wallbox ™

ENERGY MANAGEMENT SOLUTIONS

Power Boost and Eco-Smart Installation Guide

Version 1.0

North America

Index

POWER METER INSTALLATION

Purpose and Scope of the Document

The purpose and scope of the document is to outline the instructions for the installation of the Eco-Smart and Power Boost Energy Management Solutions.

Getting Started

Important Notes

A. Install the charger following the instructions listed in the chargers' Installation Guide. Refer to the user guide on the Wallbox Academy page for more information.

B. Only use smart meters sold by Wallbox or a Wallbox certified reseller approved for use with Wallbox Energy Management Solutions.

C. Installations should be performed only by qualified personnel in accordance with applicable local regulations.

D. Update the Wallbox charger with the latest software version before installing the smart meter. Refer to the instructions for updating the charger on the Wallbox Academy page.

E. Ensure that the charger is powered off and its cover is removed before connecting the smart meter. Close the charger properly after the installation.

F. After installing the charger, connect the smart meter before closing your charger. If the charger was previously installed, follow the charger installation instructions for opening the charger.

Inside the Package

Energy Meter

Meter Wiring Guide

Getting Started

Compatible Devices

Wallbox Pulsar Plus

Refer to the **Pulsar Plus North America** Installation Guide for a complete list of tools required for installation.

Tools

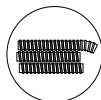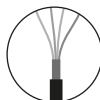| A	B	C	D
Small, flat, Screwdriver	T20 Screwdriver or Bit	Measuring Tape	Multimeter

Materials (not included)

3/4 Conduit Hub

Conduits

Recommended Cable
(STP class 5E up to 1600 ft/ 500 m)

Installation

Preparation

Use the small opening located at the bottom of the charger between the power input and the EV connector cable output.

When using this opening for the communications cabling, first remove the screw plug. Use a wrench to hold the interior lock nut while unscrewing the plug using a flathead screwdriver from the bottom (exterior) side of the plug.
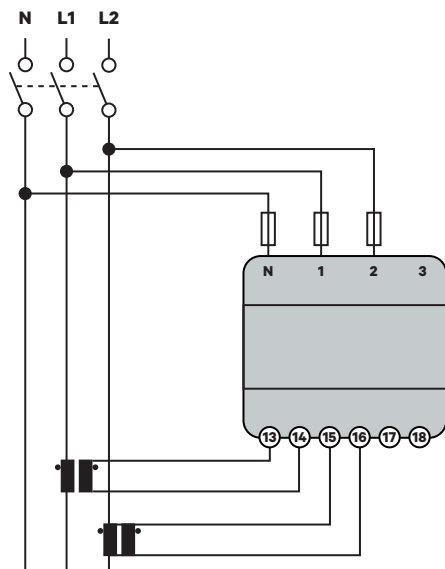
Installation

Wiring the System

This meter is only supported on installations with the following requirements:

- 3 wire installation: 2 hot wires + neutral
- Phase to phase voltage: 208-240 V
- Phase to neutral voltage: 120 V

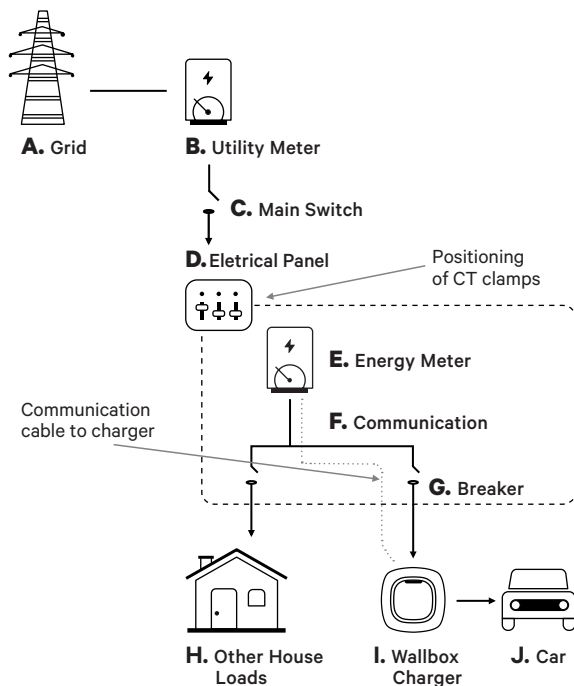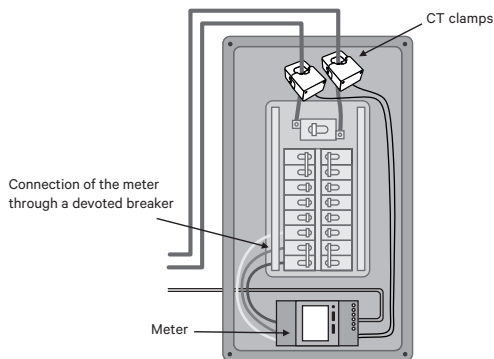Follow the diagram for wiring the system:

Installation

Positioning and General Overview

Follow the scheme below for positioning the CT clamps and the communication cable to charger.

A. Grid   **B.** Utility Meter

C. Main Switch

D. Eletrical Panel

Positioning of CT clamps

E. Energy Meter

Communication cable to charger

F. Communication

G. Breaker

H. Other House Loads   **I.** Wallbox Charger   **J.** Car

Installation

CT clamps

Connection of the meter
through a devoted breaker

Meter

Circuit Protection

The EM530 is considered a continuously connected device, so it requires
an overcurrent protective device against current beyond the acceptable
rating of the equipment.

- Use circuit breakers or fuses rated 20 Amps or less.
- The circuit breaker must protect L1 and L2, all the active phases.
- The circuit protection must comply with local standards.
- In case there is no free space on the panel, the power meter can
  be installed in an external enclosure.

Communication Line

There must be a wired communication line between the meter
and the charger. For this purpose, use STP Class 5E 1600 feet/500
meter Max Length.

1. Ensure that the power is off before proceeding
   with the connection.

Installation

2. In the electrical panel box, locate a space for mounting the meter. If possible, mount the meter inside the panel enclosure (box).
3. Add a protection for the meter in the electric box.
4. Wire the terminals N,1 and 2 from the meter to the neutral and two hot lines from your electrical panel.
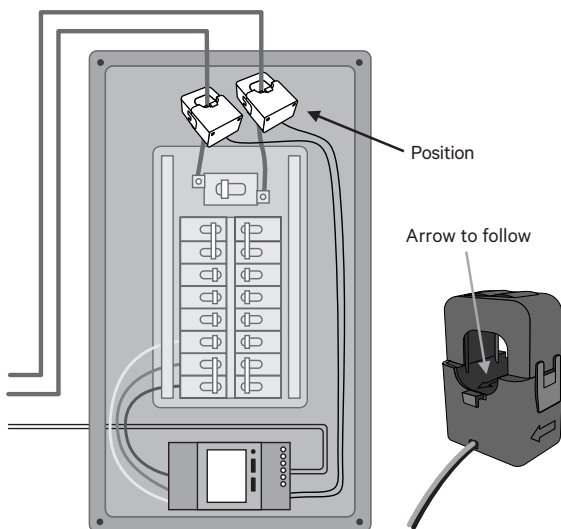
N   L1   L2   ⊘ min: 0.2 mm²/AWG24
max: 2.5mm²/AWG12   ⊕ ≤ 0.45 Nm

N   1   2   3

(13) (14) (15) (16) (17) (18)
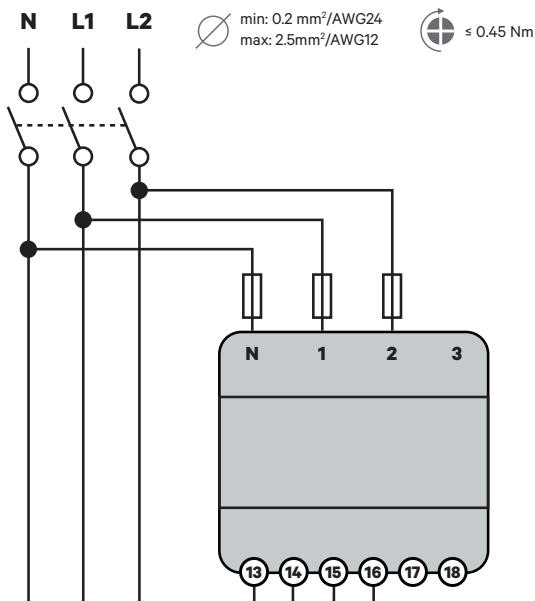
Installation

5. Connect the CT clamps to the incoming "hot" lines as shown.

Important
Follow the internal arrow indicating the current direction when installing the clamps.

Position

Arrow to follow

Installation

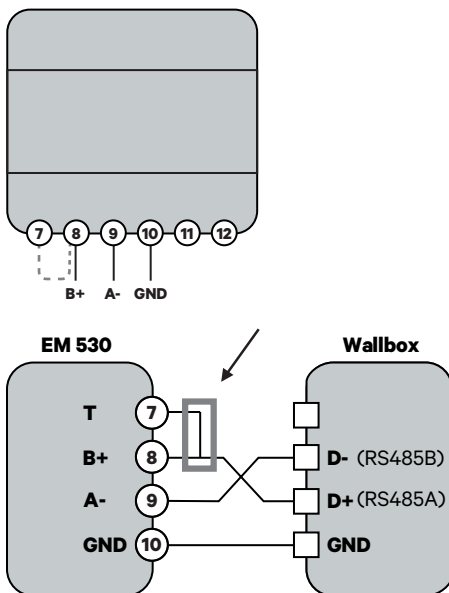6. Wire the CT clamps to the meter using the following connection points:

13- Red wire/CT1
14- Black wire/CT1
15- Red wire/CT2
16-Black wire/CT2
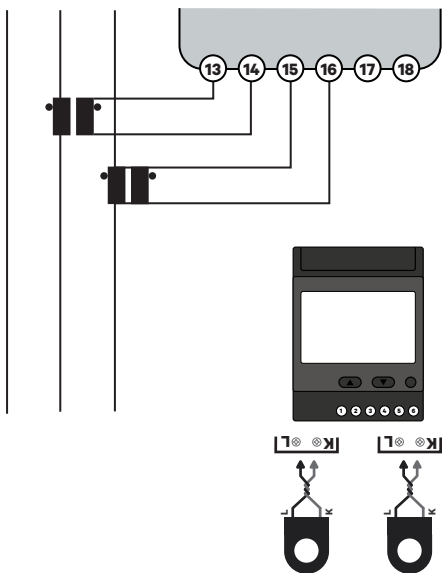
Installation

7. Connect the meter to the charger using an STP Class 5E 1600 feet/500 meter Max Length communication cable. For the communication between charger and meter only three wires are needed. The connection between terminals 7-8 is a loop for activating the end of line resistor of the communication.

Installation

8. Check that everything is connected properly in accordance with the installation manual and local regulations.

9. Proceed with the Software configuration. At this point when the meter is powered up, the screen will show a Quick Setup Menu.
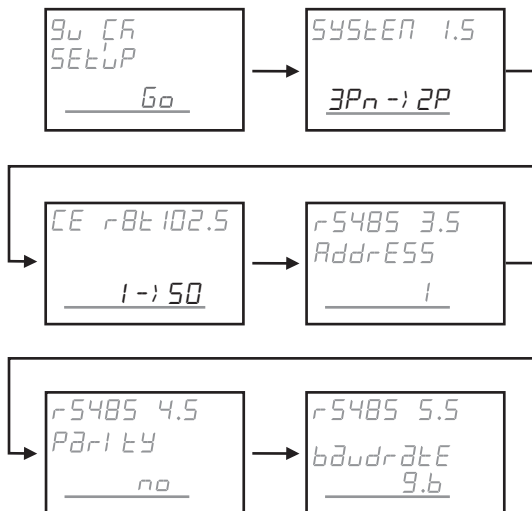
Installation

9.1. Select GO.

9.2. On the Systems screen, scroll down to **2P** and press Enter.

9.3. Continue to the Ct rAt Menu

9.4. Press OK.

9.5. Set the **Ct rAt value up to 50**, so that it matches with the 250 A clamps supplied.

9.6. The meter has been successfully configured.

Installation

Disclaimer

For Eco-Smart installation the following
configuration must also be completed:

1. Press the ENTER button placed
on the meter.
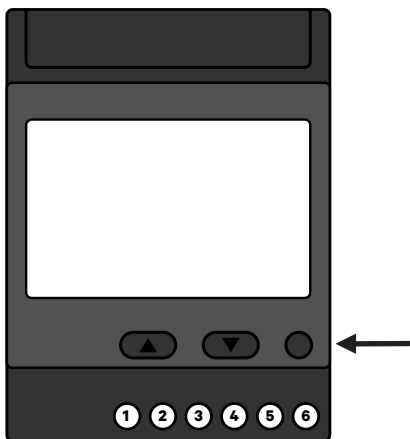
Installation

2. Press the Enter button until you reach the Settings menu.

Installation

3. Using the down arrow button, scroll to "Ct rAt Measure".

Installation

4. Press Enter.

5. Scroll down to b.
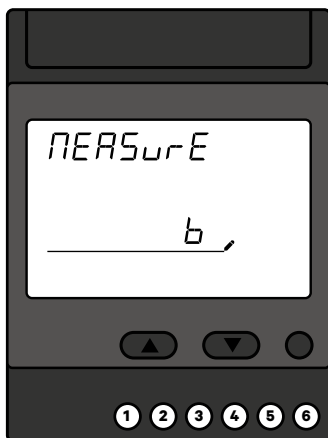
6. Press Enter.
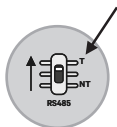
7. Press Enter a second time to save yor settings.
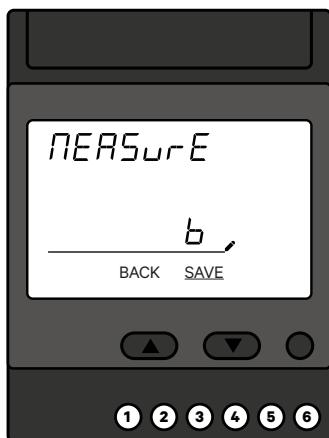
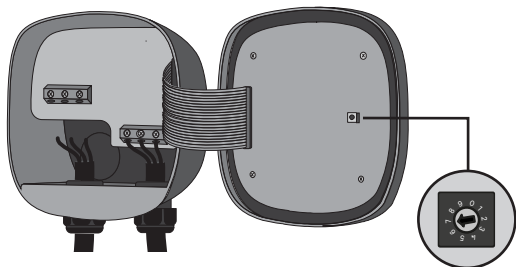**8.** Scroll down to End.

9. Scroll up to Back.

Installation

Activate terminating resistance and configure current selector

1. Set the RS485 switch into position T.

2. Set the rotary switch between 1 and 7, depending on the maximum current available on the connected circuit.

Installation

3. Per national and local regulations only connect your charger to a circuit with a branch circuit overcurrent protection of 125% of the selected max amperage setting of the device.

As per the chart below:

Position	Amps	Circuit Breaker Rating
2	**16A**	**20A**
3	**20A**	**25A**
4	**24A**	**30A**
5	**32A**	**40A**
6	**40A**	**50A**
7	**48A**	**60A**

For this limitation take only into account the wire and breaker installed for the EV charger.

To ensure a safe installation, we recommend working with a licensed installer or electrician. A professional electrician can perform the necessary load calculations to determine the maximum safe installation.

4. Close the cover of the charger following the instructions in the **Installation Guide**.
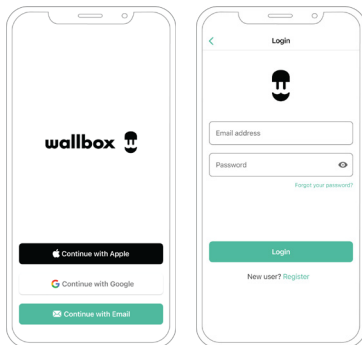
POWER BOOST
Configuration

Enabling Power Boost

Once you have installed your charger and the smart meter,
follow these steps to enable Power Boost:

1. Make sure you have the latest version of the myWallbox app
installed on your mobile device. Also make sure you have the
latest software version installed on your Wallbox charger.

2. Enable Bluetooth on your mobile device and connect to
your charger. During each of the following steps, be sure
to remain within range of your Bluetooth signal
(typically no more than 30 feet).

3. If you have not done so previously, follow the directions
on the app to **create** a new myWallbox account.
Once you have created your account, log into myWallbox
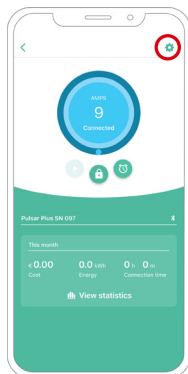using your account username and password.

POWER BOOST
Configuration

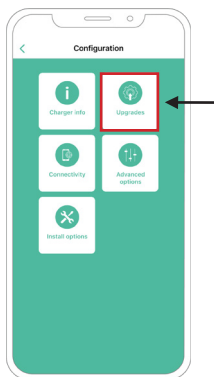**4.** Select the charger on which you want to enable Power Boost.
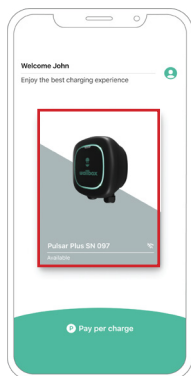
5. The app will synchronize with your charger. Once complete, click the icon in the top right corner of the app screen to go to **Settings**.
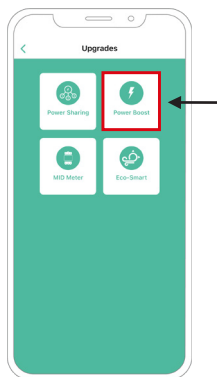
POWER BOOST
Configuration

6. On the Configuration screen, select "**Upgrades**".

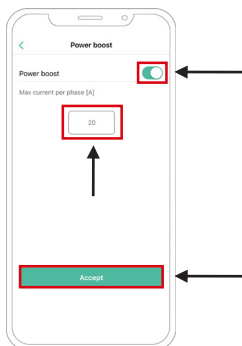**7.** On the Upgrades screen, select "**Power Boost**".

Configuration

8. Introduce the maximum current limitation of your
system/electrical panel.

Important

Only Max Current per phase greater than 6 amps
is accepted for correct performance. In case of
doubt, contact Wallbox Customer Service.

Disclaimer

Be sure to follow all local regulations when setting up Power Boost
and do not enable a higher power rating if otherwise restricted by
local rules. Be sure to consult with a professional installer familiar
with the regulations in your area.
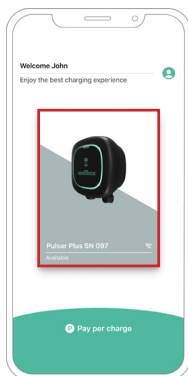
ECO-SMART
Configuration

Enabling Eco-Smart

1. Make sure you have the latest version of the myWallbox app installed on your mobile device. Also make sure you have the latest software version installed on your Wallbox charger.

2. Enable Bluetooth on your mobile device and connect to your charger. During each of the following steps, be sure to remain within range of your Bluetooth signal (typically no more than 30 feet).

3. If you have not done so previously, follow the directions on the app to create a new myWallbox account. Once you have created your account, log into myWallbox using your account username and password.
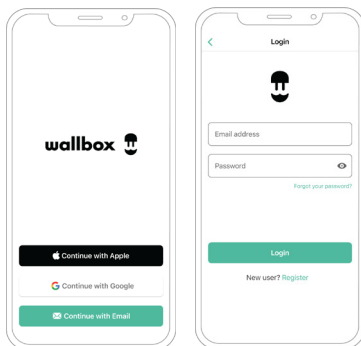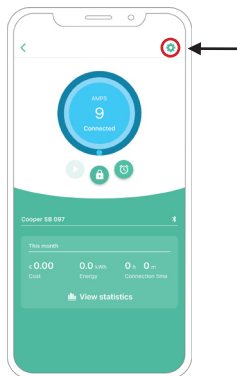
Configuration

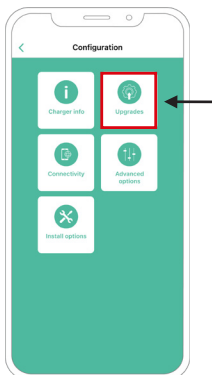**4.** Select the charger on which you want to enable Eco-Smart.

5. The app will synchronize with your charger. Once complete, click the icon in the top right corner of the app screen to go to **Settings**.

ECO-SMART
Configuration

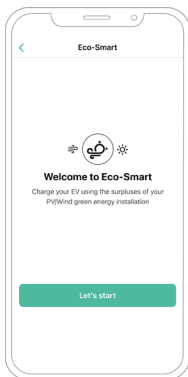**6.** On the Configuration screen, select "**Upgrades**".

7. On the Upgrades screen, select "**Eco-Smart**". **Note:** It is recommended that you activate Power Boost before enabling Eco-Smart. Once you have activated Power Boost, tap the Eco-Smart icon to access its settings.
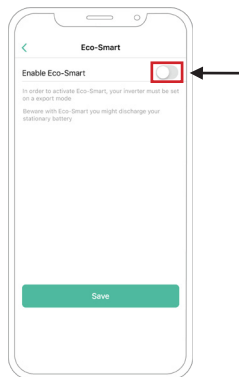
Configuration
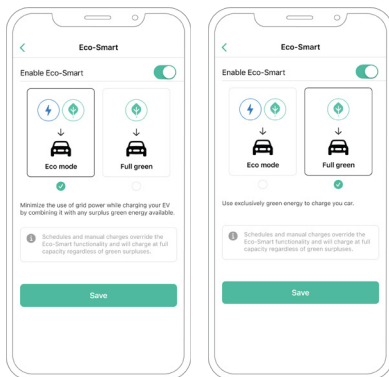
8. Tap **"Let's start"** to start using Eco-Smart.

9. Enable the Eco-Smart feature by switching the button to the **ON** position.

Configuration

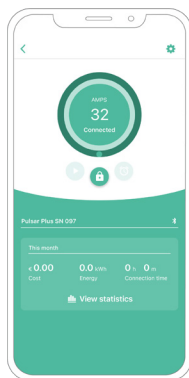**10.** Select your preferred Eco-Smart mode:
Full-Green or Eco Mode.

11. Click "Save". Eco-Smart is now active
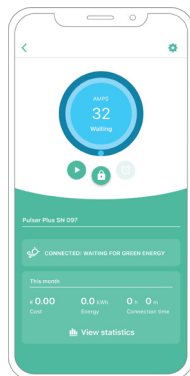with your selected mode.

Configuration

Using Eco-Smart

1. If necessary, unlock your charger.

2. Connect the charging cable to your EV. The LED halo will turn to light blue and the message "CONNECTED. WAITING FOR GREEN ENERGY" will display in the myWallbox app.

Configuration

3. Depending on your selected mode, as the mode conditions are met, charging will start automatically after two minutes. During charging, if there is insufficient surplus green energy available for at least 30 consecutive seconds, charging will pause. Once mode conditions are met again and there is sufficient available green energy, charging will resume.
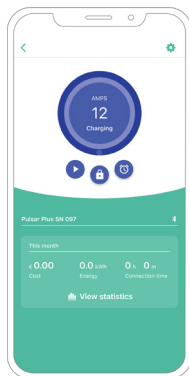
Disclaimer

⚠ Important

- Eco-Smartmight discharge your BESS (Battery Energy System).
- Schedules and manual charges override Eco-Smart functionality.

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