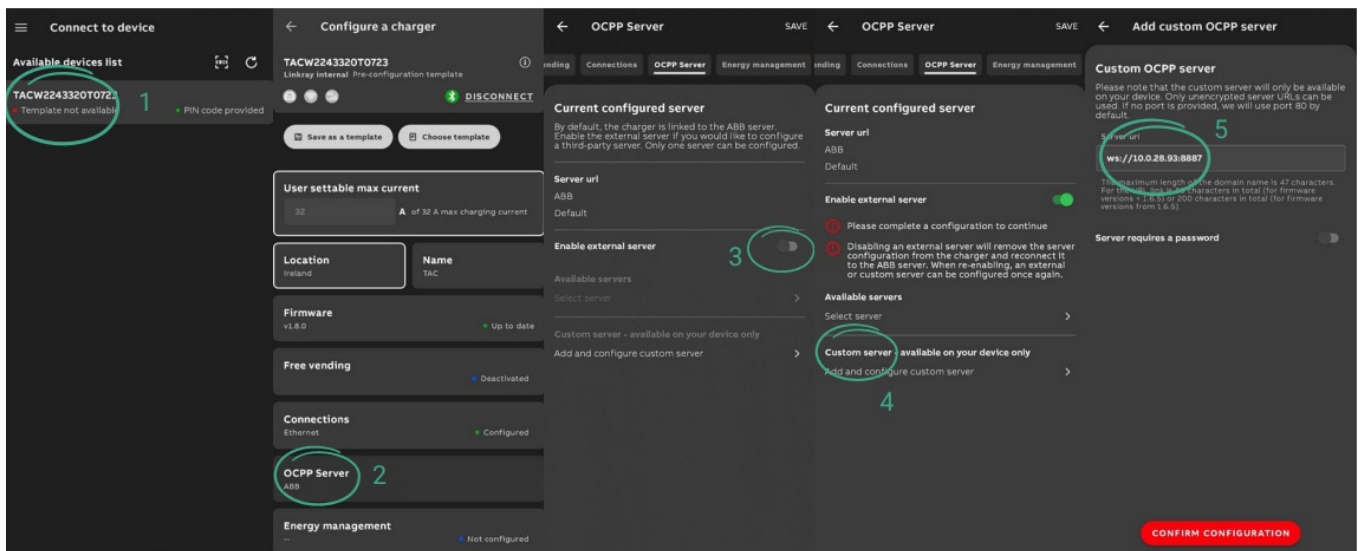
1. Select “Charger”
2. Scroll down and select “OCPP Server”
3. Select Custom
4. Type in the Server URL
5. Connect



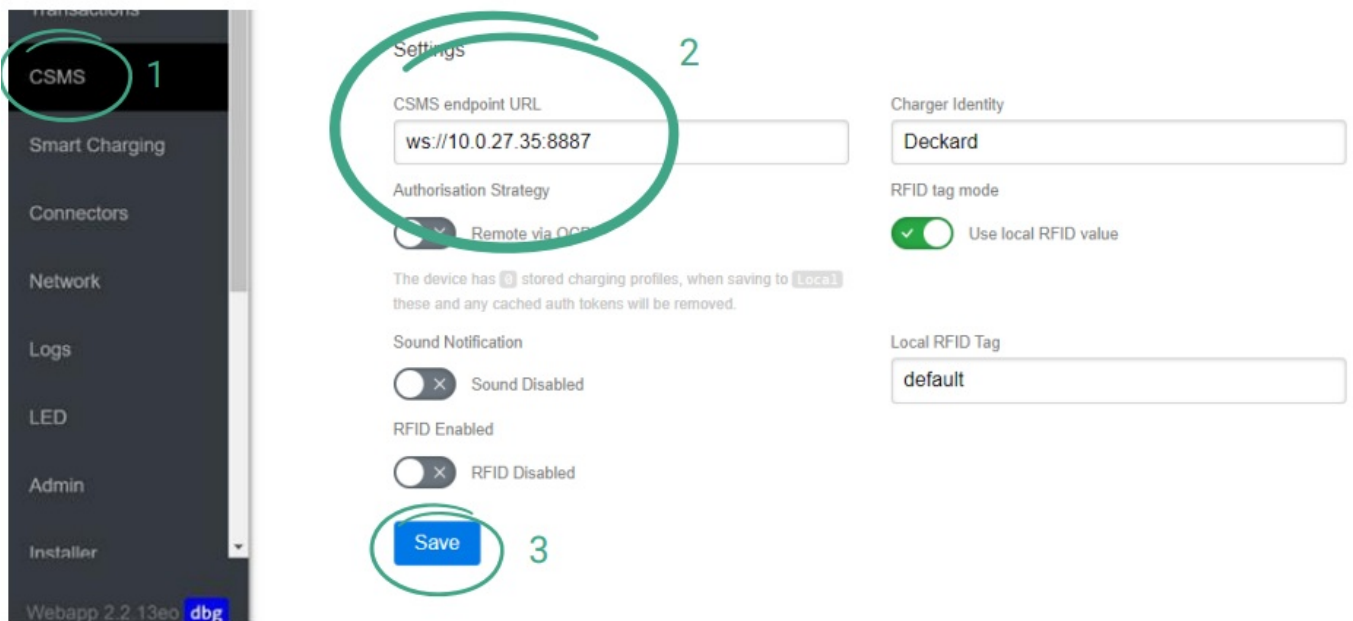
Charger Configuration [Part – Example 2: ABB]

Using the ABB TerraConfig App log onto the charger using Bluetooth. You maybe required to enter the user PIN at this point.

1. Log onto the charger using Bluetooth
2. The default server will be ABB, click to update it
3. Enable the external server slider
4. Select “Add and configure custom server”
5. Enter IP address of LinkRay device



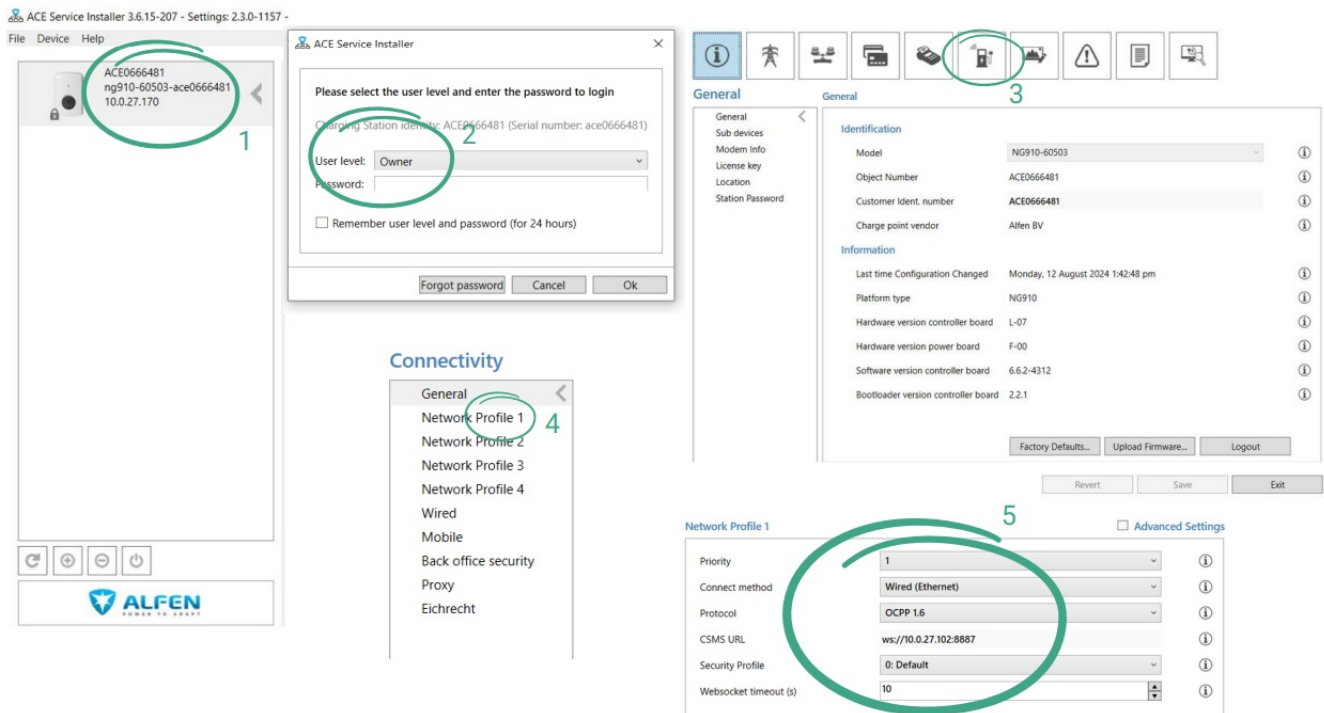
Charger Configuration [Part 2 – Example 3: EOI]



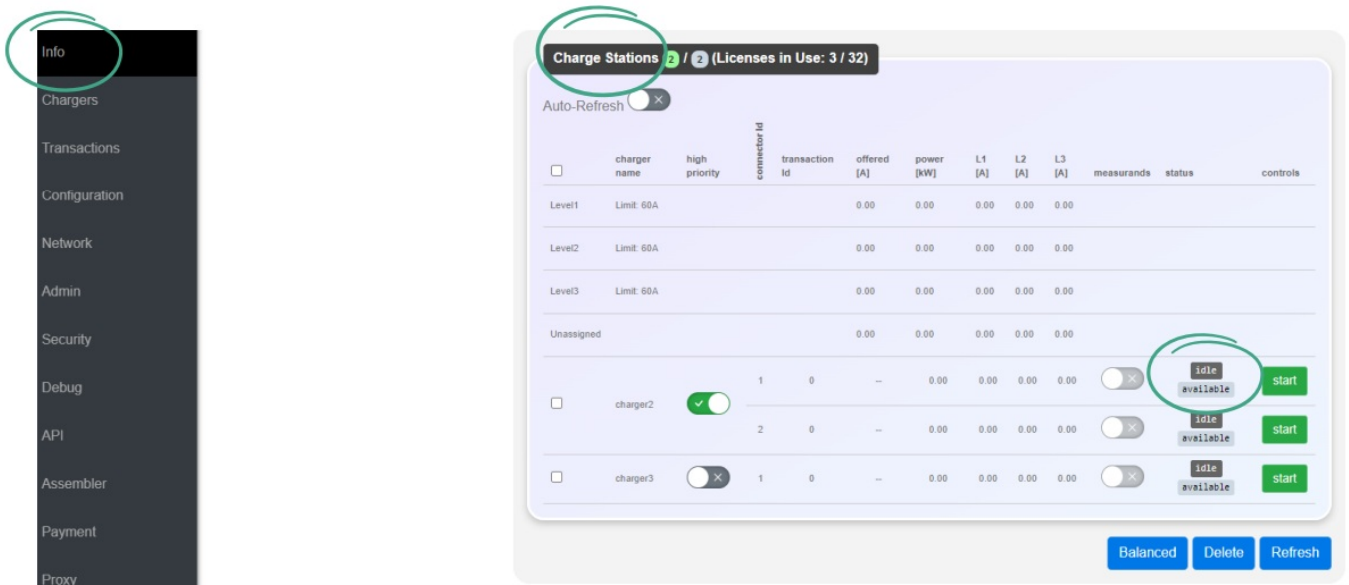
Charger Configuration [Part – Example 4: ALFEN]

The MyEve mobile app is NOT a valid way to set up an ALFEN charger as it does not allow for custom CSMS URL's, instead you MUST install the ACE Service installer, and contact ALFEN support for details to log in. Once logged in then you can add chargers with the code found with the charger.

1. add the charger and select it
2. log in using the credentials given
3. Select the EV charging symbol
4. select "Network Profile 1"
5. Copy the drop downs as seen, but enter your own CSMS URL

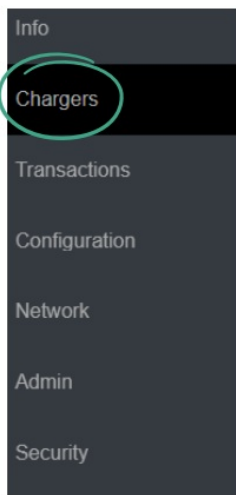


Charger Configuration [Part 3]



Charger Configuration [part 4]

1. Select the 'Charger' tab and enter a 'Friendly Name' to aid identifying devices
2. Select if the charger is 'Single Phase' or 'Three Phase'
3. Select the physical phase connections, i.e. L1-L1/L2-L2/L3-L3
4. Optional: Chargers can be grouped with limits, per group (if required)
5. Click on SAVE



4

Enable & Add Any RFID Tags (Optional) + TEST

1. Enable:

If required turn on a whitelist for RFID authorisation

2. Add tags by:


- presenting them to a configured charger (manually tap the RFID card onto the charger). Then selecting it from the “RFIDS rejected” using the tick box
- OR uploading a CSV file
- OR manually using the [+] button

3. Test:

Navigate to the ‘Info’ tab, the system is ready to be tested

- Full user manuals are available at: <https://docs.versinetic.com>
- Discover more about LinkRay: <https://www.versinetic.com/hardware/linkray-charge-station-load-balancing-controller/>

Documents / Resources

	Versinetic V4 LinkRay Load Balancing Controller [pdf] User Guide V4 LinkRay Load Balancing Controller, V4, LinkRay Load Balancing Controller, Load Balancing Controller, Balancing Controller, Controller
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References

- [Remote Access](#)
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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