

Eiffel Plus: Digital Installation Guide

support.wallbox.com/en/knowledge-base/eiffel-plus-dig

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1. Technical Specifications

General Specifications

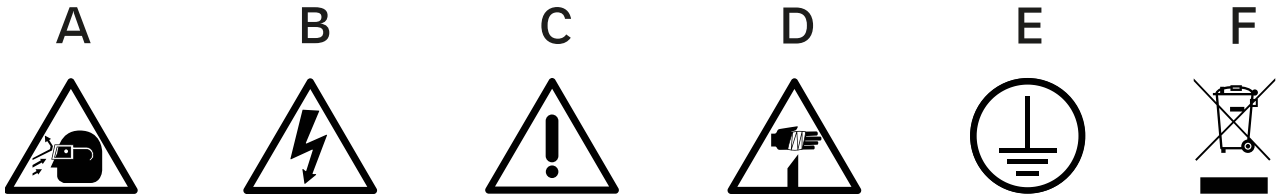
Model	Eiffel Plus Copper SB 22kW
General dimensions	585x1303x240 mm
Weight	40 Kg
Charging mode	Mode 3 (IEC 61851-1)
Protection index	IK 10
Protection IP	IP54 electrical panel and charger
Material of the structure	Galvanized steel

Compliant with UK regulations on smart charging

Electrical Specifications

Model	Eiffel Plus S	Eiffel Plus	Eiffel Plus France
Power supply	3P + N + G	3P + N + G	3P + N + G
Rated Voltage AC ± 10 %	400 V/230 V	400 V/230 V	400 V/230 V
Rated frequency	50 Hz /60 Hz	50 Hz /60 Hz	50 Hz /60 Hz
Surge category	CAT III	CAT III	CAT III
Connector type	Type 2 shutter	Type 2 shutter	Type 2 shutter
Power measurement	Energy meter (MID certified)	Energy meter (MID certified)	Energy meter (MID certified)

2. Safety Instructions



- Flying debris, risk of eye injury
- Risk of electric shock.
Disconnect and wait 10 mins
- Caution
- Sharp element, risk of injurious cuts
- Ground earth connection required
- Special waste treatment

3. Notes

- Install Eiffel Plus in a private or semi-private site with roofing. Not respecting this condition will void the warranty.
- Keep in mind that two or more operators are necessary for the installation.

Ensure that the mounting surface can adequately support the weight of the pedestal and withstand mechanical forces associated with the charger's usage.

The customer must provide appropriate anti-collision protection when mounting the Eiffel pedestal in parking spaces.

The concrete foundation's calculation, design, and manufacture lie in the scope of responsibility of the site's producer.

The installation requires a horizontal, leveled foundation.

The base must allow the accumulated water runoff.

Do not mount the pedestal on asphalt. The stability of the pedestal is not guaranteed on this kind of surface. Wallbox recommends mounting the Eiffel Plus pedestal on a concrete foundation.

Install the pedestal in a sufficiently ventilated area. Do not install it in direct sunlight.

Do not install your Wallbox pedestal near:

- Flammable, explosive, or combustible materials.
- Chemicals or solvents.
- Heat emitters such as radiators or batteries.
- Areas that are prone to flooding, high humidity, and running water.

4. Tools and Mounting parts

This pedestal is designed to install two Copper SB chargers included in the pack.

Required Tools

- Hammer
- Electric Drill // Ø12 mm bits
- Pencil
- Screwdriver Phillips
- Cutting pliers
- Screwdriver Torx T15, T20 & T25
- Cabling tools
- Measuring tape
- Utility knife
- Spirit level
- Socket spanner // Socket sizes: 8 & 19mm
- Chisel
- Dynamometric wrench

Included Mounting Parts

- Bolt anchor x4
- Nuts x4
- Washers x4
- Screws M5x20 x8
- Cable Gland x3
- Grommet x2
- Cable protector x2

Check the [Copper SB Installation Guide](#) for more information on the tools and mounting parts.

5. Product overview and installation requirements

During the installation, ensure to leave a minimum distance from possible objects around it to allow the door to open and facilitate possible maintenance operations. The image below shows the recommended minimum distance needed to perform the installation.

There are two different options when installing Eiffel Plus: using an underground power supply cable and a ground-level power supply cable.

6. Installation with the underground power supply cable

Mounting the base

Build a concrete foundation with an empty conduit and lay all the cables in the foundation's center.

Ensure the cables have the appropriate excess length for the remaining installation.

The distance between the pedestal base and the electrical panel is 0.3 meters. To have the needed cable length provide at least 0.6 meters for the power cables and up to 1 meter for communication cables.

Drilling

Place it on the top of the foundation, pass the power supply cable through the center hole, and mark the positions of the four boreholes on the concrete foundation.

Remove the drilling template and drill four holes. The drill bits for the anchor bolts should be Ø 12 mm.

Remove the nuts and washers from the anchor bolts. Insert the anchors in the drilled holes, ensuring they are leveled and at least 40mm above the top of the foundation.

Mounting the pedestal

Carefully remove the pedestal from the packaging. If using a utility knife, make sure not to scratch it. Use the key to open the door; the same key opens both locks. Place the pedestal over the four anchor screws and pass the power supply cable through the center hole in the pedestal's base.

Place the washers and the nuts over the anchor screws and tighten the screws with the socket spanner extension. Tighten the anchor screws up to 34 Nm for masonry and 54 Nm for concrete. Then, connect the power supply cable to the fusebox.

Install the charger following the Installation Guide. Remember to check the special considerations explained in the following chapter.


7. Installation with the ground-level power supply cable

The power supply cable may be preserved and placed along the wall/floor.

Mounting the base

Build a concrete foundation with an empty conduit and lay all the cables in the foundation's center.

The distance between the pedestal base and the electrical panel is 0.3 meters. To have the needed cable length, provide at least 0.6 meters for the power cables and up to 1 meter for communication cables.

 Before proceeding with the installation, remove the top cover and save the screws for later use.

Drilling

Find the drilling template at www.supportwallbox.com. Place it on the top of the foundation and mark the positions of the four boreholes on the concrete foundation.

Remove the drilling template and drill four holes. The drill bits for the anchor bolts should be Ø 12 mm.

Remove the nuts and washers from the anchor bolts. Insert the anchors in the drilled holes, ensuring they are leveled and at least 40mm above the top of the foundation.

Mounting the pedestal

Carefully remove the pedestal from the packaging. If using a utility knife, make sure not to scratch it. Use the key to open the door; the same key opens both locks. Place the pedestal over the four anchor screws.

Place the washers and the nuts over the anchor screws and tighten the screws with the socket spanner extension. Tighten the anchor screws up to 34 Nm for masonry and 54 Nm for concrete.

Find the three pre-die-cut holes in the back of the pedestal and knock them out. Then, pass one cable gland through the hole and fix it to the pedestal with a nut. Connect the cable to the fuse box.

Install the charger following the Installation Guide. Remember to check the special considerations explained in the following chapter.

8. Installing Copper SB

Before installing the charger

Check that the earthing cable is connected.

Two output tubes are placed on the fuse box. The thicker one (power cables) goes into the upper hole on the left side of the pedestal. The other (communication cables) goes through the smaller hole under the other.

Once the cables are identified, remove the nut from the main tube.

Installing the charger

Make sure to fix the cable protector inside the pedestal with the respective washers and nuts.

Fix the grommet, then pass the communication tube through the respective hole. Ensure to leave 10 cm of cable from the pedestal.

Remove the knock-out on the back of the charger.

Pass the main tube through the rear hole. Then, fix it with the nut. Pass the communication tube through the charger's lower hole.

Electrical Wiring

Connect cables and connector points, ensuring that each cable is connected to the corresponding phase line:

Black wire	L1
Brown wire	L2
Grey wire	L3
Blue wire	Neutral
Green&Yellow	PE


Communication Cables

Use the following diagram to fix the Power Boost and Power Sharing cables.

Green Cable	CAN L
Green/White Cable	CAN H
Orange/White Cable	12V
Blue/White Cable	GND
Orange	D+
Blue	D-

Ethernet Connection

Remove the knock-out next to the power supply input and insert a rubber plug. Then, make an incision in the rubber plug and insert the ethernet cable without the RJ45 connector.

-  Watch the excess cable inside the charger and ensure that the cable is not too tight but has some slack to facilitate later reopening the cover for maintenance or servicing.

Crimp the RJ45 connector to the cable and connect the cable to the ethernet port on the charger.

Main Electrical Connection

Install the primary electrical input through the main cable below the electrical panel. Once inserted, fix the wires to the upper part of the main disconnect or main MCB (depending on each Eiffel Plus model).

9. Power Boost, Power Sharing, and Dynamic Power Sharing

Power Boost and Power Sharing connections are made directly on the electrical panel provided and not on the chargers.

Power Boost & MID meter

In correspondence with the Power Boost quick connector, you will find each MID meter already prewired, so no further action is needed.

If you need to add a Power Boost meter, wire it to the marked connections, depending on the position of the main charger.

To configure the MID meter, follow the respective [installation guide](#).

To configure the Power Boost, follow the [EMS installation guide](#).

Power Sharing

Power Sharing is configured by default.

Current selector

Position the current selector to the appropriate setting according to the electrical installation.

Positions 0, 8, and 9 are reserved for Power Sharing.

Refer to the [EMS Installation Guide](#) for more information on configuring Power Boost or Power Sharing.

10. Ethernet Connection

Three available RJ45/ethernet ports can be used:

- 1 x 3G/4G router connection
- 1 x input of daisy chain connection
- 1 x output of daisy chain connection


Use the below connections of the panel to pass the Ethernet cables to the electrical panel.

Remove the caps and install the provided glands.

11. Teltonika Router

What's included

- TRB140 Router
- DIN support
- Compact Antenna
- Ethernet cable
- USB configuration cable
- Power supply

 The customer should provide the SIM.

Physical Installation

1. Unscrew two back panel hex bolts and remove the rear panel.
2. Insert your SIM card into the SIM socket.
3. Attach the panel and tighten the hex bolts.
4. Attach the mobile antenna (max torque 0.4 Nm/ 3.5 lbs in) and connect the USB cable.

5. Attach the compact antenna to the router.

6. Fit the DIN rail support

Software Configuration

It is recommended to perform the following configuration before installing the router on the pedestal.

- Ensure the power cable and antenna are plugged into the router.
- Connect the micro USB cable to the Teltonika router and your laptop.
- Insert the following IP in your web browser: <http://192.168.2.1/>
- Log in to the Teltonika system. If it's the first time logging into the system, use the following details: admin / admin01.

Quick Set up

Introduce SIM PIN (if necessary). Enable RMS, and finish SETUP.

FW update

- Update the firmware version to: [TRB1_R_00.07.01.2 \(How to update firmware\)](#).

- Download the latest version at https://wiki.teltonika-networks.com/view/TRB140_Firmware_Downloads.

APN Configuration

If a custom APN is required, go to Network > Interface and edit (pencil) MOB1S1A1

Deactivate the Auto APN feature and set your custom APN.

Rebind Protection

OCPD backends could not be reachable when there is a private APN. To make it accessible, go to Network > DNS and deactivate the “Rebind protection” feature.

Auto reboot

To prevent the router from being disconnected from the internet and not reconnecting, go to services > auto-reboot > reboot scheduler and set a periodical auto-reboot.

Check the status and LEDs

Go to the main view page to double-check that the device has connected correctly through the SIM to the internet.

In the Modem Section, you should see the following:

Backup and restore

To create or restore a backup file, visit `system> Backup` and use the backup and restore configuration tools.

12. Router installation

Fit the router's DIN support on the same DIN rail as the present ethernet switch.

Power it up through the included power supply. Connect it to the available shuko.

Connect the provided ethernet cable between the router and the switch to establish the connection.

13. Install Shucko (France)

A Shuko connector can be installed on the pedestal for the Eiffel Plus version in France. The compatible one is Legrand Green Up Access.

To fix the Schuko to the pedestal, first, you should knock out the pre-die cut hole (remarked in the picture below), then fix the connector's rear frame to the pedestal with four self-tapping screws using the four drills around the knocked-out hole.

To complete the installation, please follow the instructions of the connector itself.

Updated on 20/04/2023

Was this article helpful?

Yes No

