# circontrol



# Wallbox eHome Link User Manual

#### COPYRIGHT INFORMATION

This document is copyrighted, 2023 by Circontrol, S.A. All rights are reserved. Circontrol, S.A. reserves the right to make improvements to the products described in this manual at any time without notice.

No part of this manual can be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of the original manufacturer. Information provided in this manual is intended to be accurate and reliable. However, the original manufacturer assumes no responsibility for its use, or for any infringements upon the rights of third parties athat may result from its use.

All other product names or trademarks are properties of their respective owners.



# Here's your guide to use and configure eHome Link

1 — So, hello!	02
2 — Overview	04
3 — Operating Instructions	06
4 — Additional Features	12
5 — Need help?	14



This manual provides information about the usability of the eHome Link, which has been designed and tested to allow electric vehicle charging according to IEC 61851-1:2017.

This manual contains all the necessary information for a safe use.

## THE FOLLOWING SYMBOLS ARE USED FOR IMPORTANT SAFETY INFORMATION IN THIS DOCUMENT



#### **ELECTRIC RISK**

Take precautions to make the electrical connection inside the unit. Unit must be disconnected from any power source during commissioning.



#### **ATTENTION!**

Indicates that the damage to property can occur if appropriate precautions are not taken.

- Complies with IEC 61851, Electric vehicle conductive charging system (IEC 61851-1:2017 and IEC 61851-21-2:2018).
- Complies with IEC 62196, Plugs, socket-outlets, vehicle couplers and vehicle inlets (IEC 62196-1 and IEC 62196-2).
- Directives: 2014/35/UE, LVD;2014/30/UE, EMC.



## So, hello!

#### IMPORTANT SAFETY INSTRUCTIONS



Read carefully all the instructions before starting in order to ensure properly installation of the Charge Point.

The Charge Point is designed for installation in indoor and outdoor areas. For each of the different conditions of installation, the unit shall be installed safely and assuring the adequate protections.

- Charge Point must not be installed in areas where potential risk of explosions are.
- Do not install the Charge Point where falling objects may damage the equipment.
- The Charge Point can be installed in locations with non-restricted access.
- The surface where the Charge Point is placed must withstand the mechanical forces.
- This unit shall not be used for any other purpose than electric vehicle charging modes as specified in IEC 61851.
- Do not modify this unit. If modified, Circontrol will reject all responsibility and the warranty will be void.
- The Charge point does not support the ventilation optional function described in IEC 61851-1:2017 (clause 6.3.2.2).

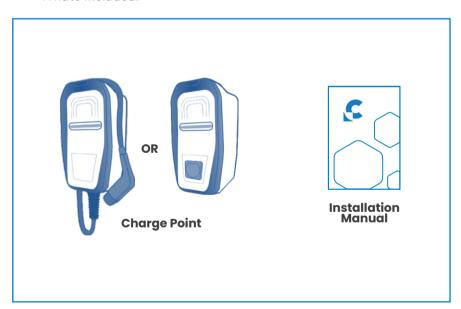
- Do not use any adapter, except those approved by the EV manufacturer.
   Adapter only allowed to eHome Link models with socket-outlet.
- Do not perform any repair or manipulation of the unit while it is energized.
- Only trained and qualified personnel should be able to access to lowvoltage electrical parts inside the unit.
- Check the installation annually by qualified technician.
- Remove from service any item which have a fault that could be dangerous for users (broken plugs, caps that don't close...).
- Use only Circontrol supplied spare parts.
- Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.



#### SHORT DESCRIPTION

WB eHome Link is specially designed to be easily installed both in outdoor and indoor private car parks, and to be compatible with all the EV models of the market according to European standard IEC 61851-1, by just plugging your car.

#### What's included:



## **Overview**



1 – Circontrol Logo 4 – Cable + connector

2 — Status LED bar 5 — Frame

3 - Front cover 6 - Socket-outlet\*

(\*) Socket-outlet may vary depending on the model





# **Operating Instructions**

## 3.1 Charging procedure

#### 1 - GREEN FIX BAR STATUS

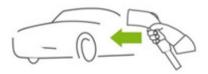
The eHome Link has a status LED beacon. When it is in green color, it means that the unit is available and ready to start the charge.





#### 2 - PLUG

To start a new charge process, plug the connector into your car and in the Charge Point.



#### 3 - BLUE FIX LED STATUS

When the status Led light bar turns blue, it means that the eHome Link is preparing the charge process. This state might happen in a short period of time.





#### 4 - BLUE DYNAMIC BLINKING LED STATUS

The eHome Link starts the charge process. While charging the EV, the LED light bar will be flashing continuously.





#### 5 - BLUE FIX LED STATUS

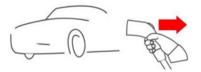
Once the charge process is completed, the status LED light bar stops flashing and remains fixed in blue.





#### 6 - UNPLUG

At this moment you can unplug the vehicle connector from the car and from the Charge Point if it is necessary.



#### 7 - GREEN FIX LED STATUS

Once the cable is disconnected, the LED light status bar turns back into green. In this status, the Charge Point is available to start a new charge process, whenever it is required.







### 3.2 Status LED light errors

The eHome Link is capable of detecting the following operating errors:

- Disabled Socket-outlet
- D state Error
- F state Frror
- Proximity Error
- Negative PWM voltage Error
- RCD Error
- Maximum selected output current Error
- Welded Contact Error
- Temperature Error

Whatever the error case is, the Charge Point will stop charging and technical assistance will be required, except from the temperature error. In this last case, the Charge Point starts charging when the operating temperature is reached again.

In the following sections it will be explained how the eHome Link indicates the above mentioned errors and the actions taken by the Charge Point.

#### 1 - DISABLED SOCKET-OUTLET

This means that the socket-outlet is disabled, so the charging procedure cannot start. If this is the case, the status LED light would turn into red.





#### 2 - D STATE ERROR

In some old EVs, this state means that there are some gases coming out from the batteries. So, an external ventilation in the car park might be required. If it were the case, the status LED light would turn into red and keep blinking permanently.





#### 3 — E STATE ERROR

This means that there has occurred a communication error between the EV and the Charge Point. If this is the case, the status LED light bar turns into red and flashes in a sequence of two blinks.





#### 4 - PROXIMITY ERROR

When the Charge Point is connected to the EV, a Proximity short-circuit to earth may occur. Then, the status LED light bar turns into red and flashes in a sequence of three blinks.

3 Blink Sequence



#### 5 - NEGATIVE PWM VOLTAGE ERROR

When the Charge Point is connected to the EV, the PWM signal, used to communicate the Charge Point with the EV, can be negative. Then, the status LED light bar turns into red and flashes in a sequence of four blinks.





#### 6 - RCD ERROR

The electric protections of the unit are tripped. In this case the status LED light bar turns into red and flashes in a sequence of five blinks. To solve this error, the user must disconnect the connector from the Charge Point, and connect it back again to reset the RCD.

5 Blink Sequence



#### 7 - MAXIMUM SELECTED OUTPUT CURRENT ERROR

If this on-board current limit selection is not set up according to the hardware features, the Charge Point detects it and shows this error. In this case, the status LED light bar turns into red and flashes in a sequence of six blinks.





#### 8 - WELDED CONTACT



An internal short circuit has been detected. In this case, the status led light bar turns red and flashes in a sequence of seven blinks.





#### 9 — TEMPERATURE ERROR

When the Charge Point temperature is above a certain value, it is detected by the Charge Point. In this situation, the status LED light bar turns into yellow blinking. If this is the case, the Charge Point will not be operating, temperature is too high to charge, so you will have to wait until the operating temperature is reached. Then the Charge Point starts charging again.







## **Additional Features**

This unit will be eqquiped with an overvoltage protection device, a meter reconnection function and an integrated RCD Type A 30 mA + DC 6 mA leakage detector.

#### OVERVOLTAGE

This device is an electronic line overvoltage protection to protect the EV.

The grid supply input will be monitored to detect possible overvoltage that may surpass a safety limit of 260 V, in that case the charge will be stopped to protect the user's vehicle.

If this protection actuates the eHome Link will be disconnected, and it will reconnect automatically once the voltage safe value of 247 V is reached.

#### RCD TYPE A 30 mA + DC 6 mA LEAKAGE DETECTOR

This protective function detects leakage current in order to prevent any electric hazards.

This function has a test button for verification.

#### **GRID METER RECONNECTION FUNCTION**

In the event of the company meter trips out, the eHome Link has an automatic reset function, so it is not necessary for the user to take any action to enable the reset.





# Need help?

In case of any query or if further information is required, please contact our **Post-Sales Department**.



support@circontrol.com



circontrol.com



(+34) 937 362 940



(+34) 937 362 941

# circontrol

CIRCONTROL
WALLBOX eHOME LINK
USER MANUAL

A comprehensive guide on how to use and configure your Wallbox eHome Link.

vl.2 - 10<sup>th</sup> June 2023

