



Operating instructions

for the product variants 11 kW and 22 kW



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Thank you for your purchase decision

With the go-eCharger HOMEfix you have chosen a solid, extremely compact and versatile product.

The Charger is intended for permanent installation at a fixed mounting location. Great advantage compared to the classic wallbox - the go-eCharger HOMEfix can be connected to an existing junction box by an electrician very quickly. This saves time and costs.

As a pure wallbox, the go-eCharger HOMEfix does not allow mobile charging, unlike the go-eCharger HOME+. However, the other functions correspond to the usual full range of go-e features. Therefore smart and intelligent solutions that make charging electric vehicles even more convenient are already integrated in the go-eCharger HOMEfix.

The go-eCharger was developed and tested by electric car drivers for electric car drivers. To keep it up to date in the future, we are constantly developing the firmware and adapting it to the state of the art. So let us surprise you with future features.

We wish you much pleasure with your great product and always enough electricity.

Your go-e team

Preface

Drivers of electric vehicles consciously choose this type of mobility. Electric drives are quiet and do not emit any environmentally harmful gases. But electric vehicles also need energy, which must be generated.

We are surrounded by energy. Every degree Celsius above absolute zero is energy. If we use existing energy carefully, we do not need to expand fossil power plants or nuclear power plants for electric mobility.

An important contribution we can all make is the use of surplus energy. If possible, do not charge your car when you come home after work, as the electricity grid is already the most heavily charged. In order to save energy and charge in an environmentally friendly manner, you should transfer your charging processes to lunchtime or early in the morning, as there is an abundance of electricity in the networks during this time.

This becomes even more interesting with a contract with our partner aWATTar, where you can profit from the strongly fluctuating electricity prices on the electricity price exchange by purchasing the electricity when the electricity is the cheapest. The technology for this is already built into each of our charging boxes. For more information, please visit <https://www.awattar.com/services/goe>

go-e will continue to work on making its products more energy-efficient and environmentally friendly in the future for a major goal: a future without emissions.

Frank Fox
(founder go-e GmbH)

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Prelude

Please read carefully before using the device!

This manual should help you:

- to use the product properly
- to avoid damage
- to increase durability and reliability
- to prevent a hazard



go-e GmbH does not assume any liability for damages caused by disregarding these instructions!

Registration information:

Depending on the country, the requirements of the authorities and electricity network operators have to be observed, such as a reporting or approval requirement for charging equipment, or the limitation of 1-phase charging. Please contact your network operator to find out whether the go-eCharger is subject to registration or approval and whether other restrictions must be observed.

Note for Germany: Most of the relevant regulations can be found in the TAR Low Voltage (VDE-AR-N 4100:2019-04). According to this, every charging station from 3.6 kW has to be registered at the responsible electricity network operator according to his specifications before you put it into operation. Up to 12 kW charging power (like the go-eCharger HOMEfix 11 kW), you only need to inform the operator where you use the charging box. You can then immediately start charging your vehicle.

If the charging station has a power output of more than 12 kW (like the go-eCharger HOMEfix 22 kW), you have to wait for the approval of the German network operator after registration and before installation. Based on research by go-e, the approval is almost always granted. Sometimes a reinforcement of the house connection is necessary for this. Further information on registration and approval can be found on our website at <https://go-e.co/products/go-echarger-home/?lang=en> in the FAQ.

Operating instructions

Non-compliance with the operating instructions can have serious consequences. go-e GmbH does not assume any liability for damage caused by disregarding operating instructions or other warnings on the device itself.



Attention! High voltage, fire hazard! Never use the device if the housing is damaged or opened!

Do not use the go-eCharger if the cables attached or connected to the device are damaged.

Never use wet or dirty plugs in conjunction with the go-eCharger.

Make sure that the connection to which the go-eCharger is to be connected has been properly installed and is undamaged.

The circuit on which the go-eCharger is operated has to be equipped with a residual current circuit breaker and a circuit breaker.

Any modification or repair of hardware or software may only be carried out by qualified personnel of go-e GmbH or personnel trained for this purpose. The removal of warnings attached to the go-eCharger or the opening of the device will result in the loss of any liability by go-e GmbH.

The go-eCharger may only be used for the purpose of charging EV batteries in conjunction with the appropriate adapters and cables.

It's important to observe the maximum permissible charging current of the connection at which you are charging. If you don't know this, charge with the lowest charge current.

Observe the specifications of the electricity network operator with regard to single-phase charging and the resulting asymmetrical grid load.

Never cover the go-eCharger during charging. Heat accumulation can lead to permanent damage or even fire.

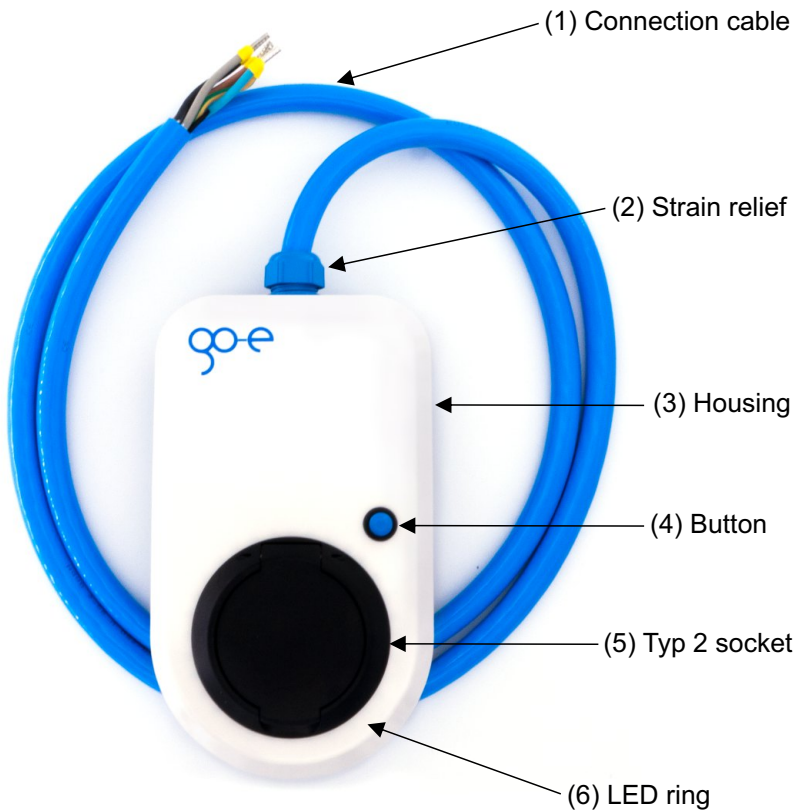
In the event of unusual heat generation, the charging process has to be stopped immediately. If you notice discoloration or deformation of the plastic due to heat generation, it is imperative that you contact the customer service.

Use your go-eCharger exclusively in the wall mount. Never use the charging box lying down! The type 2 connectors are not waterproof and water could penetrate to the contacts while lying down!

The go-eCharger is suitable for charging gassing vehicle traction batteries only in well ventilated rooms. In case of uncertainty, please contact your vehicle manufacturer.

The go-eCharger has a built-in RCD protection device with DC current detection (30 mA AC and 6 mA DC). Therefore an upstream RCD type B is not necessary. If the go-eCharger is operated from a power outlet, it must be preceded by a RCD type A, independent of the go-eCharger.

Product overview

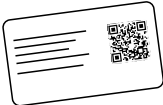


(7) Fine-wire fuse on the back

Scope of delivery



11 kW Charger or 22 kW Charger



Reset card



Mounting set



RFID chip

Scope of delivery:

- Charging box 11 kW with 2 meters connection cable (go-eCarger HOMEfix 11 kW)
Charging box 22 kW with 2 meters connection cable (go-eCarger HOMEfix 22 kW)
- Wall mount incl. screws and dowels
- One Reset card (keep in safe custody) and one RFID chip
- Short instructions

Product specifications:

- Dimensions: approx. 15 x 25 cm x 9 cm
- Weight: approx. 2.0 kg
- Connection cable: 2 m, 5 x 6 mm² (22 kW) or 5 x 2,5 mm² (11 kW) for fixed connection

Charging capacity:

- Maximum charging power 11 kW - (16 A 3-phase | HOMEfix 11 kW) or 22 kW (32 A 3-phase | HOMEfix 22 kW)
- Charging power adjustable between 1.4 kW and 11 kW (HOMEfix 11 kW) or 1.4 kW and 22 kW (HOMEfix 22 kW) [depending on the number of phases (1- or 3-phase) and selected amperes (adjustable in 1 ampere steps between 6 A and 16/32 A)]

Vehicle side connection:

- Type 2 socket (type 2 cable not included in delivery)
- Locking device (theft protection)
- Vehicles with type 1 can be charged with adapter cable
- Ampere and charging status readable via LED ring or app
- Charging power adjustable via button and app

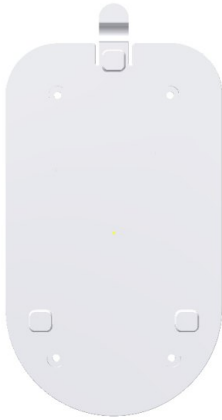
Security features:

- RFID access control
- RCD protection device with DC detection, 30 mA AC, 6 mA DC
- Phase and voltage test of the input voltage
- Phase test after contactor
- Current sensor 3-phase
- Ground check (switchable grounding monitoring)
- Customer replaceable fine wire fuse for internal electronics (triggers if the supply line is connected incorrectly)
- Ip54

App:

- Local (WLAN hotspot) or worldwide (via home WLAN) usable
- Charge monitoring (voltage, current, power, energy)
- Start/stop function
- RFID card management (up to 10 users per charger)
- Timer
- Electricity meter (total kWh and total amount per RFID card)
- Max Wh Charging
- Access management (RFID/App)
- Lock/Unlock functions
- Electricity price exchange connection with intelligent charge management
- Load balancing
- Photovoltaic connection via open API interface (programming required)
- LED adjustment
- Management of the charging levels via button on the charging box
- Updateable for later functions (Smart-Home,...)

Mounting the wall mount



Make sure that the surface is free of distortions, and if the wall bracket is distorted, the charging box may no longer be able to be attached. Use the spacers provided to compensate for any unevenness.

Provide a power supply. If there is already a junction box for three-phase current, insert the charging unit onto the wall mount and connect the cable of the charging unit as a test with the the junction box (this may only be done by a qualified electrician) to determine the best positioning of the wall mount. The connection cable can also be shortened. Now mark the top and side edges of the wall mount with a pencil.

The wall mount is then used as a template to mark the drill holes. Use a spirit level or a spirit level app to align the wall mount.

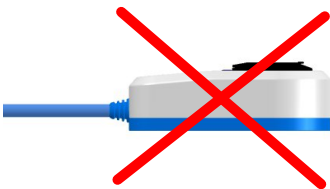


Connect

Attention 

Never use the go-eCharger lying on its back; it may collect water in the Type 2 outlet when it rains.

Connect the go-eCharger firmly to a suitable power source - at best to a junction box for three-phase current (this should only be done by a qualified electrician)





After an initial self-test, the LEDs light up in the number of the pre-set charging current (in amps). The button (5) can be used to select between 6 A and 16 A (go-eCharger HOMEfix 11 kW) or between 6 A and 32 A (go-eCharger HOMEfix 22 kW). The levels of the selection can be individually adjusted in the app. It does not matter whether the go-eCharger is connected in one or three phases.

Charging Process



Now insert your Type 2 cable into the charger box. All LEDs light up yellow during the test. The charging process is started with a clicking sound in the charging box and indicated by switching the LEDs. During charging, the LEDs run clockwise around the charging socket. The number of "tails" corresponds to the number of phases used to charge while the rotation speed is dependent on the charging current.

Exit charging process



The charging process is terminated by the vehicle. This is usually the case when the vehicle's battery is fully charged. The socket remains locked after completion of the charging process until the cable is removed from the vehicle (theft protection).

If you want to interrupt charging prematurely, you can do this via the function of your vehicle ("cable unlocking") or via the app ("activation").

ATTENTION:

If the power supply is interrupted, the charging cable remains locked in the charger box for reasons of theft protection. To unlock it, it is necessary to put the charger box under power again.



Error Indication

The go-eCharger has a number of security questions in its program to check the used power source for possible errors. For this reason, it is possible that the go-eCharger may indicate a fault and refuse charging, especially with unknown power sources. A more detailed description of the causes and the measures to be taken are described in the section "Troubleshooting" at the end of this manual. You can read an error message in the app under "Status" (see section "App Charging").

TIP

Online Support

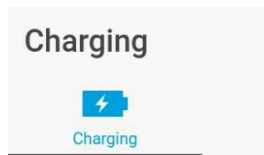
In our online support section, we address the most frequently asked questions in the FAQ. If you have any questions about the operation of the go-eCharger, you will surely find what you are looking for. Please note that we will continue to offer the product at the lowest possible price. Therefore, please do not use the personal contact form unless you find your question answered in the manual or on our website.

Thank you for your support!

The app gives you full access to a wide range of go-eCharger functions via direct (via hotspot) or worldwide (via the Internet). The app can be found in the Apple App Store, the Google Play Store or at <http://app.go-e.co/>.

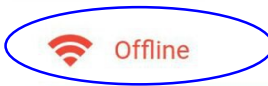
Connect the app to the go-eCharger by either manually coupling the charger box in your WLAN settings (see Charging) or by scanning the QR code of the reset card.

Charging

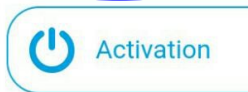


Indication of status

Offline: Your box is not connected to your mobile device. Please connect the charging socket.



Charging: The go-eCharger is in charging mode, the LEDs on the charger rotate around the charging socket.



Finished: The charging process has been completed.

Error: No charge possible (see error diagnosis).



Ready for charging: The go-eCharger is ready for charging, connect the type 2 charging cable.



Waiting for car: The go-eCharger waits for the release from the vehicle.

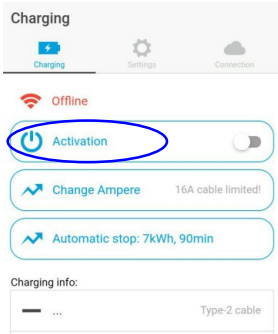


Activation needed: The charge must be approved by the RFID card or the Activation Button of the app.



Waiting for charging: The charging is carried out according to preset time control (see Settings/Scheduler)

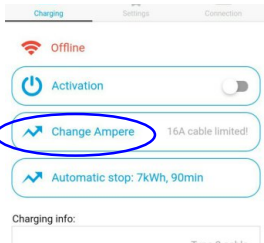




Activation

Activate or deactivate charging. Depending on the settings under "Settings/Access Control", you must authorize each charging process using this button or an RFID card.

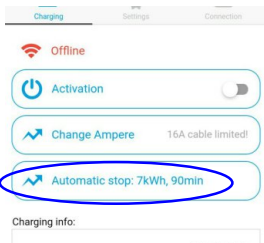
The cable remains locked in the standard setting until it is disconnected from the vehicle.



Change Ampere

The charging power can be freely selected between 6-16 A (go-eCharger HOME+ 11 kW) or 6-32 A (go-eCharger HOME+ 22 kW). This setting always applies to all phases.

To change the default settings for the multifunction button, go to "Settings/Button".

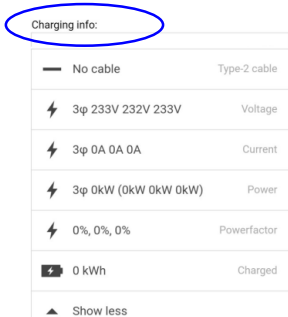


Automatic stop

Set the max. kWh that you want to charge into your vehicle.

TIP

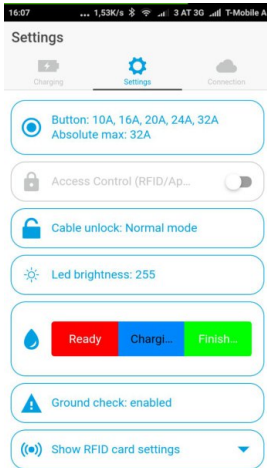
This function is very handy if you live on a mountain and can recuperate during the downhill run, or if you are regularly able to charge cheaper in public or at the employer's office.



Charging Info

The overview gives you an overview of the current charging capacity in kW and the already charged energy in kWh.

Under the button "show more" you get detailed information about the charge, voltage etc.

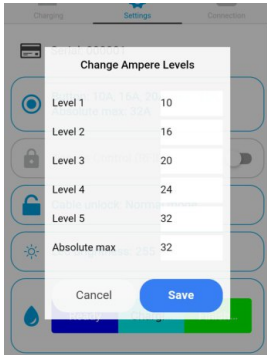


Serial

Displays the serial number and name of the connected device.

Button

Define the charge levels you want to load with the button on your go-eCharger. Input fields set to "0" are skipped during selection with the button.



Access control

Four different options are available:

- Open
Charging begins after connection to vehicle

- RFID/App
Activation necessary

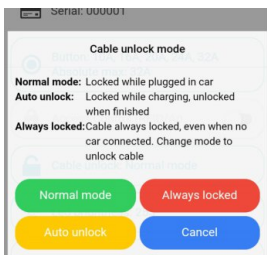
- Electricity prices (only available online) (further information www.awattar.com/services/goe)
 - Set the desired charging time
 - Set the charge cut-off time

TIP

- Load timer
This function allows you to set a charging start at any time.

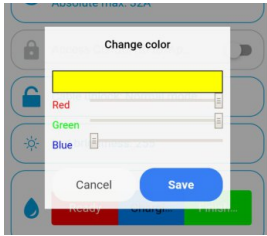
Load balancing

Detailed instructions can be found in the App.



Cable unlock

Controls whether the cable should remain locked after charging until it is disconnected from the vehicle, unlocked immediately after charging or locked until it is unlocked via the app.

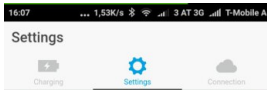


LED Brightness

Controls the brightness of the LEDs through a slider.

LED Color

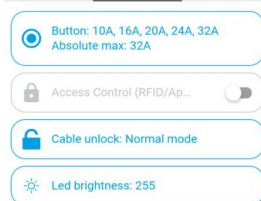
Here the LED colours for "Ready", "Charging" and "Finish" can be individually adjusted.



Ground check enable / disable



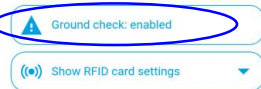
Attention: This function should only be used if the power supply has no grounding (IT mains). If you are not sure, you should leave the setting at "Ground check enable"! The so-called Norway mode (earth detection is deactivated) is visualised by 4 red LEDs on the go-eCharger (3, 6, 9, 12 o'clock).



The go-eCharger has a safety function which checks that the power connection used is sufficiently earthed and prevents charging if there is insufficient grounding.



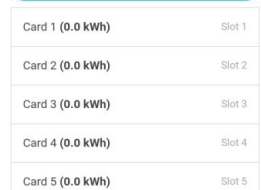
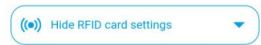
In some regions, e.g. Norway, isolating transformers are used (IT mains). In order to charge also in such regions with the go-eCharger, the function "Ground check" can be deactivated. When operating in the usual European mains with earthing, switching off the „Ground check" in case of insufficient earthing can lead to danger!



Show RFID card settings

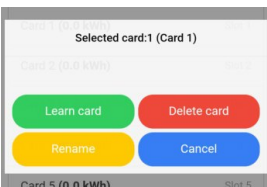
Under this menu item you can manage RFID-enabled cards or chips.

For each card, the charged kWh is stored and the cards can be named.



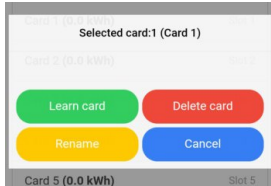
Learn card

To do this, place any RFID card (but never put the go-eCharger reset card) on the go-eCharger's RFID card reader and press "Start". When the card has been taught-in, the LED ring flashes briefly. Now the

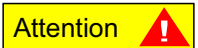


card can be used for the go-eCharger.

Delete cards

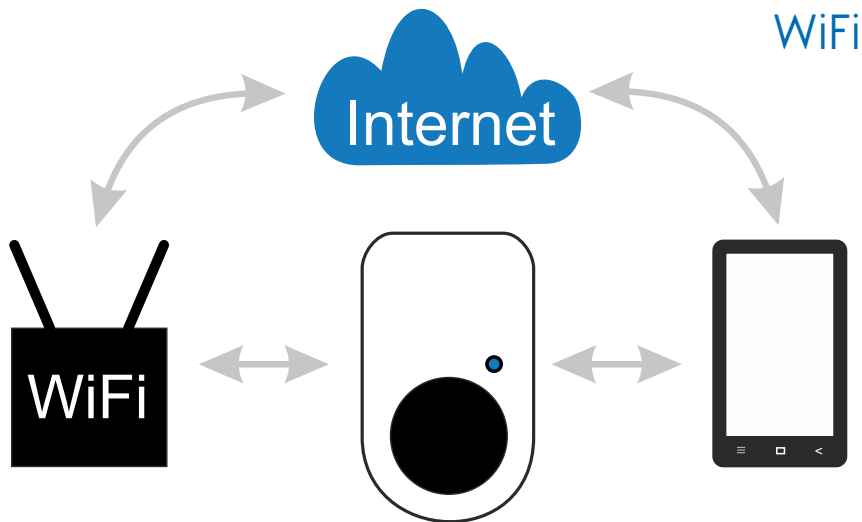


You can delete trained cards.



With the card, all data in the memory space of the charging box is deleted.

The app allows you to manage multiple go-eChargers. See "Show RFID Settings" for more details.

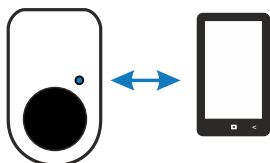


In order to use the WiFi function of the go-eCharger, you always need a direct connection of your smartphone with the charger to be able to set up the connection. You can perform all operations through the interactive graphic by touching the individual items or connections, or you can use the "Setup Wizard" on the following page.

Set up via the interactive graphic

Hotspot

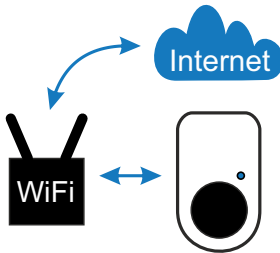
- Tap on the box to connect to it via hotspot. You should open the WLAN settings of your mobile phone.
- Select the go-eChargers (go-e-XXXXXXXX) from the list of displayed devices to connect it.
- After connecting, switch back to the go-eCharger app. The arrow between the mobile phone icon and the charger box should now turn blue.
- If there are problems, you should temporarily switch off mobile data...



If the connection between the loading box and the app is established, you can connect the go-eCharger to the Internet.

internet connection

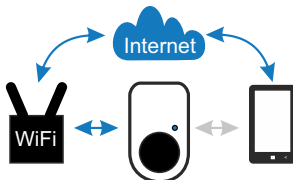
- Tap the WLAN device. A pop-up window opens.
- Enter the SSID (device recognition) and the password of your WLAN device into the popup window and confirm with "Save".



The arrows between the go-eCharger, the WLAN device and the Internet Cloud should now appear blue.

Access to the loading box via the Internet

- End the hotspot connection between your mobile phone and the charger box and reconnect to your home wireless router in the mobile phone's WLAN settings.
- Change back to the go-eCharger app.
- Tap on the Internet Cloud to start the connection with the box.



- In the opened window enter the TOKEN which you find on the provided reset card and confirm with "save".

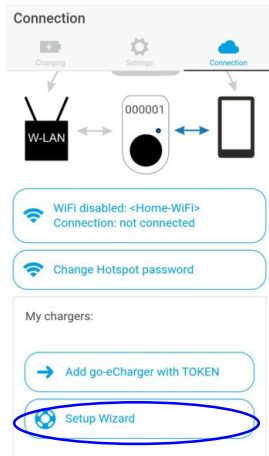
The connection from the mobile phone via the Internet Cloud and the WLAN Router to the charging box should now appear in blue.

Now you can access your go-eCharger from anywhere, as long as your mobile phone and charger box are connected to the Internet.

To switch between Internet access and hotspot, use the WLAN settings of your mobile phone.

TIP

If your go-eCharger is out of the reach of your WLAN router, you can use the "connect automatically" function for the hotspot connection with the go-eCharger under the WLAN settings of your mobile phone, so that you always have quick access to the charging box.



If your go-eCharger has permanent access to the Internet via your home network, you should use the Internet connection by default.

Assistent (Wizard)

As an alternative to manual WiFi configuration, you can also use the WiFi Wizard. Tap the Wizard button. The wizard will now guide you step by step through the installation.

Reset with reset card

With the go-eCharger Reset RFID card, the access settings of the loading box can be reset to the factory settings. Hold the reset card to the RFID reader of the loading box. The reset is confirmed by a short LED ring light in red.

TIP

Store the reset card in your car. You can reset the box settings at any time and log in again with the factory settings. This is especially important if you have activated the load release via RFID card and have misplaced the card.

Troubleshooting:

What does the colours of the LED ring mean?

(Colour codes correspond to the factory setting)

LED colours / error	Reason	Solution
No LEDs light up although the charger is connected.	No current on the junction box/-cable or fuse defective	Check the overload protection of the connection. Check the device fuse on the back of the go-eCharger. If it has melted, the power connection is probably not properly installed. Make sure that the connection is correct before you try again.
The LEDs light up blue (standby mode). However, the charging process does not start.	Vehicle is not recognised	Check the charging cable and the proper fit of the plugs.
The LEDs flash red at the top and light up static yellow/green at the bottom.	Erdungsfehler	Prüfen Sie, ob die Zuleitung ordnungsgemäß geerdet ist.
The LEDs light up red at the top and pink at the bottom.	RCD has detected an error	The charger has detected a residual current ≥ 6 mA and goes to fault. To acknowledge the fault, press restart in the app. If necessary, the charging current can be reduced, but also check the used socket. (Possibly the charging device in your vehicle is also defective. If necessary, this should be checked by qualified personnel.)
The LEDs flash red.	General error	Please check the error code in the go-eCharger app.
The LEDs light up blue/red.	Phase error	Check supply line, possibly only 2 phases are present. If no function occurs, please contact go-e customer support.
4 LEDs light up red (3, 6, 9, 12 o'clock).	Norway mode	The earth detection is disabled. Attention: this function should only be used if the power supply has no grounding (IT mains).
The LED ring shines in rainbow colours.	Charger boots up	If the charger does not come out of this mode, the WLAN signal may be disturbed. Remove possible sources of interference (e.g. devices with WLAN mesh network).
LEDs light up blue/white.	Activation required	The access control is not set to open. To activate, use a teach-in RFID chip or the app.
5 LEDs light up red on top.	Unknown RFID chip	Use a trained RFID chip for activation.

Warranty

The statutory liability for defects law and the statutory warranty period of two years shall apply. After six months from delivery of the goods, the burden of proof of the statutory warranty shall pass to the customer. Shipping costs for repeated repairs due to technical defects by the manufacturer shall be borne by the manufacturer.

In the event of incorrect installation, improper use or incorrect connection or connection to incorrectly installed electrical connections and the resultant damage to the product by the purchaser or other technical defects caused by the purchaser, the warranty shall lapse or a reduction in value shall be made. In this case the buyer bears the shipping costs. This applies in particular if the product is operated with an energy source not recommended by the manufacturer for the product or used for purposes other than those specified by the manufacturer. The warranty also expires in the event of any modification or opening of the system by unauthorized persons, whereby only persons recognized by the manufacturer are to be considered as authorized. In case of doubt, consult the manufacturer.

Confirmation for subsidy



We hereby confirm that our product go-eCharger HOMEfix 11 kW or go-eCharger HOMEfix 22 kW has the following product characteristics:

- ICCB (In-cable control box) with 2 meters cable and type 2 socket
- 3-phase 16 A charging power max. (version with 11 kW)
- 3-phase 32 A charging power max. (version with 22 kW)
- Residual current protection mechanism with AC+DC detection according ÖNORM IEC 62752.
- Load balancing via App
- Smart home capable due to MQTT connection
- Smart grid capable through connection to aWATTar
- Recording of charging energy (kWh), total and broken down by RFID card

You can find more information about the product on our website: <https://go-e.co/?lang=en>

Product image:



go-e GmbH

Satellitenstraße 1
AT 9560 Feldkirchen

Mail: office@go-e.co
Tel: +43 4276 6240010

www.go-e.co

CE Declaration of Conformity



Harmonised standard: DIN EN 61851-21 VDE 0122-2-1:2002-10 and DIN EN 61851-22 VDE 0122-2-2:2002-10

EMC interference emission and immunity

Directive 2014/53/EU electrical equipment (Low Voltage Directive)
Directive 2014/30/EU electromagnetic compatibility (EMC Directive)

Device Under Test

Designation/Type: go-eCharger HOMEfix
Manufacturer: go-e GmbH
Satellitenstraße 1
9560 Feldkirchen in Kärnten
Austria
Serial number: CC1-01-000055
Manufacturing date: 09.2017

Brief description / Function / Components

The device under test is a charging box for electric cars for fixed installation by a professional electrician with at least 2 metres of power supply cable and a maximum power of 22kW (32A 3-phase). The devices are marked with a serial number beginning with CC1- or CM-02-.

Charging box:

Max. power: 11kW, 22kW
Communication interfaces: WIFI, RFID
Frequencies: 13.56MHz (RFID), 2.4GHz (WIFI)

Connection:

Connection on infrastructure side: min. 2 meters power supply cable, 3-phase 230V / 400V
Connection on vehicle side: IEC 62196 Type 2 socket

Signed for and on behalf of:

Feldkirchen in Carinthia

31. 08. 2020

Place and date

Peter Pötzi, CTO go-e GmbH

go-e GmbH

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