

# TeltoCharge

Quick User Guide



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# DOWNLOAD A TELTONIKA ENERGY APP

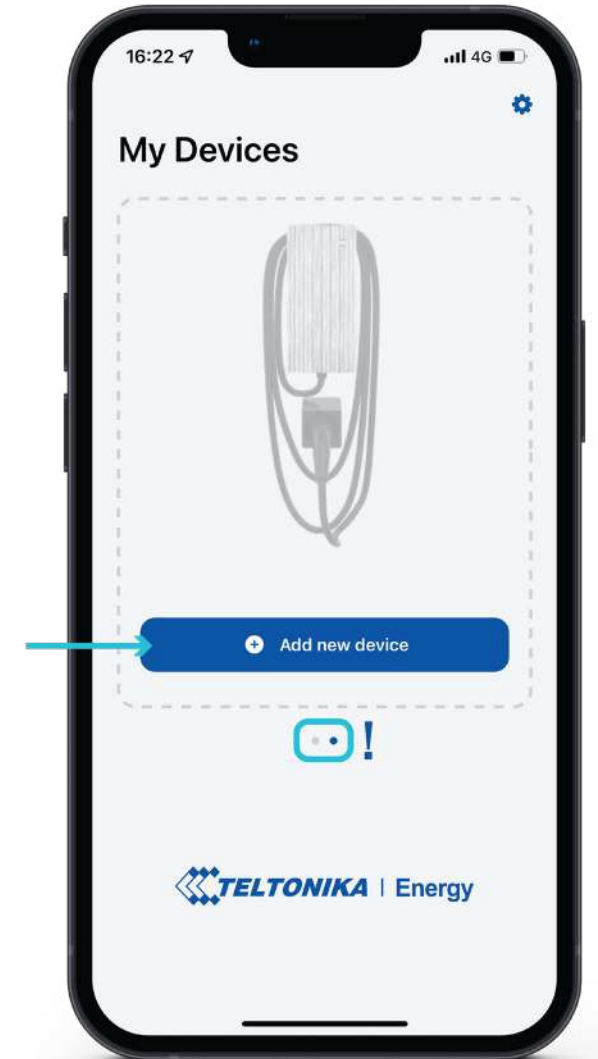
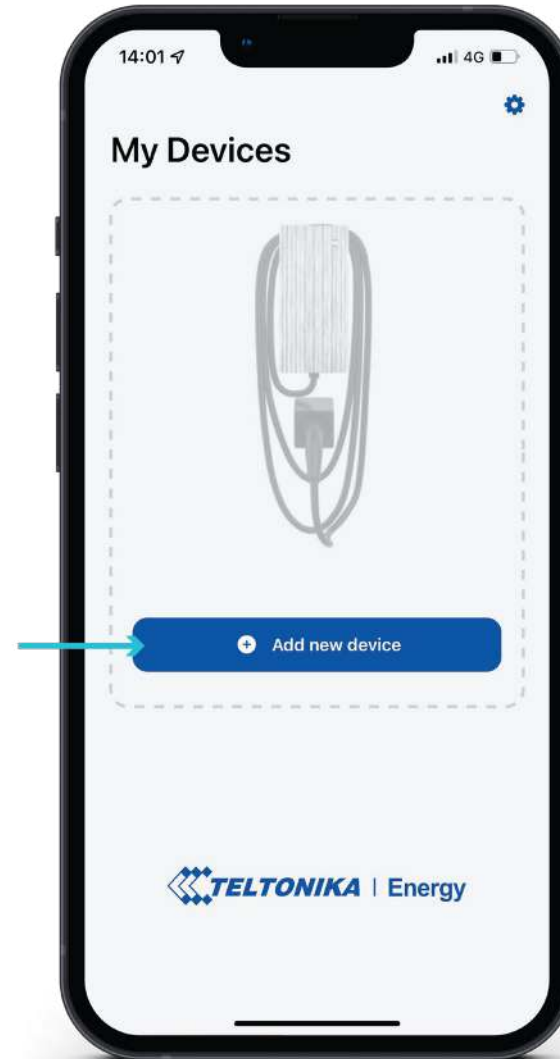
To begin TeltoCharge set-up, download and install a Teltonika Energy app to your smartphone. The app is necessary to access and manage smart features of your EV charger.

Teltonika Energy app is available for download on Google Play and App Store.



# PAIR TELTOCHARGE WITH A SMART DEVICE

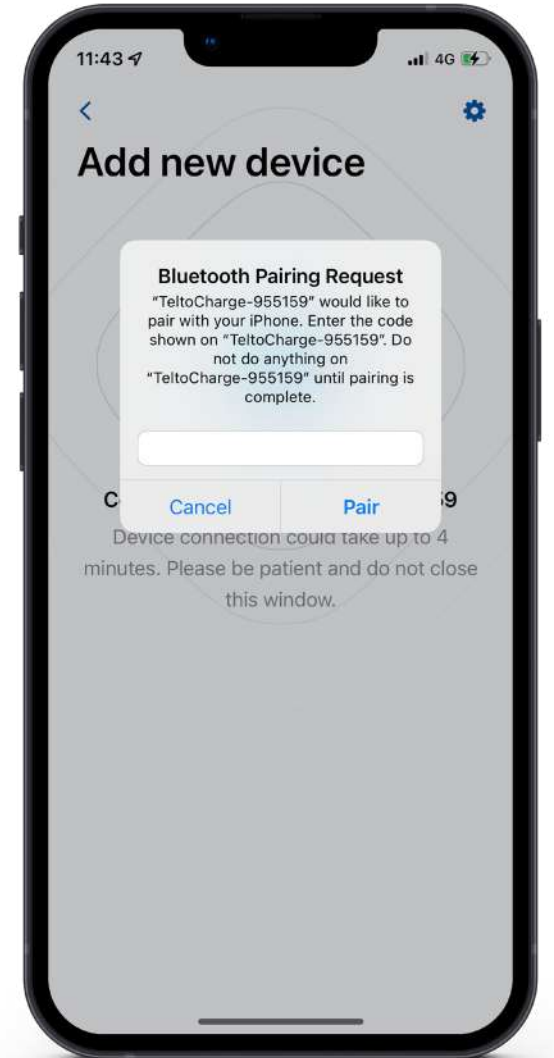
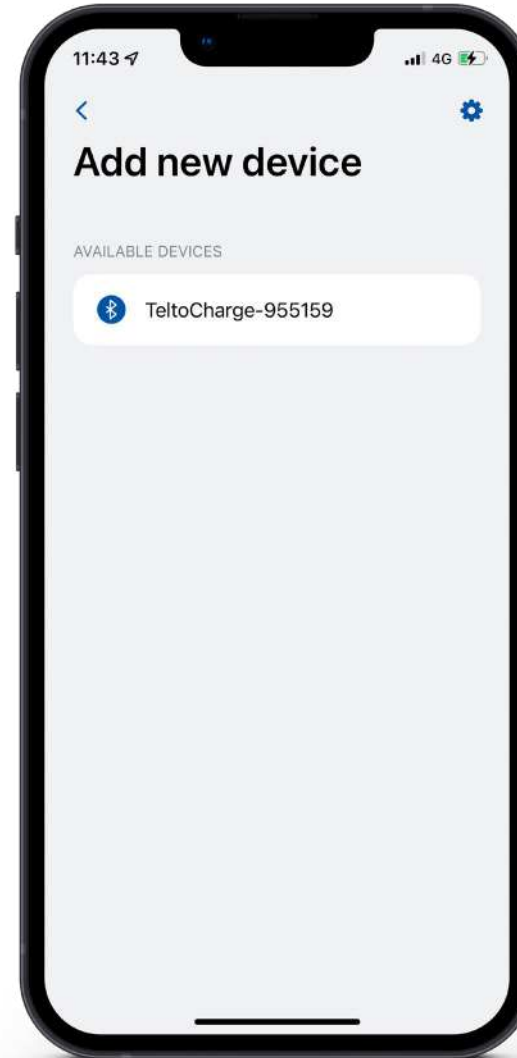
- Enable Bluetooth on your smart device.
- Turn on the Teltonika Energy app.
- Press the **“Add new device”** button.



**! Note:** With the same smart device you can pair more than one TeltoCharge EV chargers.  
To add a new one, swipe right and press **„Add new device“** button.

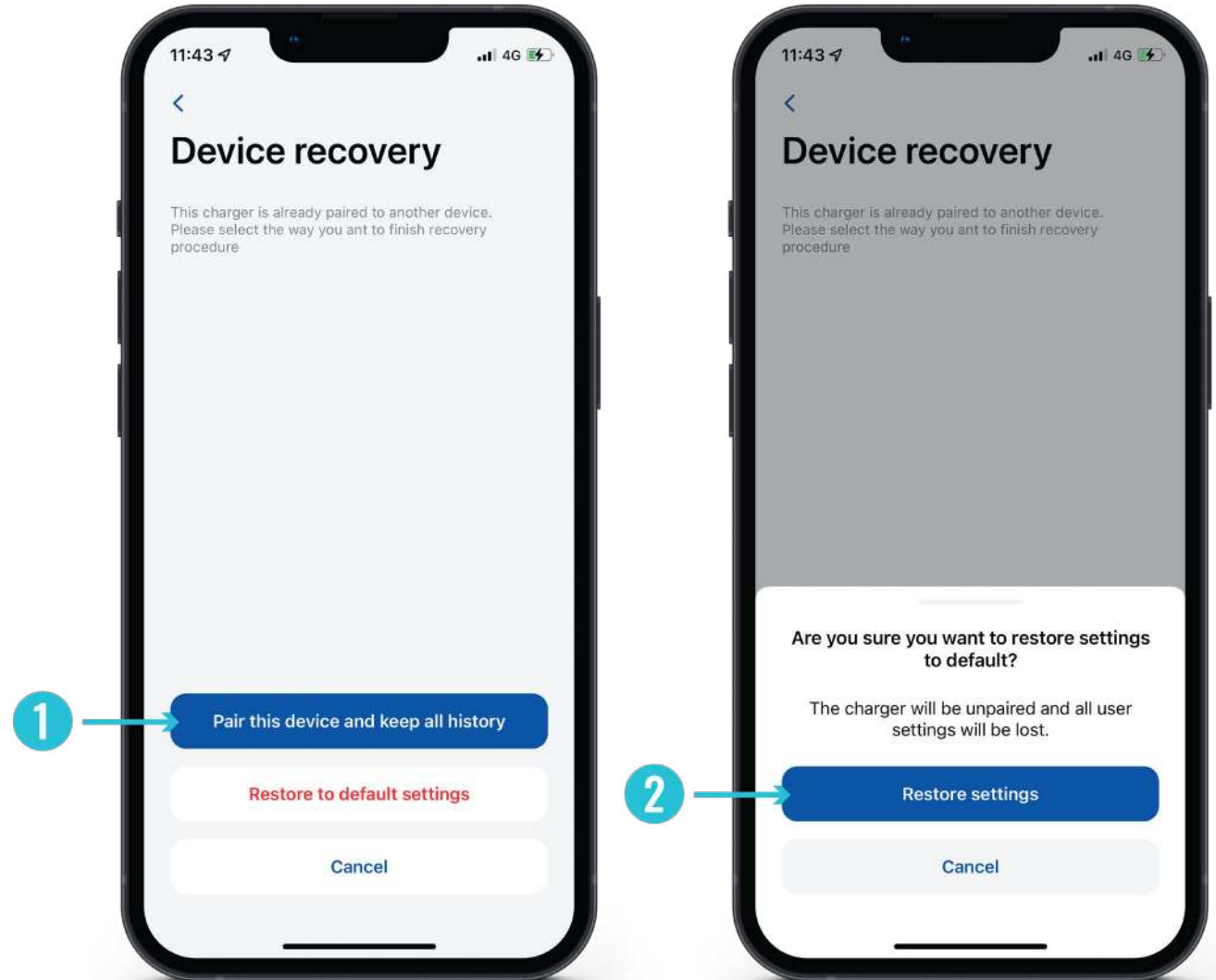
# PAIR TELTOCHARGE WITH A SMART DEVICE

1. After you press **“Add new device”** button, wait until your phone finds a Teltocharge device. Then select an EV charger from the list.
2. After a few seconds a pairing table will pop up requiring a code to complete the pairing process.
3. Insert last 6 digits of the security code to pair a phone with the EV charger.



# PAIR TELTOCHARGE WITH A SMART DEVICE

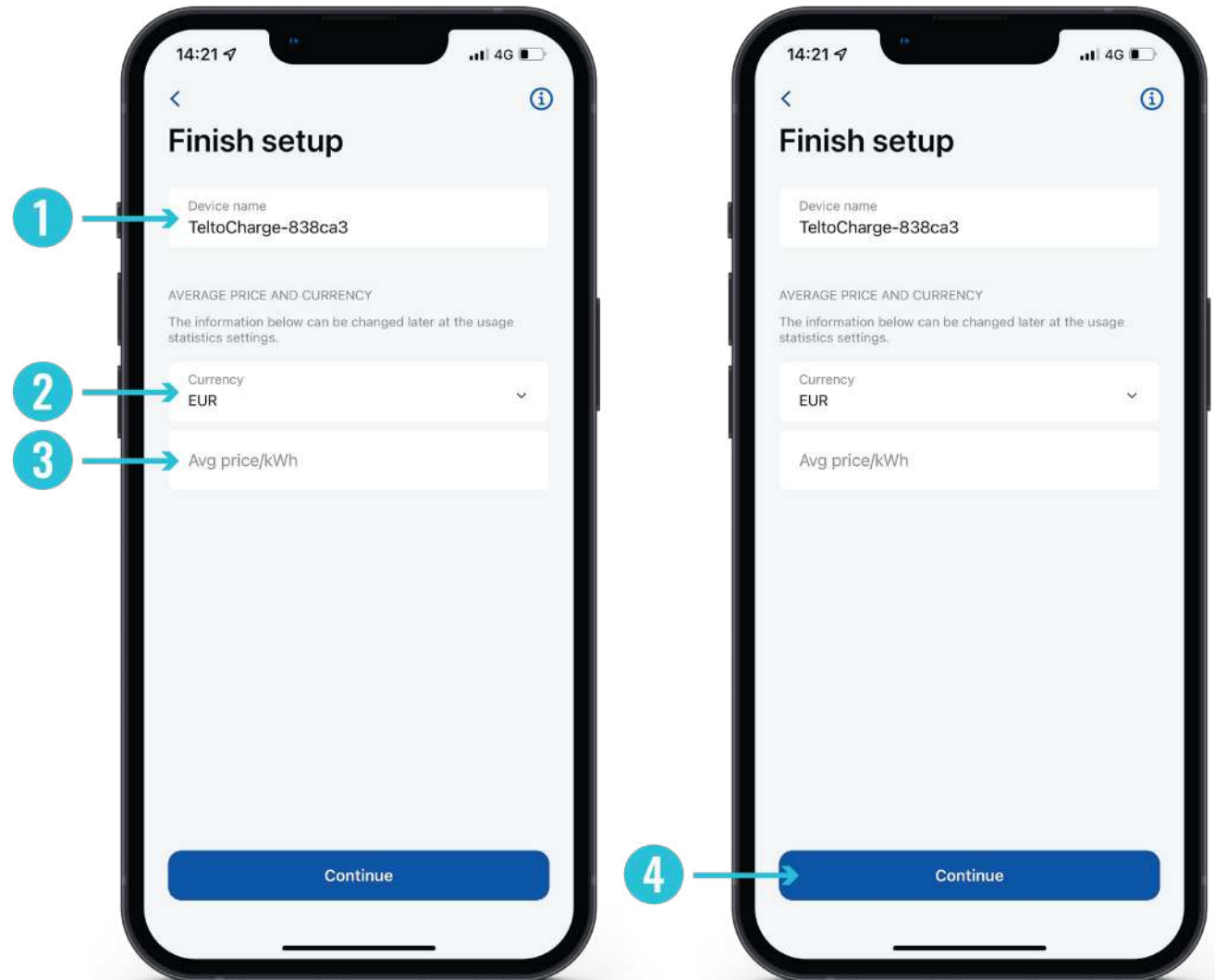
- If you want to pair a second smart device with TeltoCharge, first of all, you will need to reboot the EV charger. Then you will have 5 minutes to pair a different smartphone.
- After you pair the EV charger with the smartphone, a device recovery window will open up.
- There you will be able to:
  1. pair your smart device with all history settings or
  2. restore charger to the default settings.





# FINISH THE SET UP

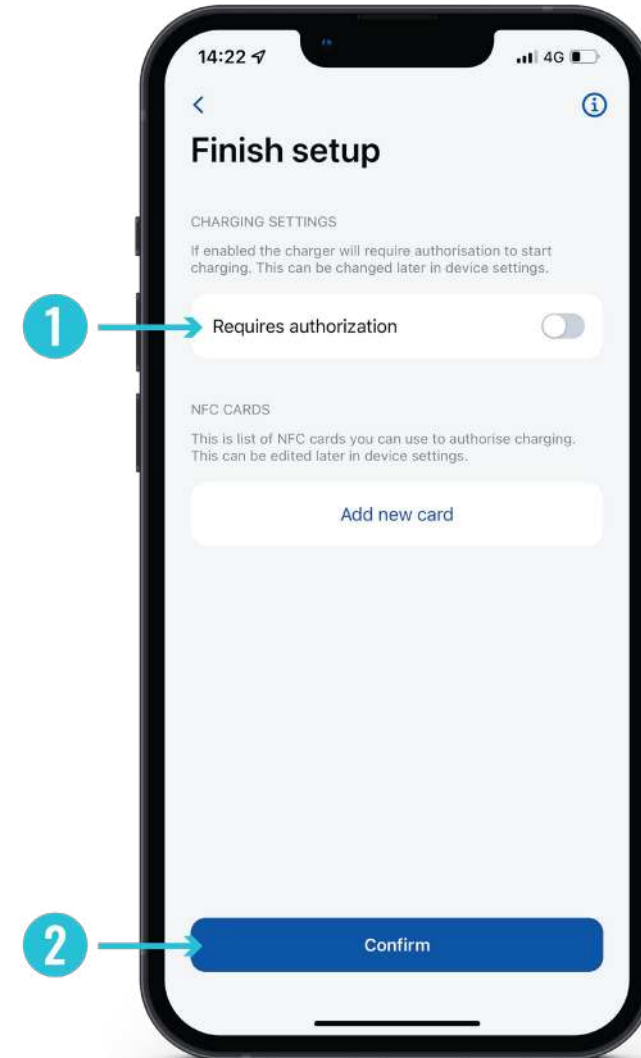
1. Change your TeltoCharge device name.
2. Set you local currency.
3. Set average electricity price for kWh.
4. Press “**Continue**” button.



# FINISH THE SET UP

1. If needed, turn on authorization feature and add an NFC card (this can be done later).
2. If you decide to enable authorization later on, press **“Confirm”** button to finish set-up.

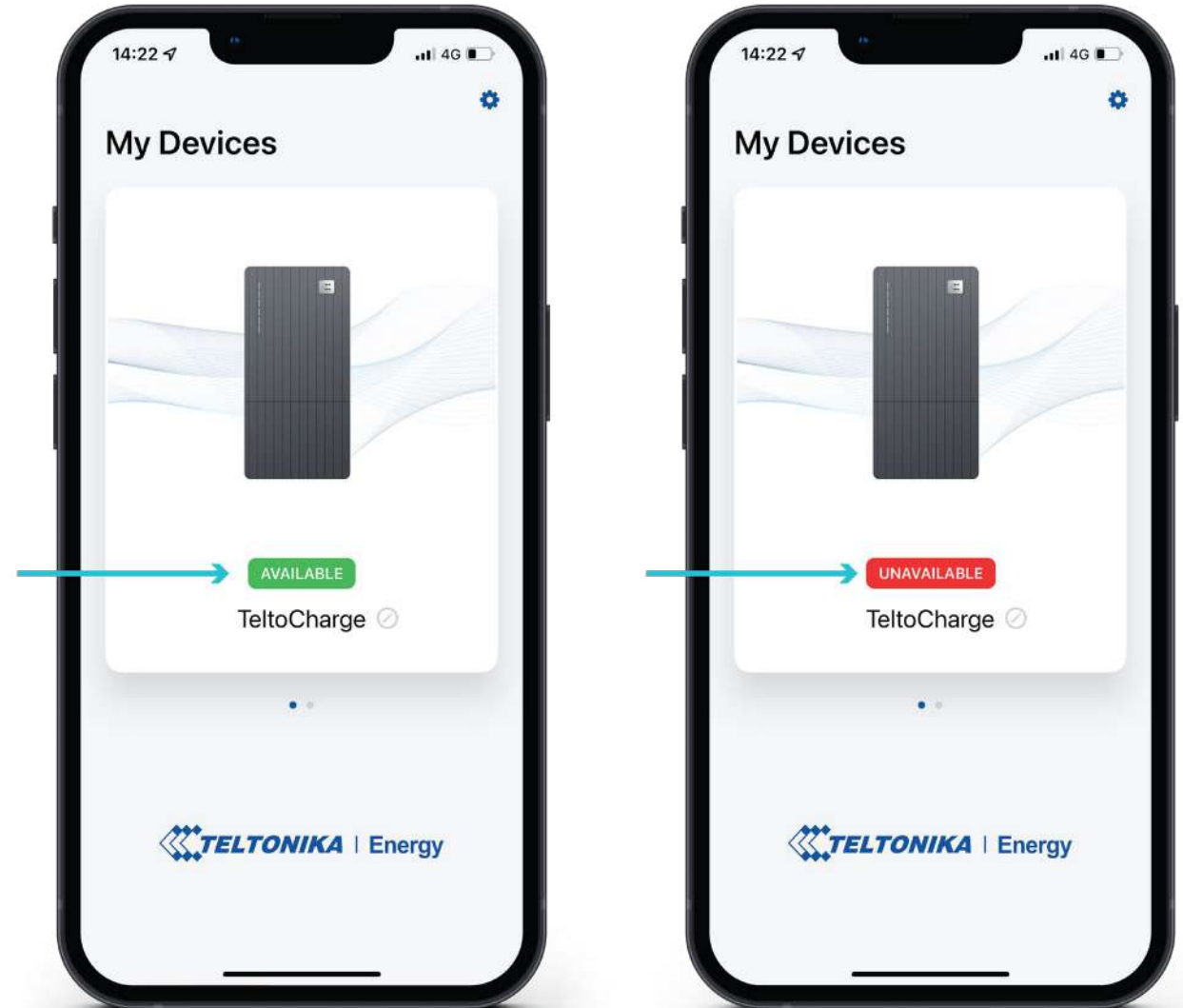
**! Note:** Enabled authorization allows you to pair the NFC card/tag with the charger.  
The NFC feature enables quick and easy TeltoCharge authorization.





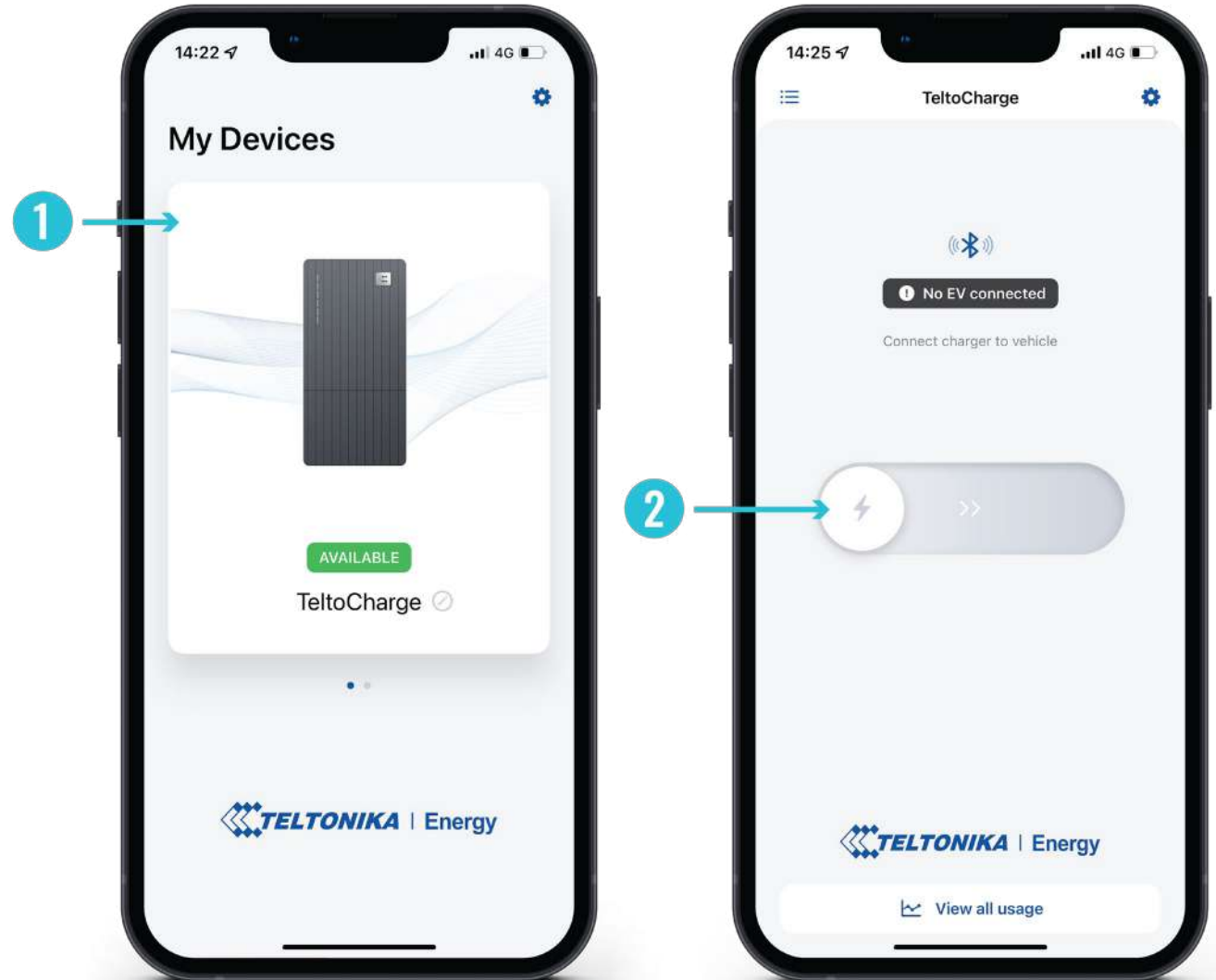
# BLUETOOTH STATUS

- After a successful set-up, a **“My Devices”** window with the status **“AVAILABLE”** will pop up. This status indicates that your TeltoCharge is available for connection with your smart device.
- If the status **“NOT AVAILABLE”** appears, it indicates that your EV charger is out of Bluetooth range, or it is paired with another smart device (only one smart device could be active at a time).



# TELTOCHARGE MENU

1. To access the menu of a TeltoCharge device, press on the TeltoCharge image in the **“My devices”** window.
2. In the main window of the menu you will see the status of TeltoCharge connection with your EV. With the slider, you will be able to authorize yourself.

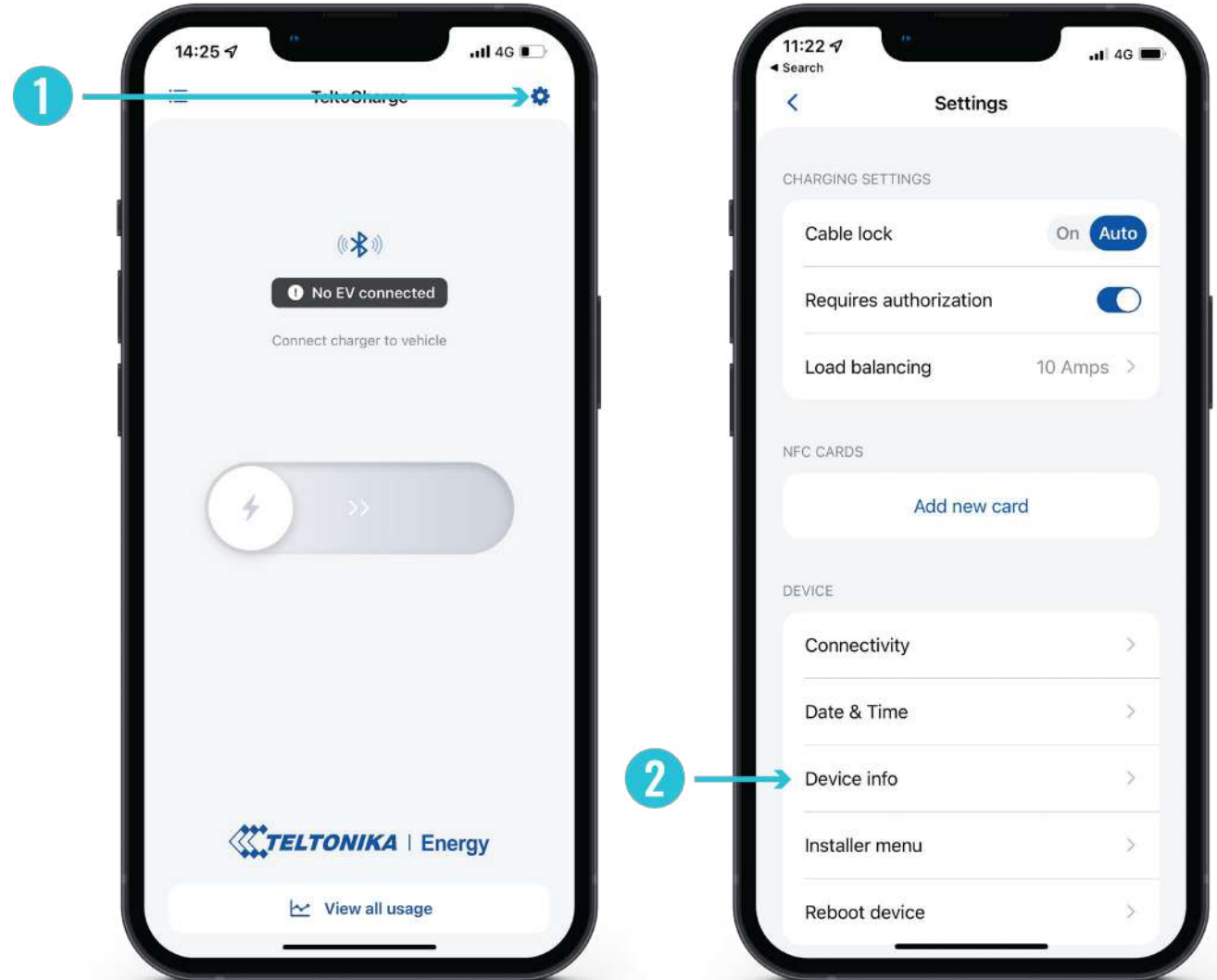


# FIRMWARE UPDATE

To update firmware, first of all download the latest firmware version from a Teltonika Energy Wiki page.

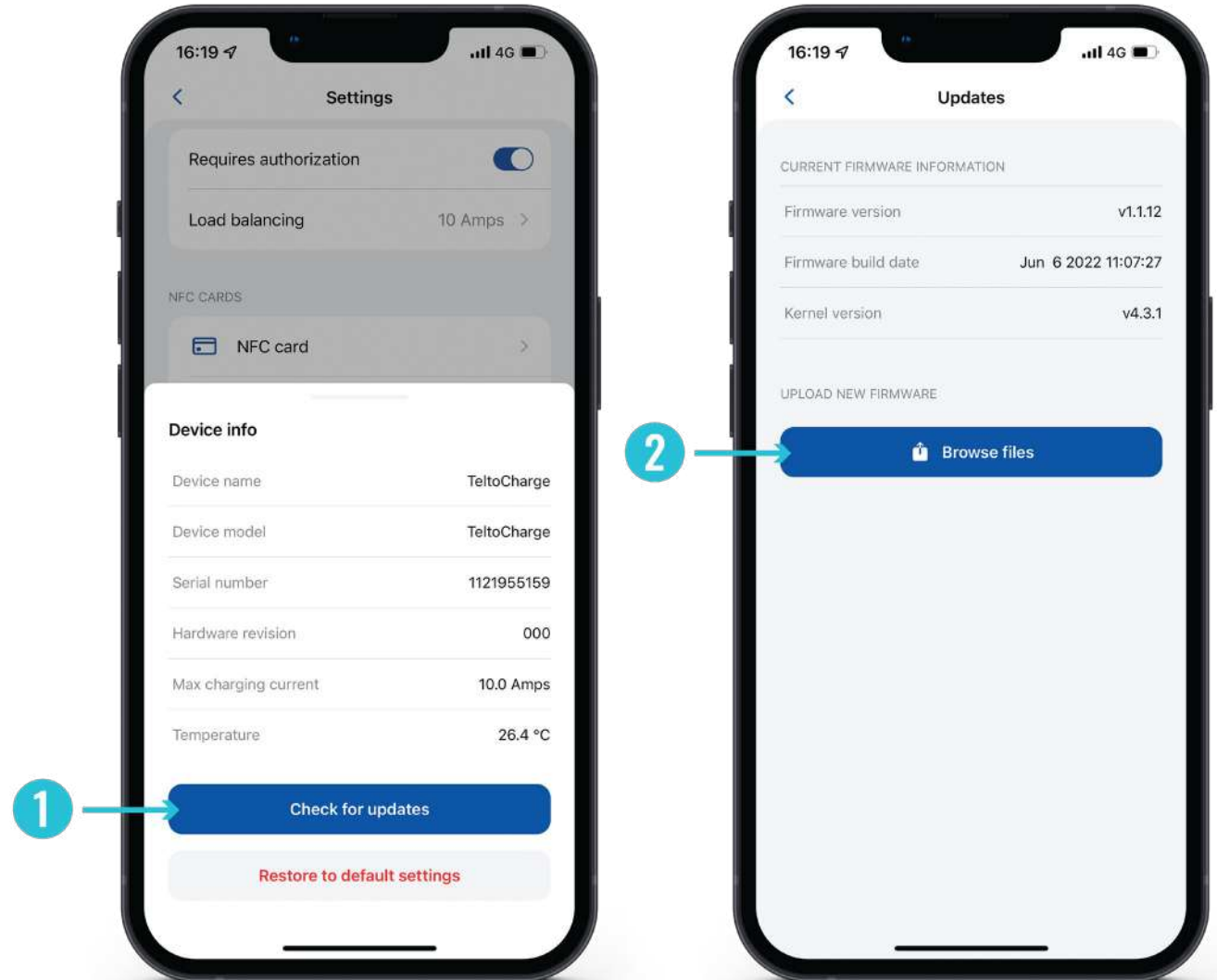


1. After downloading the latest firmware version, go to the settings menu at the top right corner.
2. In the menu list, press **“Device info”**. There you will find information about your EV charger.



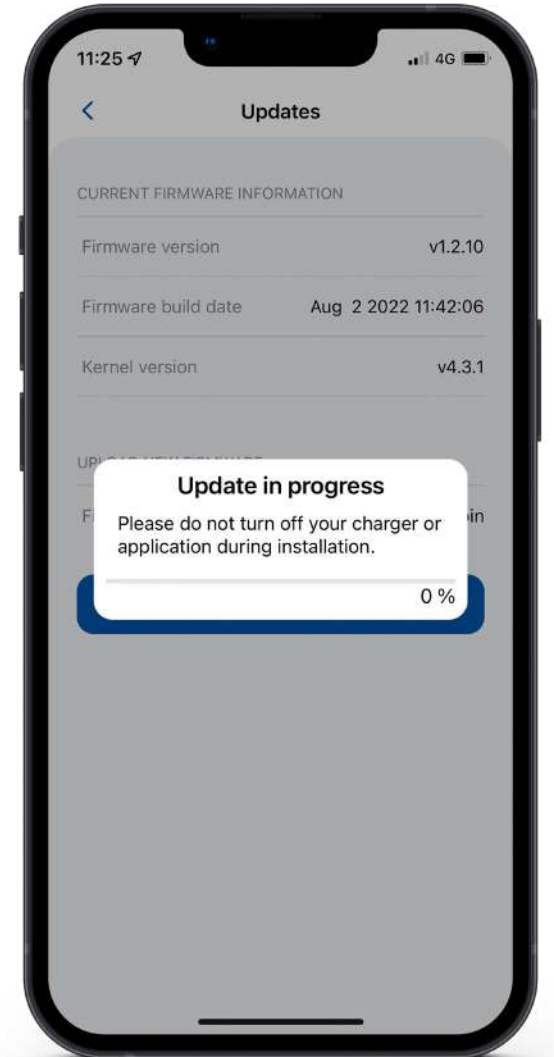
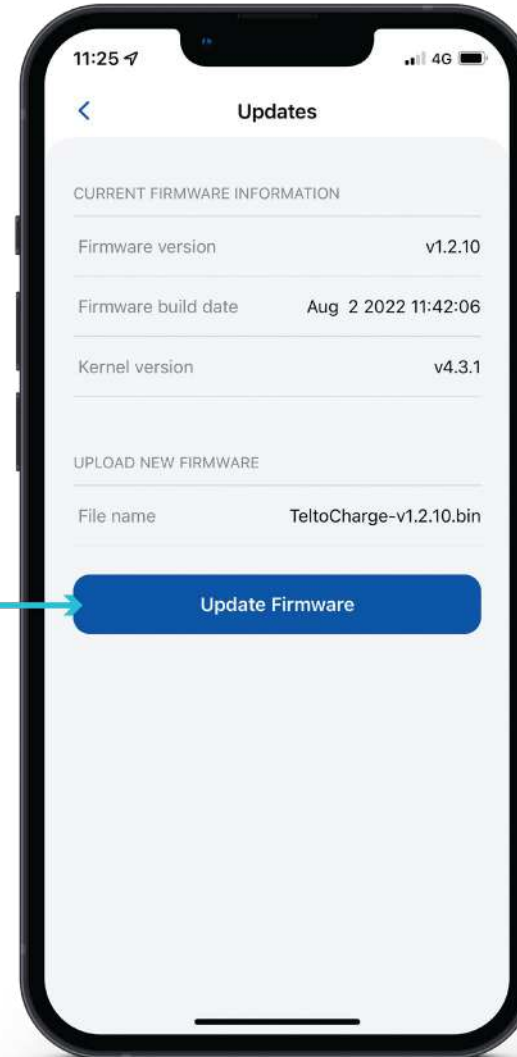
# FIRMWARE UPDATE

1. Press **“Check for updates”** button to open the firmware update menu.
2. Press **“Browse files”** and select the **‘.bin’** format file that you have just downloaded from the Teltonika Energy Wiki page.



# FIRMWARE UPDATE

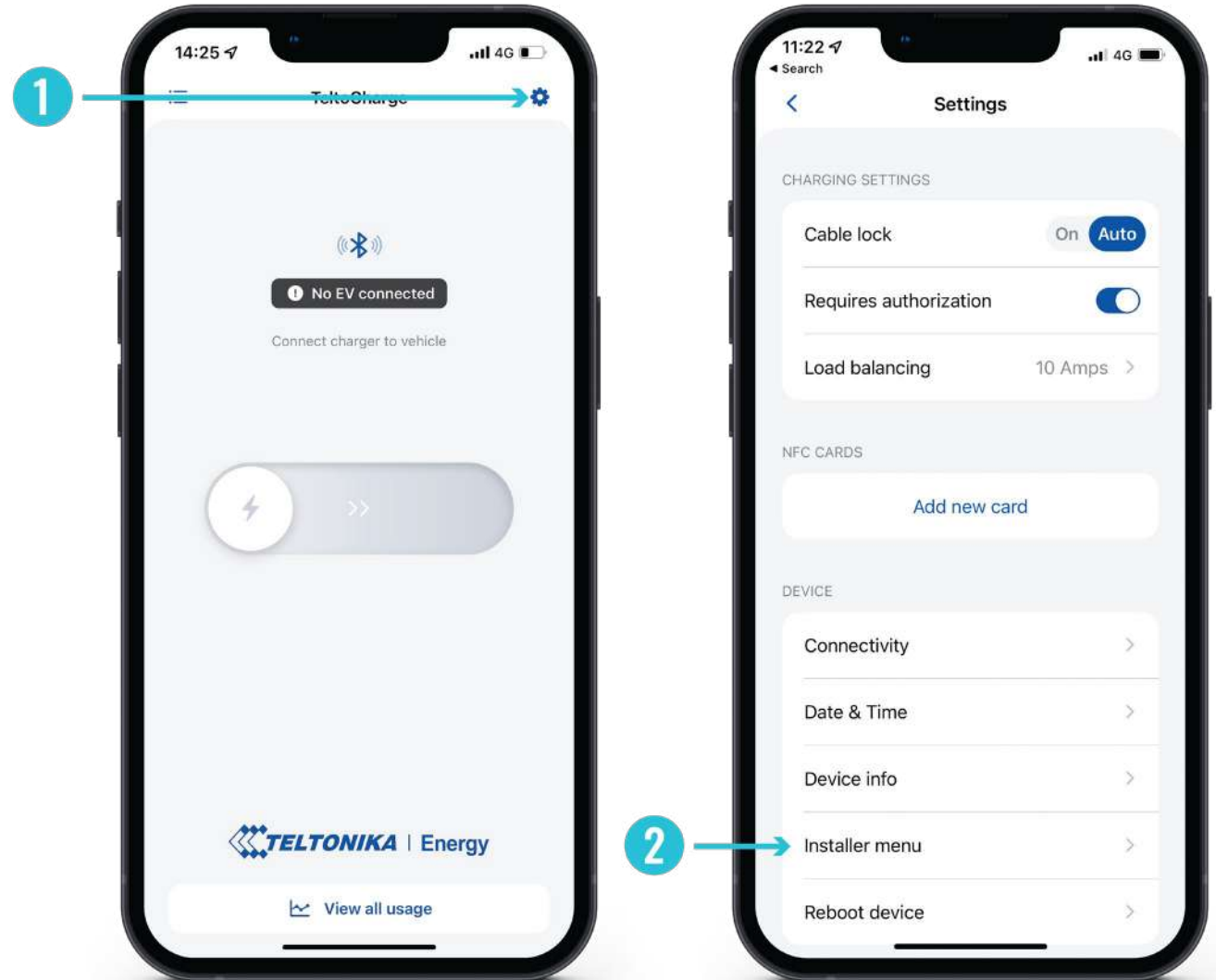
3. After you select the file, press **“Update firmware”** button and wait until update is completed.

**3**

**! Note:** While update is in progress, your smart devices has to be within the Bluetooth range (near the EV charger).

# INSTALLER MENU

1. To access installer's menu, open TeltoCharge menu and go to the settings at the top right corner.
2. In the settings menu, select **“Installer menu”**.





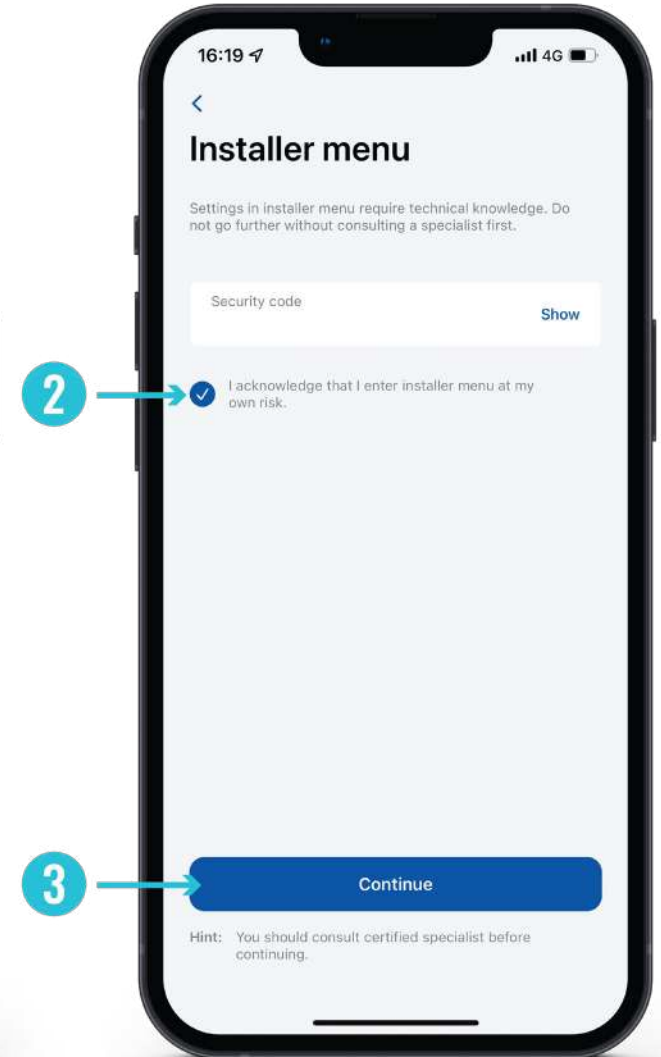
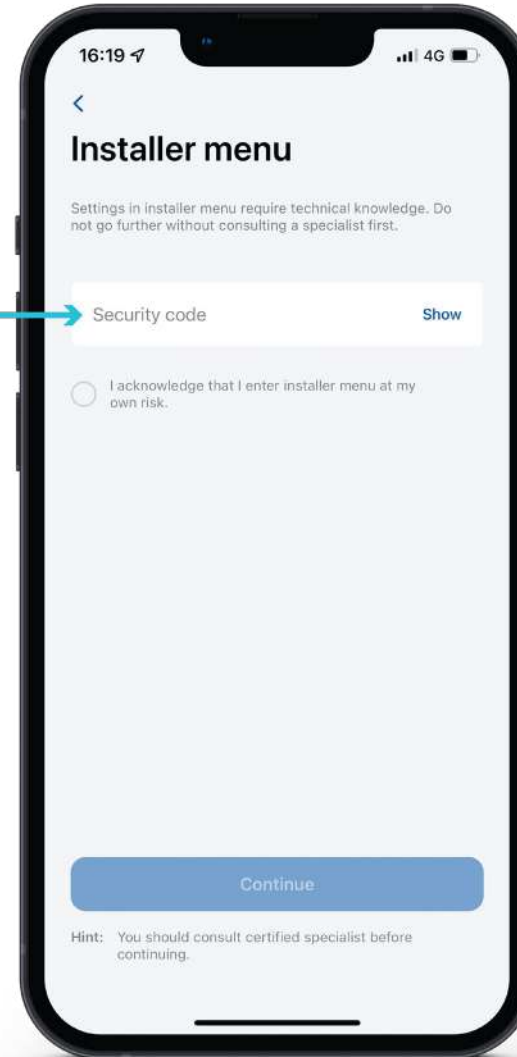
# INSTALLER MENU

1. To open installer's menu, an installer is required to type in the security code. The security code sticker could be found on the middle plate of a TeltoCharge device.



2. After typing in the security code, tick the warning box.
3. Press the **“Continue”** button.

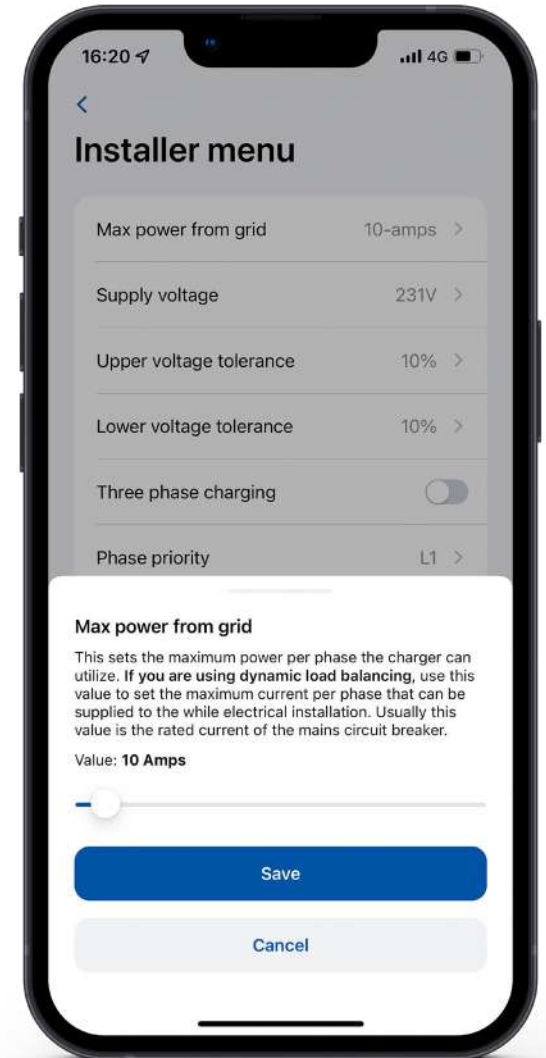
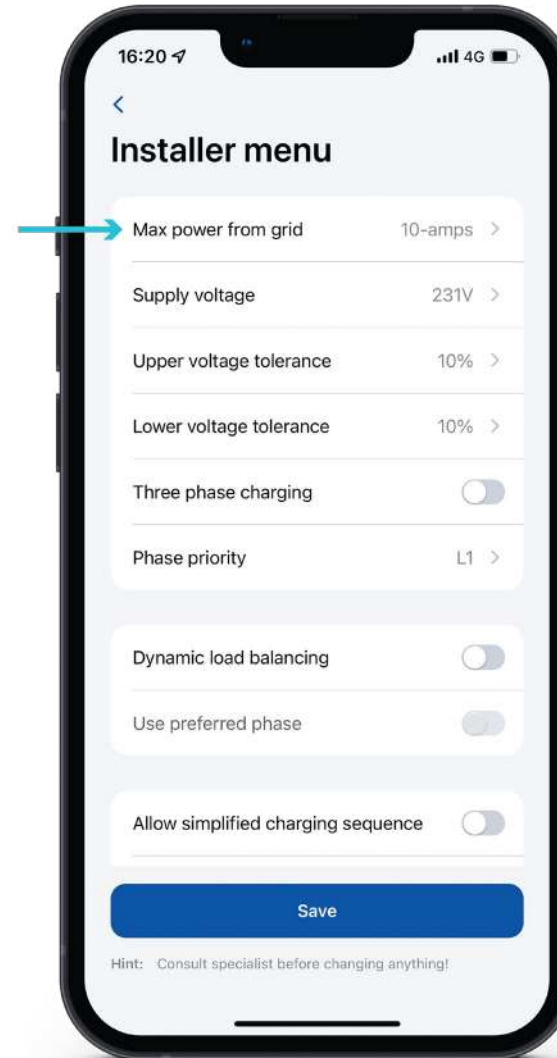
**! Note:** Installer menu section must be accessed and used only by installers or other qualified personnel.



# INSTALLER MENU / MAX POWER FROM GRID

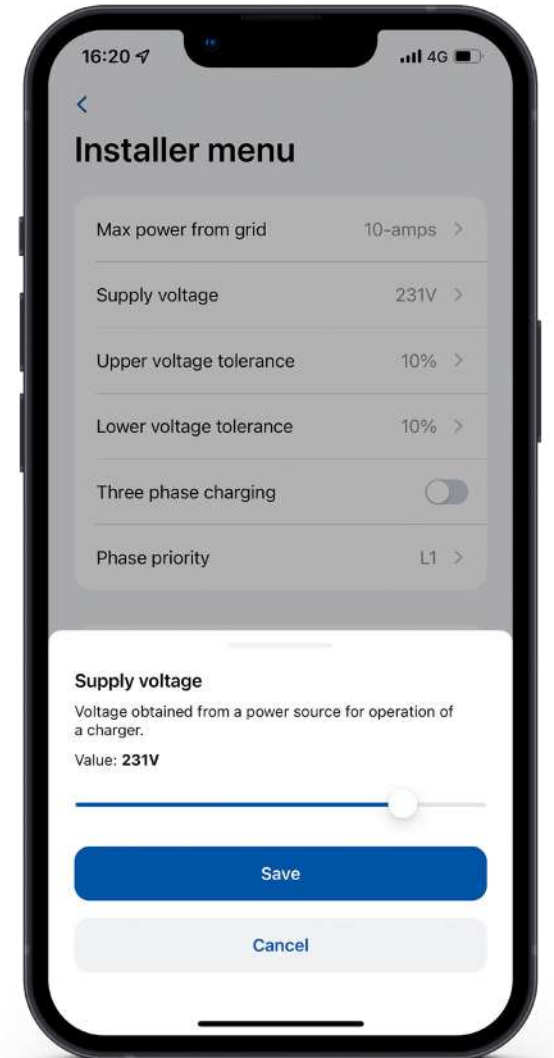
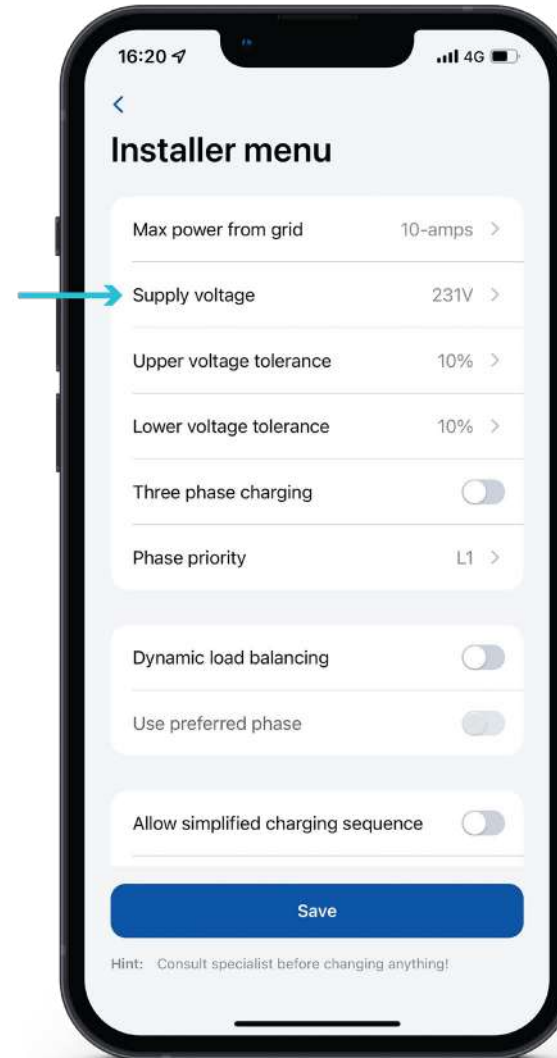
This configuration can be used in two different ways, depending whether you enable dynamic load balancing or not.

1. If you have enabled dynamic load balancing, use this value to set the maximum current per phase that can be supplied to the whole electrical installation. Usually this value is the rated current of the main circuit breaker.
2. If dynamic load balancing is disabled, use this value to set maximum current that an EV charger can use depending on the other site appliances load. That means that the current should not be higher than 16 amperes (if an 11 kW EV charger is installed) or 32 amperes (if a 7,4 or 22 kW EV charger is installed).



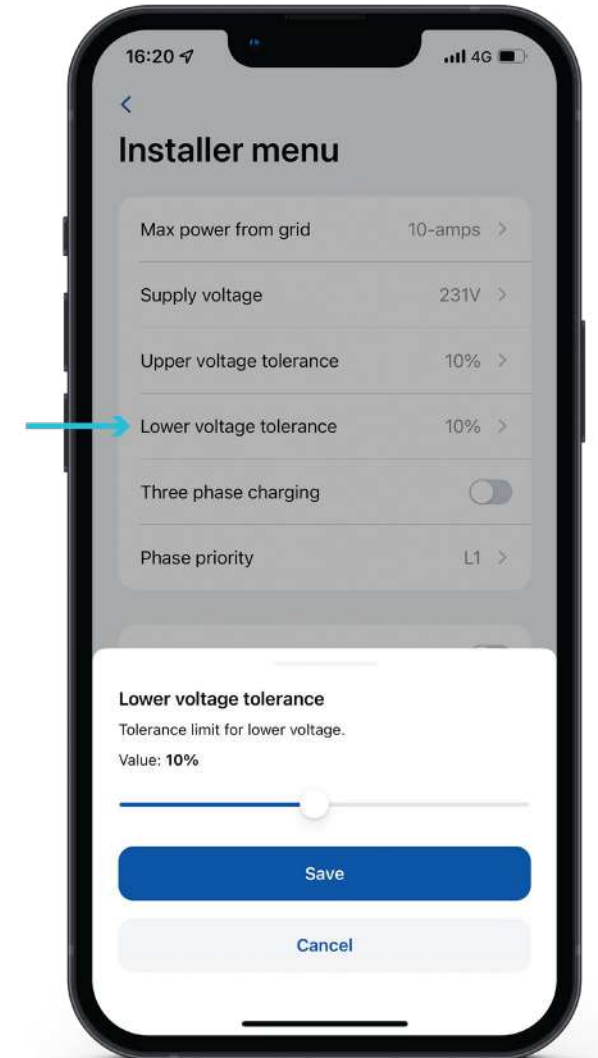
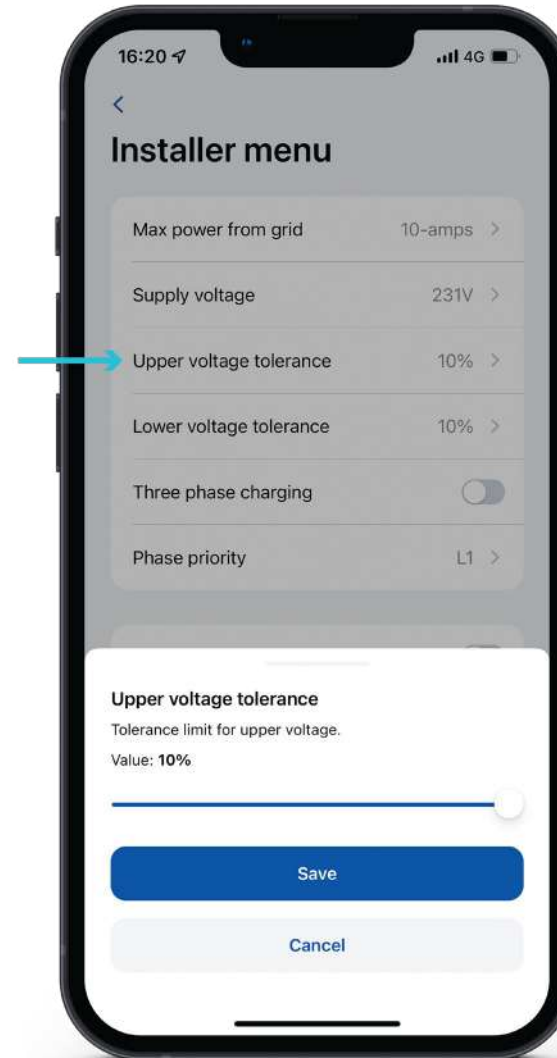
# INSTALLER MENU / SUPPLY VOLTAGE

- In case of a need, an installer can change supply voltage (the voltage between phase and neutral wires) and set it according to the voltage of a site.



# INSTALLER MENU / SUPPLY VOLTAGE

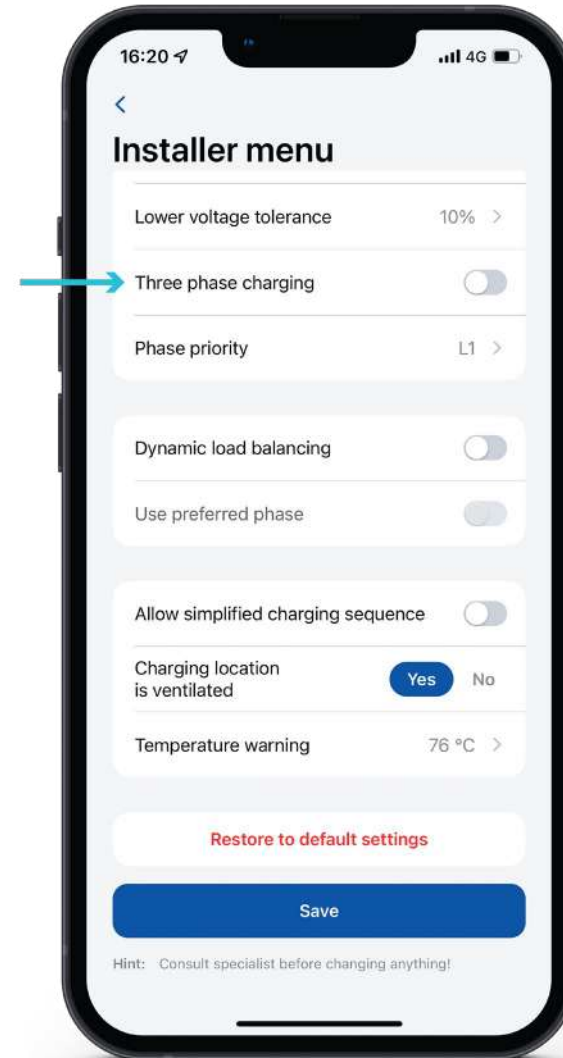
- The default value for TeltoCharge is set to 230 V +/- 10 %. However, an installer can change the upper/lower voltage tolerance.



**! Note:** If the input voltage goes over or under the set limits, the EV charger goes to the error state and stops the entire charging process.

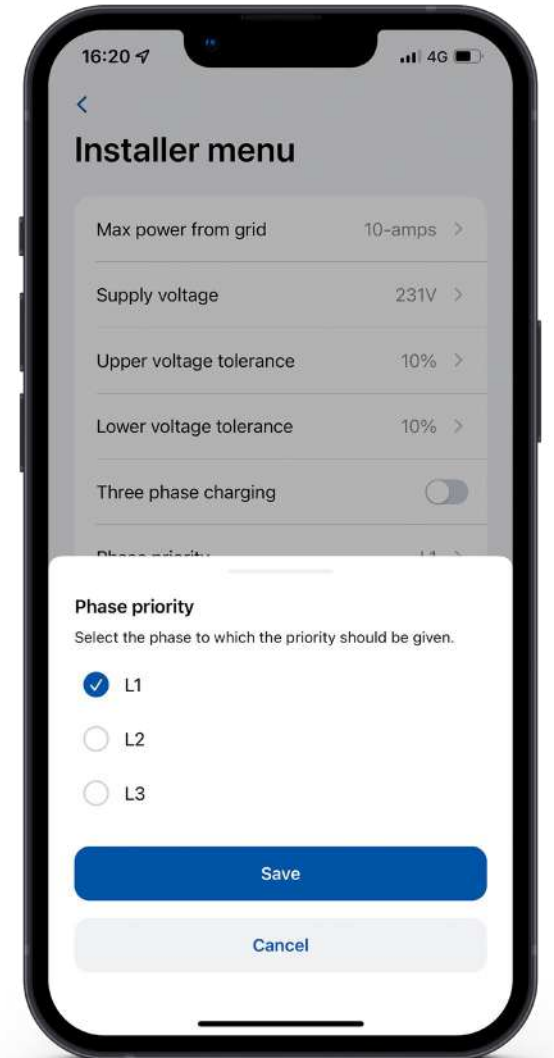
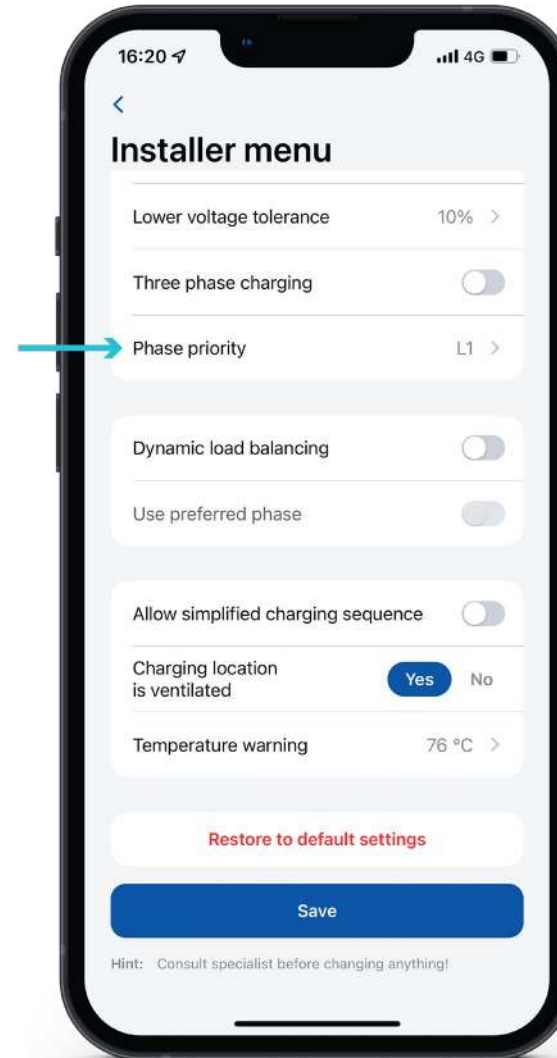
# INSTALLER MENU / THREE PHASE CHARGING

- If there is a need for a three-phase EV charging, an installer can enable it via the app.
- If an EV charger is connected to a three-phase network, single-phase charging can be turned on by disabling the **“Three phase charging”** function.



# INSTALLER MENU / PHASE PRIORITY

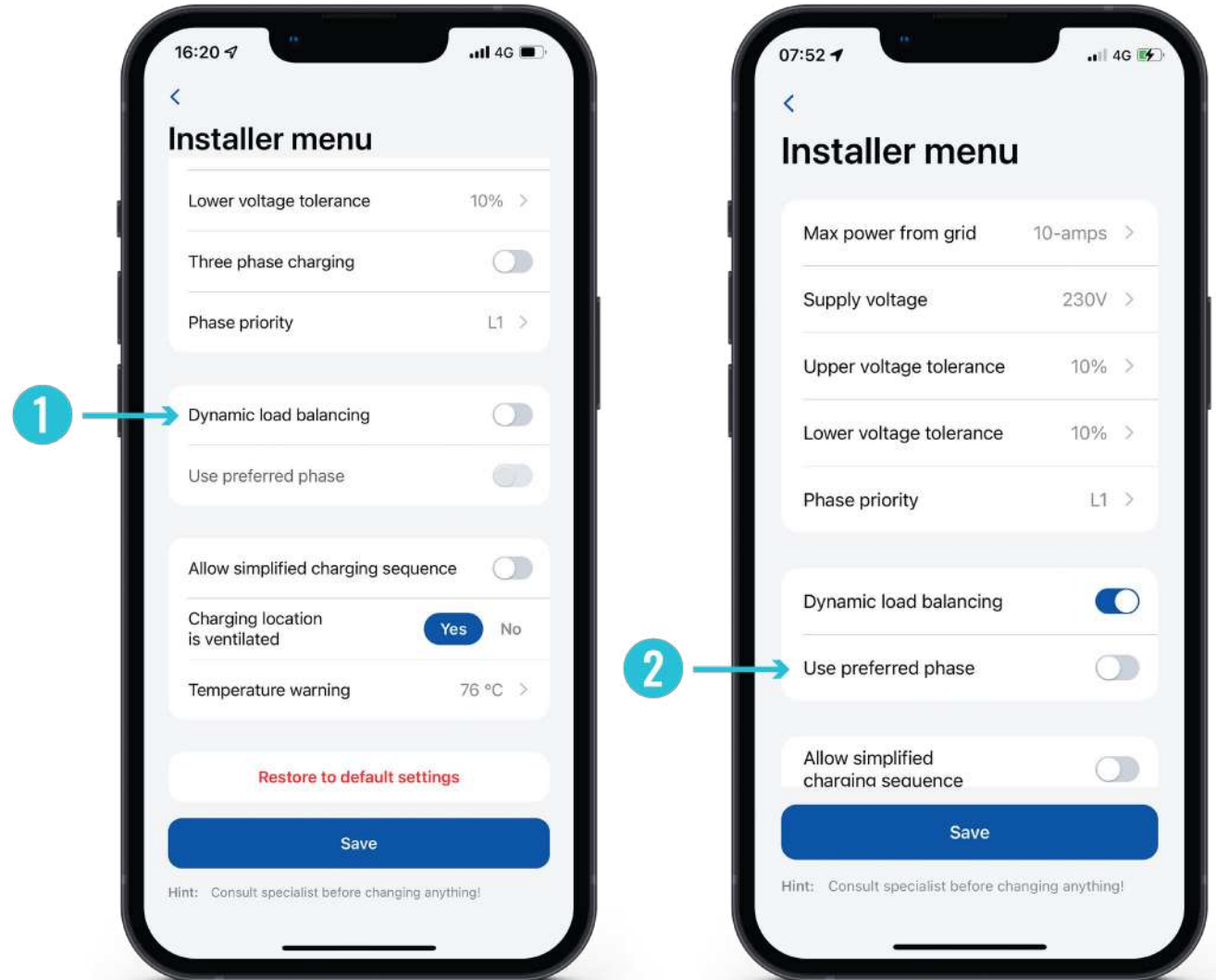
- With a “**Phase priority**” function, an installer can prioritize which phase should be used for a single-phase charging.





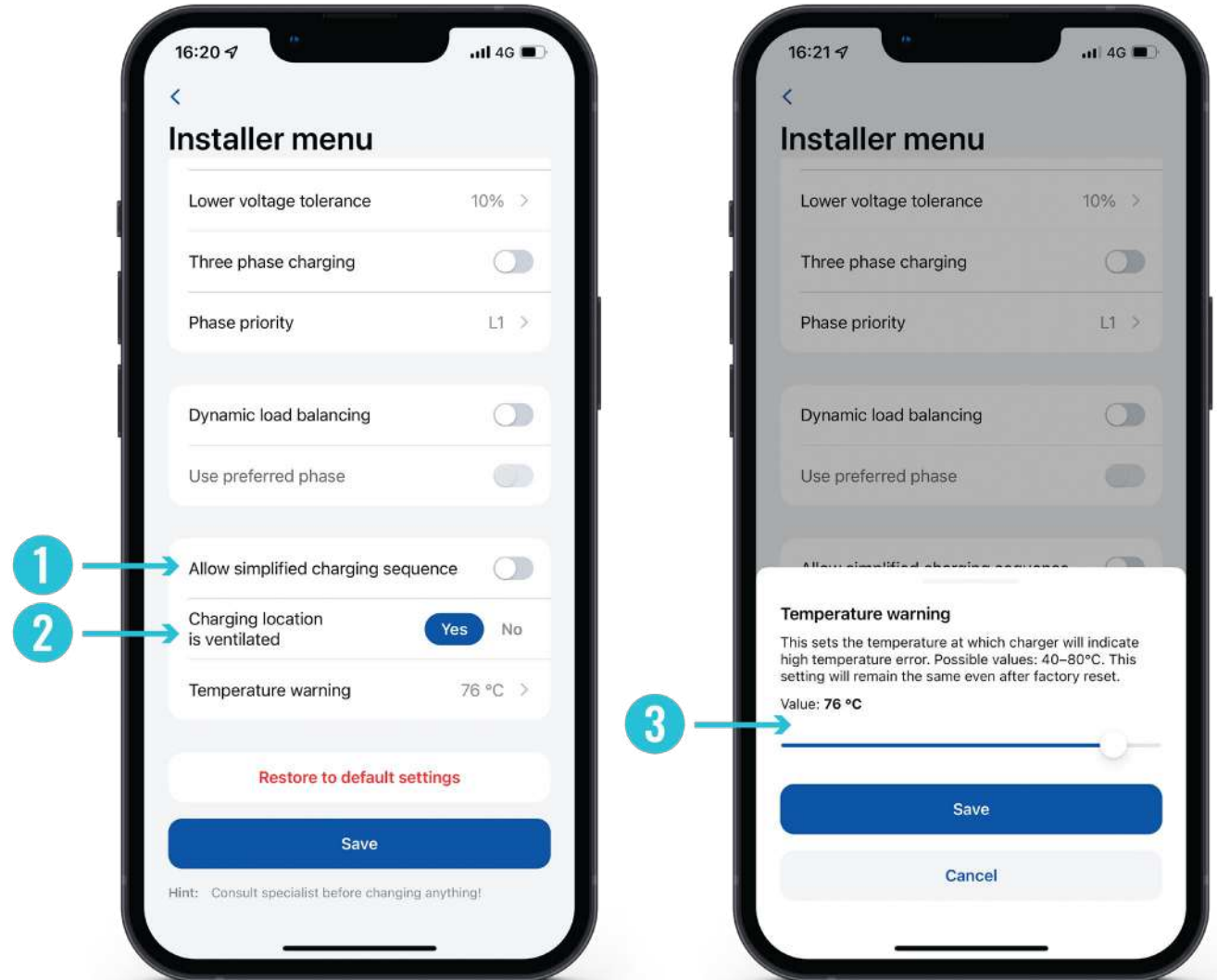
# INSTALLER MENU / DYNAMIC LOAD BALANCING / USE PREFERRED PHASE

1. Dynamic load balancing configuration has to be enabled if dynamic load balancing will be applied.
2. While dynamic load balancing is turned on and charging is performed on the single phase, there is a possibility to enable **“Use preferred phase”** feature.



# INSTALLER MENU / ADDITIONAL FEATURES

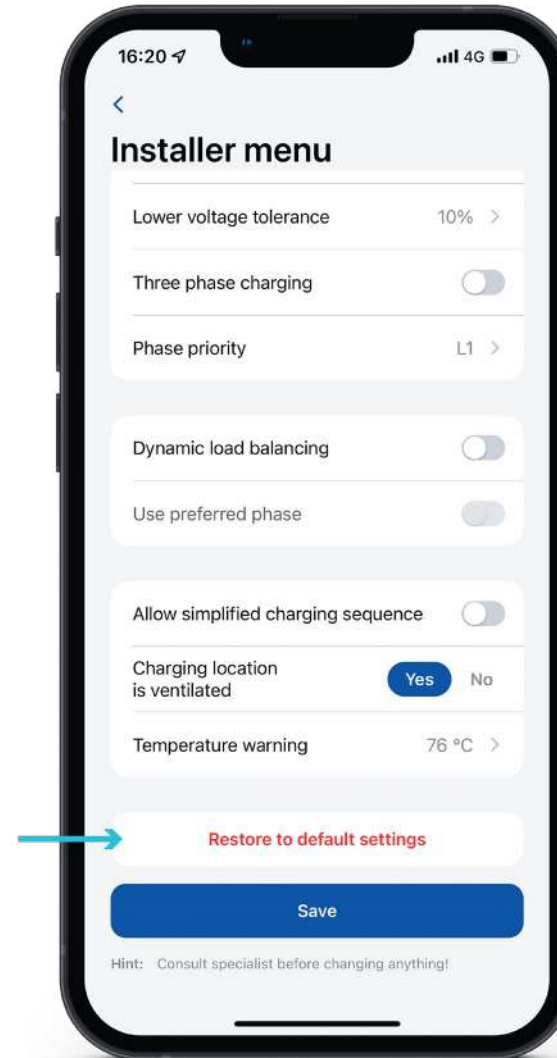
1. There are EVs which do not use state B in the charging process. In such cases, a charging state goes from A to C. It means that for this kind of vehicles it is needed to **“Allow simplified charging sequence”**.
2. Some EVs use batteries that can emit toxic gas while charging, thus the location of the vehicle charged must be ventilated. For this reason, it is important to indicate if **“Charger location is ventilated”**.
3. An installer can increase the **“Temperature warning”** level. When the EV charger reaches this temperature level, it starts decreasing its charging power.



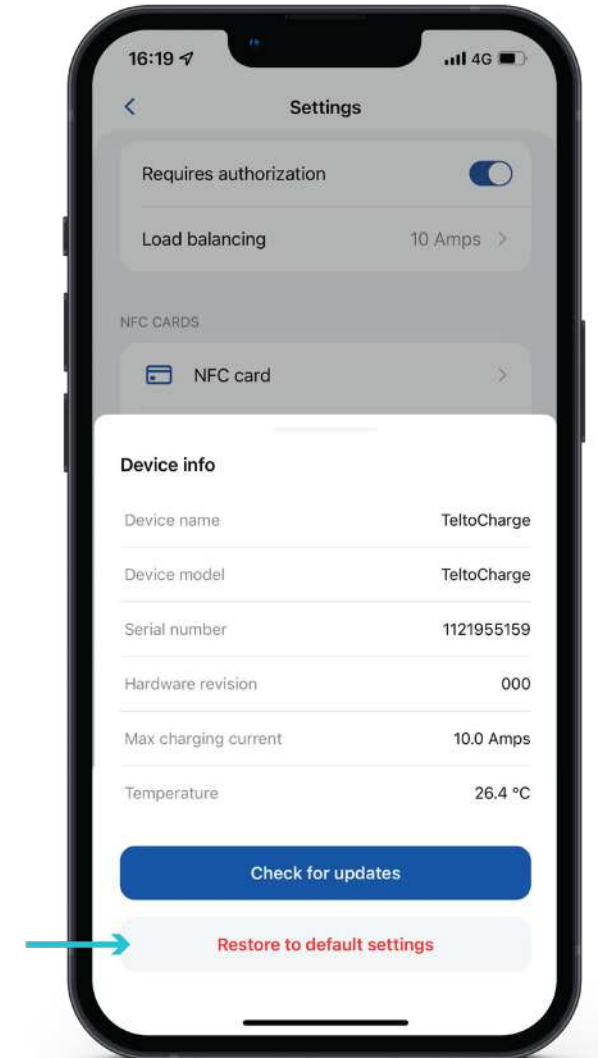
# INSTALLER MENU / FACTORY DEFAULT SETTINGS

There are 2 types of factory reset:

1. In the Installer menu – it can be done only by an installer and It restores *all configurations* to the default settings.
2. In the “**Device info**” section – it restores all the configurations *except for the ones inside the Installer menu*.



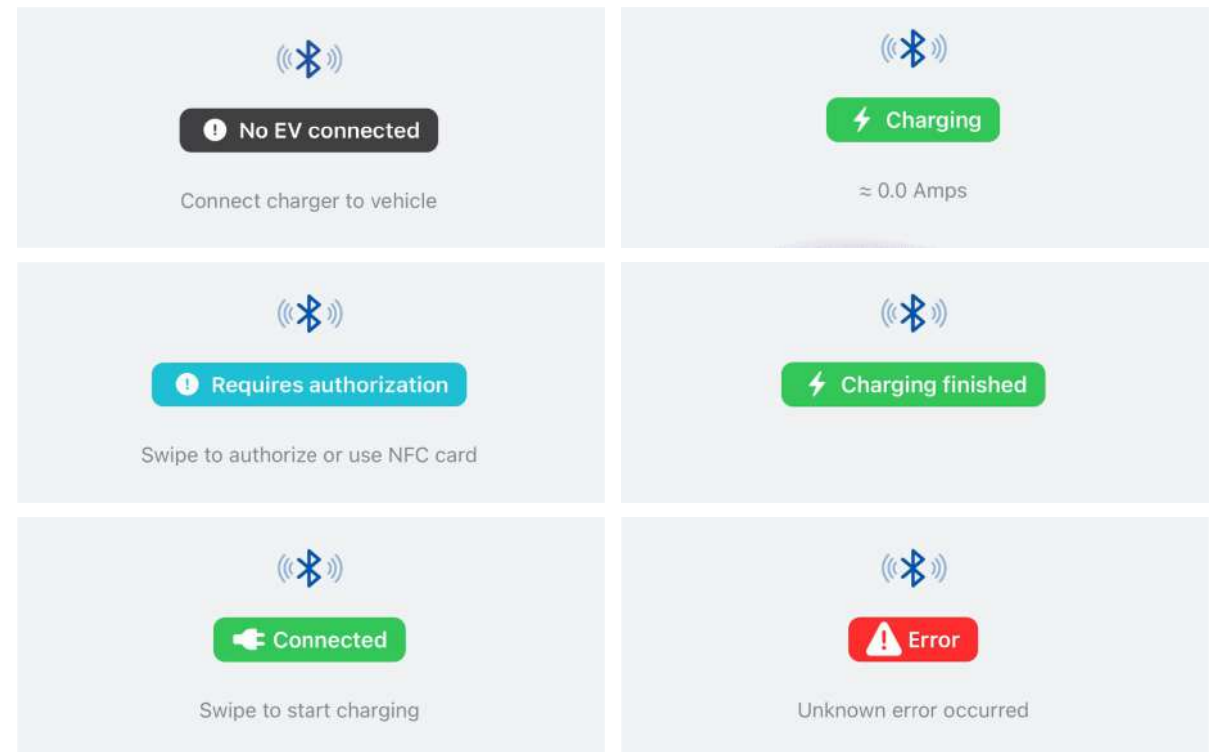
1



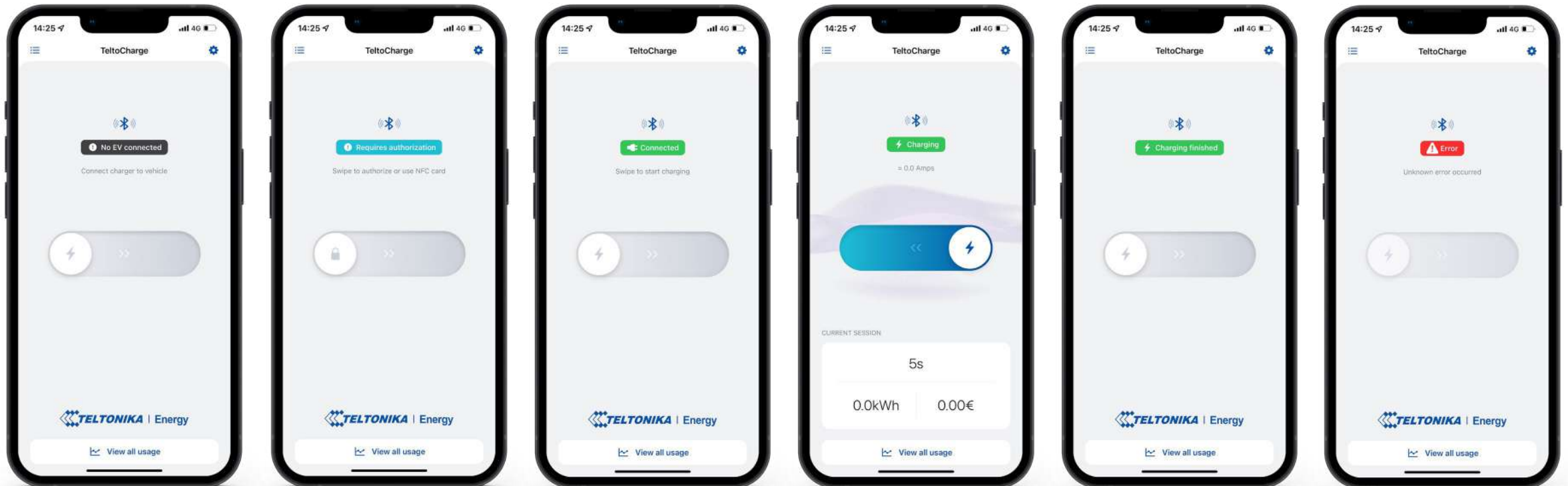
2

# CHARGING STATUSES

- **No EV connected** – a charging cable is not connected to the EV
- **Requires authorization** – hold an NFC/RFID card near the NFC/RFID reader on the EV charger or swipe the button for authorization
- **Connected** – a charging cable is connected and is waiting for the EV signal to start charging
- **Charging** – charging is in progress.
- **Charging is finished** – the EV sends a signal to change the state from C to B.
- **Error** – the EV charger is in an error state and requires a fix.

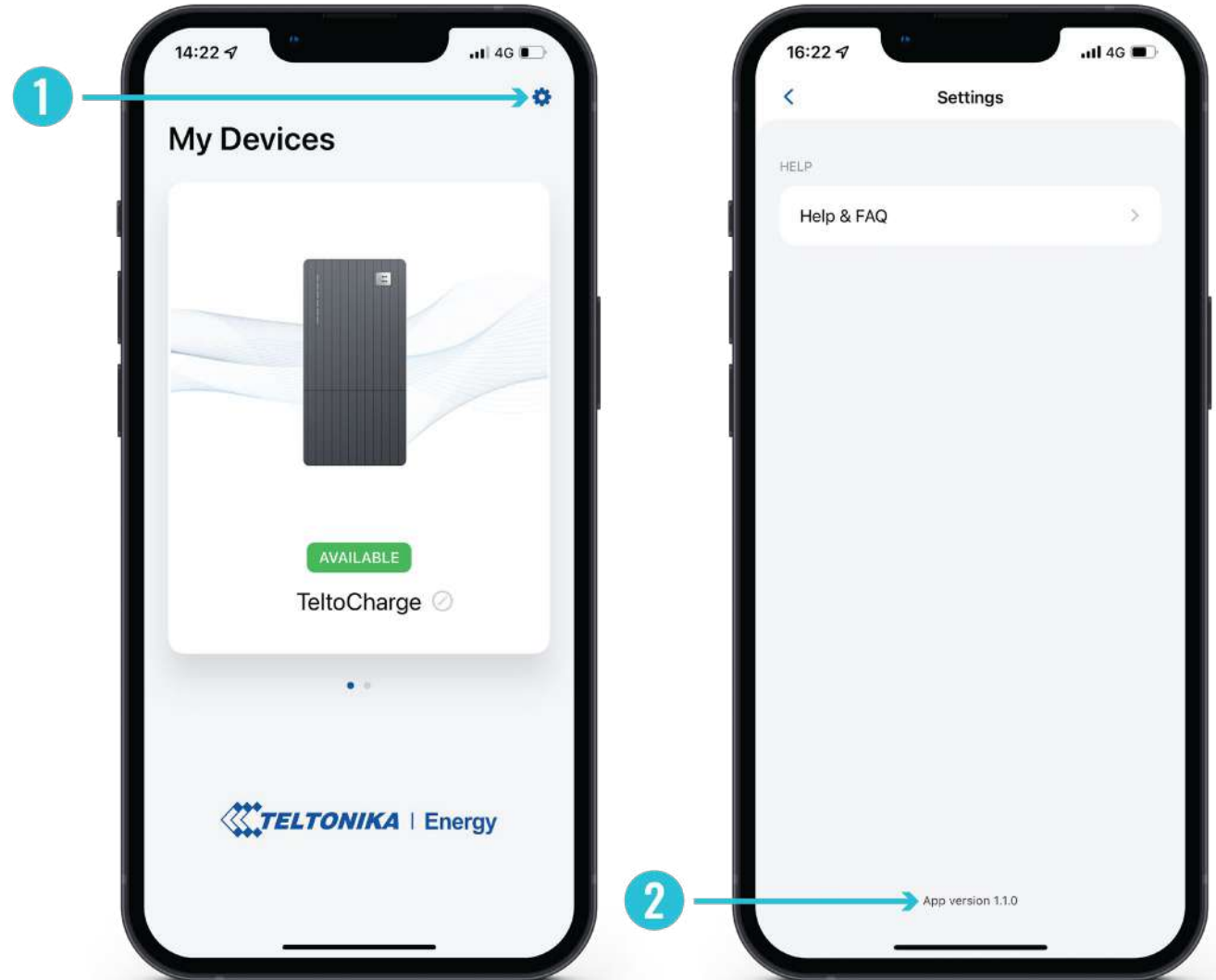


# CHARGING STATUSES



# APP VERSION

1. To know which app version you are using at the moment, go to the main **“My devices”** window and open settings menu at the top right corner.
2. At the bottom of the window you will find the current app version.

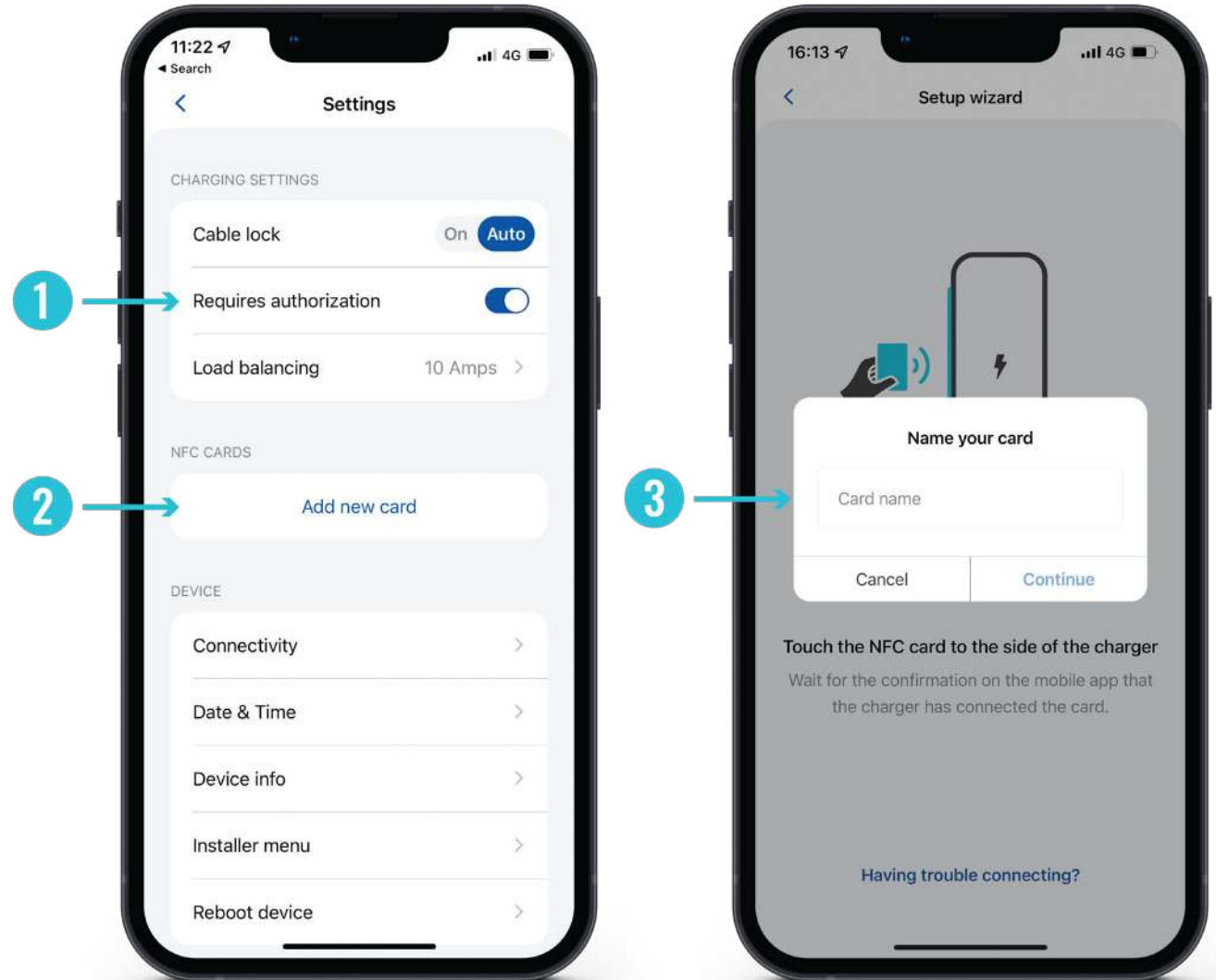


**Note:** To update your app version, you need to go to the Google Play or App Store and update the app.



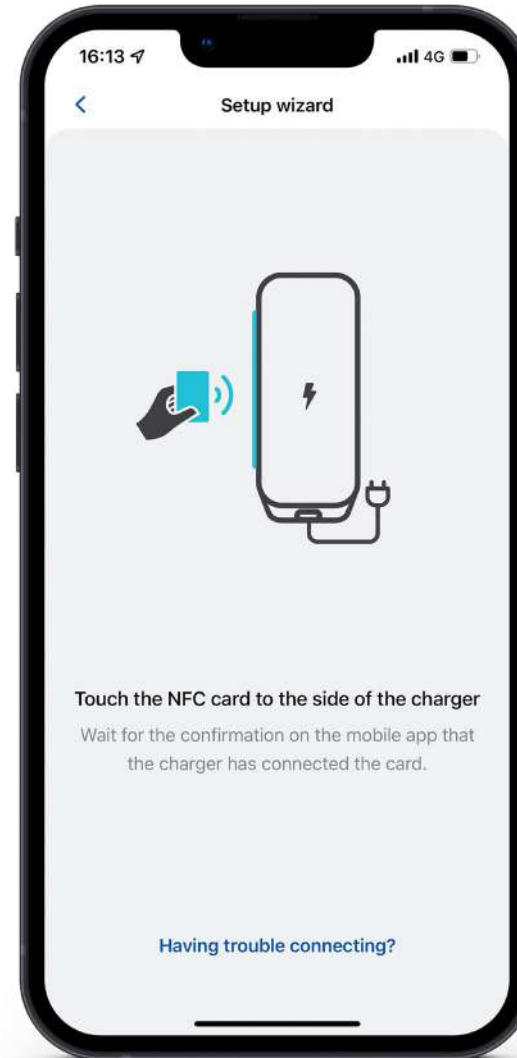
# AUTHORIZATION

1. Authorization can be turned on in the TeltoCharge settings menu.
2. In the same menu window, you can add an NFC card(s).
3. Type the name of your card.

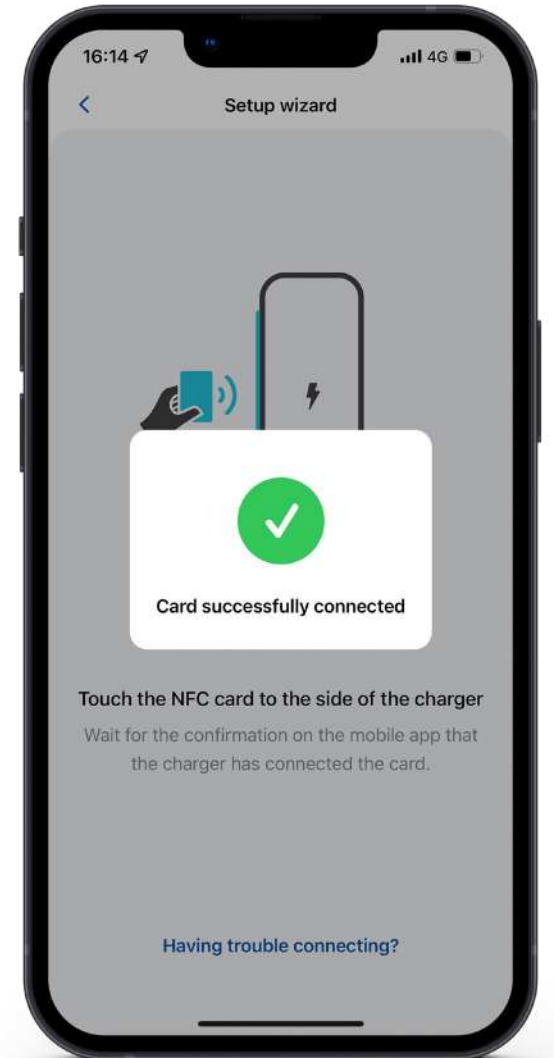


# AUTHORIZATION

1. Touch the NFC card to the side of the EV charger.
2. Wait for the pop-up window to indicate a successful addition of your card.



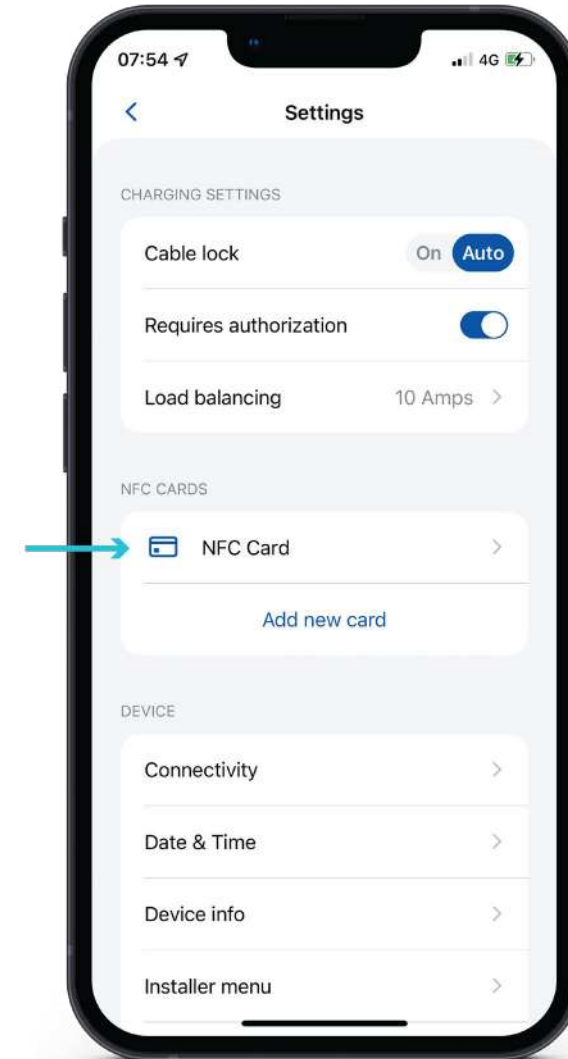
1



2

# AUTHORIZATION

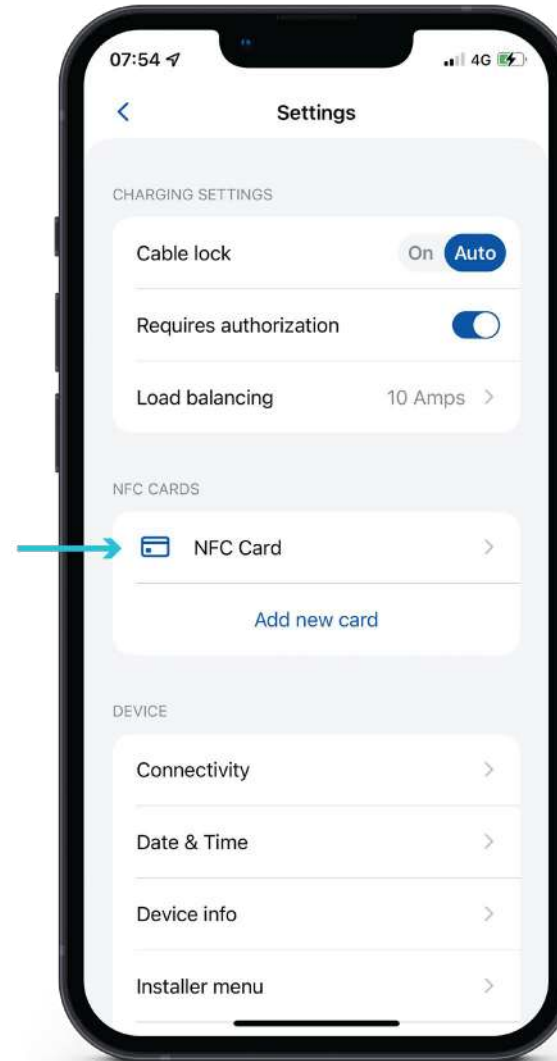
1. Touch the card to the side of an EV charger with an NFC reader.
2. Wait for the pop-up window to indicate a successful addition of your card.
3. Back in the TeltoCharge setting menu you should see the card added.



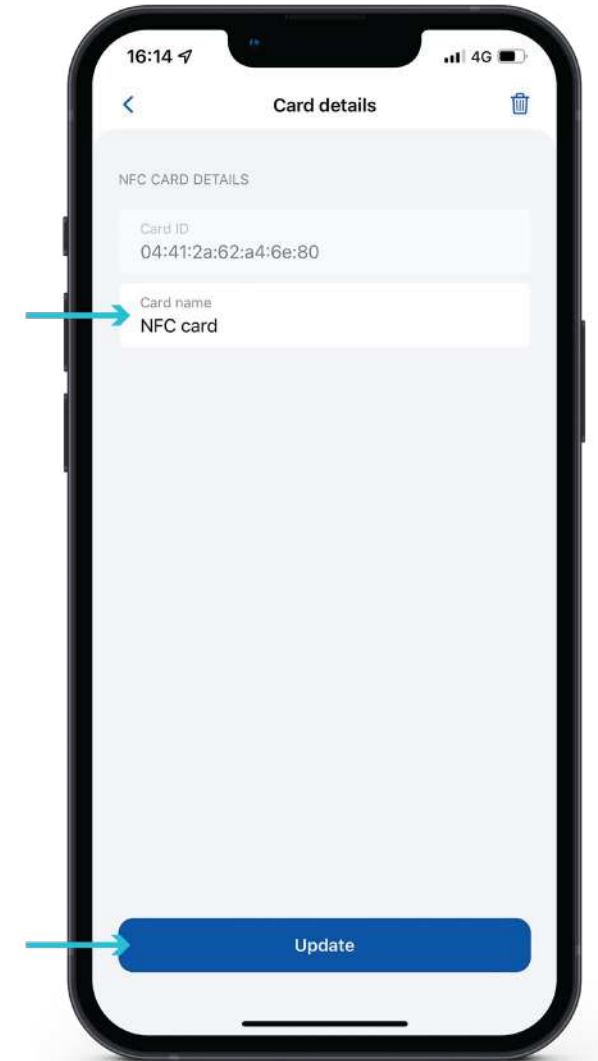
3

# AUTHORIZATION

1. To see the NFC card information or update it, press on it in the TeltoCharge settings menu.
2. To update the name of your card, press the field with a name, type the new one and press the **“Update”** button.



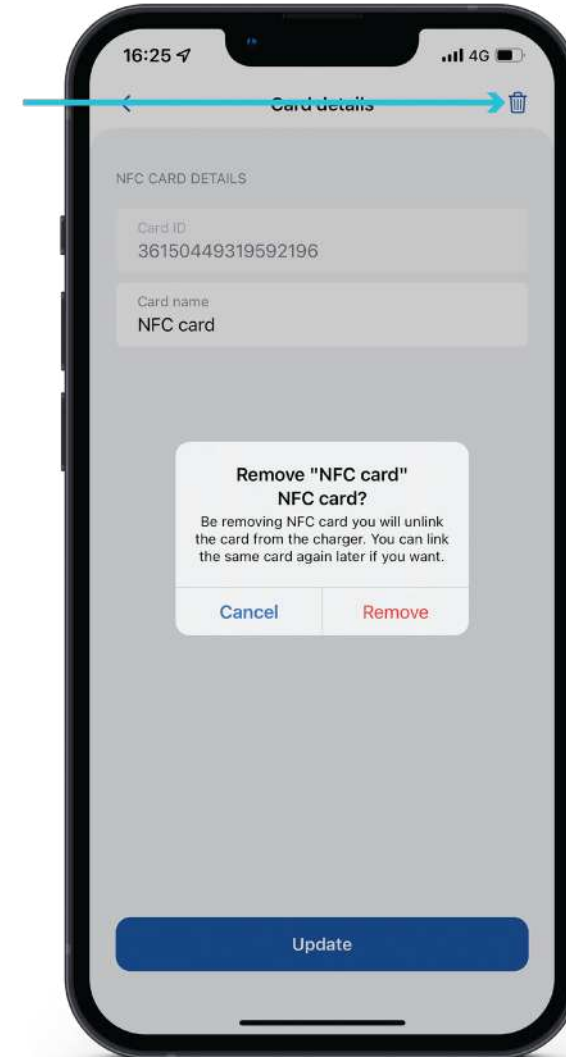
1



2

# AUTHORIZATION

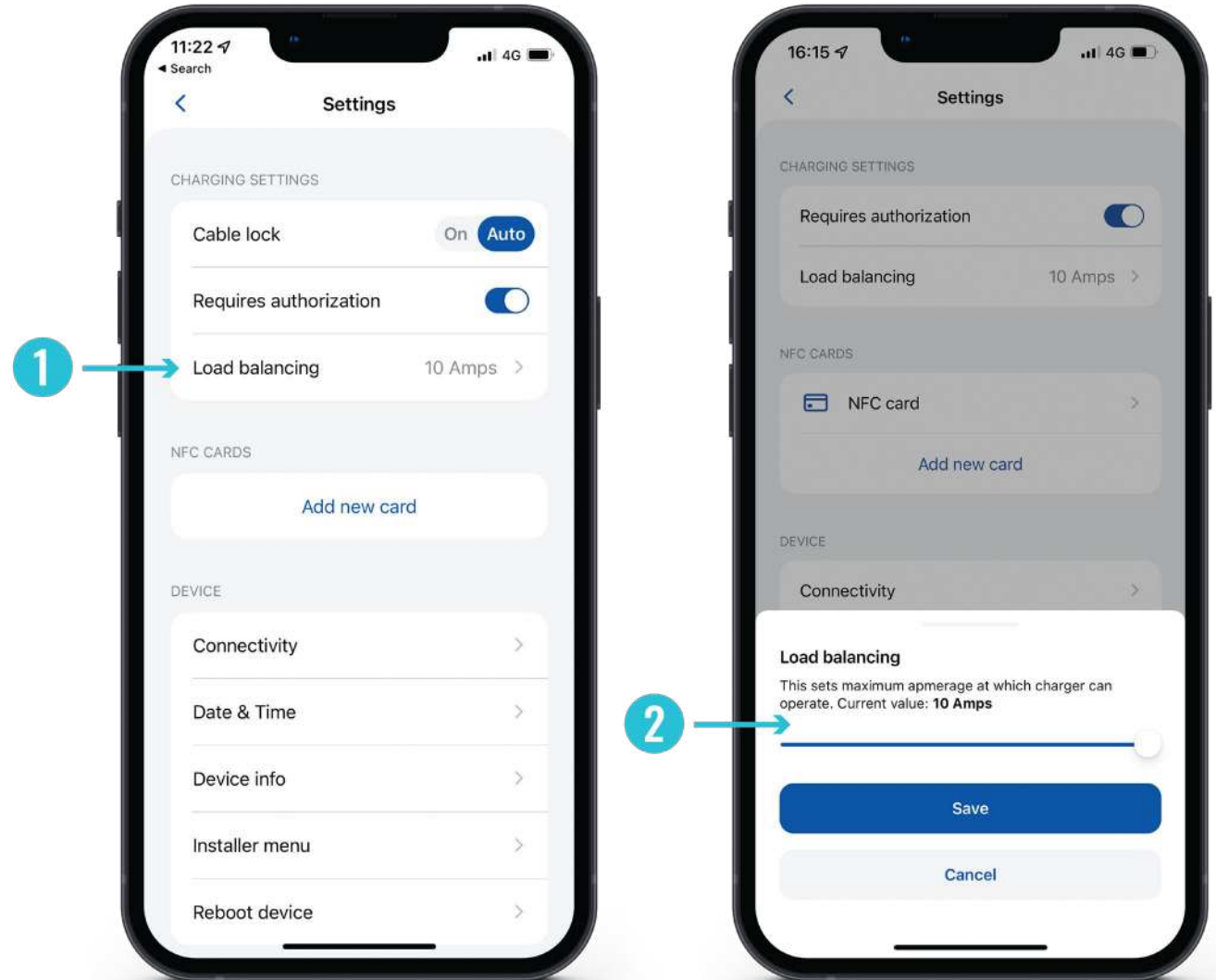
1. To see the NFC card information or update it, press on it in the TeltoCharge settings menu.
2. To update the name of your card, press the field with a name, type the new one and press the **“Update”** button.
3. To remove the card, press a bin icon in the top right corner and confirm your action by pressing the **“Remove”** button.



3

# LOAD BALANCING

1. To lower or increase the current up to the value set by the installer in the Installer menu, press on the **“Load balancing”**.
2. Use the slider to adapt the current value and save you changes.

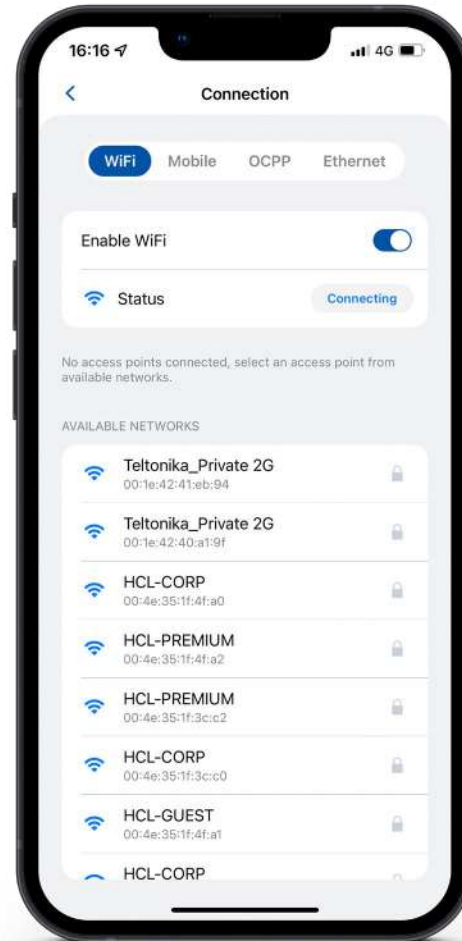




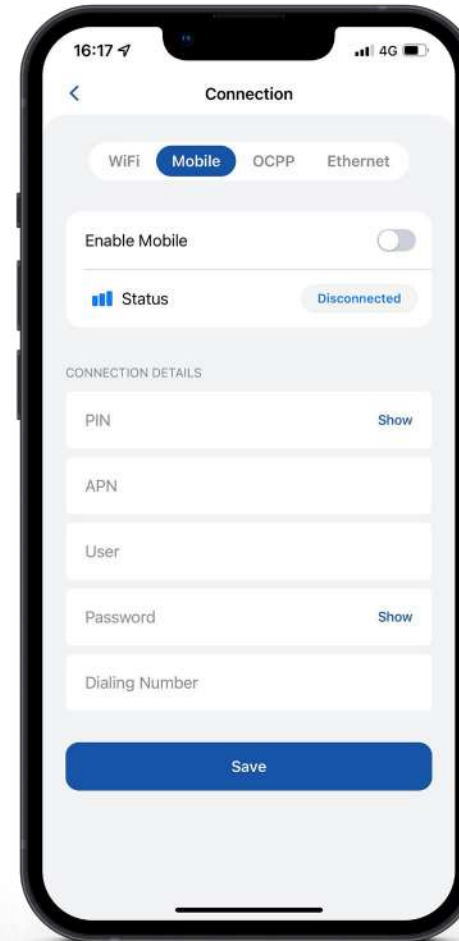
# CONNECTIVITY

TeltoCharge can be connected to the Internet in three different ways.

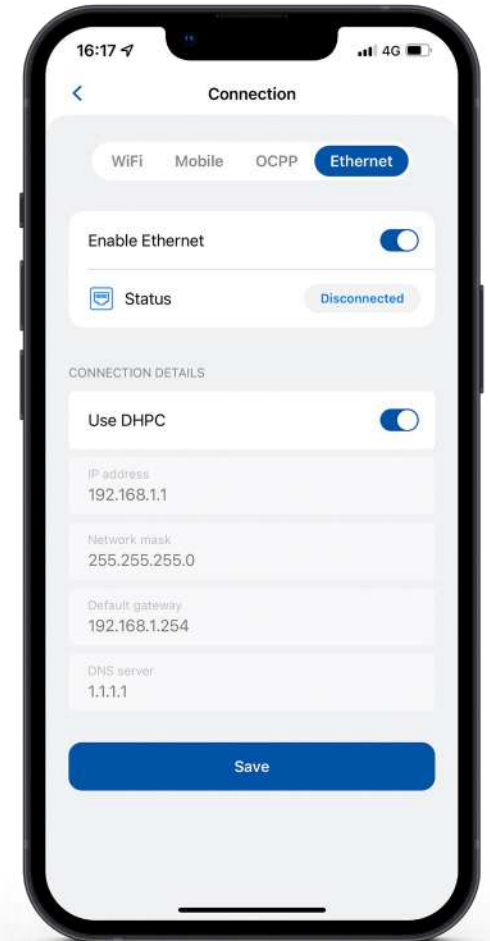
1. **WiFi** - select your network from the list, insert the password and connect.
2. **Mobile** – to use cellular data, first of all, you need to insert a nano sim card inside the EV charger and then you can configure settings inside app.
3. **Ethernet** – plug in your cable and the Internet should start working (if you want to configure settings, turn off the DHCP feature and make the changes).



1



2

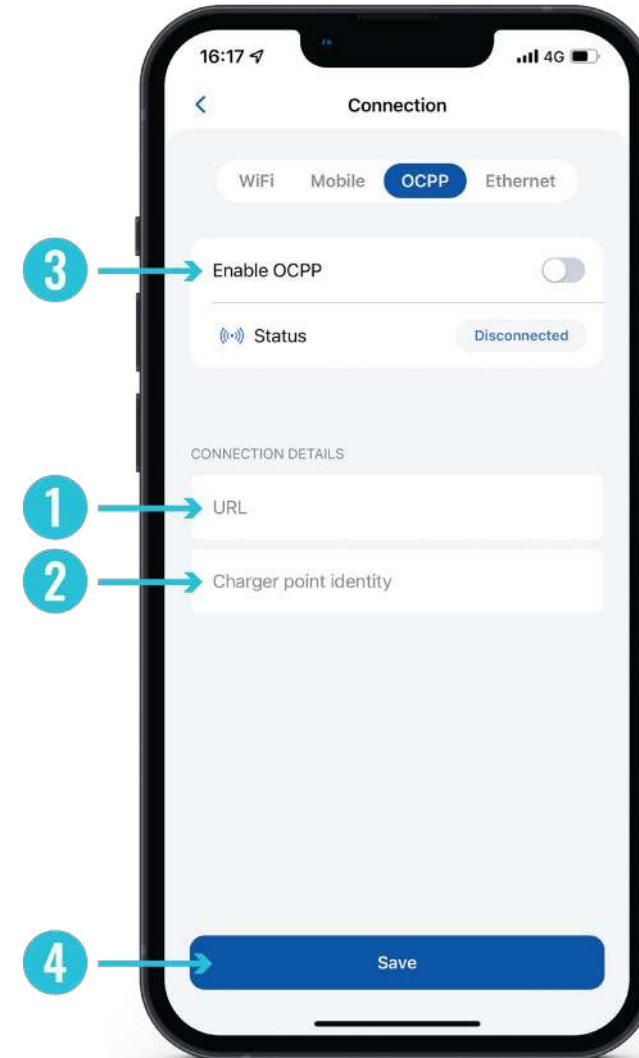


3

# CONNECTIVITY

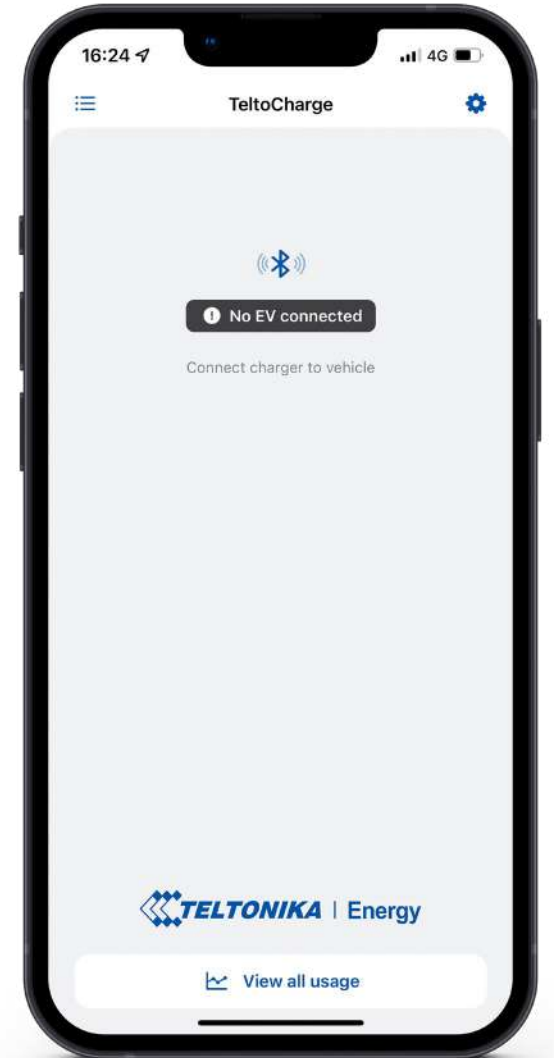
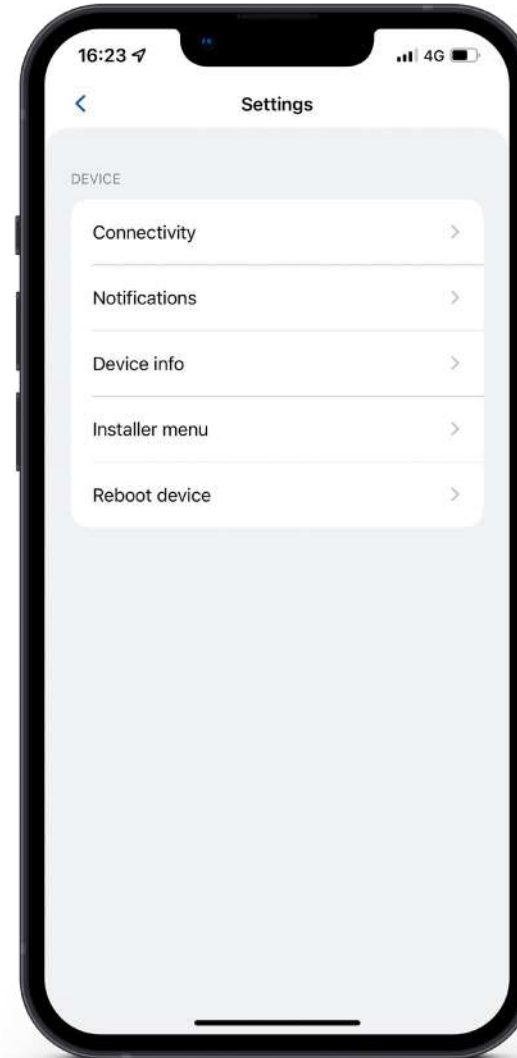
TeltoCharge also has the ability to connect to the 3<sup>rd</sup> party charge point management servers.

1. To connect, you have to insert server URL address. Note that URL address has to end with “/” symbol
2. Insert charge point identity information.
3. Enable the OCPP feature
4. Press “**Save**” button.



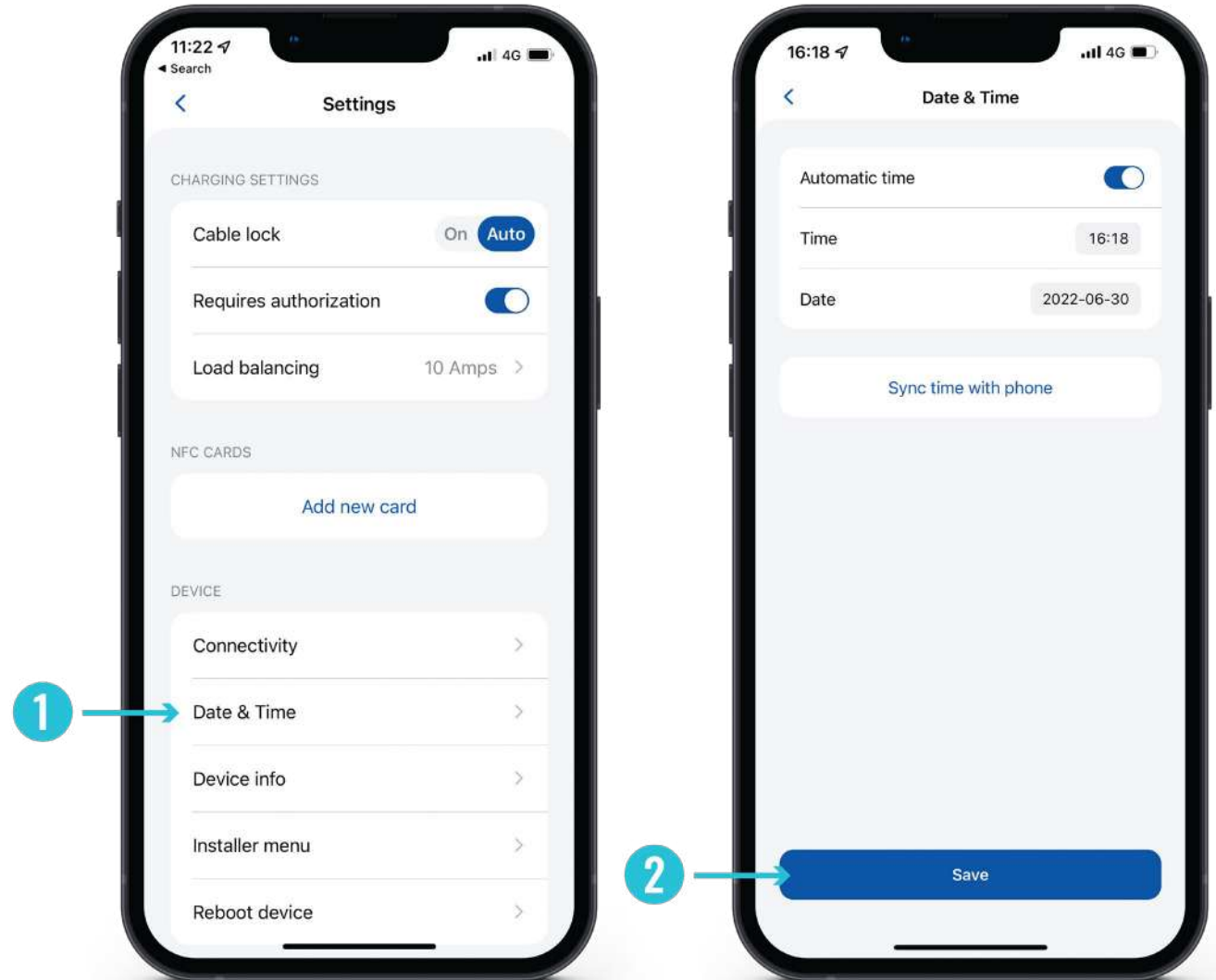
# CONNECTIVITY

- After enabling OCPP connection, you will see a different TeltoCharge settings menu. Some of the configurations will be hidden to avoid request duplication from the server and the app.

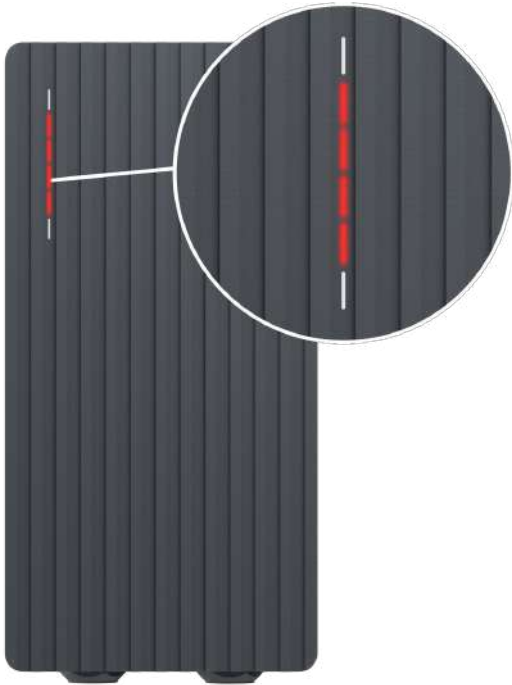


# DATE & TIME

1. Inside the **“Date & Time”** tab, you will be able to set date and time.
2. We recommend syncing it with the phone. But you can set custom date and time and press the **“Save”** button.

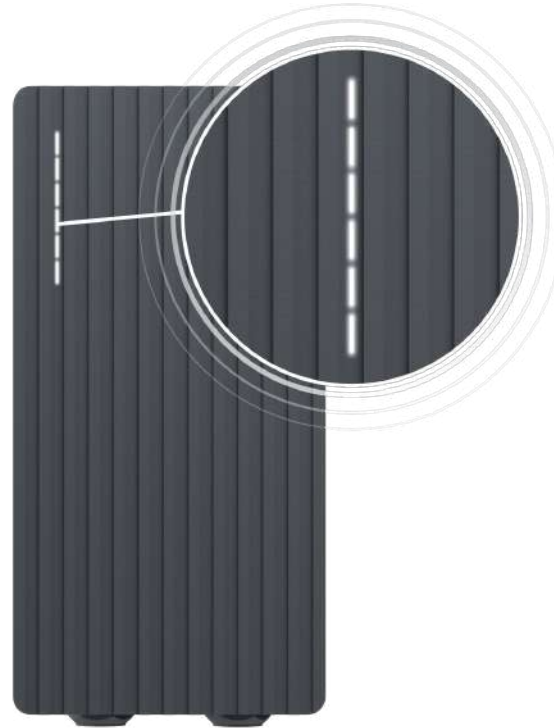


# LED INDICATORS



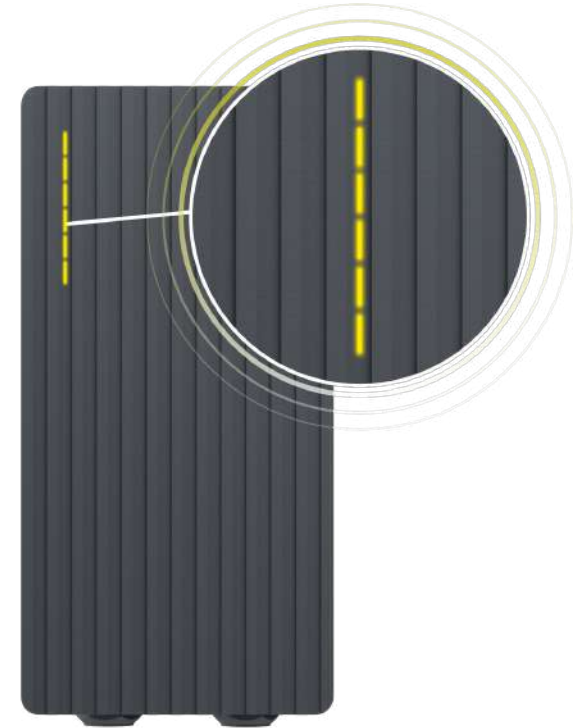
**Red – four middle LEDs turn on**

Authorization from the cloud server is declined.



**White – LEDs pulsing**

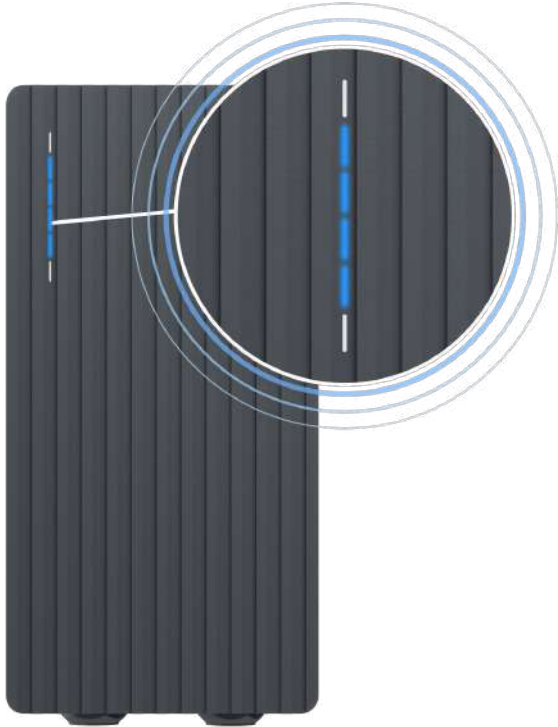
TeltoCharge is in a standby mode and waiting for an action.



**Yellow – LEDs pulsing**

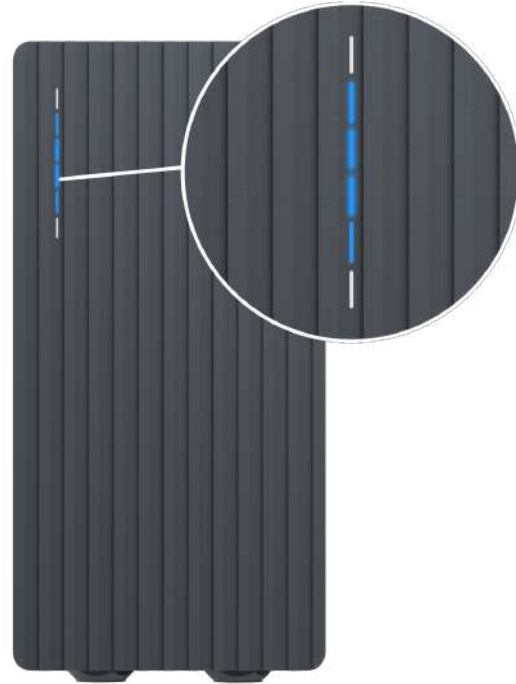
TeltoCharge is in a standby mode **with default settings**.

# LED INDICATORS



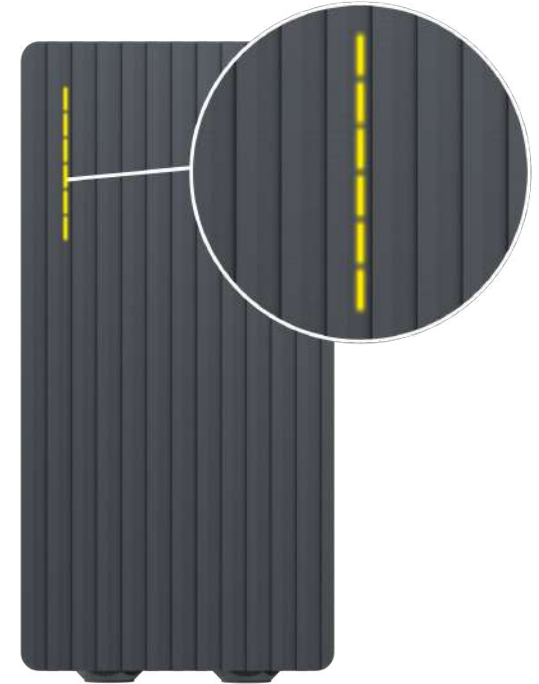
**Blue – four middle LEDs pulsing**

TeltoCharge is waiting to add a new NFC card.



**Blue – LEDs lighting up from the middle**

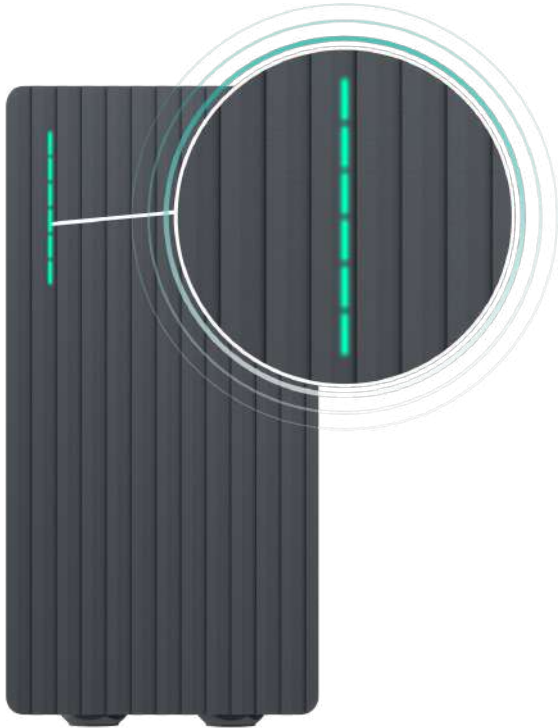
TeltoCharge does not require permission, it is waiting for an EV to initiate the charging process (go to state C).



**Yellow – all LEDs on**

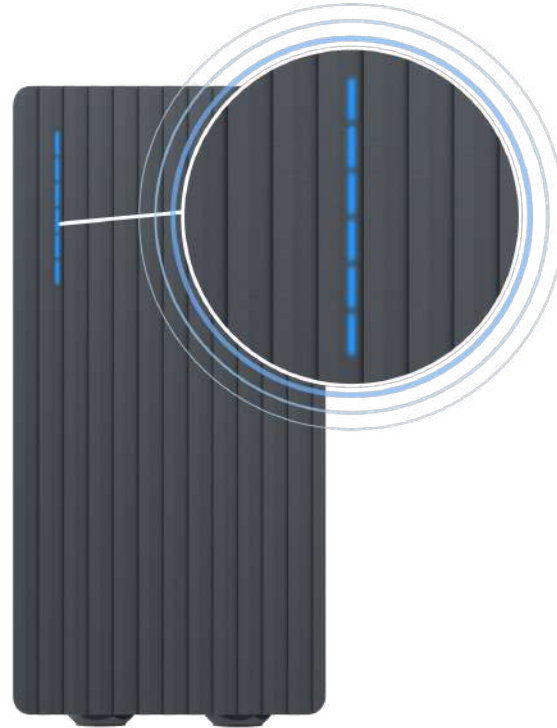
TeltoCharge is not charging, simplified charging sequence is required.

# LED INDICATORS



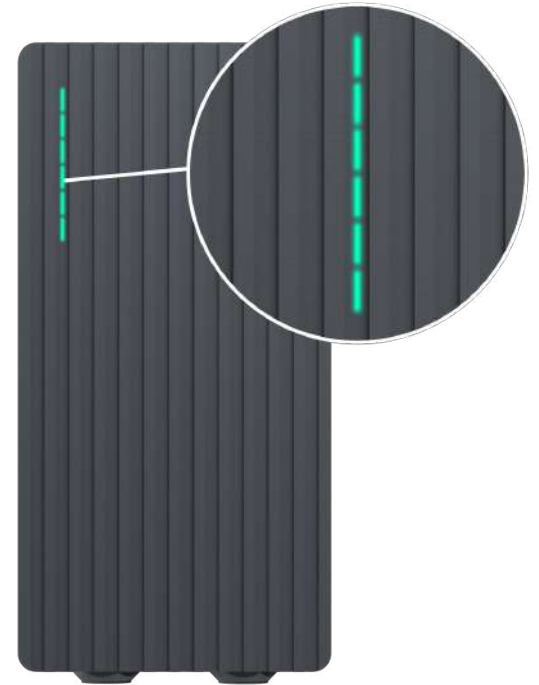
**Green – all LEDs pulsing**

Initialization of charging.



**Blue – all LEDs pulsing**

Permission to charge is not granted, TeltoCharge requires authorization.

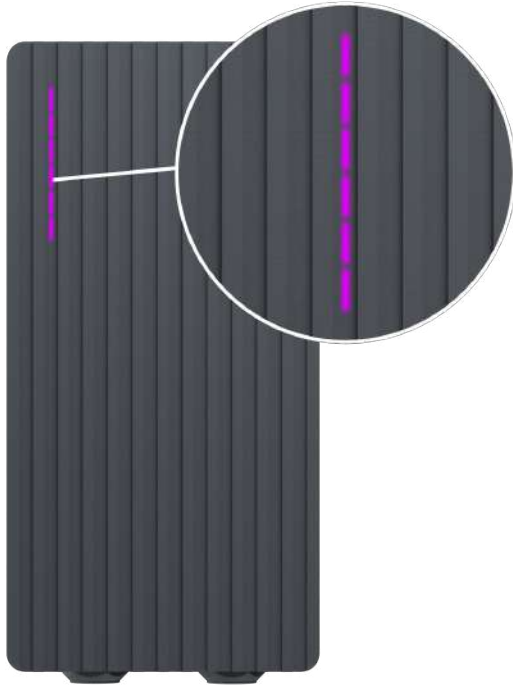


**Green – all LEDs on**

TeltoCharge finished charging.

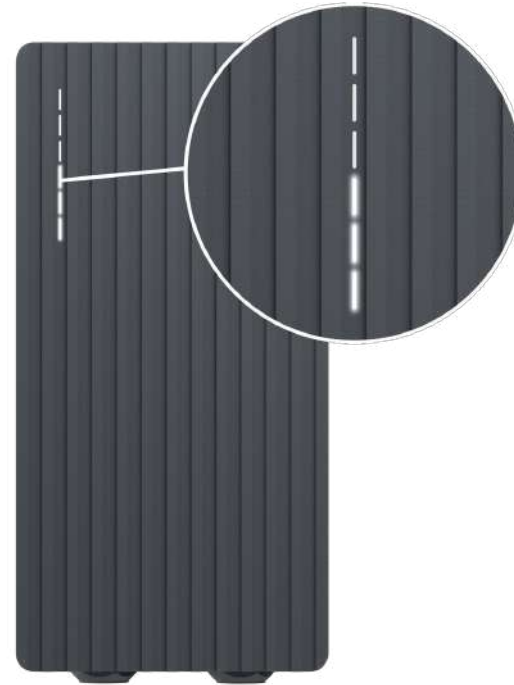


# LED INDICATORS



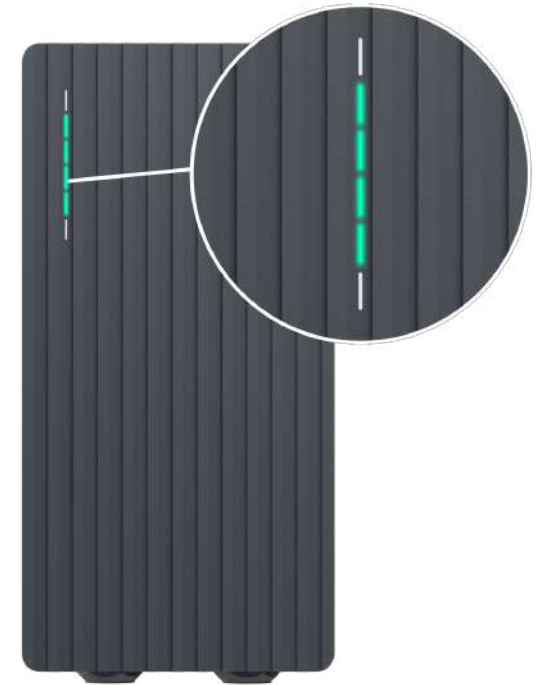
**Purple – all LEDs turn on**

TeltoCharge requires ventilation  
**(charging is done in a state D).**



**White – LEDs rolling from the bottom to the top**

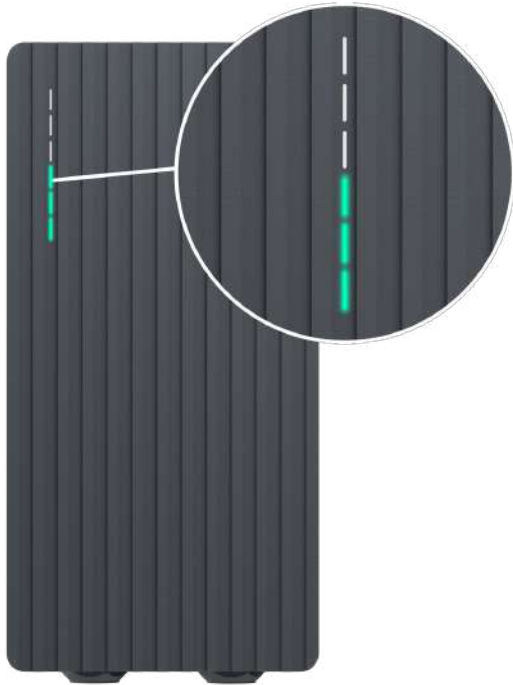
TeltoCharge is booting up.



**Green – four middle LEDs turn on**

Authorization from the cloud  
server is accepted.

# LED INDICATORS



**Green – LEDs rolling upwards  
from the bottom**

TeltoCharge is in the charging process.

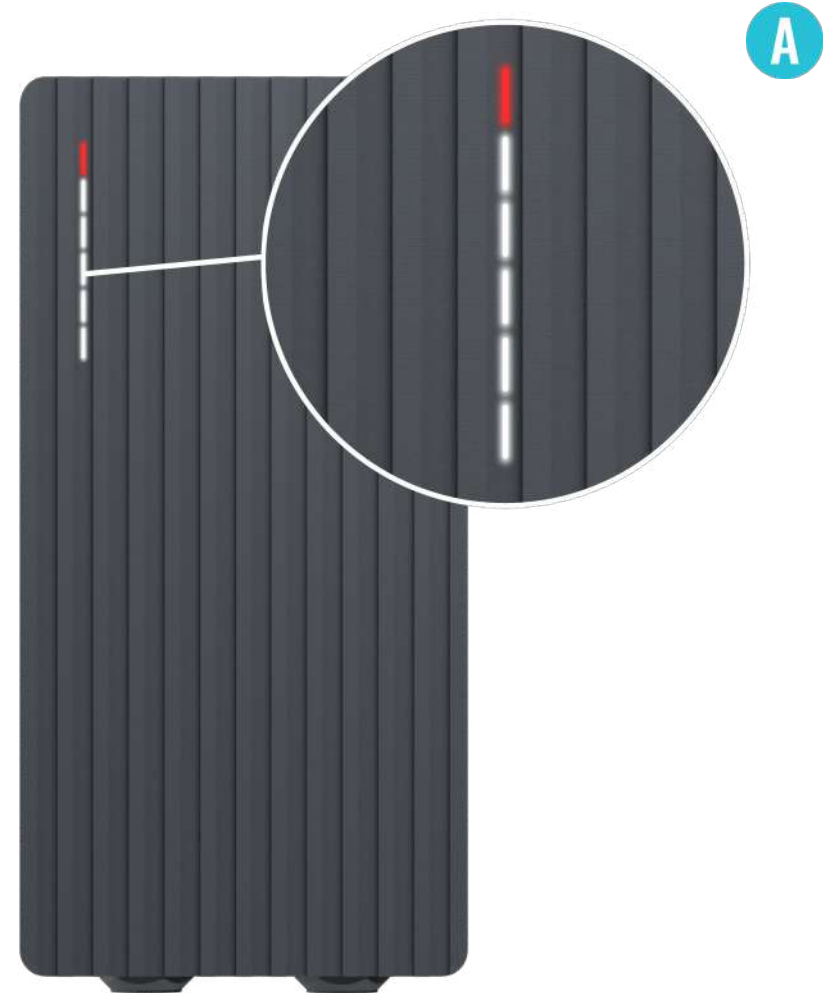
# TROUBLESHOOTING (1)

## Input voltage

- › Overvoltage;
- › Undervoltage;
- › Wrong wiring;

## Troubleshooting:

- › Check if input wiring is connected correctly;
- › Measure input voltage;
- › Check if supply voltage and voltage tolerance are in accordance with the measured input voltage in the Installer menu settings.



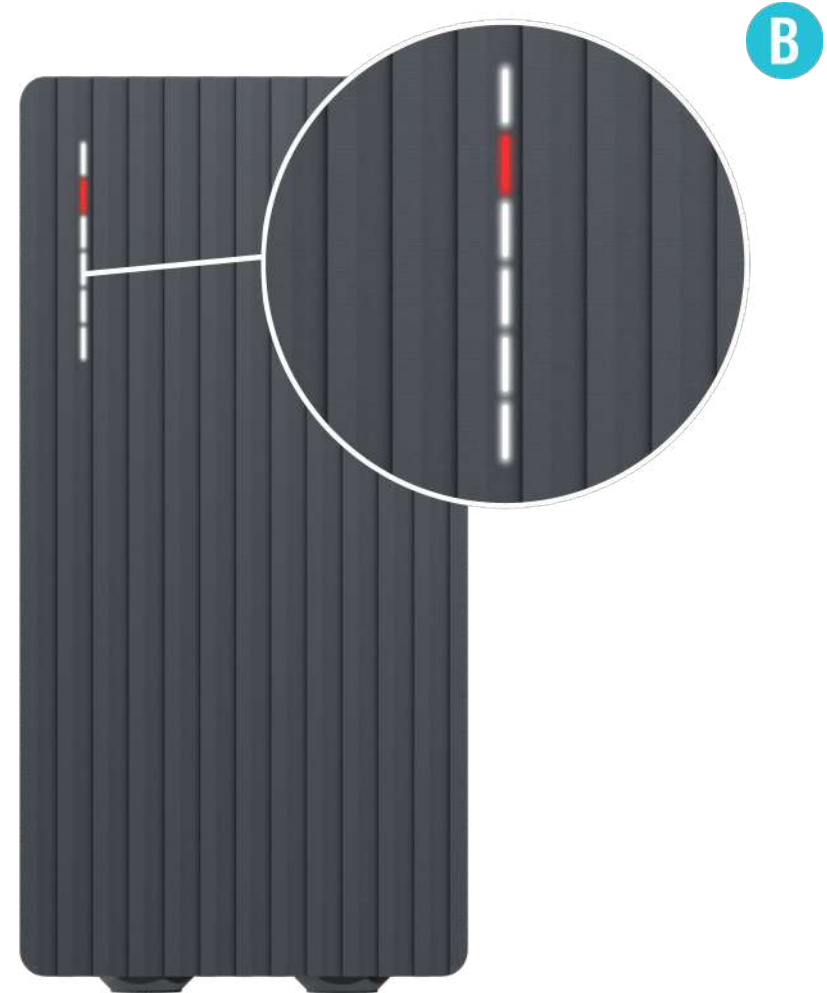
# TROUBLESHOOTING (2)

## Output voltage or current fail

- Overvoltage;
- Undervoltage;
- Output current;

## Troubleshooting:

- Disconnect a charging cable from the EV and check if the issue remains.
- Reboot an EV charger and try to connect the EV again.



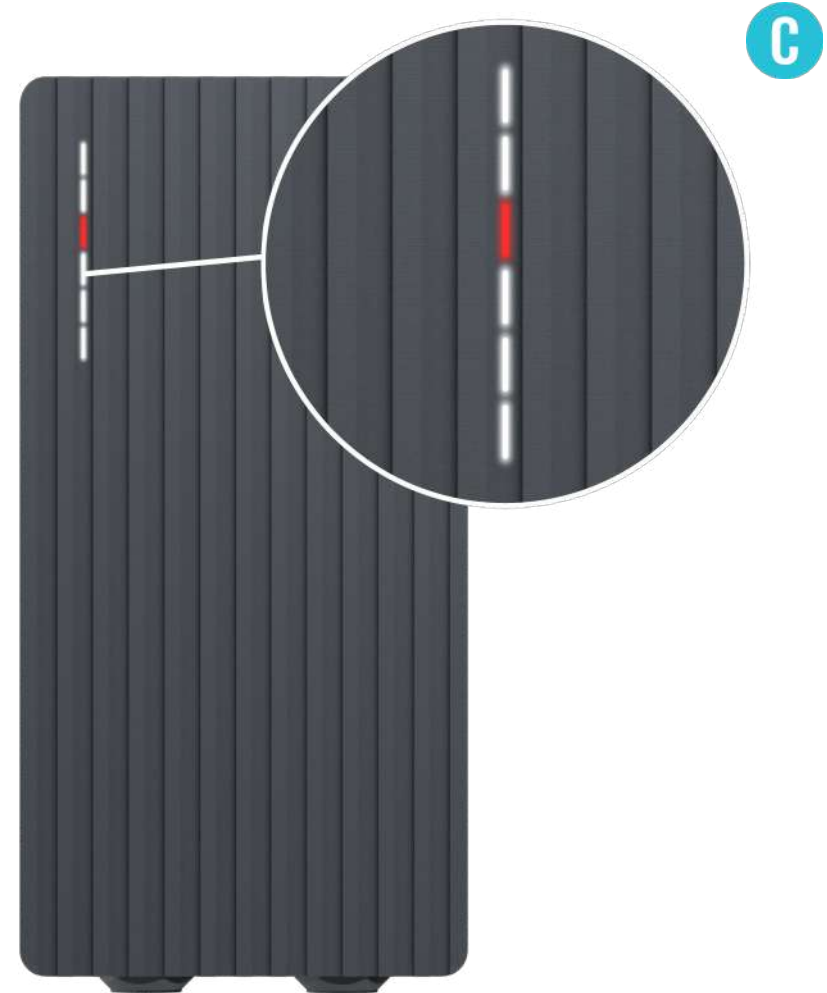
# TROUBLESHOOTING (3)

## Current leakage detected

- Current leakage detected

### Troubleshooting:

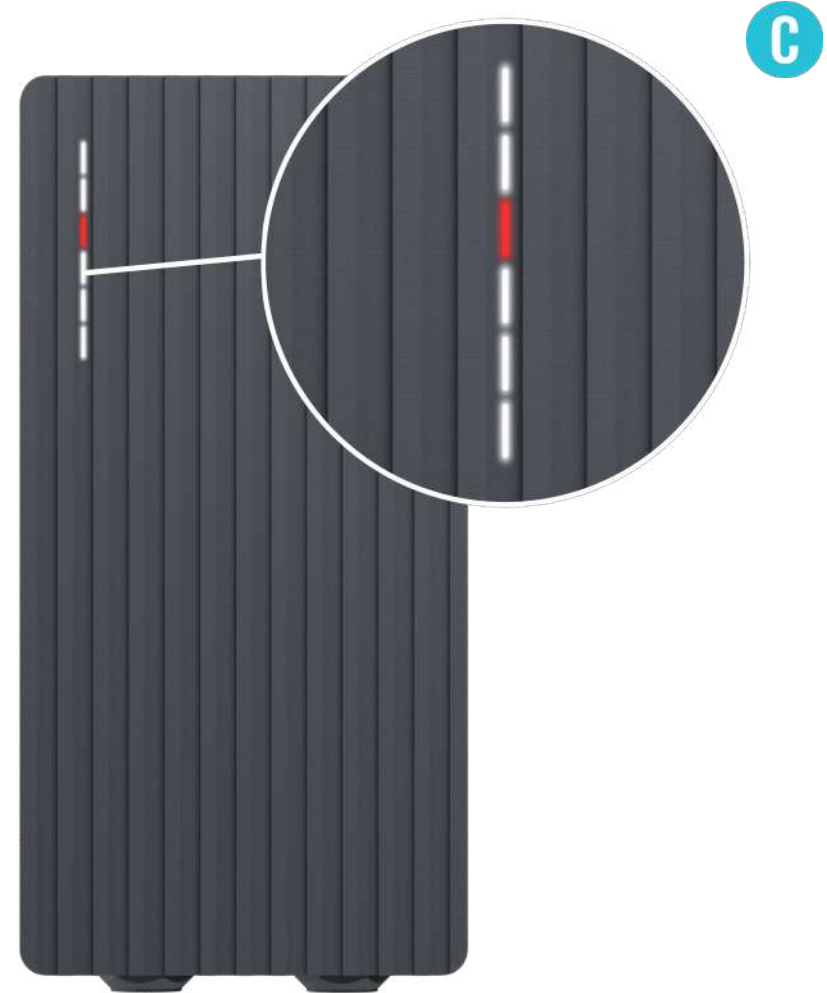
- Disconnect the charging cable from the EV and check if the error persists.
- If the error is cleared, try to start charging. If the error occurs once again, try the following steps:



# TROUBLESHOOTING (3)

## Troubleshooting:

- Check if a charging cable is fully plugged into a socket and/or EV.
- Check if the inside of both the socket and the plug has no foreign materials inside (is clean).
- Visually check if the cable is not damaged.
- Check if the boards are not covered in dust and/or other materials.



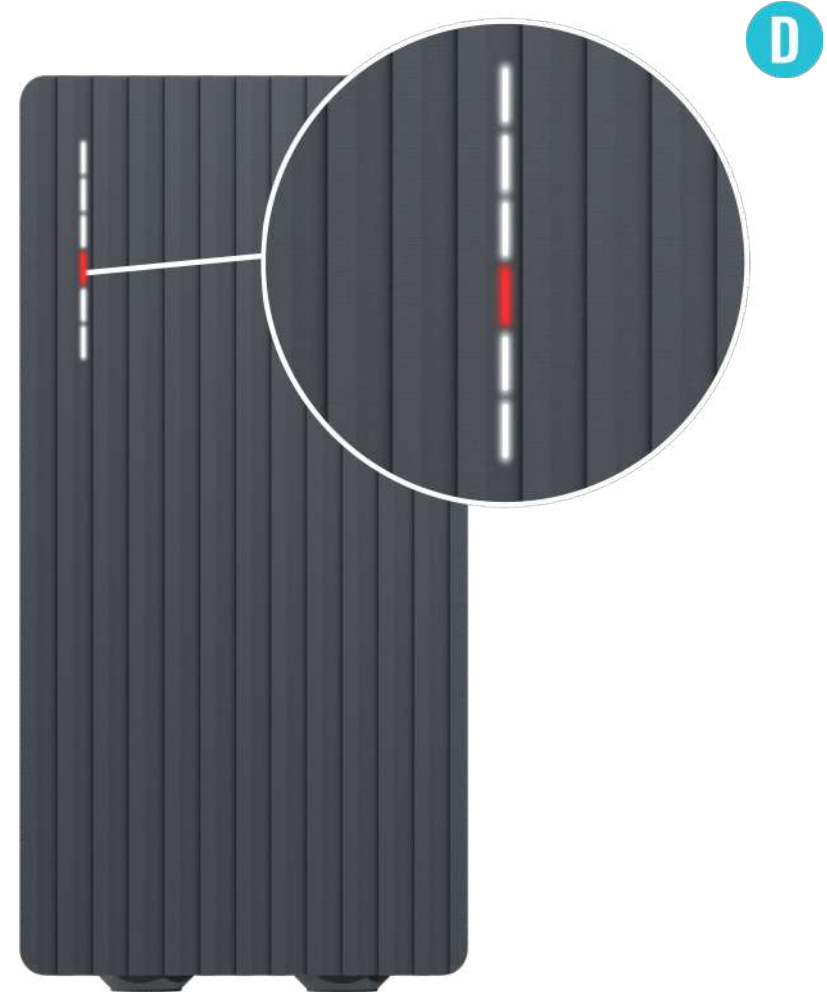
# TROUBLESHOOTING (4)

## Input voltage

- Cable lock;
- PP fail;
- Car diode;

## Troubleshooting:

- Check if the charging cable is connected correctly from the EV charger side (socket version) and from the EV side;
- Try to reconnect the charging cable to the EV and EVSE (if it is a socket version).

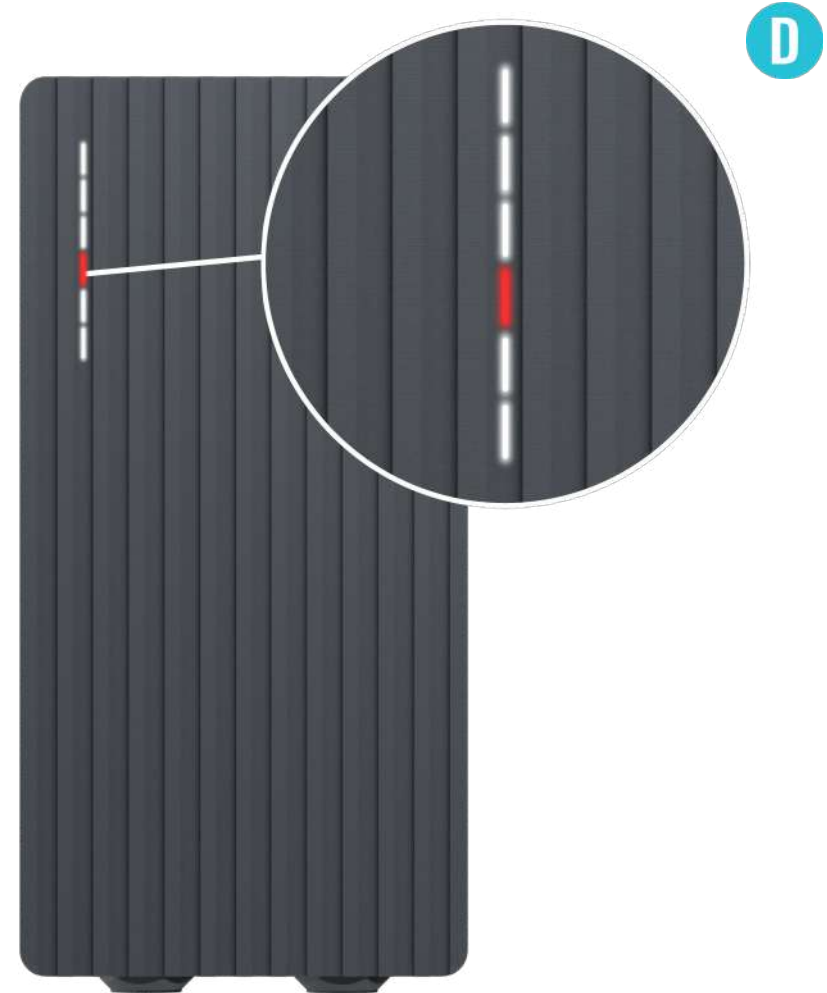




# TROUBLESHOOTING (4)

## Troubleshooting:

- Listen if you can hear a clicking sound from the TeltoCharge when you plug the cable to EV. The EV charger should lock a cable plug. If you cannot hear it, try to unplug the cable (from EVSE side) while it is plugged from the EV side. If it is possible to unplug, report this problem via VIP helpdesk or your sales manager.
- If any of these steps help, measure the voltage between PE and PP and check if it is in accordance with the standard.



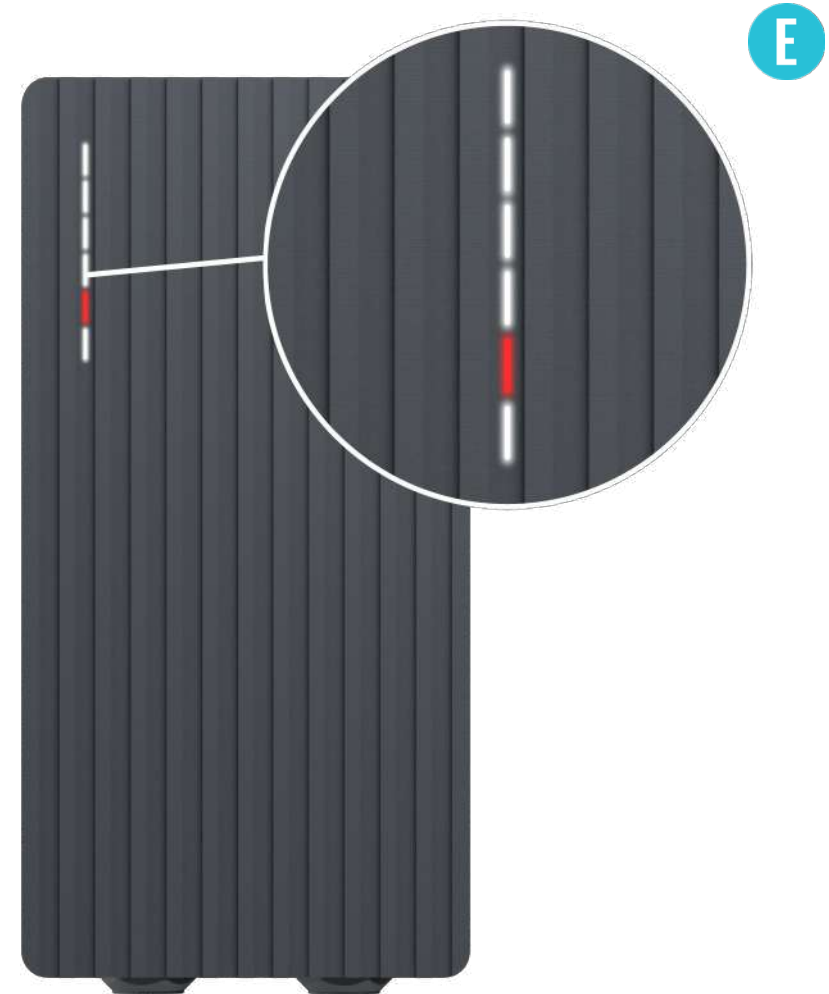
# TROUBLESHOOTING (5)

## Temperature

- Temperature reached 85°C

## Troubleshooting:

- Check the temperature inside the *Teltonika Energy app > Device info*. If the temperature is higher than 85°C wait while the EV charger cools down.



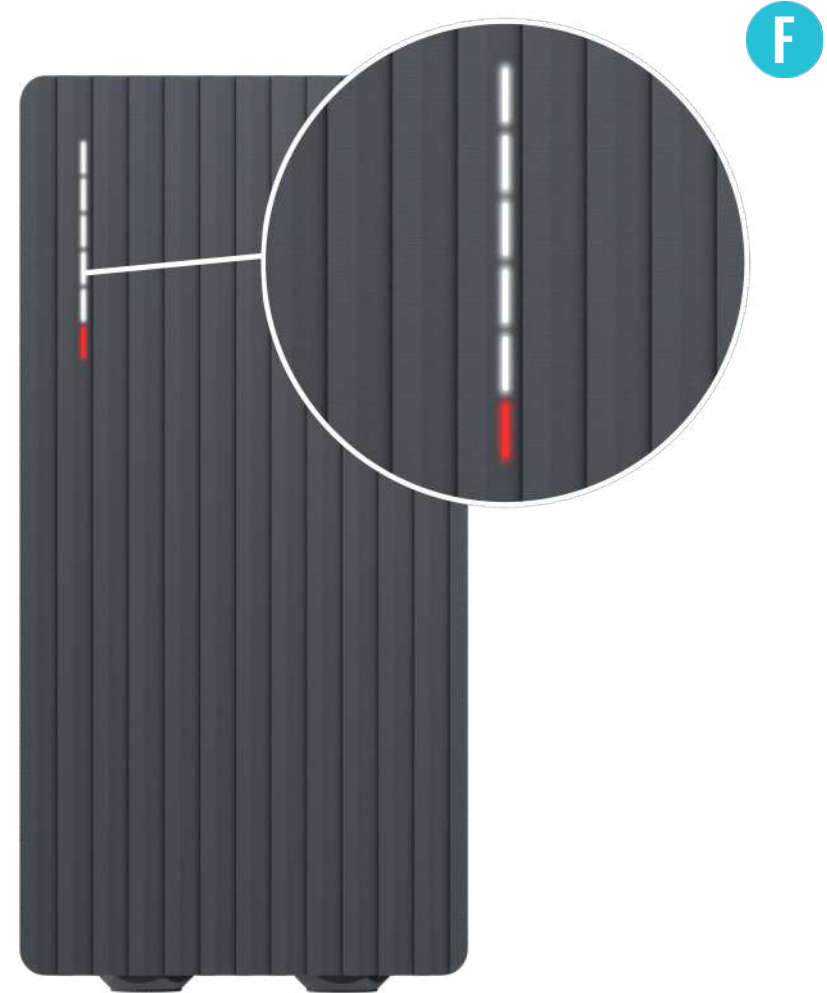
# TROUBLESHOOTING (6)

## Internal errors

➤ -12V

## Troubleshooting:

➤ Restart TeltoCharge.



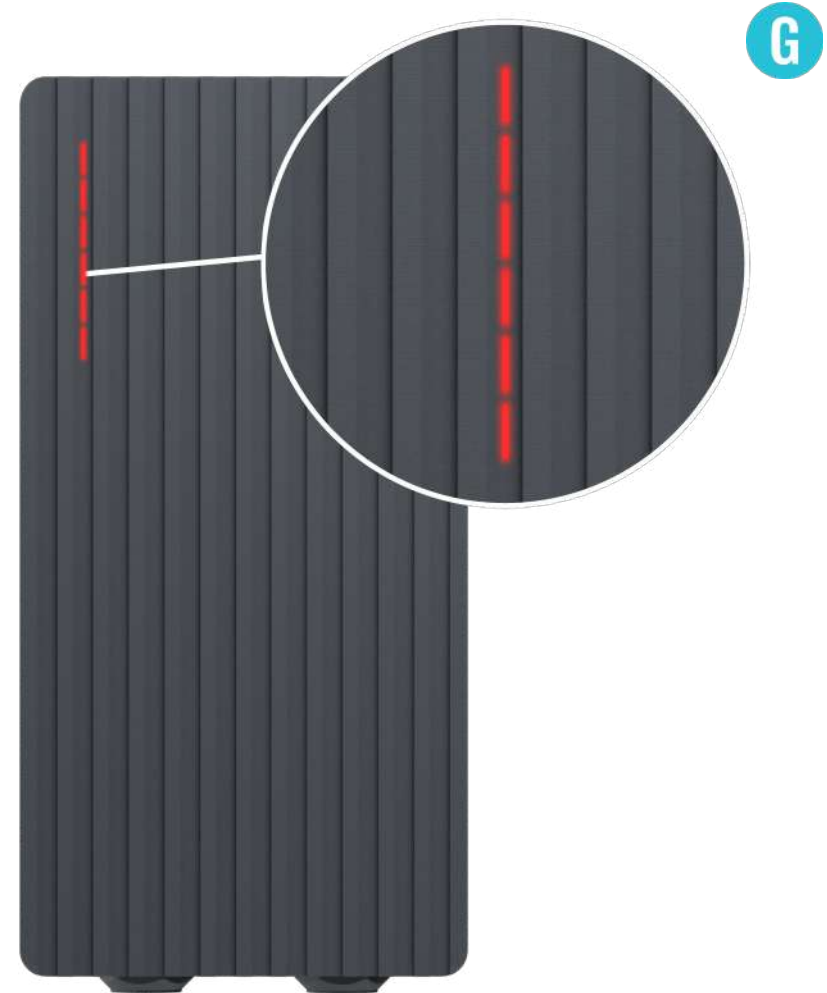
# TROUBLESHOOTING (7)

## Faulty connection to EV

- CP fail

### Troubleshooting:

- Try to reconnect charging cable from the EV side. There might be control pilot communication problem which can occur with different EV models.



# ADDITIONAL INFORMATION

For more information regarding Teltonika Energy app functionalities and features, follow the below link:

<https://wiki.teltonika-energy.com/teltocharge/>

**Note:** The Teltonika Energy app Instructions were produced with Teltonika Energy App v1.0 in mind. Always refer to the latest version, which can be found on our WIKI page.