



# CityCharge V2

Public Electric Vehicle  
Charging station

## INSTALLATION and USER MANUAL





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# PURPOSE OF THE MANUAL

This manual provides information about the installation process of the public charging station CityCharge V2. This document is designed for engineers and electricians who possess a general knowledge of electrical installation. This manual provides guidelines, specifications, and instructions for operating the CityCharge V2 with either the LCD touchscreen or LED screen options. It also includes a detailed overview of the graphical user interface (UI) of the LCD display software.

## QUALIFIED PERSONNEL

The product described in this document may be installed only by personnel qualified for the specific task in accordance with the relevant documentation, in particular, its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with this product.

## SYMBOL USAGE

|                               |                                                                                   |                                                                                                                                  |
|-------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Prohibited</b>             |  | Indicates information about what is strictly Prohibited.                                                                         |
| <b>Danger</b>                 |  | Indicates information about safety practices which, if not followed, may result in serious injury or death.                      |
| <b>Keep Note</b>              |  | Indicates helpful information for installation or usage, but does not contain personnel or equipment safety related information. |
| <b>Provide good Grounding</b> |  | Indicates information about where good Earthing must be provided.                                                                |

## HIGH VOLTAGE WARNING

|                                                                                     |                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Incorrect connections may cause electric shock.                                                                                                                                                                                          |
|   | Do not touch live electrical parts.                                                                                                                                                                                                      |
|  | The improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded.                |
|  | It is recommended that your product be installed by a licensed electrician. To avoid serious injury or death, installation must be in accordance with the manufacturer's installation instructions and must comply with all local codes. |

## IMPORTANT SAFETY INSTRUCTIONS



Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.



Do not use this product if the EV cable is damaged, or there is any other sign of Charging station damage.



Read this manual thoroughly and make sure you understand the procedures before you attempt to install this equipment.  
The purpose of this manual is to provide you with the information necessary to safely install and troubleshoot this equipment. Keep this manual for future reference.

## ADDITIONAL SAFETY INFORMATION



Do not attempt to disconnect/modify or rewire any components inside the charging station. This will void the warranty and may cause the unit to fail.



This equipment is intended only for charging vehicles that do not require ventilation during charging. Please refer to your vehicle owner's manual for ventilation requirements.

## REPAIR AND MAINTENANCE CLAUSE



Elinta Charge products: CityCharge V2 do not require routine maintenance, however, periodic inspections should be conducted to ensure that all parts remain in good working order and no damage exists. Do not attempt to disassemble, repair or modify any components of the charging station. If there are any issues or need for repairs, contact Elinta Charge support team.



Only licensed electricians can install or maintain the charging station. It is forbidden for general users to install or maintain it. Turn off the input power before performing any installation or maintenance of the charging station.



No modifications may be made to the interior of the charging station: Components, wiring, and hardware settings must remain as they are. If such changes are required, always contact Elinta Charge.

## MOVING, TRANSPORTING AND STORAGE INSTRUCTIONS

It is recommended to store the charging station indoors and in a non-humid environment, keeping it in its original packaging until it is ready to be installed. The ideal storage environment is a cool, dry place with a temperature range between 10°C and 27°C and humidity levels between 30% and 50%. These conditions help prevent the adverse effects of moisture and heat until the day of installation.

## DEFINITIONS

|                |                                                                                                                                                                                                                                                                                     |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC             | Alternating Current: A charge of electricity that regularly changes direction.                                                                                                                                                                                                      |
| DC             | Direct Current is a type of electrical current that flows in one constant direction without reversing.                                                                                                                                                                              |
| kW             | kW (kilowatt) is a unit of power equal to 1,000 watts (W). It measures the rate at which energy is used or produced.                                                                                                                                                                |
| A / mA         | The strength of an electric current measured in amperes or milliamperes                                                                                                                                                                                                             |
| kWh            | A unit of energy equivalent to the energy transferred in one hour by one thousand watts of power. Electric car batteries are typically measured in kilowatt hours                                                                                                                   |
| EVSE           | Electric Vehicle Supply Equipment: Infrastructure designed to supply power to EVs.                                                                                                                                                                                                  |
| RCM            | Residual Current Monitoring device is a safety device designed to detect DC current leakage.                                                                                                                                                                                        |
| Shutter Socket | Socket type which prevents inserting charging cable, while charging station is not activated.                                                                                                                                                                                       |
| IEC 62196      | Also known as the Mennekes, it is a type of connectors that is used to charge Electric Vehicles in Europe.                                                                                                                                                                          |
| RCCB           | A Residual Current Circuit Breaker can be either Type A (detects only AC leakage current) or Type B (detects both AC and DC leakage current). It provides protection against electric shock by disconnecting the circuit when a leakage current is detected.                        |
| MCB            | Miniature Circuit Breaker is a safety device that automatically switches off electrical circuits in the event of an overload or short circuit. It protects wiring and electrical equipment by preventing excessive current flow, which can lead to damage or fire.                  |
| UI             | User Interface (UI) is the point of interaction between a user and a system                                                                                                                                                                                                         |
| JSON           | JSON (JavaScript Object Notation) is a lightweight data format used for storing and exchanging data between a server and a client                                                                                                                                                   |
| DLM            | Dynamic Load Management (DLM) for EVSE refers to the intelligent, real-time distribution and adjustment of available electrical power among multiple electric vehicle chargers to prevent grid overload, optimize charging performance, and maximize infrastructure efficiency.     |
| MID            | Measuring Instruments Directive, European regulation that ensures that the meters used to measure electrical consumption are accurate and comply with legal standards. A Charge                                                                                                     |
| CPO            | Point Operator is an entity responsible for the management, operation, and maintenance of charging stations or charging infrastructure for electric vehicles. They typically ensure the proper functioning, payment processing, and customer support related to EV charging points. |

# **INSTALLATION MANUAL**

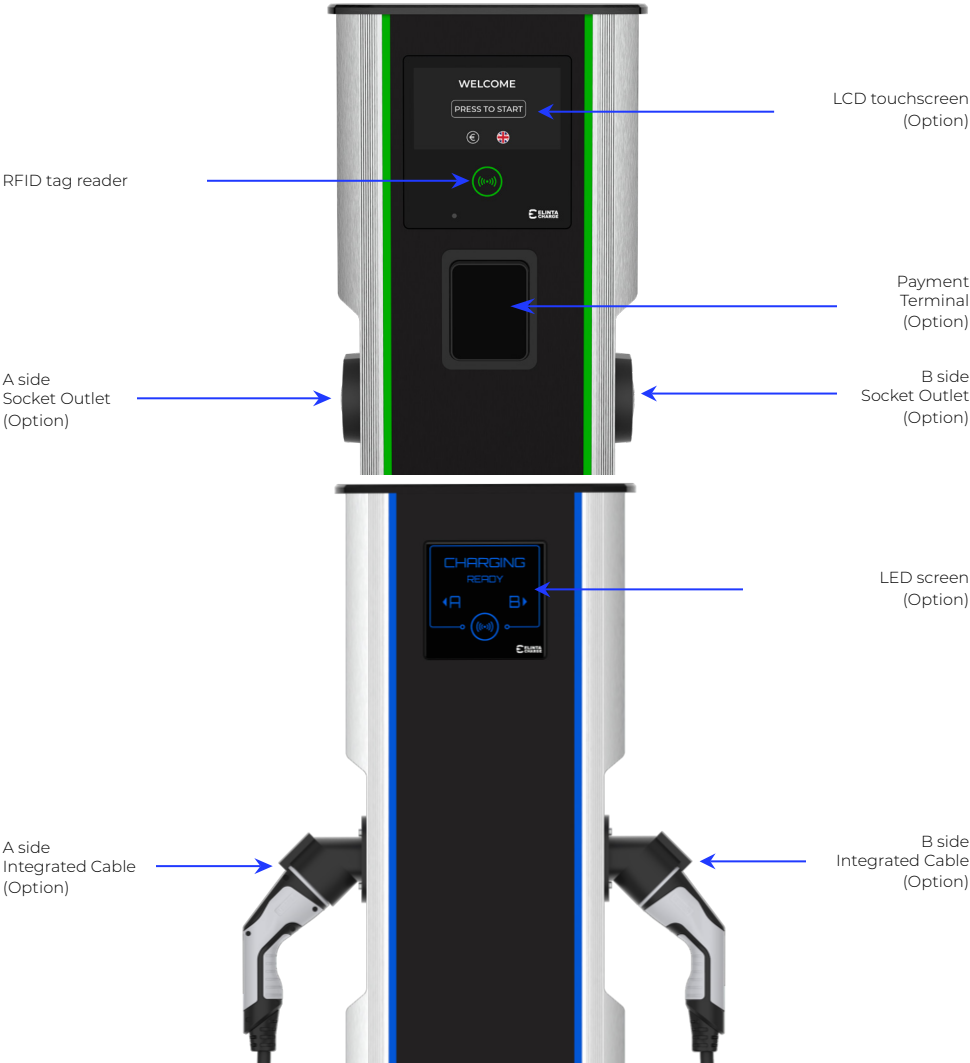
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CHARGING STATION OVERVIEW

CityCharge V2 is classified as a fast Mode 3 charging station, capable of providing up to 44 kW (2x22 kW) of power using two Type 2 charging sockets or two integrated cables.

The bright, animated LCD touchscreen or LED screen, along with the sidebars, remains visible even in direct sunlight.

CityCharge V2 comes with many features, including charging cable locking, short circuit protection, and leakage current protection.



## TECHNICAL SPECIFICATIONS

### Charging Station CityCharge V2

|                                                |                                         |
|------------------------------------------------|-----------------------------------------|
| Weight                                         | 35 kg                                   |
| Dimensions (D x W x H)                         | 150 x 350 x 1370 mm                     |
| Phase Count                                    | 3                                       |
| Operating Voltage                              | 400 V/AC                                |
| Maximum Power                                  | 2x 22kW                                 |
| Impact protection rating                       | IK10                                    |
| IP class                                       | IP54                                    |
| Temperature range                              | -25 °C to +50 °                         |
| Interface (configurable option*)               | LED or LCD Touchscreen                  |
| Smart Energy Meter                             | YES, MID                                |
| MID windows                                    | Optional                                |
| RFID user control                              | YES                                     |
| Communication (configurable option*)           | LAN or 4G or 4G+LAN                     |
| Differential protection (configurable option*) | RCCB type A + RCM or RCCB type B        |
| Dynamic Load Management                        | Optional                                |
| RCCB trip reset                                | Optional                                |
| Payment terminal                               | Optional                                |
| Back-end management                            | YES Elios.Cloud                         |
| UV resistant                                   | YES                                     |
| CE certificate                                 | YES                                     |
| Compliance                                     | EN IEC 61851-1:2019<br>(ref. to EU DoC) |

\* Option can be configured and selected during an order process.

#### LCD Touchscreen (option)

|                                                 |                              |
|-------------------------------------------------|------------------------------|
| Screen size                                     | 7 inches                     |
| Screen type                                     | TFT IPS                      |
| Touchscreen type                                | Capacitive                   |
| Screen resolution                               | 1024x600 pixels              |
| Pixel arrangement                               | RGB Vertical Stripe          |
| Aspect Ratio                                    | 16:9                         |
| PPI                                             | 170                          |
| Number of colors                                | 16.7 million (24-bit)        |
| Screen brightness                               | 850 cd/m <sup>2</sup>        |
| Brightness adjustment                           | Yes                          |
| Contrast                                        | 800                          |
| Glass bonding to screen                         | Optical (Optical Bonding)    |
| Display area dimensions                         | 154.21 x 85.92 mm            |
| Protective glass dimensions                     | 175 x 181 mm                 |
| Screen protective coating                       | Anti-UV                      |
| Glass surface hardness                          | 7H (according to Mohs scale) |
| Glass IK rating                                 | min. IK08                    |
| Screen lifespan (until brightness falls to 50%) | 50,000 hours                 |
| Response time                                   | 35 ms                        |





## EU Declaration of Conformity

This Declaration of Conformity is issued under the sole responsibility of the manufacturer

**Manufacturer:** Elinta Charge, UAB  
**Address:** Partizanų g. 63M, Kaunas, LT 50306, Lithuania

**Object of the declaration:**

**Product name:** CityCharge  
**Model:** V2, M2, H2  
**Type:** E2 (2x 22 kW, EU market)

**The object of the declaration described above is in conformity with the relevant Community harmonization legislation with references to the relevant harmonized standards used:**

|                                                     |                           |
|-----------------------------------------------------|---------------------------|
| Low Voltage Directive 2014/35/EU:                   | EN IEC 61851-1:2019       |
| Electromagnetic Compatibility Directive 2014/30/EU: | EN IEC 61851-21-2:2021    |
|                                                     | EN 61000-6-1:2007         |
|                                                     | EN 61000-6-2:2005/AC:2005 |
|                                                     | EN 61000-6-3:2007/A1:2011 |
|                                                     | EN 61000-6-4:2007/A1:2011 |
| Radio Equipment Directive 2014/53/EU                | EN 301 489-1 V1.9.2       |
|                                                     | EN 301 908-1 V13.1.1      |
|                                                     | EN 301 908-2 V13.1.1      |
|                                                     | EN 301 908-13 V13.1.1     |
|                                                     | EN 300 328 V2.2.2         |
|                                                     | EN 300 330 V2.1.1         |

Signed for and on behalf of:

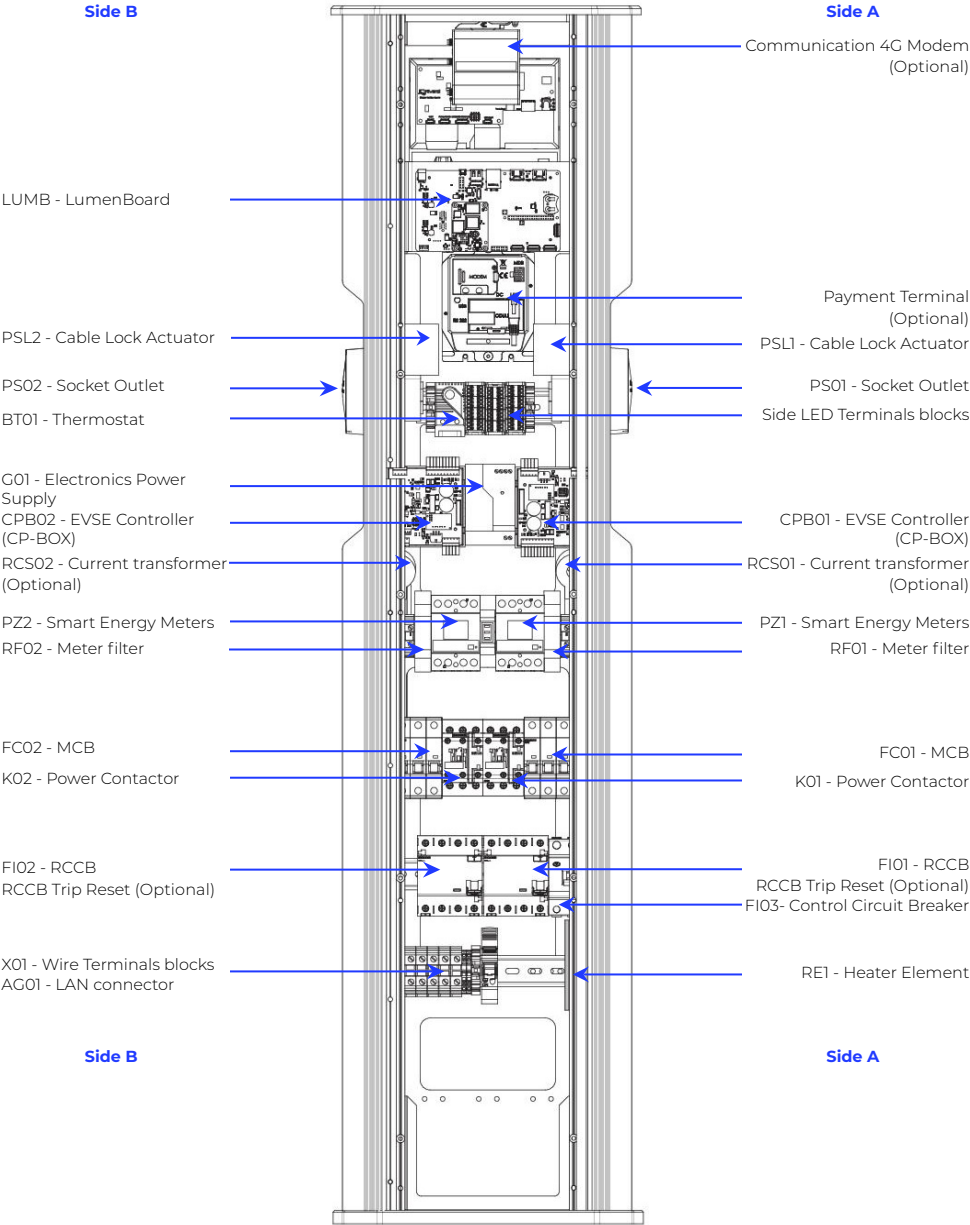
Kaunas 2025-02-20  
(place and date of issue)

CTO, Dainius Janulevičius  
(function, name, signature)



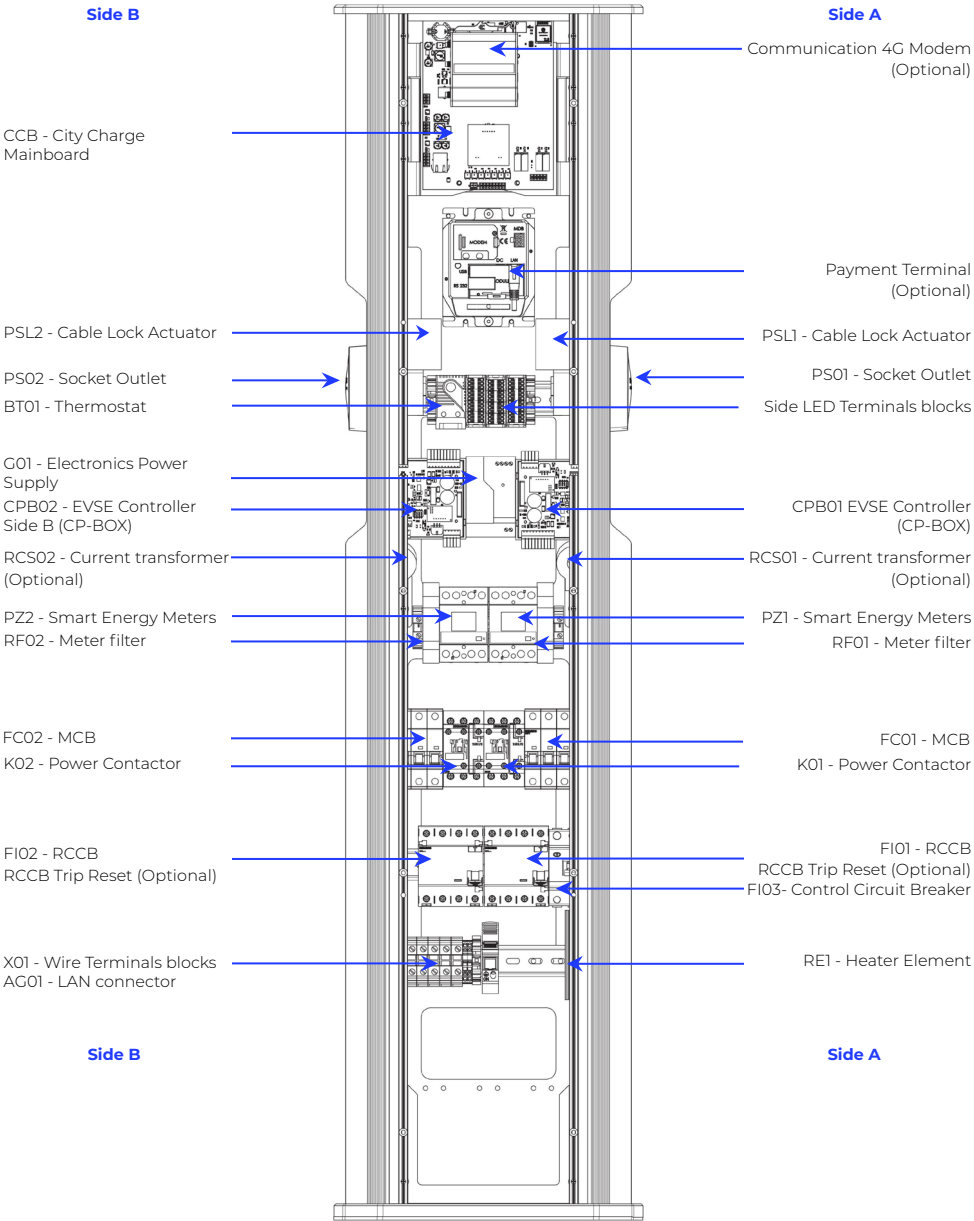
**CHARGER INTERNAL COMPONENTS - LCD Touchscreen - Socket Version - T2 or S2 option**

Below are the internal components positioning for CityCharge V2 Interface (LCD Touchscreen) and connector (T2 or S2 - Socket Version) options.



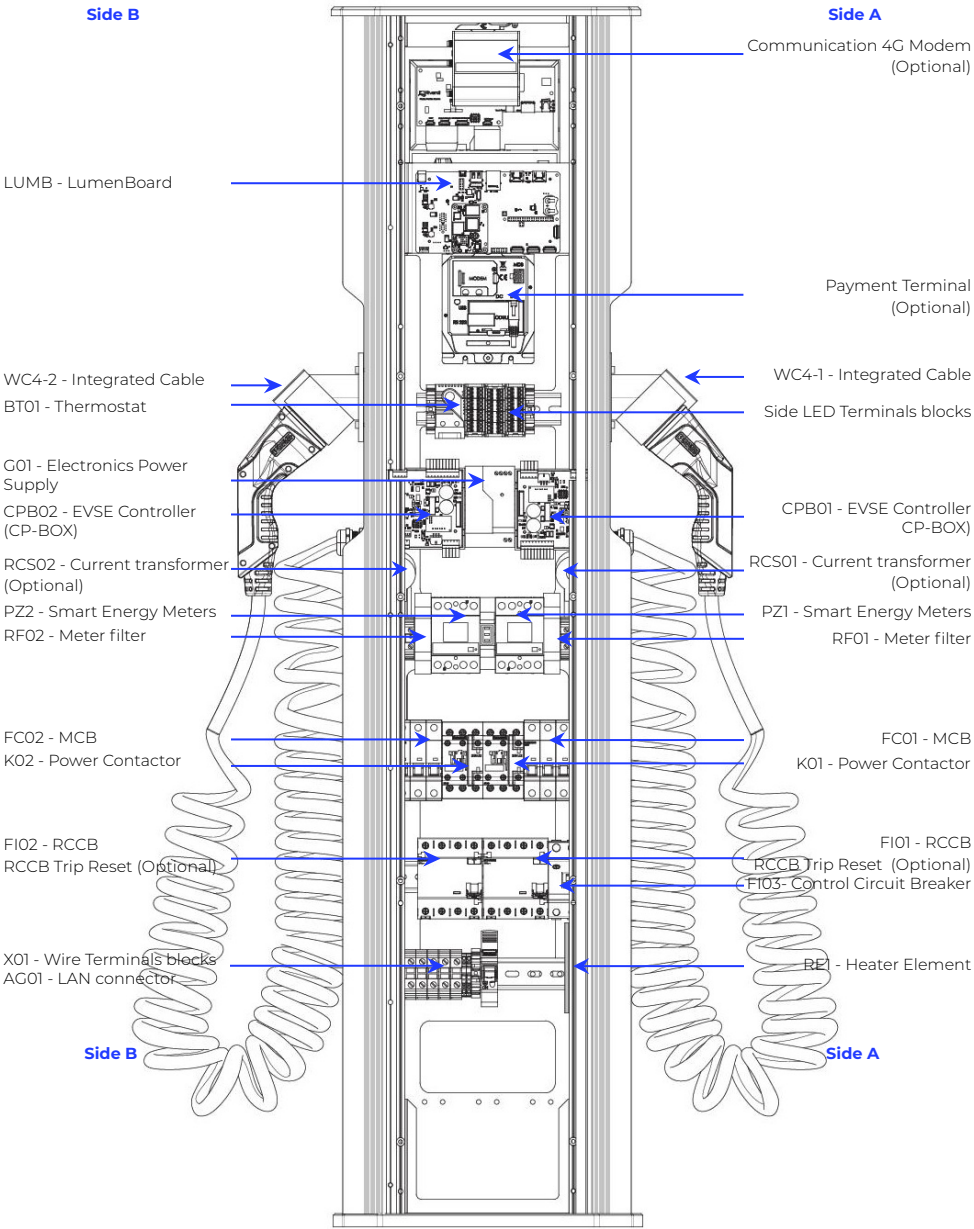
CHARGER INTERNAL COMPONENTS - LED Screen - Socket Version - T2 or S2 option

Below are the internal components positioning for CityCharge V2 Interface (LED screen) and connector (T2 or S2 - Socket Version) options.



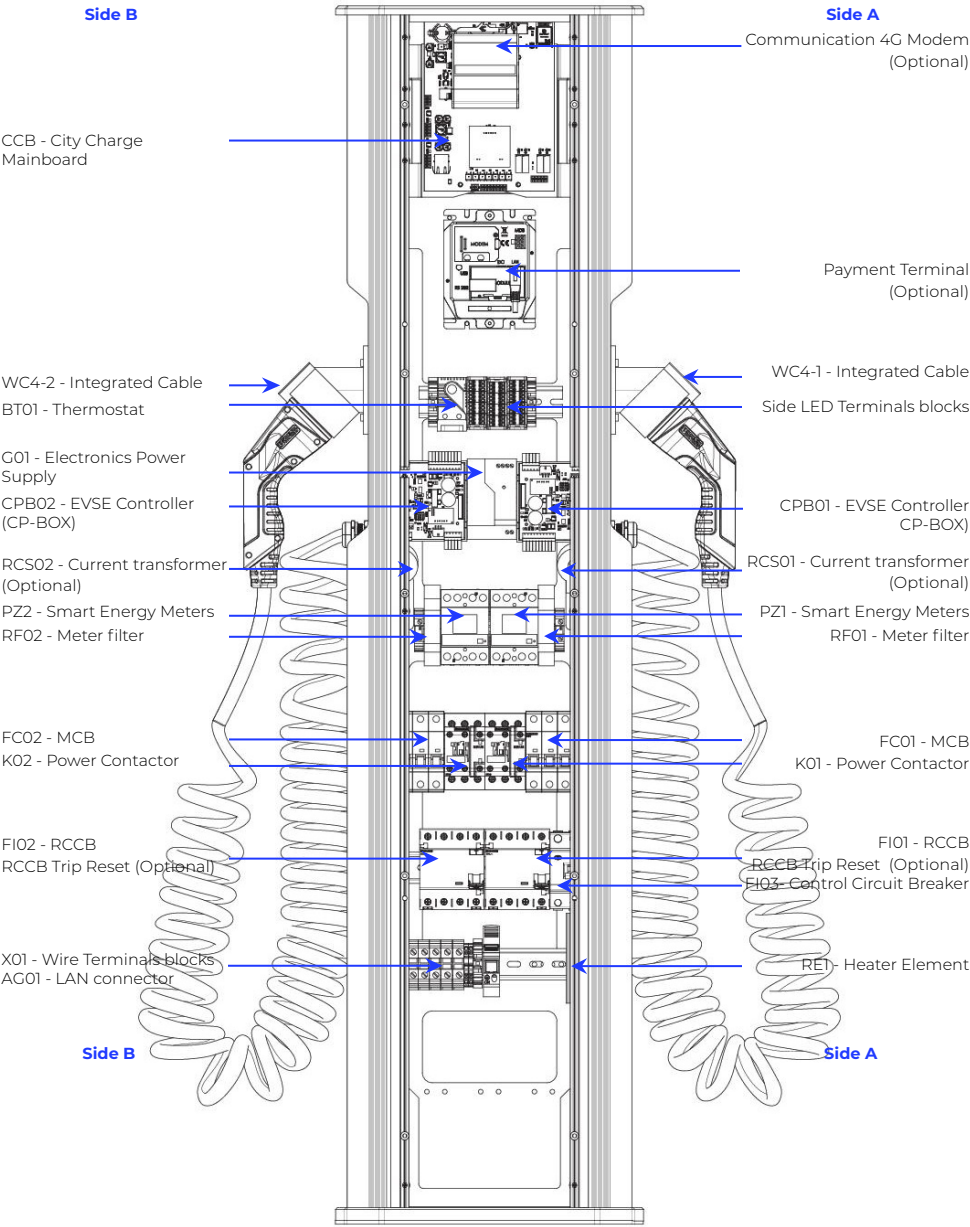
**CHARGER INTERNAL COMPONENTS - LCD Touchscreen - Integrated cable Version - C4 or C5 option**

Below are the internal components positioning for CityCharge V2 Interface (LCD Touchscreen) and connector (C4 or C5 - Integrated Cable Version) options.

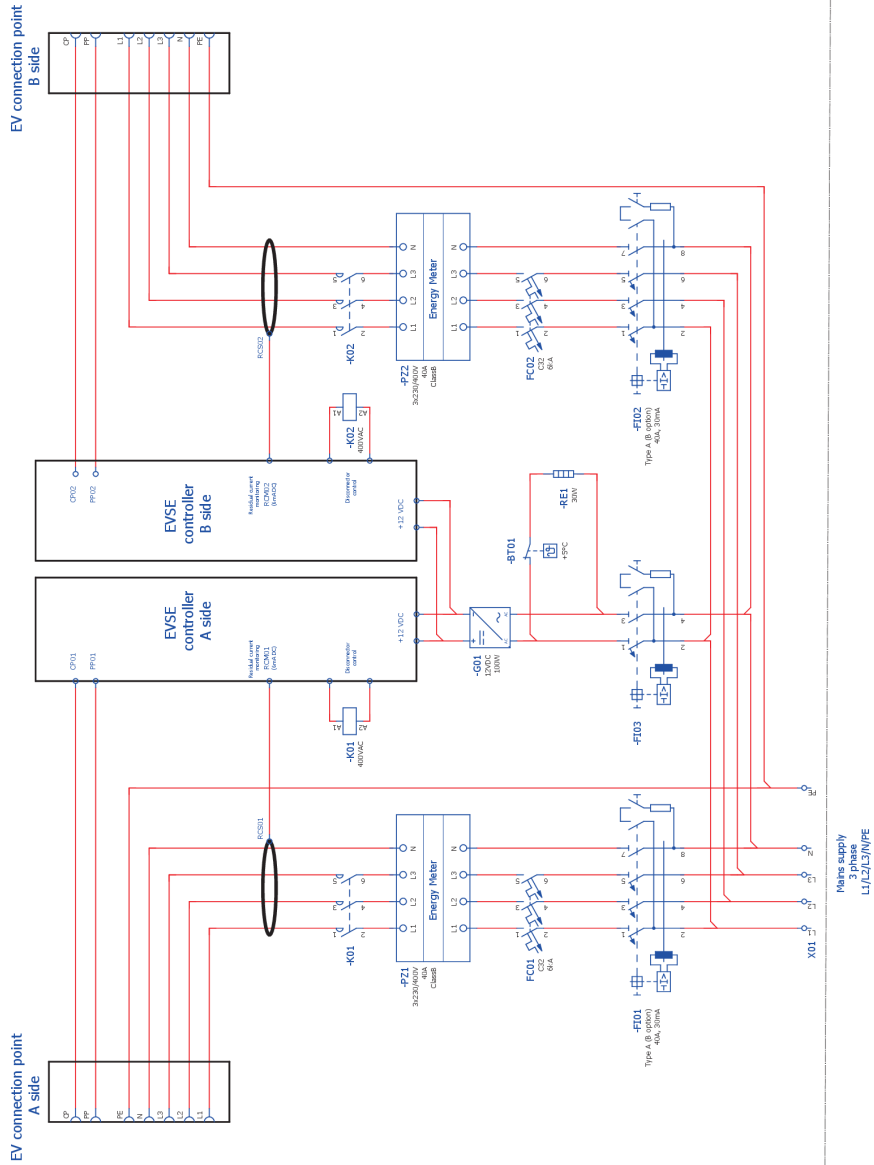


# CHARGER INTERNAL COMPONENTS - LED Screen - Integrated cable Version - C4 or C5 option

Below are the internal components positioning for CityCharge V2 Interface (LCD Touchscreen) and connector (C4 or C5 - Integrated Cable Version) options.



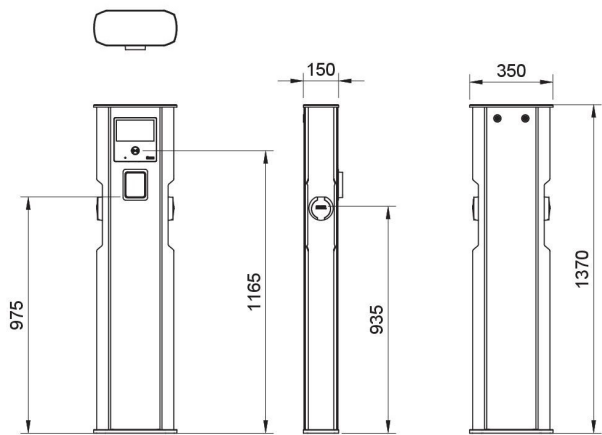
ELECTRICAL DIAGRAM



## ELECTRICAL DIAGRAM and COMPONENTS LEGEND

| Labelling | Description                                                                                                                                                                                                   |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -AG01     | RJ45 LAN CAT 5e connector                                                                                                                                                                                     |
| -BT01     | Compact Thermostat (NC); contact breaker for regulating heaters.<br>The contact opens when temperature is rising                                                                                              |
| -CCB      | CityCharge MainBoard                                                                                                                                                                                          |
| -CPB01    | EVSE Controller Side A (CP-BOX)                                                                                                                                                                               |
| -CPB02    | EVSE Controller Side B (CP-BOX)                                                                                                                                                                               |
| -FC01     | Miniature circuit breaker Side A, 3-pole, C, 32 A, 6kA                                                                                                                                                        |
| -FC02     | Miniature circuit breaker Side B, 3-pole, C, 32 A, 6kA                                                                                                                                                        |
| -FI01     | Residual current operated circuit breaker Side A, AC 400 V, 4-pole, 40 A Option type A (AC 30 mA) or<br>Option Type B short-time delayed (AC 30 mA, DC 6mA)                                                   |
| -FI02     | Residual current operated circuit breaker Side B, AC 400 V, 4-pole, 40 A Option type A (AC 30 mA) or<br>Option Type B short-time delayed (AC 30 mA, DC 6mA)                                                   |
| -FI03     | RCBO compact, 1P+N, type A 30 mA C, 6A, 4.5 kA                                                                                                                                                                |
| -G01      | Power supply UNO POWER input: 230 V AC, output: 12 V DC/100 W                                                                                                                                                 |
| -K01      | Contacteur Side A, AC 230V, 50/60HZ, 3-pole 1NO+1NC                                                                                                                                                           |
| -K02      | Contacteur Side B, AC 230V, 50/60HZ, 3-pole 1NO+1NC                                                                                                                                                           |
| -LUMB     | LumenBoard                                                                                                                                                                                                    |
| -PZ01     | Energy measurement device Side A (MID certified)<br>Type of Model - E2 (ISK.WM3M4) - Type of Model - D2 (ISK.WM3M4C)                                                                                          |
| -PZ02     | Energy measurement device Side B (MID certified)<br>Type of Model - E2 (ISK.WM3M4) - Type of Model - D2 (ISK.WM3M4C)                                                                                          |
| -RCS01    | Current transformer (RCM Ring) Side A, DC 6 mA                                                                                                                                                                |
| -RCS02    | Current transformer (RCM Ring) Side B, DC 6 mA                                                                                                                                                                |
| -RE1      | DIN mounted heater 30W                                                                                                                                                                                        |
| -RF01     | Meter filter Side A                                                                                                                                                                                           |
| -RF02     | Meter filter Side B                                                                                                                                                                                           |
| -PS01     | Charging socket Type 2 Side A, 3 phase, 32A, 22kW<br>Connector Options T2 (Socket Type 2) or S2 (Socket Type 2 + Shutter)                                                                                     |
| -PS02     | Charging socket Type 2 Side B, 3 phase, 32A, 22kW<br>Connector Options T2 (Socket Type 2) or S2 (Socket Type 2 + Shutter)                                                                                     |
| -PSL1     | Cable Lock Actuator for charging socket Type 2 Side A                                                                                                                                                         |
| -PSL2     | Cable Lock Actuator for charging socket Type 2 Side B                                                                                                                                                         |
| -WC4-1    | Integrated Cable Type 2 Side A, 3 phase, 32A, 22kW, with vehicle charging connector and open cable end, black, spiraled, with protective cap - Connector Options C4 (4m spiral cable) or C5 (5m spiral cable) |
| -WC4-2    | Integrated Cable Type 2 Side B, 3 phase, 32A, 22kW, with vehicle charging connector and open cable end, black, spiraled, with protective cap - Connector Options C4 (4m spiral cable) or C5 (5m spiral cable) |
| -X01      | Wire Terminals blocks, 1000 V, 125 A -Rated cross section: 35 mm <sup>2</sup>                                                                                                                                 |
| -X02      | Wire Terminals blocks, 800 V, 24 A -Rated cross section: 2.5 mm <sup>2</sup>                                                                                                                                  |

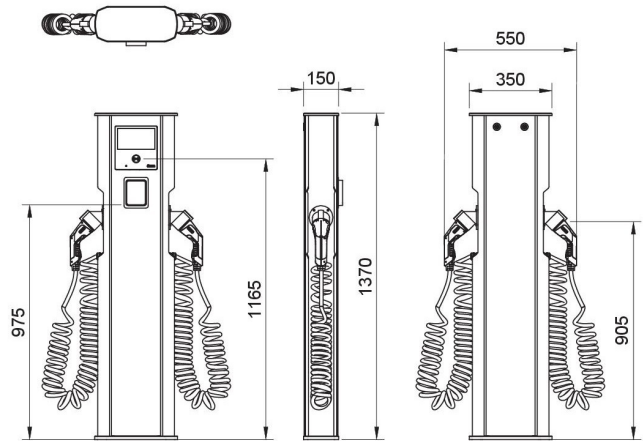
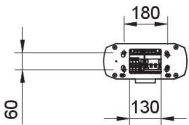
MECHANICAL DRAWING



Socket Version

Connector Options :

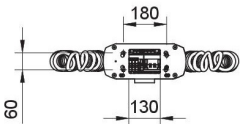
- T2 (Socket Type 2)
- S2 (Socket Type 2 + Shutter)



Integrated cable Version

Connector Options :

- C4 (4m spiral cable with Type2 connector)
- C5 (5m spiral cable with Type2 connector)



CE TYPE PLATE VIEW





**Partizanu g. 63M, Kaunas, LT-50306, Lithuania**

Model:

{mm}

Type:

{tt}{-cc}

[2]

[3]

[3.1]

Input voltage (VAC):

[4]

Input frequency (Hz):

[5]

Rated current range (A):

[6]

Output power (kW):

[7]

Operating temperature (°C):

[8]

Degree of protection:

[9]

Accuracy Class:

[10]

Mode 3 / Type 2

Made in LITHUANIA



[11]

S/N:

[1]

A - Name of manufacturer

B - Address of the manufacturer

{mm} - Model  
V2 - CityCharge V2

{tt} - Type  
E2 - EU Standard  
D2 - DE Standard

{cc} - Type of Connector  
T2 - Socket Type 2  
S2 - Socket Type 2 + Shutter  
C4 - Integrated Cable (Plus) 4m spiral Type 2  
C5 - Integrated Cable (Plus) 5m spiral Type 2

[4] - Input voltage (VAC) - 3x230 (400) VAC

[5] - Input frequency (Hz) - 50Hz

[6] - Rated current range (A) - 6 - 32 A

[7] - Output power (kW) - 2x 22

[1] - Serial Number of the Charger - XX-V2-XX-XX

C - Country of Production

D - Pictograms (safety instructions)

E - CE mark

[2] - Reserved

[3] - Reserved

[3.1] - Reserved

[8] - Operating temperature - 25°C to +50°C

[9] - Degree of protection - IP54

[10] - Meter Accuracy Class - class B

[11] - Year of Production

F - Serial Number Bar code



## SITE SELECTION

Selecting a site for EVSE installation will likely require consideration of a combination of factors. While every site is unique and every EVSE host has priorities for installation, common physical elements characterize every EVSE site design. Some of the most common design elements to look for:



**Power Rating of Charging Station** - Connecting the Charging station to a power source will require evaluation of existing electrical capacity. Sometimes greater power charging stations are unnecessary for the selected location. Such as: workplaces, where people tend to stay the whole workday and bigger power charging station will not be beneficial. When choosing between charging station, power considers two parts; the electrical system at the location of the EVSE installation, and electrical cabinets, panels, and circuitry will need to accommodate the anticipated additional load.



**Proximity to Power Distribution Box** - Installing the Charging station close to the required power source reduces the need for cutting, trenching, and drilling to add new conduits to reach the EVSE. Additionally, the cost of installation can be reduced if the existing conduit has adequate capacity for EVSE.



**Available Parking Space** - In addition to standard parking space considerations, make sure to accommodate extra space for charging station.



**Difficulty of Installation** - Consider most easiest approach for installation. Select such location, where least labor would be necessary for installation.



**Visibility of the Charger** - Location of installation should be considered with visibility of charger in mind.



**Pedestrian Trip Hazard** - Charging station and charging cables should not interfere with pedestrians routes and cause to be a tripping hazard.



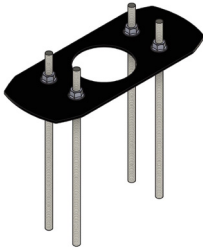
**Integration to Charging Platforms** - The most charging stations have integrated payment solutions. Whether in a residential or public areas, the charging station will need to communicate with the back-end system in order to provide a payment gateway. We recommend using Elios platform for full user satisfaction.



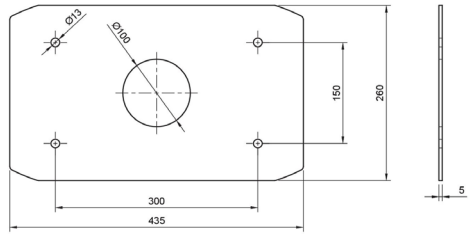
**Available Network Communications** - Charging stations are much more with internet communication: mobile phone apps, payment solutions, charging reservations - all these features are available with internet connectivity. When choosing a location for the charging station: make sure there are possibilities to share a network with charging station. Chargers usually accept all the most popular communication types: Wi-Fi, LAN, or GSM/4G.

## MOUNTING PAD PREPARATION

Remove the metal mounting plate from its packaging. Mount it with the threaded rods provided so that the rods protrude about 5 cm from the plate. (See picture below):



Mechanical drawing



Mounting plate dimensions

## CONCRETING THE MOUNTING PAD

The mounting plate should be set in concrete with a longer threaded side facing the ground.

The power supply cable must be led out through the hole Mounting Pad in the middle of the base.



The power supply cable must protrude at least 40 cm from the base of the Mounting Pad.



The mounting base should be level.

## POWER SUPPLY CABLE INTRODUCTION

The power supply cable must be run to the bottom of the hole. The cable should be protected by the corrugated PVC pipe. The diameter of the pipe should not exceed 100 mm. Ensure that both the corrugated PVC pipe and the power supply cables are perpendicular to the mounting surface.

## ETHERNET CABLE INTRODUCTION (OPTIONAL)

If the charging station is selected with the LAN option, a twisted pair Ethernet cable (Cat5 or Cat6) with RJ45 connectors must be installed along with the power supply cable.



For maximum UTP cable protection, use separate corrugated PVC pipes for UTP cable.

## DYNAMIC LOAD MANAGEMENT (DLM) INTRODUCTION (OPTIONAL)

Elinta Charge Smart Charging system safely balances energy consumption between your electric vehicle, charging station and other devices on site. Elinta Charge charging station is equipped with an additional smart energy meter, which is mounted on the power distribution cabinet and is used to measure the power consumption of the building, and a reserve is allocated to the charging station to charge the electric vehicle. When the real-time energy consumption of a building is high, the charging station performs charging slowly or temporary stops charging, and when the building's electricity consumption decreases, the charging station increases the charging capacity.

For the dynamic load management system, use a UTP Ethernet cable for data transmission between the charger and the energy meter located on the main power distribution panel. For secure cable entry into the charger, use a corrugated PVC conduit to protect the UTP cable.

Two DLM options are available :

- DLM S
- DLM B

DLM S is our solution that is installed in the main electrical cabinet with a direct connection, designed for use with a maximum current of up to 100A.

This solution is also compatible with solar installations, as the meter monitors energy consumption in both directions (bidirectional), allowing for shorter charging times and greater reliability.

DLM B, on the other hand, is a solution that requires the installation of current clamps in the main distribution cabinet. As standard, it is designed for use with 300A current clamps, but we can offer an option that supports up to 2000A.

## CHARGING STATION UNPACKING

The charging station is packed in a cardboard box. The ideal storage environment is a cool, dry place with a temperature range between 10°C and 27°C and humidity levels between 30% and 50%. These conditions help prevent the adverse effects of moisture and heat until the day of installation.

After removing the charging station from the packaging, keep the cardboard box for the entire warranty period in case the charging station needs to be sent in for repair.

### Standard package includes:

- Charging Station CityCharge V2 - 1 pcs.
- Mounting metal pad - 1 pcs.
- M12x400 threaded rods - 4 pcs.
- M12 Nut - 8 pcs.
- RFID tag - 3 pcs.
- Electrical enclosure key

### If option Dynamic Load Management (DLM) S is selected:

- Smart energy meter DLM S - 1 pcs.
- Smart energy meter cables for connection with resistor - 1 pcs.

### If option Dynamic Load Management (DLM) B is selected:

- Smart energy meter DLM B - 1 pcs.
- Smart energy meter cables for connection with resistor - 1 pcs.
- Current measuring transformers - 3 pcs.

## CHARGING STATION INSTALLATION

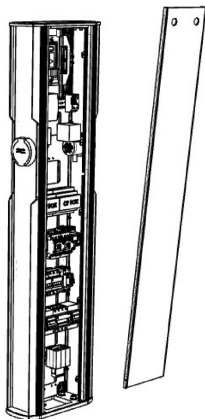
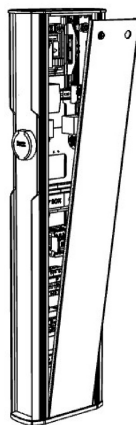


STEP 1. Remove the charging station from the packaging and place it vertically on a smooth, flat surface.

STEP 2. Open the service doors of the charging station by opening the two locks on the back of the charging station.

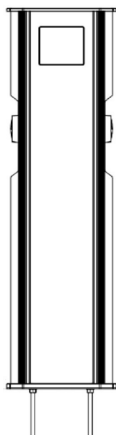
STEP 3. Use the supplied key to release these two locks. Turn the key clockwise until the key can no longer be turned.

STEP 4. After the locks are released, tilt the service doors back by holding them by the top of the doors.



STEP 5. Lift up the service doors from the charger.

STEP 6. Lean the charger service door against the charging station, while the installation is taking place.



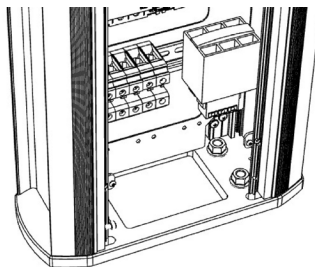
STEP 7. Loosen the nuts from the charging station bracket with an 18 mm wrench.

STEP 8. Place the charging station on the mounting plate and secure it with the nuts. Lightly tighten the nuts with an 18 mm wrench.

STEP 9. Check that the charging station is level vertically and horizontally.

STEP 10. Tighten down x4 bolts using an 18 mm wrench. Use the tightening force of 60 Nm.

STEP 11. If the charging station appears slightly vertically or horizontally skewed, it is possible to level out the charging station by using stainless steel washers between the charging station and the mounting pad.



Note: When using washers to level out the charging station, make sure you are using stainless steel washers. Otherwise, the washers will rust out eventually - leaving the charging station insecure.

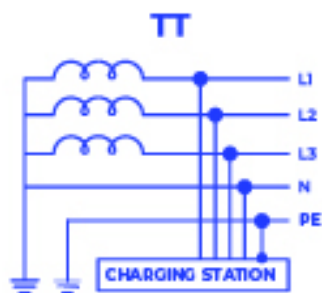
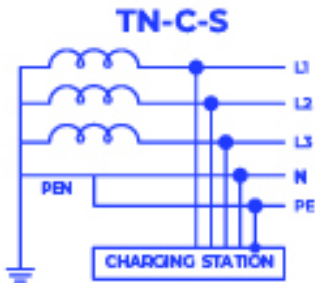
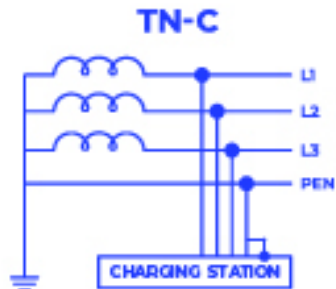
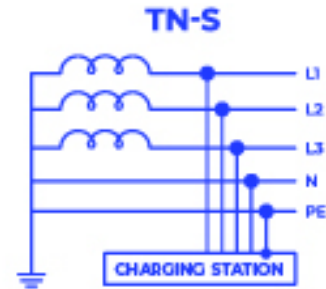
ELECTRICAL EARTHING SYSTEMS



Be sure to follow the electrical installation instructions. Failure to do so may result in damage to the unit or personal injury.



This charging station has been designed for operation with the power supply systems TN-S, TN-C, TN-C-S and TT



Ensure that the ground resistance does not exceed 10  $\Omega$  or the limits set by local wiring regulations.

POWER SUPPLY CONNECTION



Recommended calculated values for CityCharge V2 charging station wires:  
The cross-sectional area of the wire is based on copper wire.

| Side A, Power (kW) | Side B, Power (kW) | Total Charger Power (kW) | Amperage per Phase (A) | Recommended cable cross-section (mm <sup>2</sup> )                                 |
|--------------------|--------------------|--------------------------|------------------------|------------------------------------------------------------------------------------|
| 22                 | 22                 | 44                       | 64 A                   | 16 mm <sup>2</sup> (PVC insulation)<br>10 mm <sup>2</sup> (XLPE or EPR insulation) |



Note that these values are only recommendations, each installation is different and the cable cross section should be calculated individually each time, considering max consumed power by EVSE and but not limited to: distance to distribution cabinet, environment conditions cable type and local electrical installation regulations.



Warning: failure to select the correct cable cross-section may cause equipment damage or electrical fire.



When using TN-S and TN-C-S systems, it is recommended to use 5 single core copper wire. When using TT system with separate grounding, make sure that the grounding cable cross-section match the power supply cable cross-section.



The absolute maximum cable cross-section must be no greater than 35mm<sup>2</sup>. The thicker cable will not fit the terminals blocks inside the charging station.



Danger: Before connecting the power cable, make sure that no current flows through the cable Power Supply.

TN 3-phase connection to the grid:



- For TN 3-Phase:
- Connect the Power Supply Cable Earth wire (PE) to the green-yellow wire terminal.
  - Connect the Power Supply Cable neutral (N) to the blue wire terminal.
  - Connect Power Supply Cable three phases L1; L2; L3 to three separate wire terminals. (Grey color wire terminal)
- Make sure that the service doors are grounded through the separate green-yellow wire.

## ELECTRICAL/SAFETY Option :

### RCCB TYPE A or TYPE B

By default, the CityCharge V2 is equipped with a Residual Current Circuit Breaker (RCCB) Type A and a Residual Current Monitoring (RCM) device.

RCCB Type A ensures:

Circuit control and isolation for AC leakage (30mA AC).  
Protection against direct and indirect contact with electrical faults.  
Safeguarding installations from insulation faults.  
Prevention of electric shocks and fire hazards.

RCM device ensures:

In compliance with IEC 62955, a Residual Direct Current Detecting Device (RDC-DD) is required for Mode 3 EV charging. To meet this standard, CityCharge V2 includes an RCM device capable of detecting 6mA DC leakage.

Optional RCCB Type B:

Alternatively, RCCB Type B can be installed in place of RCCB Type A + RCM. This upgrade provides comprehensive leakage detection, covering both AC and DC faults in a single device.



RCCB



RCM device.

## MID WINDOWS Option

The CityCharge V2 can be ordered with the optional MID windows, allowing the display of MID meters to comply with regulations such as the German calibration law (Eichrecht). The MID windows are integrated into the back panels of the CCV2.

## COMMUNICATION Option

The CityCharge V2 supports multiple communication types; and can be ordered with three different connectivity options, allowing you to choose the one that best suits your setup based on your needs and available infrastructure.

- Only external LAN network
- Only GSM 4G
- 4G + LAN

## LAN CABLE CONNECTION

The CityCharge V2, LAN connection requires an Ethernet cable of category 5e or higher.



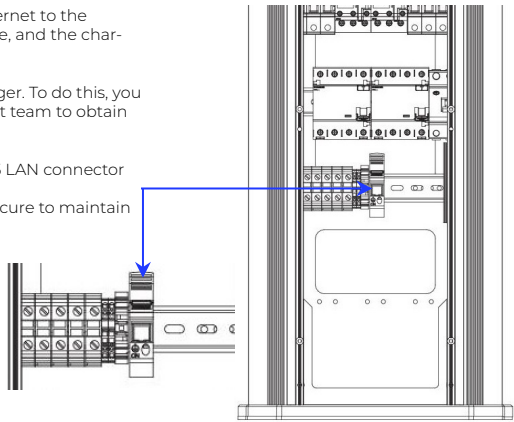
Make sure that the network is compatible with our Communication Board's characteristics:  
Full-duplex 10 Mb/s.



Make sure that the device which provides internet to the charging station (router) works in DHCP mode, and the charger will be given access to the internet.

It is also possible to set a static IP for the charger. To do this, you will need to contact the Elinta Charge support team to obtain the dedicated manual.

Connect the LAN (Ethernet) cable to the RJ45 LAN connector located at the bottom of the charger. Ensure the connection is fully inserted and secure to maintain stable communication.

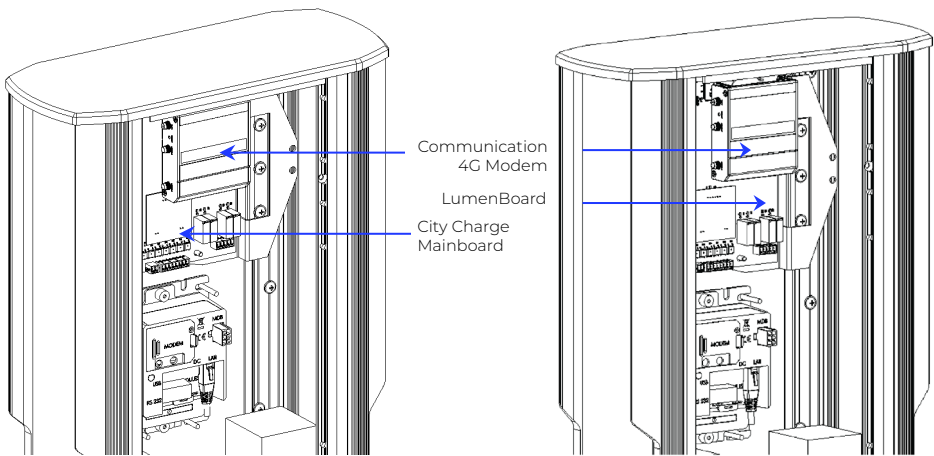


### 4G GSM MODEM SETTINGS AND SETUP

The CityCharge V2 charging station can be installed in a remote place and has a good communication speed via mobile network GSM/3G/4G communication.

If CityCharge v2 with GSM/3G/4G option is selected, an additional Modem Teltonika TRB140 equipment will be installed in the charging station.

To ensure flexibility, we can provide a solution incorporating the RUT241 router. This option allows you to use either 4G communication or LAN communication

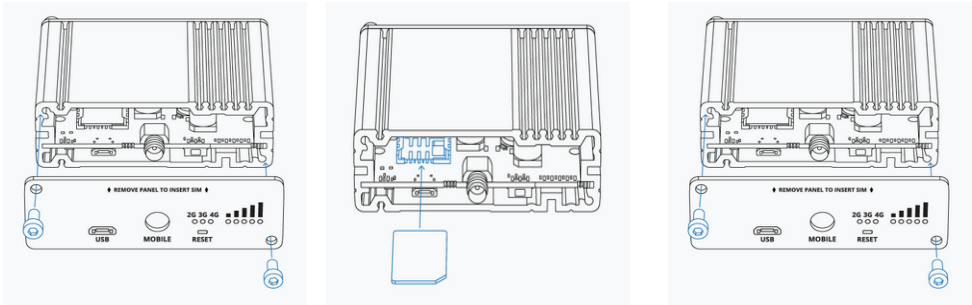


GSM 4G router -TRB140

The TRB140 is a compact industrial 4G LTE router equipped with 1x Ethernet ports.



To set up the Charging station for operation with GSM 4G communication, a SIM card must be inserted into the modem.

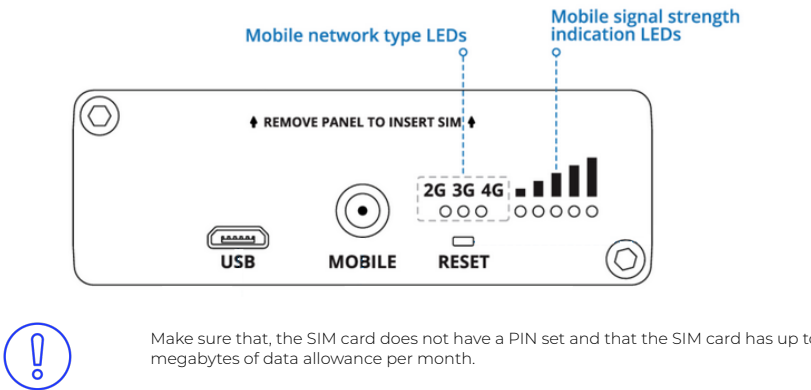


Unscrew the hex bolts and remove the back panel

Insert your SIM card into the SIM socket

Re-attach the back panel and screw in the hex bolts

Successful insertion of the SIM card and establishment of communication should be confirmed by the LEDs indicating cellular signal strength and type. The modem will flash to indicate which mode it is operating in: 2G/3G or 4G.



Make sure that, the SIM card does not have a PIN set and that the SIM card has up to 200 megabytes of data allowance per month.

GSM 4G router + LAN - RUT241

The RUT241 modem is a compact industrial 4G (LTE) router equipped with 2x Ethernet ports  
GSM 4G gateway provides connectivity to Payment terminal.

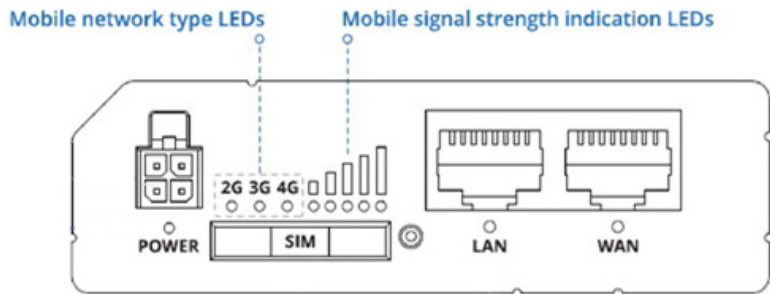


To set up the Charging station for operation with GSM 4G communication, a SIM card must be inserted into the modem.



- Using a sharp object push SIM card tray release button.
- Take out the SIM card tray.
- Place the SIM card into the tray.
- Push SIM card tray into the modem.

Successful insertion of the SIM card and establishment of communication should be confirmed by the LEDs indicating cellular signal strength and type. The modem will flash to indicate which mode it is operating in: 2G/3G or 4G.



Make sure that: The SIM card does not have PIN not set. SIM card should have up to 200 megabytes data allowance per month.

DYNAMIC LOAD MANAGEMENT WIRING (OPTIONAL)



Danger: Before connecting the Dynamic Load Management UTP cable, make sure that no power is flowing through the Power Supply cable. Turn off the power to the Charging Station

Dynamic Load Management (DLM) requires additional wiring between the smart energy meter and the charging station.

Use the standard UTP Ethernet cable for the dynamic load management system:

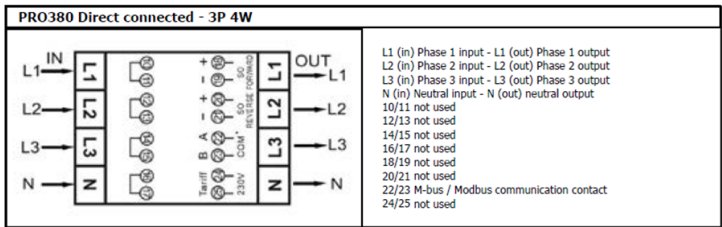
- Twisted pair
- Ethernet cable Cat5 or Cat6



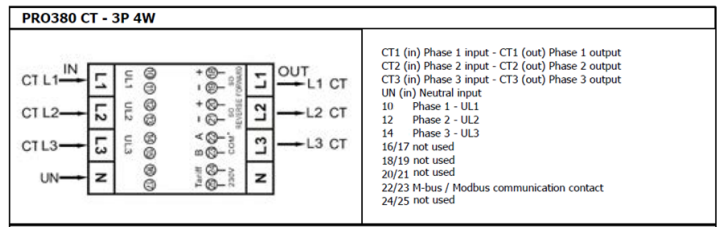
The maximum cable length should not exceed 100 meters to ensure optimal data transmission.

STEP 1. Install the given Smart Energy meter in your building power distribution box.

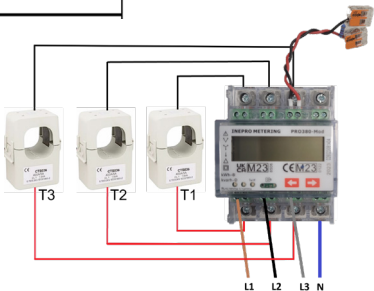
Wiring in power distribution box for DLM S:



Wiring in power distribution box for DLM B:



- Connect the power supply :
- Phase 1 - L1 on connection terminal 10
  - Phase 2 - L2 on connection terminal 12
  - Phase 3 - L3 on connection terminal 14
  - Neutral on connection terminal UN(in)



Install the CT clamp on the main supply line, the arrow of the CT Clamp aligned in the direction of current flow to the load.

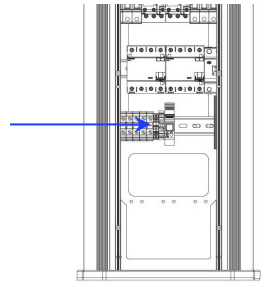
STEP 2. Ensure that a 120-ohm resistor is present on the external (DLM) meter side for both the Home Solar and Business appliances.

STEP 3. Connect data line 22/23 from energy meter to Twisted pair Ethernet cable Cat5 or Cat6 coming from the charging station - Black and Red Wire

This will establish RS485 communication between the device and the charging station.

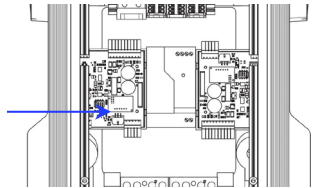


STEP 4. Connect Two data wires coming from the DLM meter to the red and black terminals blocks located at the bottom of the charger.



This charger will be the MASTER charger of the installation, while all other chargers will be SLAVE charger(s).

STEP 5 . On MASTER charger, ensure that the 3rd Dip on CP-BOX side B is set to ON

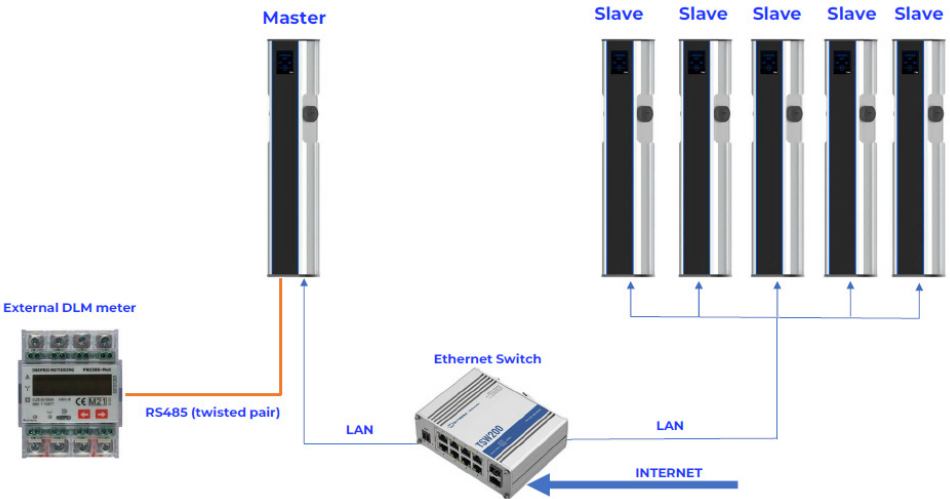


The MASTER charger (CP-BOX side A) will require the 3rd DIP switch to remain set to OFF. The SLAVE charger(s) (CP-BOX side A and side B) will also require the 3rd DIP switch to remain set to OFF.



It is mandatory to interconnect all chargers (Master/Slave(s)) via LAN.

DYNAMIC LOAD MANAGEMENT ARCHITECTURE (OPTIONAL)



The MASTER charger (CP-BOX side B) will require the 3rd DIP switch to be set to ON.



The MASTER charger (CP-BOX side A) will require the 3rd DIP switch to remain set to OFF. The SLAVE charger(s) (CP-BOX side A and side B) will also require the 3rd DIP switch to remain set to OFF.



Interconnect all LAN chargers (Master and Slaves) through a switch to maintain Dynamic Load Management, even during Network communication loss.



Connect via LAN Internet Network to the switch.



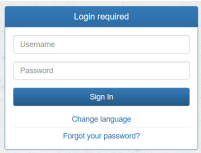
Elinta Charge does not provide external Switch

DYNAMIC LOAD MANAGEMENT SETUP ONLINE (OPTIONAL)

STEP 1. Log in to your administrative elios.cloud website using your preferred browser

STEP 2. Go to the address: elios.cloud

STEP 3. Log in with username and password details provided by Elinta Charge



STEP 4. Go to the Stations tab.

Information Charge log Map Users **Stations** Groups

STEP 5. Select the appropriated station.

STEP 6. Go to balancing tab.

STEP 7. Configure the balance mode of the charger.

Information Hardware Charge log Console Schedule **Balancing** Edit

|                       |                                             |
|-----------------------|---------------------------------------------|
| Balance Mode          | LOCAL DYNAMIC MASTER                        |
| Min current (STATION) | NONE<br>LOCAL<br>GROUP                      |
| Max current (STATION) | LOCAL DYNAMIC MASTER<br>LOCAL DYNAMIC SLAVE |
| Min current (SOCKET)  | 6                                           |

Description of the Balance Mode (how charger balances power):

|                     |                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| None                | The charger does not balance between its sockets, but maintains the current on fixed value.                                                                                |
| Local               | As opposed to none mode, balances the charger's outputs (sockets).                                                                                                         |
| Group               | If the group balancing mode is selected, then the balancing is performed by checking the group settings.                                                                   |
| LocalDynamic Master | One charger power balance de-pending on building power consumption.                                                                                                        |
| Dynamic Slave       | The charger takes the local dynamic master settings from the group as the local dynamic slave. All dynamic parameters may be disregarded if local dynamic slave is chosen. |

STEP 8. On the same Tab - Configure the balance current values of the charger.

|                                |                      |
|--------------------------------|----------------------|
| Balance Mode                   | LOCAL DYNAMIC MASTER |
| Min current (STATION)          | 0                    |
| Max current (STATION)          | 64                   |
| Min current (SOCKET)           | 6                    |
| Max current (SOCKET)           | 32                   |
| Max current (DYNAMIC INPUT)    | 0                    |
| Max current (DYNAMIC RESERVE)  | 0                    |
| Max current (DYNAMIC CAPACITY) | 0                    |

|                                |                                                          |
|--------------------------------|----------------------------------------------------------|
| Minimum current (station)      | Minimum amperage which is allowed to use by the station. |
| Maximum current (station)      | Maximum amperage which is allowed to use by the station. |
| Minimum current (socket)       | Minimum amperage which is allowed to use by the socket.  |
| Max current (Socket)           | Maximum amperage provided to the socket                  |
| Max current (Dynamic input)    | Power input circuit breaker's nominal current.           |
| Max current (Dynamic reserve)  | Reserve current left for buildings appliances.           |
| Max current (Dynamic capacity) | Total amperage available for the chargers.               |

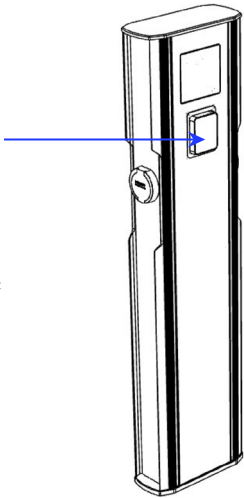
PAYMENT TERMINAL Option

Our CityCharge V2 is designed to be compatible with multiple payment terminal operators, providing maximum flexibility for your transactions. Regardless of the payment solution you use, our infrastructure adapts to ensure seamless integration and an optimized payment experience.

Our CityCharge V2 can be ordered with a wide range of payment terminal brands, such as:

- 1 (Payter - P66)
- 2 (Payter - P68)
- 3 (Payter - Apollo)
- 4 (Wordline - Valina)
- 5 (CCV - IM30)
- 6 (Castle - SIU2)

The CityCharge V2 payment terminal will be located at the front of the charging station, just below the LED screen or LCD Touchscreen.



It is also possible to use another custom payment solution with which we are not directly integrated, providing additional flexibility to meet your specific needs.



NOTE: This option must be communicated to the Elinta Charge local sales representative before the order is placed.



1 - PAYTER - P66



2 - PAYTER - P68



3 - PAYTER - APOLLO





**4** - WORLDLINE - VALINA



**5** - CCV - IM30



**6** - CASTLE - SIU2



The bank card reader payment solution must be activated and assigned to a CPO backend to ensure proper functionality and integration with the system.



To activate and set up the payment terminal, you will need to contact the Elinta Charge support team to obtain the dedicated instructions based on the chosen payment terminal.



Refer to the payment terminal manufacturer documentation for more information.

## SAFE OPERATION OF THE DEVICE



To ensure the safe operation of the device, follow the instructions below:

- Do not use this product if the housing or the electric vehicle connector is damaged, cracked, open, or shows any other signs of damage.
- Do not use this product if the electric vehicle cable is damaged or if there are any other signs of damage to the charging station.
- The charging station should only be installed or maintained by qualified electricians. Installation or maintenance by regular users is strictly prohibited.
- Before performing any installation or maintenance on the charging station, disconnect the input power supply.
- Improper connection of the device's protective grounding wire may result in electric shock. If in doubt about proper grounding, consult a qualified electrician or service technician.
- The device is very heavy. To reduce the risk of lifting-related injuries, death, or damage to the device, it is recommended that at least two people lift the device. It is important to use proper lifting posture when lifting and/or moving the device.

## WARNINGS ABOUT THE DANGERS OF IMPROPER USE



- Do not attempt to disconnect/modify or rewire any components inside the charging station. Doing so will void the warranty and may cause device failure.
- This device is intended solely for charging vehicles that do not require ventilation during charging. To check ventilation requirements, refer to the vehicle's user manual.
- No modifications should be made inside the charging station: Components, wiring, and hardware settings must remain unchanged. If any changes are required, always contact Elinta Charge.
- The charging station should only be installed or maintained by qualified electricians. Installation or maintenance by regular users is strictly prohibited. Before performing any installation or maintenance on the charging station, disconnect the input power supply.
- No modifications should be made inside the charging station: Components, wiring, and hardware settings must remain unchanged. If any changes are required, always contact Elinta Charge.

## HEALTH AND SAFETY



During the installation of the CityCharge 2 charging station, it is important to protect the installation personnel from injury risks by creating barriers against workplace hazards.

Personal protective equipment does not replace good engineering or administrative controls or best work practices but should be used in combination with these controls to ensure the safety and health of workers.

Personal protective equipment must be provided and used when it is determined that its use is required and will reduce the likelihood of injury and/or occupational illness.

### - Clothing:

All clothing and personal protective equipment must be designed and constructed for the intended work and must be maintained in a sanitary and reliable condition.

### - Eye and Face Protection:

To prevent eye injuries, all individuals in eye hazard areas must wear safety glasses. This includes workers, visitors, researchers, contractors, or anyone passing through a designated eye hazard area.

### - Head Protection:

Head protection should be provided and used by all workers, contractors, and visitors involved in construction and other various tasks.

### - Foot Protection:

Protective footwear must be worn at the installation site and when working near the charging station.

### - Hand Protection:

When there is a risk of cuts, abrasions, punctures, or burns, appropriate gloves must be worn. The choice of gloves should be based on their properties, the conditions of use, duration of use, and associated hazards. A single type of glove is not suitable for all situations.

## ENVIRONMENTAL PROTECTION



Elinta Charge is committed to building a resilient supply chain that minimizes our environmental impact and mitigates risks.

We are dedicated to conserving resources and managing waste generated by our operations. We believe that a responsible company must act in a way that:

- Waste is managed throughout the process of production, minimization, classification, collection, transport, recycling, and disposal.
- Conventional waste containing hazardous substances exceeding permissible limits and that cannot be classified must be handled according to hazardous waste regulations.
- The disposal of CityCharge V2 must comply with all national statutory and regulatory requirements.

## FIRE PROTECTION



To avoid the risk of fire or electric shock, do not use this device with an extension cord.

Fire protection measures are designed to reduce the occurrence of fires by eliminating ignition sources for flammable materials.

- All unnecessary ignition sources must be removed from the charging station area.
- No materials that could contribute to a fire should be stored near the charging station.
- The selection of fire extinguishers for a given situation should depend on the characteristics of anticipated fires, construction, and protected property, as well as the hazards that need protection.
- Fire extinguishers should be labeled to identify the type of extinguisher and the type of fire they are intended for.



# USER MANUAL

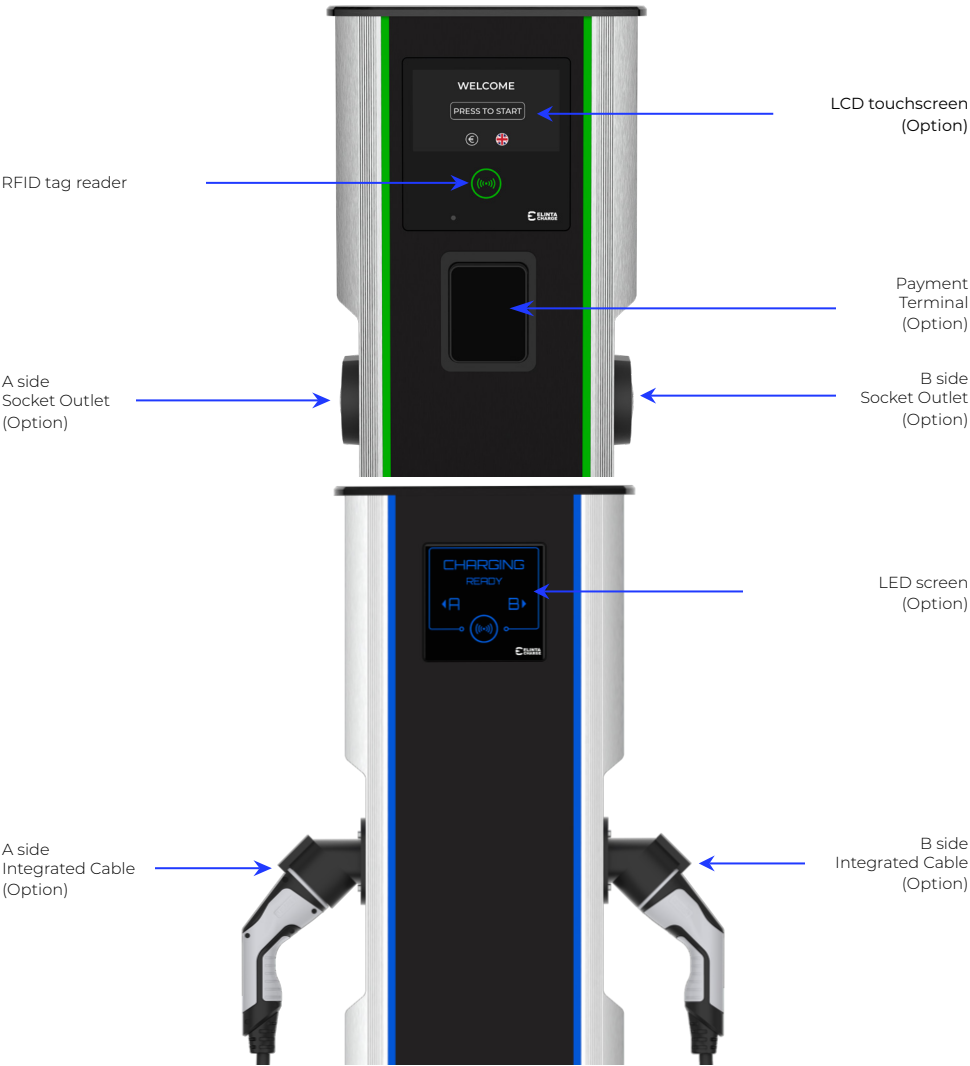
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CHARGING STATION OVERVIEW

CityCharge V2 is classified as a fast Mode 3 charging station with the ability to provide up to 44 kW (2x22 kW) of power using two Type 2 charging sockets or 2 integrated cables.

The bright animated LCD touchscreen or LED screen and sidebars are visible even in the direct sunlight.

CityCharge V2 comes with many features, such as: Charging cable locking, Short circuit protection, Leakage current protection.



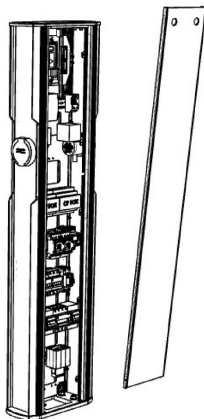
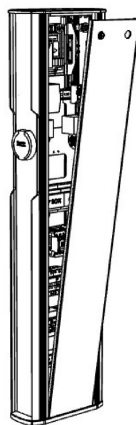
## OPENING THE SERVICE DOOR



STEP 1. Open the service doors of the charging station by opening the two locks on the back of the charging station.

STEP 2. Use the supplied key to release these two locks. Turn the key clockwise until the key can no longer be turned.

STEP 3. After the locks are released, tilt the service doors back by holding them by the top of the doors.

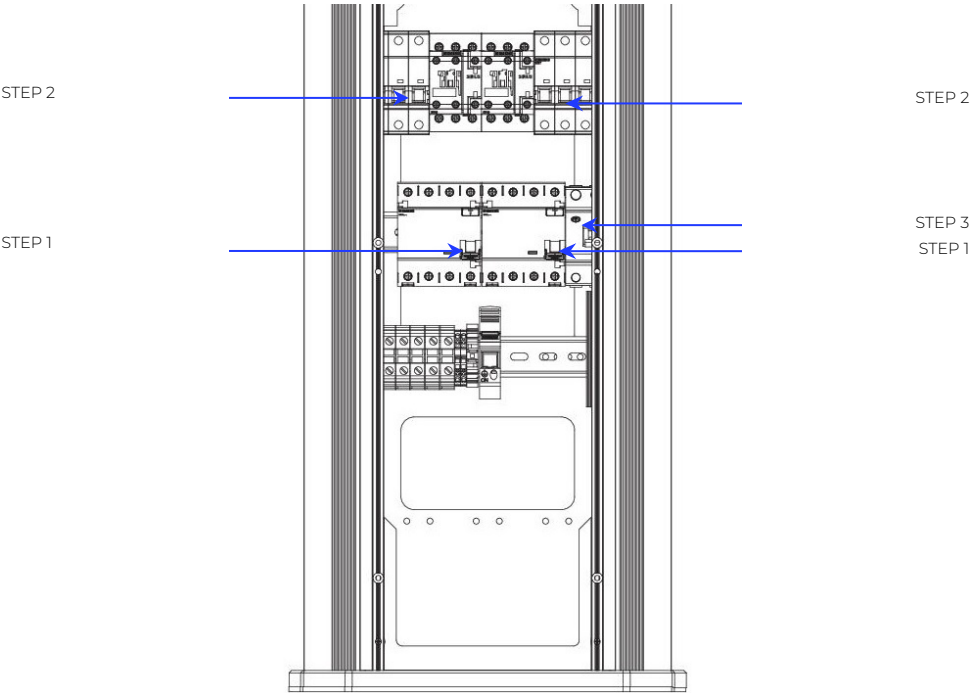


STEP 4. Lift up the service doors from the charger.

STEP 5. Lean the charger service door against the charging station. To access charger internal components

FIRST TIME START UP

- STEP 1: Turn on both A and B side residual current circuit breakers.
- STEP 2: Turn on both A and B side circuit breakers.
- STEP 3: Turn on electronics circuit breaker.
- STEP 4: Closer service doors.
- STEP 5: Wait at least 5-10 min. for charger to boot-up.



**CHARGING INSTRUCTIONS with LCD Touchscreen option**

Power on the station and wait for it to boot up  
Initialization time of the LCD screen take at least 45 seconds until its UI is fully functional.  
There is a possibility that the charging station is initiating a software update process, which can be disrupted by switching it off immediately.

After succesfully powering up the the screen will transition and display WELCOME screen.



A link to the LANGUAGE screen is shown in the form of a button that corresponds to the current language of the LCD screen.  
Touch the round flag image to open the LANGUAGE screen.

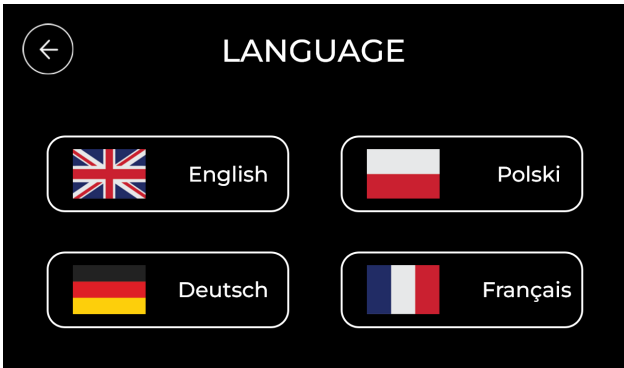
A link to the PRICE INFORMATION screen is shown in the form of a button that corresponds to the current currency (EUR, GBP, PLN, USD) used by the LCD screen.  
Touch the currency image to open the PRICE INFORMATION screen.

Use TOUCH TO START button, to open CHOOSE SIDE screen to start a charging session.

**LANGUAGE SELECTION**

This screen allows users to select a language from the available options for displaying the contents of the LCD UI.  
You can choose from English, Polish, German, and French..

Default language after boot up is English but can be preconfigured with different default language.  
The request to change the default language must be addressed to ELINTA CHARGE and is performed via a software update





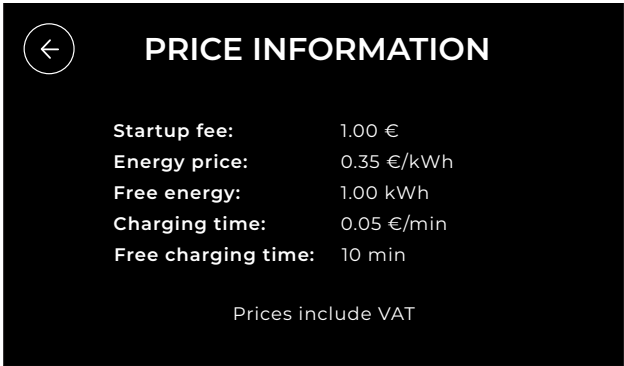
Touch a button to activate a language.  
You will be automatically redirected to the WELCOME screen, with the chosen language displayed.

Touch Back icon to return to WELCOME screen without changing the current language.

After switching to a different language LCD screen will keep latest selection until a reboot of the charger.

PRICE INFORMATION

This screen shows generic pricing on the station.  
Pricing may differ depending on the payment method (iRFID, Bank Card, QR code), as each method may have different pricing configured. The applicable pricing will be shown when the actual charging session starts, after user authentication



Touch Back icon to return to WELCOME screen

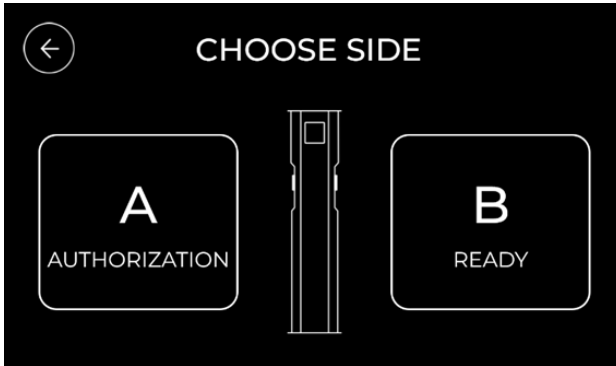
Description of the PRICE INFORMATION screen :

|                    |                                                                                                                                                          |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Startup fee        | The initial cost required to begin a charging session.                                                                                                   |
| Energy price       | The cost per kilowatt-hour (kWh) of energy consumed.                                                                                                     |
| Free Energy        | The amount of free energy available (kWh). Once this allowance is exhausted, the client will be charged according to the "Energy Price" rate.            |
| Charging time      | The cost per minutes of a charging session.                                                                                                              |
| Free charging Time | Period during which a charging session will be free. Once this allowance is exhausted, the client will be charged according to the "Charging time" rate. |

Text based pricing information (received via OCPP California pricing) may be in a different language than the one selected in the charger UI (charger sends the current UI language setting to OCPP backend but from there it depends on the actual implementation of the backend software).

CHOOSE SIDE

The screen displays the current live status of charging sockets A and B.  
Users must select either the A or B side to proceed with the start of a charging session or open active charging status



Touch the side you which to start a charging session (A or B) to open the AUTHENTICATION TYPE screen.

Touch the side you which to open active charging session status (A or B) to open the SIDE INFORMATION screen.

Description of the Status :

|                     |                                                                                         |
|---------------------|-----------------------------------------------------------------------------------------|
| Ready               | Side of the charger is available to plug a vehicle and start a charging session         |
| Plug in the Vehicle | Charging session has been authorized, vehicle need to be plug to start charging session |
| Authorization       | Vehicle is plugged but authentication is needed to start charging                       |
| Occupied            | Side of the charger s already used with an ongoing charging session                     |
| Error               | Side of the charger is in error status and canno't be used                              |
| Unavailable         | Side of the charger is unavailable and canno't be used                                  |

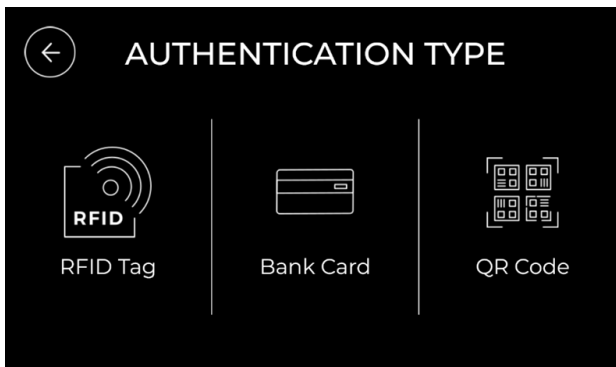
If the status is ERROR or UNAVAILABLE the dedicated side (A or B) will appear in grey, and the touch button will be inactive.

Touch Back icon to return to WELCOME screen.

### AUTHENTICATION TYPE

This screen shows the possible authentication methods required to start charging.

It displays the currently available methods for authorizing the start and stop of charging sessions for the charger.



If the RFID feature is not available, or if the charger does not include a payment terminal solution or QR code feature, the dedicated icon will appear in grey, and the touch button will be inactive.

When choosing an authentication method you will be redirected towards the dedicated page

Touch Back icon to return to CHOOSE SIDE screen.

**RFID authorization selection**

When choosing authentication method via RFID the screen below will be shown



To initiate the charging session using this method, swipe your RFID tag or badge over the blue marker located directly beneath the LCD screen.

Successful authorization will be indicated by the marker turning green  
Unsuccessful authorization will be indicated by the marker turning red

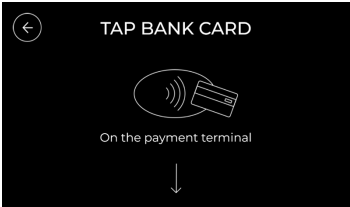


After succesfull authorization to be redirected to the AUTHENTICATION SUCCESSFUL screen cable from both ends needs to be connected.

Touch Back icon to return to AUTHENTICATION TYPE screen.

**BANK CARD READER authorization selection**

When choosing authentication method via bank card reader the screen below will be shown



To initiate the charging session using this method, follow the instructions on the payment terminal, swipe your card or payment method, and proceed with the charging process

Successful/Unsuccessful authorization will be display on the bank card reader itself.



After succesfull authorization to be redirected to the AUTHENTICATION SUCCESSFUL screen cable from both ends needs to be connected.

Touch Back icon to return to AUTHENTICATION TYPE screen.

**QR CODE authorization selection**

This screen shows QR code for users to scan and continue with online authentication.  
This screen is only available if charger is connected to the OCPP backend that handle QR code feature



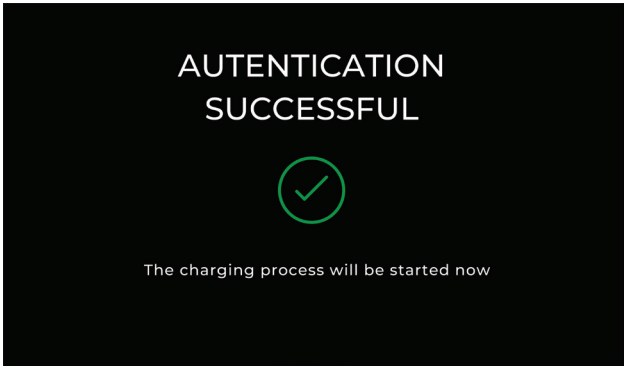
To initiate the charging session using this method, scan the code on the charging station with your smartphone, open the the link or the required app.  
Follow online instructions.

Successful authorization will automatically redirected you to the AUTHENTICATION SUCCESSFUL  
Unsuccessful authorization will be indicated by the marker turning red

Touch Back icon to return to AUTHENTICATION TYPE screen.

**AUTHENTICATION SUCCESSFUL**

This screen is displayed once successful authorization for the charging session is completed.



The screen features an animated circle that fills from 0% to 100% over a 5-second period. After this animation, the screen is automatically redirected to the corresponding A or B SIDE INFORMATION screen and charging session is initiated.

SIDE INFORMATION

This screen shows the status of the ongoing charging session, including key details such as power level, and session information



The SIDE INFORMATION screen displays real-time details such as the charging progress, power level, session duration, cost, and vehicle battery status, along with any notifications or warnings, and provides options to pause or stop the session if needed

To stop a charging session, the user must use STOP CHARGING button, which will direct them to the CHARGING STOPPED screen.



This button does not immediately stop the charging session. It initiates an additional authorization process. The actual termination of the session will only occur after the repeated authorization process is successfully completed. This step ensures that the user is properly authenticated before the charging session is officially halted.

Successful authorization to stop ongoing charging session will automatically redirected you to the AUTHENTICATION SUCCESSFUL

Description of the SIDE INFORMATION screen :

|                 |                                                                    |
|-----------------|--------------------------------------------------------------------|
| Charging Status | Displays the status of the charging session                        |
| Current power   | The rate at which power is being delivered to the vehicle (in kW). |
| Duration        | The total time the charging session has been active.               |
| Charged         | The amount of energy added to the vehicle (in kWh).                |
| Current price   | The cost per kilowatt-hour (kWh) per minutes of energy consumed    |
| Total cost      | The accumulated cost based of the charging session                 |

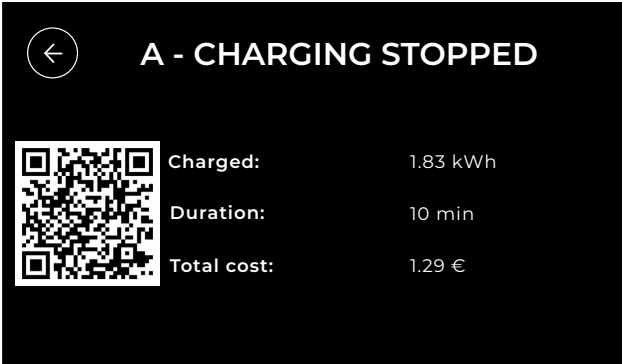
CHARGING STOPPED

This screen is displayed once successful authorization for the charging session to be completed.



The CHARGING STOPPED screen notifies the user that the charging session has ended, providing a summary of the amount of energy added to the vehicle (in kWh), duration, and total cost,

If the charging session authentication method is QR code, an additional QR code will be displayed on the CHARGING STOPPED screen. This QR code will allow the end user to access additional information from the OCPP backend system, such as a receipt.



## CHARGING INSTRUCTIONS with LED Screen option

Description of Procedures for Starting, Operating, and Stopping the Device, as well as Charging Instructions

### STARTING THE CHARGING PROCESS

- STEP 1: Ensure that the charging station is powered on and the LED post is green. The screen should display the message "Ready".
- STEP 2: Place the RFID card (included with the charging station) on the circle displayed on the screen.
- STEP 3: The charging station will emit a single beep sound.
- STEP 4: Both LED posts on the charging station will start pulsating green, indicating that you can select a charging port A or B.
- STEP 5: Connect your electric vehicle to either side (e.g., side B).
- STEP 6: The charging station will lock the charging cable in the socket.
- STEP 7: The LED post on the selected side (side B in this example) will turn blue.
- STEP 8: The screen will display a blue charging icon, confirming the charging session has started.



### STOPPING THE CHARGING PROCESS

- STEP 1: To stop charging, place the same RFID card (used to start the session) on the circle displayed on the screen.
- STEP 2: The charging station will stop charging, and the charging cable lock will be released. The LED post will change from blue to green.
- STEP 3: The charging station will return to its original green color, indicating it is ready for the next user.



### EMERGENCY STOP

The CityCharge V2 charging station is a Mode 3 AC charging station, meaning an emergency stop button is not required (IEC 61851-1 standard).



The CityCharge V2 does not have an emergency stop button.

SETTING UP THE PRICE RULES (Operational via OCPP)

You can set up price rules via OCPP, but the central system (CPO) must be compatible and integrated with the payment terminal operator. This will allow you to display the prices and currency on the payment terminal and/or on the LCD touchscreen.

The custom OCPP key described below must be set to False.

| OCPP Key              | Type                       | Description                                                                      |
|-----------------------|----------------------------|----------------------------------------------------------------------------------|
| UseEliosPaymentSystem | RW (Read/Write) true/false | If set to true, payment plan which is set in elios.cloud system will be applied. |

DYNAMIC PRICING DISPLAY (only LCD Touchscreen option via OCPP)

Our solution supports the display on LCD Touchscreen of dynamic pricing on charging stations, provided that the backend system is compatible with the OCPP 1.6 JSON protocol and the "California Pricing" extension. This feature enables automatic price adjustments based on various factors such as time, energy demand, and local regulations, ensuring transparent and optimized pricing for users.

QR CODE DISPLAY via OCPP (only LCD Touchscreen option via OCPP)

Our solution enables the display of a QR code on on LCD Touchscreen charging stations, AUTHENTICATION type is only available if charger is connected to the OCPP backend that handle QR code feature

| OCPP Key   | Type                       | Description                                        |
|------------|----------------------------|----------------------------------------------------|
| EnableQR   | RW (Read/Write) true/false | If set to true, LCD screen QR code will be enabled |
| QRCodeURL  | RW (Read/Write) string     | Paste URL for A side                               |
| QRCodeURL2 | RW (Read/Write) string     | Paste URL for B side                               |

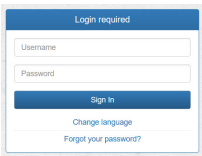
DISPLAYING THE PRICE (only LCD Touchscreen via ELIOS.CLOUD)

The price set in Elios.cloud can be displayed on the LCD touchscreen under the PRICE INFORMATION screen  
This option is provided for informational purposes only.

STEP 1. Log in to your administrative elios.cloud website using your preferred browser

STEP 2. Go to the address: elios.cloud

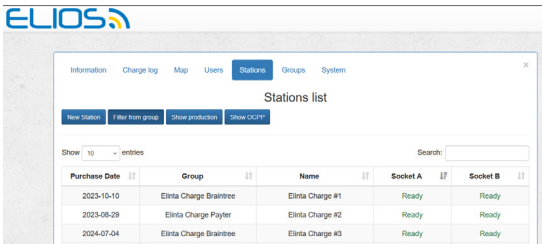
STEP 3. Log in with username and password details provided by Elinta Charge



STEP 4. Go to the Stations tab.

STEP 5. Select the appropriated station.

Information Charge log Map Users **Stations** Groups



STEP 6. From the list of the charging stations, select one which will be set up for receiving payments.

STEP 7. Navigate to the "Payment" tab:

Information Hardware Charge log App Transaction log Console Schedule Balancing **Payment** Edit

STEP 8. The payment tab will open with all available settings for the price setting:



| Information                                                                                                                                                                                                                                                                                                | Hardware | Charge log | App Transaction log | Console | Schedule | Balancing | Payment | Edit |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|---------------------|---------|----------|-----------|---------|------|
| <b>Plan</b> <span>Payment plan 1 [Sun, Mon, Tue, Wed, Thu, Fri, Sat 00:00:00 - 00:00:00]</span>                                                                                                                                                                                                            |          |            |                     |         |          |           |         |      |
| <b>Time range</b> <span>00:00</span> <span>00:00</span>                                                                                                                                                                                                                                                    |          |            |                     |         |          |           |         |      |
| <b>Active days</b> <input checked="" type="checkbox"/> Sun <input checked="" type="checkbox"/> Mon <input checked="" type="checkbox"/> Tue <input checked="" type="checkbox"/> Wed <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> Fri <input checked="" type="checkbox"/> Sat |          |            |                     |         |          |           |         |      |
| <b>Initial price</b> <span>0.00</span>                                                                                                                                                                                                                                                                     |          |            |                     |         |          |           |         |      |
| <b>Price per minute</b> <span>0.00</span>                                                                                                                                                                                                                                                                  |          |            |                     |         |          |           |         |      |
| <b>Price per kWh</b> <span>0.72</span>                                                                                                                                                                                                                                                                     |          |            |                     |         |          |           |         |      |
| <b>Dynamic kWh price type</b> <span>NONE</span>                                                                                                                                                                                                                                                            |          |            |                     |         |          |           |         |      |
| <b>Free minutes</b> <span>0</span>                                                                                                                                                                                                                                                                         |          |            |                     |         |          |           |         |      |
| <b>Free kWh</b> <span>0.00</span>                                                                                                                                                                                                                                                                          |          |            |                     |         |          |           |         |      |
| <b>Minimum price</b> <span>0.30</span>                                                                                                                                                                                                                                                                     |          |            |                     |         |          |           |         |      |
| <b>Maximum price</b> <span>40.00</span>                                                                                                                                                                                                                                                                    |          |            |                     |         |          |           |         |      |
| <div> <span>Copy To Group</span> <span>Delete Plan</span> <span>Save Plan</span> <span>Close</span> </div>                                                                                                                                                                                                 |          |            |                     |         |          |           |         |      |

Initial price  
Price per minute  
Price per kWh  
Free minutes

Free kWh

Minimum price

Maximum price

The price which the client will be charged just for connecting to the charging station.  
The cost of each minute spent charging.

The cost of each kWh used.

If the price per minute is set, then the free minutes can be set. The client will be charged the standard "price per minute" rate when all the free minutes run out.

If the price per kWh is set, then the free kWh can be set in order to charge the client for each kWh additional used.

The absolute minimum price that the client will be charged no matter how much time or kWh was used.

The absolute maximum price that the client will be charged no matter how much time or kWh was used.

STEP 9. Close the station tab and go to the Group tab.

Information Charge log Map Users Stations **Groups** System

STEP 10. From the list of groups, select the parent group to which the target charger belongs

| Information of Elinta Charge |                                                                                            |
|------------------------------|--------------------------------------------------------------------------------------------|
| Information                  | Users Charge log Stations Charge log App Transactions log Tariffs Receipts & Invoices Edit |
| <b>Name</b>                  | <span>Elinta Charge</span>                                                                 |
| <b>Parent</b>                | <span>None</span>                                                                          |
| <b>Time Zone</b>             | <span>Europe/Viñius</span>                                                                 |
| <b>Current (INPUT)</b>       | <span>125</span>                                                                           |
| <b>Current (RESERVE)</b>     | <span>0</span>                                                                             |
| <b>Admin</b>                 | <span>NONE</span>                                                                          |
| <b>Gateway</b>               | <span>BRAINTREE</span>                                                                     |
| <b>Currency</b>              | <span>EUR</span>                                                                           |
| <b>App payments</b>          | <span>Enabled</span>                                                                       |
| <b>Reader payments</b>       | <span>Enabled</span>                                                                       |

STEP 11. In this tab you will require to enable "Reader Payments", set the "Currency" and set an "Admin"

STEP 12. Payment will now be displayed on the LCD touchscreen under the PRICE INFORMATION screen.



The only supported currency display is Euro (€).



If no currency is set, a "?" symbol will appear in place of the currency symbol on the LCD touchscreen under the PRICE INFORMATION screen.

# MAINTENANCE

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## MAINTENANCE

Maintenance and troubleshooting should only be carried out by qualified personnel with expertise in electrical systems to ensure safety and compliance. Qualified personnel are individuals who, based on their training and experience, are capable of identifying risks and preventing potential hazards while working with this product

Our CityCharge V2 does not require mandatory preventive maintenance; however, we recommend regular visual checks and an inspections of the electrical connections to ensure optimal performance.

This maintenance includes Visual inspection, cleaning and electrical checks, the following list is non-exhaustive and may be revised according to local regulations:

### Visual inspection and cleaning

|                                                                        |          |
|------------------------------------------------------------------------|----------|
| Check for external damage on the CityCharge V2                         | 1 / year |
| Clean the outside of the CityCharge V2                                 | 1 / year |
| Clean the outside of the LCD Touchscreen                               | 1 / year |
| Clean the inside of the CityCharge V2                                  | 1 / year |
| Check the electrical components for signs of burning or deterioration. | 1 / year |

### Electrical check

|                                                                                                                    |                |
|--------------------------------------------------------------------------------------------------------------------|----------------|
| Test the 6A RCBO - test button                                                                                     | 1 / year       |
| Test the RCCB -: test button                                                                                       | 1 / year       |
| Ensure all electrical components are securely tightened (connection terminal block, RCCB, MCB, RCBO, power supply) | 1 / year       |
| Replacing the 3V Battery on the Mainboard or LumenBoard                                                            | Every 36 month |

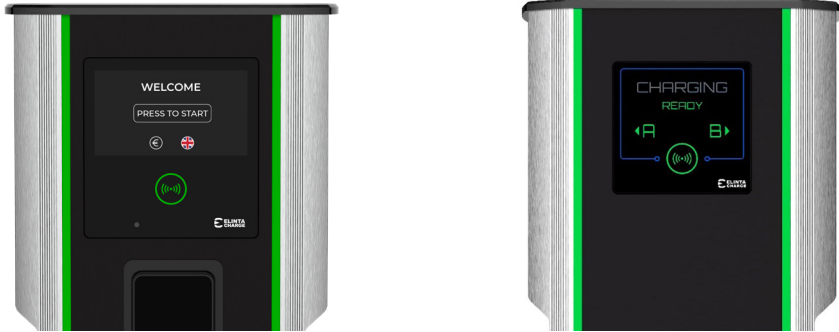
### Functional test

|                                                 |                |
|-------------------------------------------------|----------------|
| Conduct functional tests of the charging point. | Every 24 month |
|-------------------------------------------------|----------------|

## DEVICE CONDITION CHECK

### Checking Device Condition:

When the charging station is ready for use, the LED strips on the side of the station will illuminate green, and the screen for LCD screen model will display the message "Ready" for side A or B.



### Checking Safety Components:

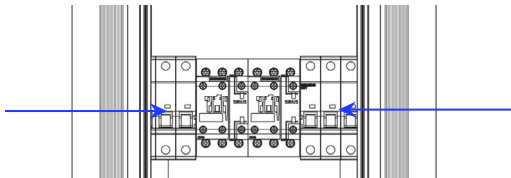
Charging stations include two essential safety elements: charging sockets and electrical protections.

#### Charging Sockets:

When inspecting the charging sockets, ensure there are no cracks or damages. Check the socket cover mechanism. The charging socket cover should be free of cracks or visible damage. Additionally, the cover should be spring-loaded in the closed position to ensure water resistance. If the charging socket or its cover appears damaged, do not use the charging station and contact Elinta Charge support.

#### Miniature Circuit Breakers (MCB):

Check that the MCBs are in good working condition. The MCB levers should not be stuck. There should be no resistance when trying to switch the MCB off. Miniature circuit breakers are designed to function efficiently until replacement. This means that a damaged MCB cannot be repaired and must be replaced. If an MCB appears discolored or burnt, always contact your local Elinta Charge dealer.



## LCD TOUCHSCREEN CLEANING

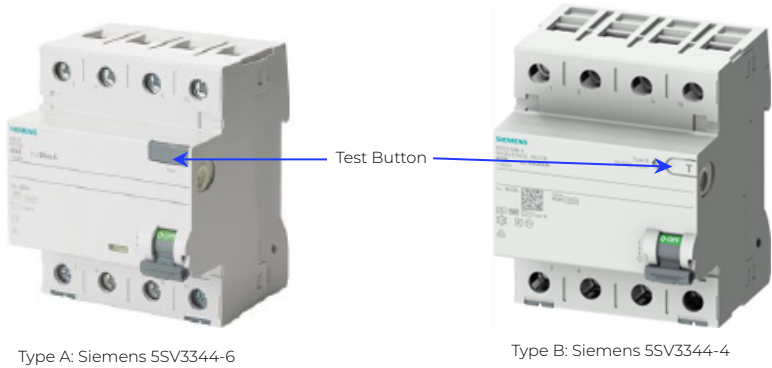
STEP 1. Turn off the screen before cleaning.

STEP 2. Wipe gently with a microfiber cloth to remove dust and fingerprints.

Is it possible to dampen a microfiber cloth with an ammonia-free cleaning solution or a mix of distilled water and vinegar. Never spray directly onto the screen. Lightly mist the cloth instead.

ELECTRICAL MEASUREMENTS - RCCB

Residual current devices (RCCB): CityCharge V2 charging points can be equipped with two different RCCB versions, depending on customer needs. If a charging point with type A is chosen, an additional residual current monitoring device is included to detect a 6mA leakage current.



Testing:

All residual current protective devices are equipped with a test button.

- STEP 1. Simply press this button to check whether the residual current protective device is operational. Pressing the test button generates an artificial residual current—the device must activate.
- STEP 2. Measure the RCCB activation time. The measurement time should comply with the guidelines in the table below.

| Shutdown time (s) |              |              |                          |
|-------------------|--------------|--------------|--------------------------|
| $I\Delta n$       | $2I\Delta n$ | $5I\Delta n$ | Multiplicity $I\Delta n$ |
| 0,3               | 0,15         | 0,04         | Max. Shutdown time       |

STEP 3. Measure the RCCB activation current. The measured current should fall within the permissible range, as specified in the table below.

|             |            |
|-------------|------------|
| RCCB Type A | 0.35 - 1.4 |
| RCCB Type B | 0.5 - 2    |

$I\Delta n$  – nominal current of the circuit breaker

Verify the effectiveness of automatic power disconnection by the RCCBs and confirm compliance with the requirements of standards:

- PN-EN 61008-1: 2013-05
- PN-EN 62423: 2013-06

The protection effectiveness is considered satisfactory if activation occurs at the specified short-circuit current value and within the required time.

PROTECTIVE EARTHING MEASUREMENT

Protective Earthing Measurement for the AC Connection (Circuit Breaker)  
The CityCharge V2 charging point uses two separate miniature circuit breakers (MCB) for side A and B.

For the TN network, check whether the condition is met:  
 $Z_s \times I_a \leq U_0$

- $Z_s$  – loop impedance
- $I_a$  – current causing circuit breaker activation
- $T_{wm}$  – maximum disconnection time
- $U_0$  – rated voltage to ground

| Electrical connection Regime | 120 VAC < $U_0$ VAC < 230 VAC |
|------------------------------|-------------------------------|
| TN                           | $T_{wm} = 0,4 \text{ s}$      |
| TT                           | $T_{wm} = 0,2 \text{ s}$      |

INSULATION RESISTANCE MEASUREMENTS

Measure the insulation resistance between L1, L2, L3, N, and PE pins of the AC connector.

- Use a test voltage not exceeding 500V.
- The measurement is considered valid if the resistance is  $\geq 1 \text{ M}\Omega$ .

OPERATIONNAL GROUNDING RESISTANCE MEASUREMENT

- STEP 1. Disconnect the device from the power source and ensure it is safe to work on.
- STEP 2. Locate the grounding connection point on the device. Use the grounding terminal.
- STEP 3. Connect one end of the grounding tester or meter to the device's grounding connection point. The other end should be connected to an auxiliary electrode driven into the ground at an appropriate distance from the device.
- STEP 4. Turn on the ground tester and select the appropriate measurement range. Use a 200mA current and a voltage of 4-24V for measurement.
- STEP 5. Measure the resistance between the grounding connection point on the device and the auxiliary electrode. The obtained resistance value is the device's ground resistance, which must be  $\leq 10 \Omega$ .

If the ground resistance value is too high, check for loose connections, corrosion, or grounding system damage. Make necessary repairs and repeat the tests until the resistance is within the allowable range.

PROTECTIVE CONDUCTOR CONTINUITY MEASUREMENT

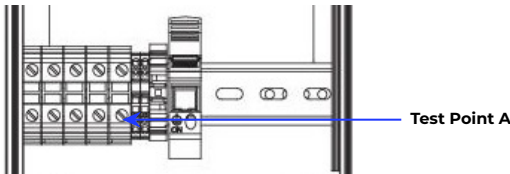
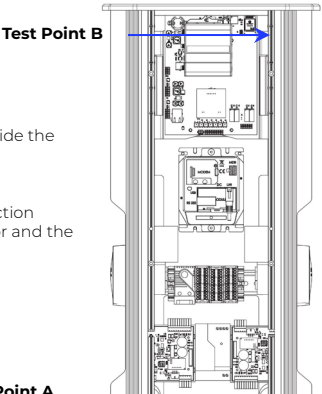
Measure the resistance between the PE pin in the AC connector/socket and the grounding point of the AC power supply ("Test Point A").

- Use a 200mA current and a voltage of 4-24V for the measurement.
- The measurement is valid if the resistance is  $\leq 1 \Omega$ .

Repeat the process for continuity measurement on the metal housing:

- Measure resistance between "Test Point A" and "Test Point B" (a metal screw inside the charger connecting to the metal housing).
- The measured resistance should be  $\leq 1 \Omega$ .

It is recommended to check the continuity of the wires between the main connection terminal of the charging point and the contactor annually, including the contactor and the electrical socket.



## CHARGING STATION COMPONENT REPLACEMENT

The charging point consists of key structural components.

These components can be replaced without special training if the task is performed by a certified electrician with extensive training and familiarity with safety procedures, best installation practices, and electrical component replacement.

The electrician must also be familiar with local codes and regulations governing electrical work and ensure compliance with them.

### Protective Devices

Miniature Circuit Breaker C32 - ref : 5SY6 332-7

Residual Current Circuit Breaker Type A - ref : 5SV3 344-6

Residual Current Circuit Breaker Type B\* (in Option) - ref : 5SV3 344-4

RCBO - ref : 5SV1313-7KK06

### Switching Devices

Power Contactor - ref : 3RT2 027-1AL20

### Measuring Devices

Energy Meter ISKRA 3P/40A/230V- ref : WM3M4

### Accessories

Thermostat - ref : KTO 111

Heater - ref : Z-822006

It is recommended not to change or replace electrical boards, as some versions of software/hardware may not be compatible with each other.

In case of the need for repair or replacement of these components, please contact an Elinta representative or a local distributor in Poland.

### Electronics

Charging Regulator CP-BOX

Main Board

Residual Current Monitor

## PERFORMING FUNCTIONAL TESTS OF THE CHARGING STATION

Functional tests of the charging station should be performed every 2 years using a dedicated charging station parameter tester, performing the following tests:

- Checking the presence of network power and the correct phase sequence connection;
- Simulating connection states A, B, C, D, E;
- Analyzing PWM signal levels;
- Signaling and forcing connection errors (e.g., short-circuiting CP with PP);
- Testing the residual current device (RCCB).

To test the charging station, specialized equipment should be used. It is recommended to use the multifunctional electric installation tester MI 3152H EurotestXC 2.5 kV by Metrel, along with the special EVSE test adapter A 1532 EVSE.



The A 1532 EVSE adapter can test:

- Voltage indicators on the EVSE output
- Proximity pilot resistance selector for simulating the presence of the electric vehicle cable and detecting the nominal current
- Control pilot resistance selector for simulating the state of the electric vehicle

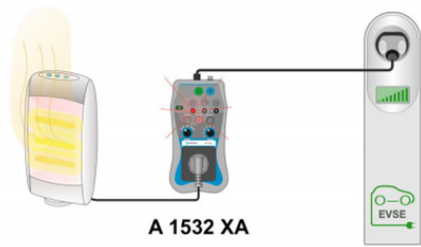
- 1 - Banana plugs for connecting to a 3-phase installation tester or load
- 2 - Voltage indicators on the EVSE output
- 3 - Resistance switch (current code) of the proximity pilot (PP STATE) to simulate the electric vehicle cable
- 4 - Control pilot resistance selector (CP STATE) for simulating the electric vehicle state
- 5 - Plug output for connecting to a single-phase installation tester or load
- 6 - Type 2 male connector for connecting to EVSE
- 7 - BNC output connector for checking the control pilot signal (CP)
- 8 - Buttons for simulating faults in the CP and PE circuits





Charging Function Tests:

Connect the A 1532 EVSE adapter to the charging station, using a powerful electric heater as a substitute load, as shown in the diagram below:



Safety and Functional Tests :

- STEP 1. Connect the A 1532 XA output to the installation tester (via the network test socket or through secure banana plugs).
- STEP 2. Set PP STATE (3) to N.C. position and CP STATE (4) to position A.
- STEP 3. Connect the 1532 XA plug (6) to the EVSE.
- STEP 4. Perform installation tests for de-energized circuits.
- STEP 5. Simulate various charging conditions using PP STATE (3) and CP STATE (4). Check the response of the EVSE.
- STEP 6. In the PP STATE (3) position other than N.C. and CP STATE (4) in C or D, the EVSE output is powered (indicated by one or more (2) voltages on the EVSE indicators).
- STEP 7. Perform installation tests for energized circuits.
- STEP 8. Perform load tests with a maximum current of 13 A.
- STEP 9. Before disconnecting the 1532 XA plug (6) from the EVSE, set CP STATE (4) to position A to disconnect the EVSE.

Note:

- Only phase L1 of the 3-phase EVSE is available through the test STEP 5.
- The network socket or terminals L1, L2, L3, N can be used for the load test.

PP STATE Options:

| Position               | Simulates                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| N.C.                   | Error state or plug disconnection                                                                                                 |
| 13A - 20A - 32A - 63 A | Coding for the maximum current of the electric vehicle cable. EVSE is connected and can operate in any of these coding positions. |

CP STATE Options:

| Position | Simulates                                      | Simulates                                                                                                                 |
|----------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| A        | Electric vehicle disconnected                  | EVSE in idle state, electric vehicle is not ready to receive energy, EVSE does not supply energy                          |
| B        | Electric vehicle connected                     | Electric vehicle detected, but not ready to receive energy, EVSE does not supply energy                                   |
| C        | Electric vehicle charging with out ventilation | Electric vehicle is ready to receive energy, EVSE supplies energy, if ventilation is not required                         |
| D        | Electric vehicle charging with ventilation     | Electric vehicle is ready to receive energy and requires ventilation, EVSE only supplies energy if ventilation is present |

Testing the Charging Station States:

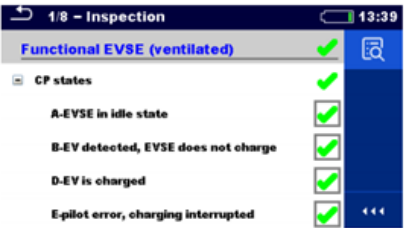
- STEP 1. Connect the Metrel A 1532 adapter to the charging station.
- STEP 2. Activate the charging station by swiping the RFID card across the screen, as described in Chapter 4 (Description of operations related to starting, operating, and stopping the device, and charging instructions).
- STEP 3. Set the proximity pilot knob (3) to the I3A position.
- STEP 4. Set the control pilot knob (4) to position A.  
The charging station should remain in the waiting position: flashing green.
- STEP 5. Set the control pilot knob (4) to position B.  
The charging station should remain in the waiting position: flashing green.
- STEP 6. Set the control pilot knob (4) to position C.  
The charging station should lock the cable, turn blue, and start supplying energy.
- STEP 7. Set the control pilot knob (4) to position D.  
The charging station should lock the cable, turn blue, and start supplying energy.
- STEP 8. Set the control pilot knob (4) to position B.  
The charging station should indicate that the car is fully charged. The charger should now flash green.

Testing the Charging Station States:

- STEP 1. Connect the MI 3152H EurotestXC 2.5 kV tester to the A 1532 EVSE adapter.
- STEP 2. Go to the AUTO SEQUENCE tab.
- STEP 3. Select 3-phase EVSE:

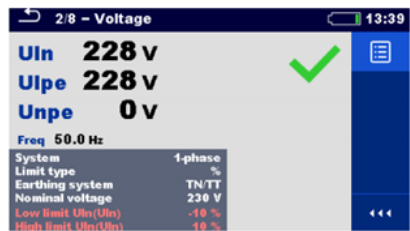


- STEP 4. Choose EVSE 3p Vent Trip:

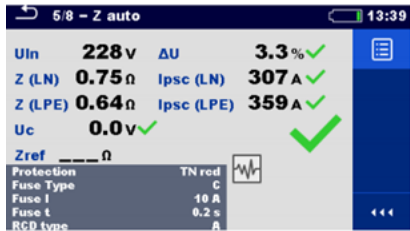


Here, you can disable the test checklist if you don't want to perform specific tests.

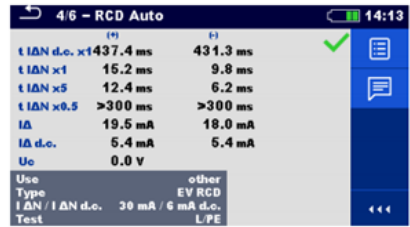
STEP 5. Activate the test. The test will automatically proceed by testing the voltage and frequency:



STEP 6. The test will show the ground resistance (which should not exceed <10 ohms) and the voltage drop.



STEP 7. The automatic test will perform a differential circuit breaker test, displaying the trip current of the breaker and its reaction time.



STEP 8. If the tests are successful, a green arrow will appear next to the provided data, indicating that the test results are within the acceptable range.

# **TROUBLESHOOTING**

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## TROUBLESHOOTING PROCEDURES

In case of failure:

STEP 1. Turn off the charging point and do not use it.

STEP 2. Note the serial number of the charging point from the CE type plate. CE type plate is located on the side of the CityCharge V2 at the bottom of the unit.

STEP 3. Contact the authorized service center operating in your Country (or area) or Elinta Charge technical service, support@elintacharge.com.

STEP 4. When reporting a failure, have the serial number of the charging point, device name, and a detailed description of the issue ready.

### CHARGING STATION TROUBLESHOOTING TABLE

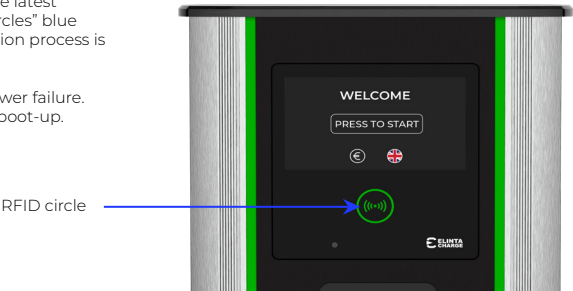
| # | Problem                                                                     | Possible cause                                                                                                          | Troubleshooting                                                                                                                                                                                                                                                     |
|---|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | The LCD Touchscreen and the charger does not turn on                        | No power to the charging station. The residual current circuit breaker (RCCB) or automatic circuit breaker has tripped. | Open the charger service doors. Check that the circuit breakers have not tripped. Inspect the upstream power supply, as power may have failed in the upstream control panel.                                                                                        |
| 2 | The charger screen is working, but one side of the LED stripes are not lit. | One side of the charger RCCB / MCB triggered.                                                                           | Open the service doors of the charging station. Check that none of the circuit breakers or residual current circuit breakers have tripped.                                                                                                                          |
| 3 | Charging station can be activated, but the charging process does not start. | Cable not plugged in all the way. Car doors open, car not locked, or key in ignition.                                   | Check that the cable is securely connected to the car and the station. Check that car is locked and key is not in ignition switch.                                                                                                                                  |
| 4 | Can't stop charging. The cable is locked.                                   | The charger has lost communication with the server or the wrong RFID tag used to stop.                                  | Check if the charger screen frame is constantly lit or flashing (slowly). The slow flashing means communication to the server has been lost. If the red dot appears on the screen after trying to stop charging, it means that an incorrect RFID tag is being used. |
| 5 | The charging station keeps losing a connection to the server.               | Bad signal/connection.                                                                                                  | Depends on the selected communication. The problem could be a poor signal from GSM. Check the signal strength.                                                                                                                                                      |
| 6 | When attempting to start the charge, the station shuts down.                | Faulty EV charging cable or electric vehicle.                                                                           | A faulty EV charging cable or EV outlet may be responsible for triggering RCCB. If the charger does not have an automatic RCCB reset, RCCB should be reset manually.                                                                                                |

| #  | Problem                                                                      | Possible cause                                            | Troubleshooting                                                                                                                                                                                                                                                          |
|----|------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7  | The charging process takes a long time                                       | Reduced charging current                                  | If the charging station power appears reduced compared to previous use, it may be due to reduced power. Check the charger configuration. If possible, try the charging station with a different EV. If the problem persists, contact technical support at Elinta Charge. |
| 8  | The charging station flashes red. EV cannot be charged.                      | The charging station has an error.                        | Check the charging station's charging log. Try restarting the charging station. If the problem persists, contact the support team at Elinta Charge.                                                                                                                      |
| 9  | The LCD Touchscreen is blank, although the charger is powered on             | Loose power connection<br>Faulty power adapter or cable   | Open the charger service doors<br>Check and reconnect power cables<br>Check the LED on the power supply. Inspect the upstream power supply. Ensure the power supply is correctly plugged into the LCD Touchscreen, check and reconnect power cables                      |
| 10 | Touchscreen Not Responding<br>Screen Freezes or Lags<br>Dead or stuck Pixels | Physical damage<br>Software issue<br>Manufacturing defect | Inspect screen for cracks or damage<br>Reboot the device<br>If the issue is not resolved after a power reboot, please contact the manufacturer for assistance                                                                                                            |
| 11 | Inaccurate Touch                                                             | Dirt, dust, or oil on screen                              | Clean the screen with a micro-fiber cloth                                                                                                                                                                                                                                |

RFID Circle - INDICATION

SW Update

When the charging station is downloading the latest software version, the RFID circle will “run in circles” blue and red color until the download and installation process is complete.  
LCD Screen will become black  
Usually, this process takes after a reboot or power failure.  
Normally, this step is skipped during the first boot-up.



LOST OF COMMUNICATION

If the RFID circle is blinking, it means that the charger has lost communication with the server elios.cloud or the OCPP backend system.

SIDE BAR LED INDICATION



The charging station LED are Green. The charging station is ready to be used



The charging station LED on a side is Blue. Charging session is ongoing on this side



The charging station on a side is blinking red. The charging station has an error. Look the console log on elios.cloud to check error code

PROCEDURE FOR MALFUNCTIONS OR DISTURBANCES

If a malfunction occurs in the device, looking at the LED columns of the station can provide a lot of information about the possible problem:

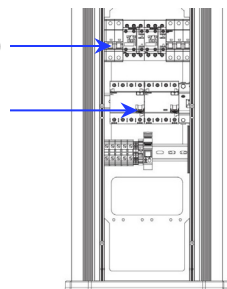
If one or both side LED columns are not lit:

This means there is a problem with the power supply to the socket on side A or B. This could be caused by current leakage or a short circuit in the charging cable or the electric vehicle itself.

To resolve this issue:

- STEP 1. Open the service door of the charging station using the provided key to release the two locks. Turn the key to the right until it stops.
- STEP 2. After releasing the locks, tilt the service door backward, holding it by the top.
- STEP 3. Lift and remove the service door from the charging station.
- STEP 4. While repairing, lean the service door against the charging station.

- STEP 5. Check the circuit breakers on side A and B. The lever should be in the "On" (ON) position, facing UP.
- STEP 6. Check the residual current breakers on side A and B. The lever should be in the "On" (ON) position, facing UP.



If one or both side LED columns are flashing red:

This means there is an internal error in the charging station, which may be caused by the following reasons: overvoltage, overcurrent, or internal data error. The fastest and easiest solution would be to log in to system management and check the cause of the error.

To set up the price for the charging service, follow steps 1 to 5 described in the chapter "DYNAMIC LOAD MANAGEMENT SETUP ONLINE (OPTIONAL)." Page 45  
To do this:

- STEP 6. Open the station information page:
- STEP 7. Here you can check the status of the charger: "Ready" means the charging station is ready to use.

An error state will be have a status below :  
Unavailable, Voltage Error, RCM Error, Car Error, Over Current Error, Meter Error.

Contact the authorized service center operating in your Country (or area) or Elinta Charge technical service, [support@elintacharge.com](mailto:support@elintacharge.com).  
You will need to provide the serial number of the charging point from the label. The label is located behind the service door at the bottom of the unit.



| Commands   | Authorize   | Flash        | Reboot |
|------------|-------------|--------------|--------|
| TYPE 2 (A) | Ready       | Not charging |        |
| TYPE 2 (B) | Meter error | Not charging |        |



## FIRE INSTRUCTION

The casing of the CityCharge V2 charging station is made entirely of aluminum and is fire-resistant around the entire unit. The internal electrical components: wiring, circuit breakers, are designed to minimize the risk of fire. Our charging station is designed in such a way that the devices and distribution boards provide an adequate degree of IP protection in accordance with IEC 61439 standards and significantly reduce the risk of fire due to insulation damage or excessive temperature rise.

### To minimize the fire risk:

STEP 1. Check the residual current breakers every 3 months of usage.

STEP 2. Turn off and on the circuit breakers of the charging station to ensure that the protective device levers function properly and do not seize over time.

STEP 3. Annually check and tighten all contacts in case some have loosened.

### To test the residual current breaker RCCB Type A or RCCB Type B, follow these steps:

STEP 1. Stop all car charging.

STEP 2. Disconnect all vehicles from the charging station.

STEP 3. Open the service door of the charging station.

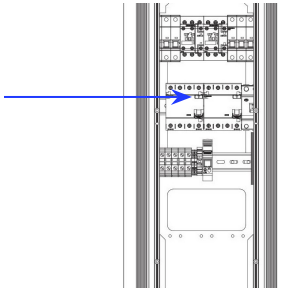
STEP 4. Press the test button on both RCCB.

STEP 5. If the test is successful, RCCB should trigger and shut off.

STEP 6. Turn on RCCB. (\*If the charging station is equipped with the automatic reset RCCB, RCCB should turn itself back on).

STEP 7. Close the service door.

STEP 8. Continue to use the Charging Station as normal



### In case of fire:

In the event of a fire, it is crucial to remain calm and avoid causing panic.

STEP 1. Immediately alert those in the immediate vicinity, then activate the nearest manual call point or contact the emergency services at 112.

When reporting the fire, provide the following information:

- The exact location of the fire
- The type of burning material or device involved
- Whether there is any threat to human life
- Your name and telephone number

STEP 2. Turn off the power before the charging station.

STEP 3. If possible, open the service door of the charging station.

STEP 4. To prevent the fire from spreading, use a CO2 fire extinguisher.  
Do not use water to extinguish fires involving

For fires involving electric vehicle charging stations, only use fire extinguishers designed for electrical equipment up to 1kV, which are typically available at petrol stations.

# WARRANTY

## WARRANTY RULES AND CONDITIONS

- 1.** Elinta Charge guarantees the high quality of the CityCharge V2 charging station. Elinta Charge will repair or replace, free of charge, defects that occur due to the manufacturer's error during the warranty period. All warranty terms apply in accordance with consumer protection laws.  
Before using the product, read these warranty terms carefully and make sure you comply with them. Keep the invoice or check as proof of purchase during the warranty period of the device.
- 2.** Elinta Charge provides a 24-month warranty from the date of purchase.
- 3.** The warranty can be redeemed up to a maximum of 60 months from the date of sale of the equipment for an additional fee at the time of order confirmation.
- 4.** The parts of the equipment replaced during the elimination of equipment defects become the property of Elinta Charge, UAB.
- 5.** The warranty enters into force and is valid if the equipment is installed in accordance with the manufacturer's installation instructions, which are provided to the buyer together with the equipment installation instructions.
- 6.** The warranty does not apply to:
  - Installation works (in case the installation works were not performed by Elinta Charge, UAB);
  - If the requirements for the safe operation and maintenance of the equipment set out in these warranty conditions and / or in the user manual supplied with the equipment have not been complied with.
  - If the equipment is not installed in accordance with the manufacturer's installation instructions provided to the purchaser with the equipment purchased;
  - Naturally wearing parts, the service life of which depends on the intensity of use of the equipment (fuses, gaskets and other naturally wearing parts), unless the failure of these parts is the responsibility of the manufacturer and / or seller;
  - Glass, plastic / aluminum housing and signs of natural wear and tear of its components;
  - Failures, irregularities caused by unauthorized acts, incidents, vandalism;
  - If the equipment is damaged due to factors beyond the control of the manufacturer and / or seller.
- 7.** The warranty does not cover:
  - Cleaning and periodic maintenance of the installation;
  - User training;
  - Replacement of equipment, if the goods were modified by changing operating conditions (changing the capacity of the equipment, integrating additional components);
  - Replacement labor costs;
  - Faults in the power input circuit;
- 8.** In the event of a fault:
  - Call Elinta Charge, UAB technical service department, tel. +370 615 71604 or +370 653 66633
  - When registering a fault, report the purchase invoice number, device name, serial number, describe the fault in detail to email address [support@elintacharge.com](mailto:support@elintacharge.com);
  - If you have any questions regarding the operation of the equipment, please contact the company that installed the equipment or the technical service department of Elinta Charge, UAB.
- 9.** At the consumer's request, this quality assurance shall be provided in writing on paper or on another durable medium available to him.

## FINAL THOUGHTS

- If you have any questions regarding on how to use or install the charging station, please contact the company which installed the equipment or the technical service department of Elinta Charge.

## CONTACTS

**Address:** Partizanų g. 63M, LT-50306 Kaunas

**E-mail:** [info@elintacharge.com](mailto:info@elintacharge.com)

**Website:** [www.elintacharge.com](http://www.elintacharge.com)

