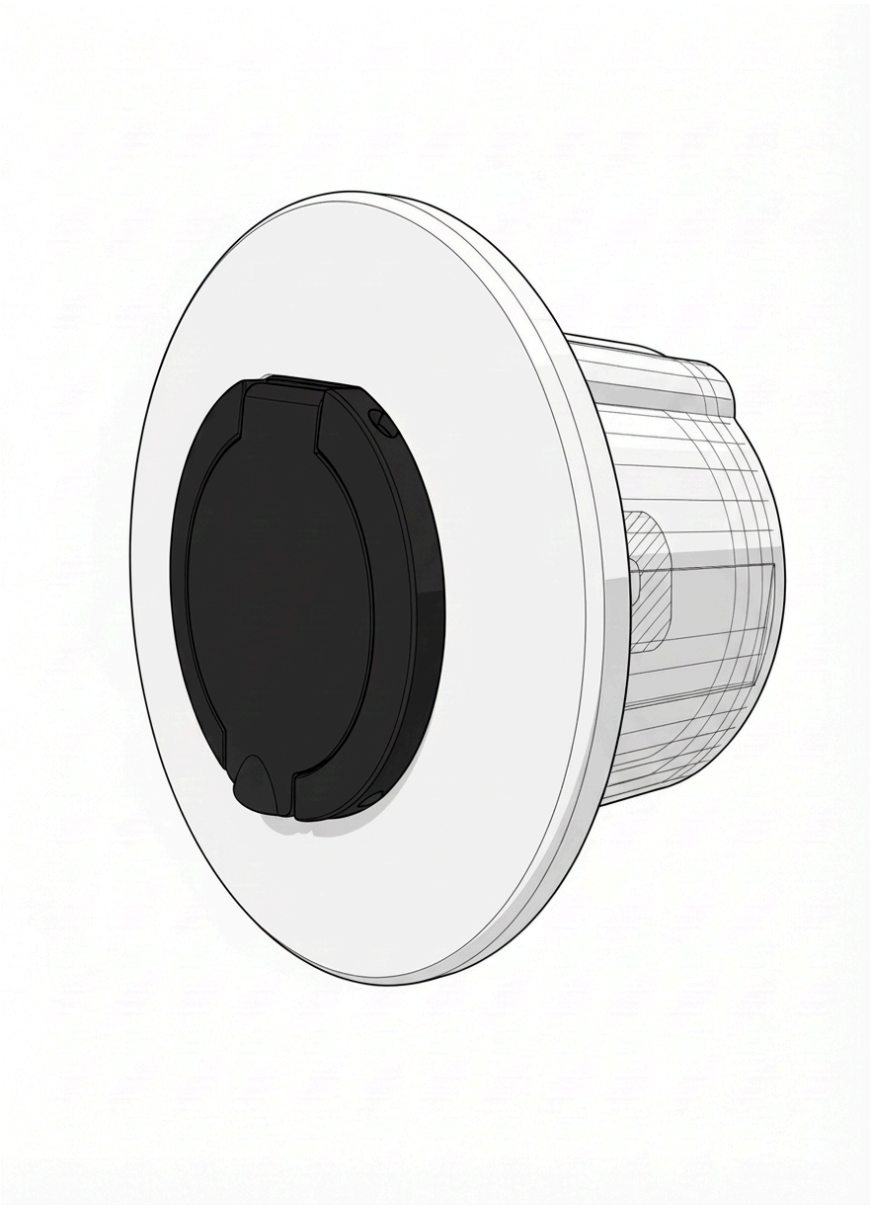
INSTALLATION MANUAL

BOX FOR TYPE 2 SOCKET FOR CHARGING ELECTRIC VEHICLES



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1. INTRODUCTION

The purpose of this document is to provide clear and detailed instructions for installing an IN-WALL installation box for Type 2 sockets for charging electric vehicles. This manual is intended for electricians and installation technicians on how to correctly and safely install the installation box in the wall and prepare it for connecting a Type 2 socket.

Package contents:

- Assembly instructions
- Rear part of the box with membrane cable glands
- Front of the box (cover) with seals and opening for a Type 2 socket
- Decorative front cover (standard white color)
- Accessories:
- 2 x masonry plugs 8 x 50 mm
- 2 x 5 x 50 mm pan head screw (Torx)
- 4 x screws for attaching the cover to the back of the box
- Type 2 socket *

* This is an optional accessory. Check with your supplier whether the socket is included or needs to be purchased separately.

2. LIST OF REQUIRED MATERIALS AND TOOLS

2.1. Required tools:

Drill bit diameter min. 140 mm, Phillips screwdriver, Torx screwdriver, wall or concrete drill bit for dowels, snap-off knife

2.2. Material:

Mounting foam, protective masking tape

2.3. Installation box:

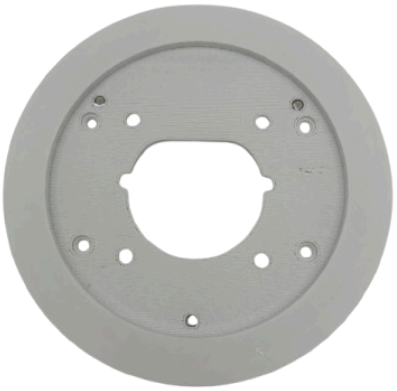
The installation box is made by 3D printing from PC/ABS printing material. It contains a mixture of special additives with flame retardant (meets the UL94 V0 safety standard). This material is certified and, thanks to the content of retardants, is self-extinguishing. The electrical installation box is equipped with sealed membrane entries.

The box consists of 3 separate parts:

1. rear part - installation in the wall (facade)
2. front cover with seal (Type 2 socket is attached to the cover)
3. cover for connecting screws (design part)

1.Back of the box (front view, back view)

2.Front cover with gasket (front view, rear view)



3.Designed cover for connecting screws (front view, without socket and with Type 2 socket)

2.4. Socket Type 2:

!!! Warning!!! The box is designed for a standardized socket marked Type 2 socket from common manufacturers. It is not compatible, for example, with sockets from Phoenix Contact, Scame. We recommend ordering the socket together with the box from the same supplier.

Attach the Type 2 socket to the front cover (lid) of the box using a No. 8 wrench. Tighten the 4 nuts. A seal is required on both sides, which is supplied with the socket.

2.5. Electrical installation material:

1 x power cable with a maximum cross-section of 5 x 6 mm2

1 x communication wire for CP (Control Pilot) sockets

1 x communication wire for PP (Proximity Pilot) sockets

2.6. Lock (LOCK)

If the socket is equipped with a mechanism for locking the connector in the socket (protection against cable theft during charging), 3 wires are needed to connect the socket lock to the charging station. Connect the lower terminals of the charging station to:

SAY= green wire**LCK1**= red wire **LCK2**= black wire

Picture of DIN rail charging station (connecting socket lock)

2.7. LED status indication (RGB)

If the socket is equipped with LED lighting (RGB), 5 wires are needed to connect to the charging station. Connect the upper terminals of the charging station to:

LED - **+12V**= red wire
GND= green-white wire
Red= pink wire
Blue= purple wire
Green= green wire

Picture of DIN rail charging station (RGB LED socket connection)

!!! Warning !!! For the LED display to function properly, it is necessary that the wires are connected to the same connectors on the charging station side (Universal DIN EVSE).

3. INSTALLATION SITE PREPARATION

3.1. Choosing a suitable location

Correct placement of the installation box is key to safe and convenient access to the charging socket.

• The recommended mounting height of the socket is between 0.8 - 1.2 m from the ground to ensure easy access. In public areas, it is advisable to choose a height of approximately 1.0 - 1.2 m to ensure easy access for people with reduced mobility.

• The socket should be easily accessible from the vehicle's parking space.

• It is necessary to ensure sufficient space for handling the charging cable.

• The location of the socket must not present an obstacle.

• If the box is installed outdoors, it should be protected from rain, snow and direct sunlight. Installation under a shelter or in a protected area is recommended.

·A short and direct cabling route to the switchboard is recommended.

• In public spaces, local building and safety regulations must be respected.

3.2. Preparation of electrical installation

• Recommended power cable: CYKY-J 5×6 mm² (or according to power and line length requirements).

• For longer lines, it is necessary to recalculate the cable cross-section according to the voltage drop.

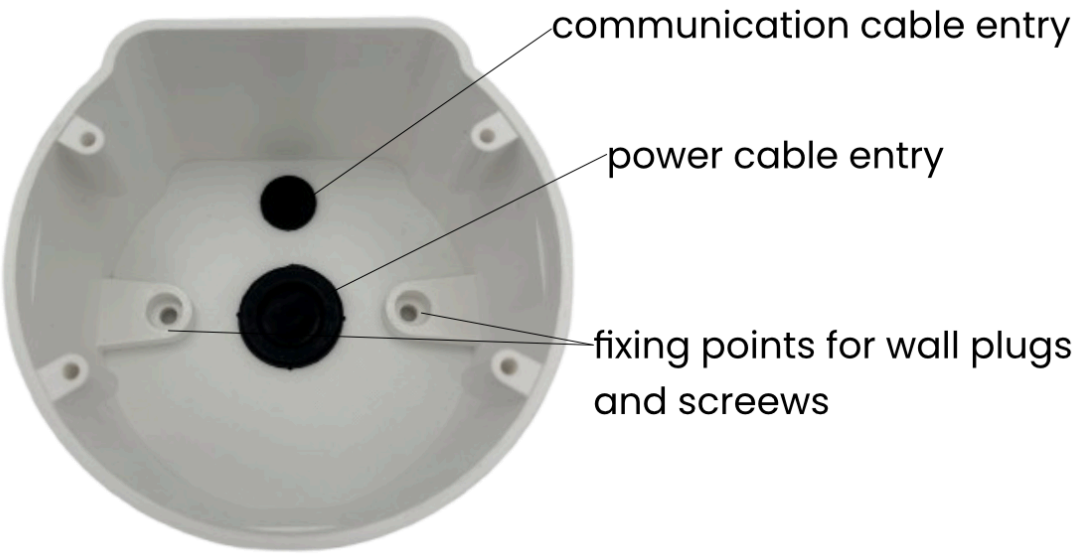
• Recommended protection: three-phase circuit breaker 32 A (or according to the possibilities of the given installation). Type B or A-EV residual current device (if not part of the charging station).

!!! Warning !!! If you install an Inchanet Universal DIN EVSE charging station, this station has an integrated residual current device Type A-EV (30mA AC, 6mA DC) !!!

4. INSTALLATION BOX ASSEMBLY

4.1. Cutting a hole in the wall

• The Type 2 socket box is designed for installation in a wall (facade). For this location, it is recommended to prepare a mounting hole with a diameter of at least 140 mm (e.g. a core drill with a diameter of 142 mm). The depth of the hole is 90 mm.



!!! Recommendation !!! Check the depth of the hole for the box by inserting the box into the already drilled hole to ensure tightness with the facade after installation.

4.2. Fixing the box to the wall (screws, dowels, mounting foam)

1. Measure the height for the socket opening to allow for easy plugging and unplugging of the Type 2 connector in future installations.
2. Using a core drill, drill a hole with a diameter of at least 140 mm. The recommended depth of the hole is 90 mm. If the depth is smaller, the fit with the final facade will not be guaranteed.
3. After you have finished digging the hole, level the surface.
4. Prepare a hole in the masonry for power wiring (socket) and for communication wiring (socket lock, LED socket lighting).
5. Insert the back of the socket box (part no. 1) into the drilled hole. The horizontal top of the box must be on the top of the hole. Align the box so that it is flush with the wall (facade). Then insert a tool into the 2 screw holes to mark the locations for drilling the holes for anchoring the box to the wall.
6. Drill 2 holes with a diameter of M6 and insert the dowels (included in the package).
7. Prepare the back of the box (part no. 1). There are rubber grommets at the bottom. Use a knife to cut through the grommets and thread the prepared power and communication cables into the installation box. Mark the wires so that you connect them to the correct terminals on the charging station side.
8. Screw the box to the wall using screws (screws included).
9. Fill the space between the brickwork and the box with mounting foam.

4.3. Inserting the wiring into the box

1. Now prepare the front part of the Type 2 drawer box (part no. 2).
2. Connect the wires to the back of the socket L1, L2, L3, N, PE and the communication wires CP and PP. Screw connections.
3. If you have a version of the socket with LED status indication, connect the wires according to Chapter 2, point 2.7. above. The LEDs will display the charging station status according to (see the charging station installation manual).
4. If you want to connect a lock to the socket, connect the wires according to Chapter 2, point 2.6. above.
5. Using 4 screws, screw the front of the Type 2 socket box to the back of the wall box. The outer white seal should be flush with the wall/facade.
6. Now place the design cover on the front part with the drawer. Double-sided adhesive tape will ensure strength.

5. TYPE 2 SOCKET INSTALLATION

Picture of DIN rail charging station (RGB LED socket connection)

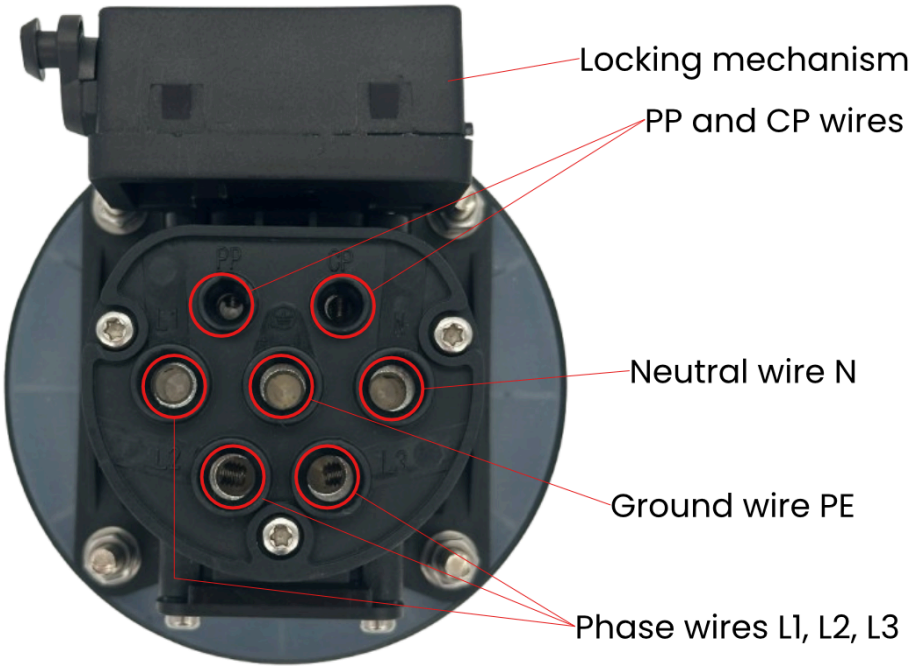
• Connect the power wires of the Type 2 socket marked L1, L2, L3, N and PE to the terminals on the top of the charging station, marked as OUT output as shown in the picture (L1, L2, L3, N, PE)

• Connect the communication wires of the Type 2 socket marked CP, PP to the terminals on the top of the charging station, marked CP, PP.

!!! Warning !!! If you do not want to connect the socket lock or it is not included in the package, do not connect the PP wire to the terminals on the charging station. If this were to happen, the charging station status would be displayed as a lock error - 7x red flashes.

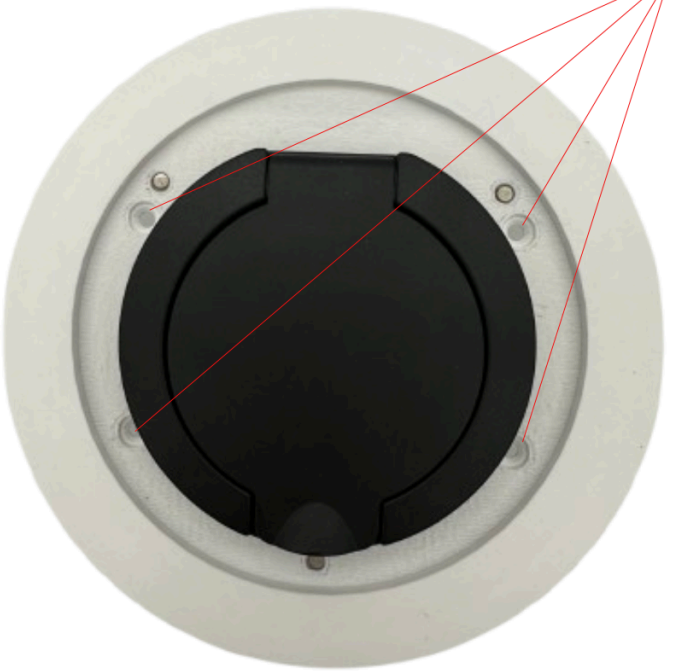
Wire connection Type 2 socket

Picture of Type 2 socket - wire connection (rear side)



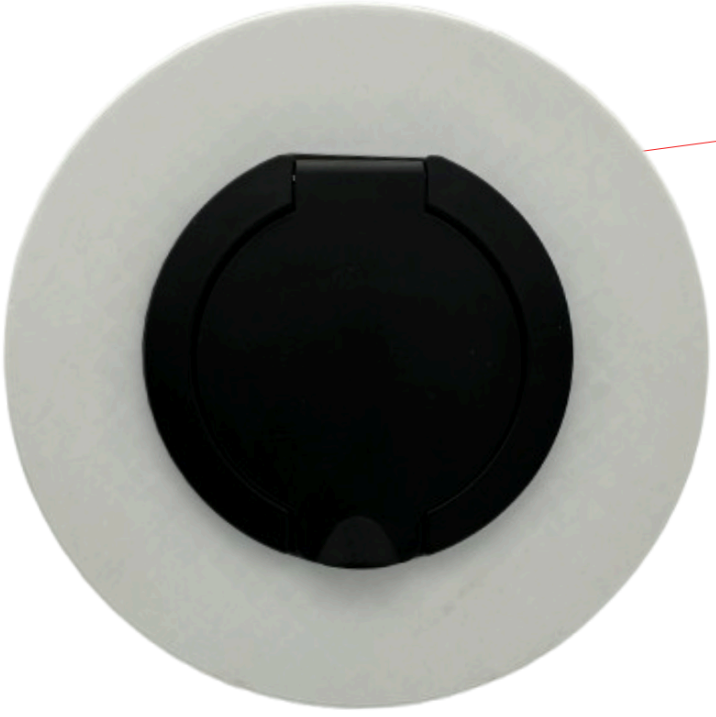
Covering and finishing touches

Picture of the front cover of a Type 2 socket box



using four screws, fasten the front cover with the socket to the rear part of the enclosure

Image of the design cover



Now install the front cover. First remove the adhesive tape from the rear side of the cover.

6. MAINTENANCE AND SAFETY INSTRUCTIONS

The charger must only be installed, maintained and serviced by a qualified electrician in accordance with applicable local regulations. Unauthorized installation and modifications will void the manufacturer's warranty. Do not use the station if the cover or connector is broken, cracked or shows signs of damage. Contact your distributor. Do not touch the charging cable if the connector is smoking or starting to melt. If possible, stop charging. Before opening the cover or cleaning, turn off the charger at the circuit breaker. Do not use cleaning solvents on any part of the charger. Use a clean, dry cloth to remove dust and dirt. Do not open the cover in the rain. Use the charger within the operating parameters and normal ambient conditions specified in the General and Electrical Specifications. It is not recommended to install the charger in a location exposed to direct sunlight or extreme weather conditions.

Simplified EU Declaration of Conformity: MIS3K Innovations hereby declares that the IN-WALL device is in compliance with Directives 2014/53/EU, 2014/30/EU and 2014/35/EU. The full text of the EU Declaration of Conformity is available at the following internet address: https://www.mis3k.com/contact.

Safety Recommendations: Carefully follow all safety and installation instructions. Failure to follow the instructions may pose a safety hazard or cause equipment failure. Any consequential damage caused by failure to follow the instructions or by interventions that are contrary to the instructions in this manual will not be covered by the product warranty.

Connector recommendations and installation instructions: Do not use if the charging cable is frayed, has broken insulation or any signs of damage, or if the vehicle plug and electrical outlet are dirty, wet or visibly damaged. Do not use the charging cable with a cable adapter or extension cable. Do not pull on the charging cable under any circumstances when it is connected.

Disposal instructions: In accordance with Directive 2012/19/EC, the product should not be disposed of as municipal waste at the end of its useful life. It should be taken to a collection point or distributor that ensures the disposal of special and sorted waste.

Procedure in case of equipment failure:

If you detect a defect, abnormal behavior, or device malfunction, follow these steps:

- **Ensuring safety:**If the situation allows, immediately turn off the relevant circuit breakers in the house switchboard that are reserved for this device. This will prevent any further damage to the electrical installation.
- **Report a bug:**Contact your installer or the contact person of the company that installed the device. When reporting a fault, please state the type of device and a brief description of the fault (e.g. error code on the display or colour of the indicator light).
- **Expert assessment:**A service technician will then arrive at the installation site to perform diagnostics and assess the technical condition of the device.
- **Complaints procedure:**In the event that a manufacturing defect or a component defect is diagnosed, the installation company will handle all administration and initiate the claim process with the local distributor or directly with the equipment manufacturer.

Warning: Do not tamper with the device or attempt to repair it yourself, as this may void the warranty or cause an electric shock.

Limited Warranty:

MIS3K Innovations warrants the product to be free from defects in materials and workmanship for a period of 3 years from the date of purchase. During this period, MIS3K Innovations will, at its option, repair or replace any defective product free of charge to the owner. Replacement products or repaired parts will be warranted only for the unexpired period of the original warranty or for six months, whichever is longer. Defects caused by any accident, misuse, improper maintenance or normal wear and tear are not covered by the limited warranty. Customer replacement or incorporation of any part will be considered misuse. Except as permitted by applicable law, the terms of this limited warranty do not exclude, restrict or modify the mandatory statutory rights you have after purchasing the product, but are in addition to them. If you believe your product is defective, please contact MIS3K Innovations for instructions on where to send or bring it for repair.

Legal Notice: Any information in this manual is subject to change without notice and does not constitute a commitment on the part of the manufacturer. The images in this manual are for illustration purposes only and may differ from the product supplied. Install the charger in a well-ventilated area. Do not install the charger in direct sunlight or near flammable, explosive or combustible materials, chemicals or solvents, gas pipes or steam outlets, radiators or batteries, and in areas subject to flooding, high humidity and running water.

Electrical protection: The power supply must be connected to the existing installation and must comply with local regulations.

Main features of the Type 2 socket:

- Rated voltage 250V / 440V AC
- Rated current 10A / 16A / 32A
- Test voltage 2500V, leakage current ＜5mA
- Insulation resistance 500MΩ, measured at 500V DC voltage
- Contact resistance ≤3mΩ
- Working frequency 50Hz
- Degree of protection IP54 (IP44 when connected)
- Operating temperature -25°C to +50°C
- Charging type IEC 62196-2, IEC 61851-1
- Status display** Signaling using RGB LED diodes
- Power modes AC charging (Mode 2 and Mode 3)
- Maximum current carrying capacity up to 32 A (three-phase)
- Voltage up to 400 V
- Security lock*** prevents the cable from being disconnected during charging
- Warranty 2 years

** Depends on the Type 2 socket version. Comes standard without RGB LED

*** The drawer safety lock may not be included as standard equipment.

If you have any questions or recommendations, please contact us at: info@mis3k.com.

Image of a charging station with DIN rail installation