



ENERGY MANAGEMENT SOLUTIONS

# **Power Boost, Eco-Smart & V2H Installation Guide**

Quasar 2 | Version 1

North America

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## POWER METER INSTALLATION

# **Purpose and Scope of the Document**

The purpose of this document is to outline the instructions for the installation of the Energy Management Solutions for Quasar 2.

# POWER METER INSTALLATION

## Getting Started

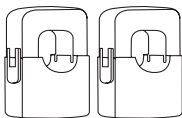
### Important Notes

- A.** Install the charger following the instructions in the Installation Guide.
- 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 charger with the latest software version before installing the smart meter. Refer to the Wallbox Academy page for instructions on updating the charger.
- 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.
- G.** Bear in mind that the the functionality is not evaluated as a Power Control System (PCS)

### Inside the Package



Energy Meter



Clamps (x2)

# POWER METER INSTALLATION

## Getting Started

### Compatible Devices



Wallbox Quasar 2

Refer to the **Quasar 2** Installation Guide for a complete list of tools required for installation.

### Tools

**A**



Small, flat,  
Screwdriver

**B**



T20 Screwdriver  
or Bit

**C**



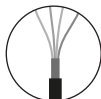
Crimping tool  
RJ11

**D**



Multimeter

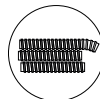
### Materials (not included)



Communication Cable  
STP class 5E for  
outdoor use



RJ11 Connector



Conduits  
Optional

# POWER METER INSTALLATION

## Installation

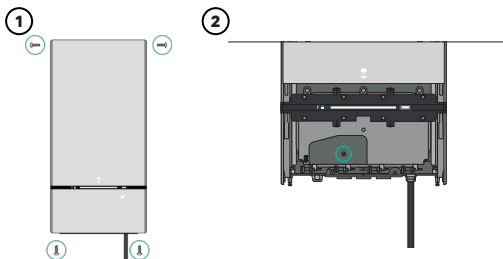
### Preparation

Keep the power turned off during the preparation and installation.

To open the charger follow the instructions in the **Quasar 2 Installation Guide**.

- 1.** Remove the four screws (Torx  $\varnothing 4 \times 12$  mm) from the top cover and the base cover using a Torx T20. Then slide the top cover upwards, without removing it, and slide the base cover downwards to remove it completely.
- 2.** Remove the Torx screw  $\varnothing 3.5 \times 12$  mm from the communications lid. Then slide the lid downwards and remove it from the HMI module.

**CAUTION:** Before removing the lid, make sure to disconnect any other communication cable.



# POWER METER INSTALLATION

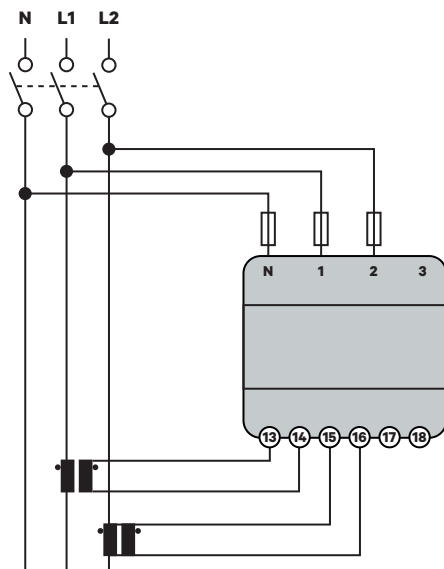
## Installation

### 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: 240 V
- Phase to neutral voltage: 120 V

Follow the diagram for wiring the system:

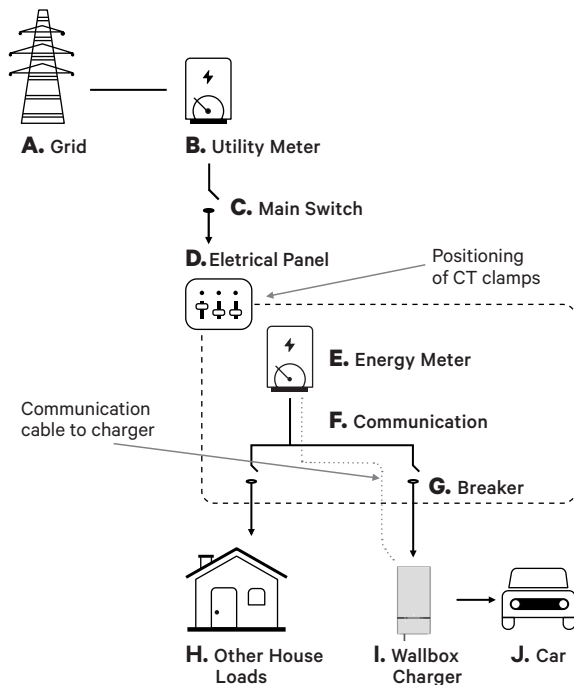


# POWER METER INSTALLATION

## Installation

### Positioning and General Overview

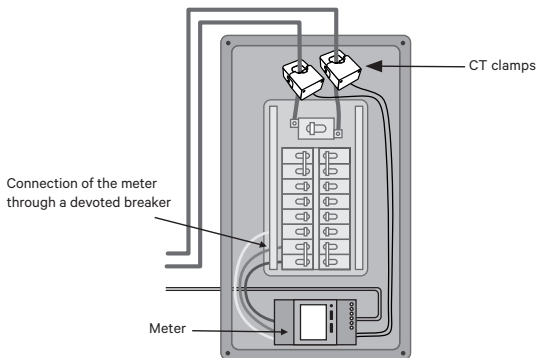
Follow the scheme below for positioning the CT clamps, the Energy Meter and the communication cables to charger.





# POWER METER INSTALLATION

## Installation



## 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 15 A or less and compatible with AWG 14.
- 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

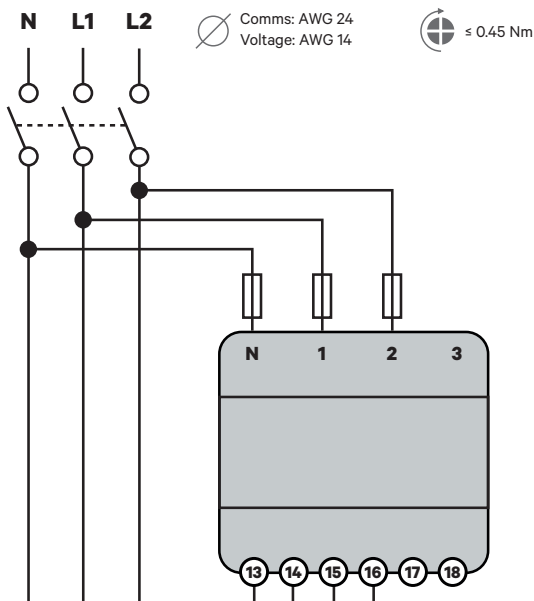
There must be a wired communication line between the meter and the charger. For this purpose, use STP Class 5E 1600 ft/500 m Max Length rated for outdoor use.

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

# POWER METER INSTALLATION

## Installation

2. In the electrical panel box, locate a space for mounting the meter. If possible, mount the meter inside the electric panel.
3. Add a protection for the meter in the electric panel.
4. Wire the terminals N, 1 and 2 from the meter to the neutral and two hot lines from your electrical panel.



# POWER METER INSTALLATION

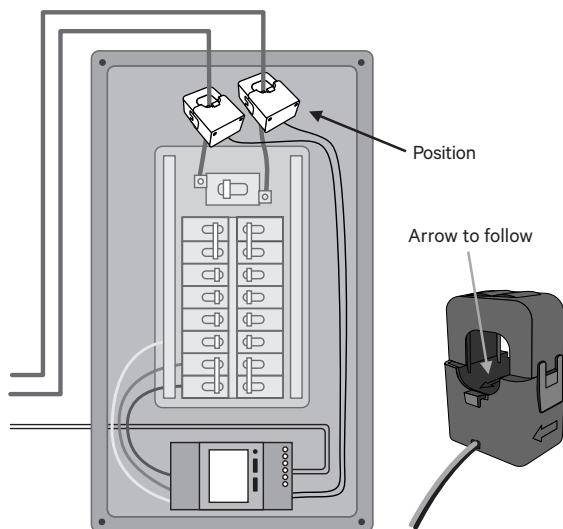
## Installation

5. Connect the CT clamps to the incoming "hot" lines as shown. Bear in mind that CT Clamps must be 250A / 5A



### Important

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

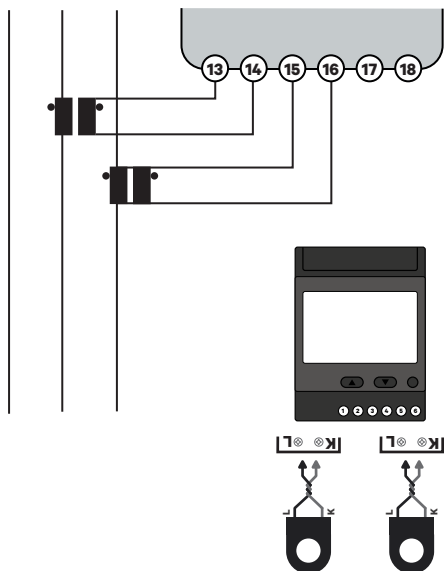


# POWER METER INSTALLATION

## Installation

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

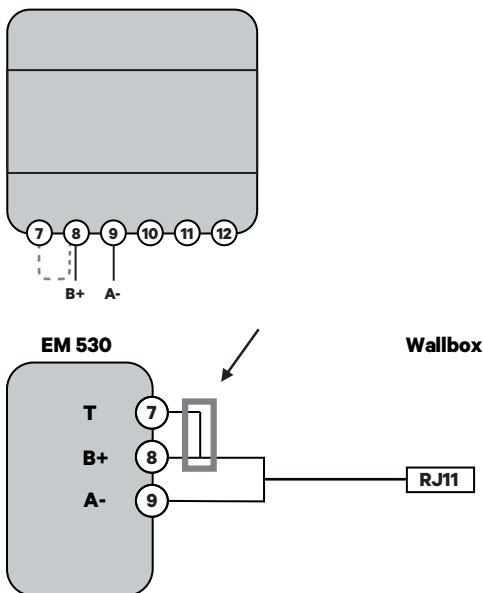
- 13- Red wire/CT1
- 14- Black wire/CT1
- 15- Red wire/CT2
- 16-Black wire/CT2



## POWER METER INSTALLATION

# Installation

7. Connect the meter to the charger using an STP Class 5E 1600 feet/500 meter Max Length communication cable rated for outdoor use. 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.

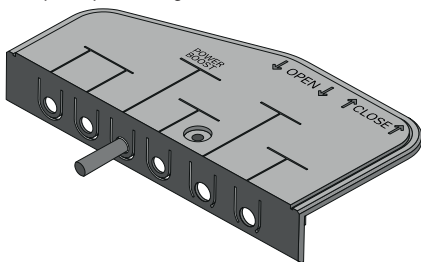


## POWER METER INSTALLATION

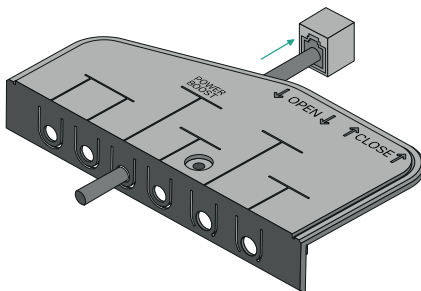
# Installation

8. Make a hole on the corresponding entrance for Power Boost on the lid removed from Quasar 2 and then insert the communications cable.

**WARNING:** Inserting the cable with the RJ11 connector already crimped through the lid will void the warranty.



9. Crimp the RJ11 connector to the communications cable end and connect it to the port indicated for Power Boost.

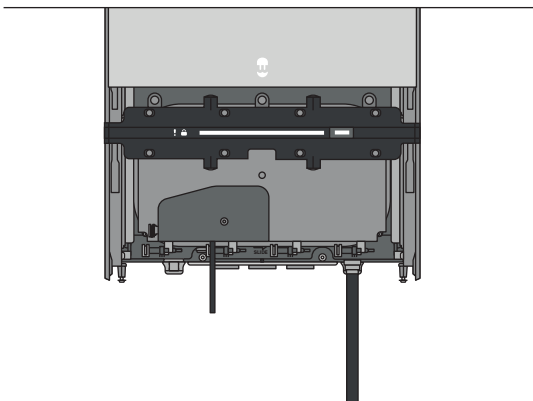


## POWER METER INSTALLATION

# Installation

10. Carefully place the lid back on the HMI module, slide it upwards and insert the  $\varnothing 3.5 \times 12$  mm screw to secure the lid.

**Note:** Tighten to approx. 11.5 lb-in / 1.3 N·m.



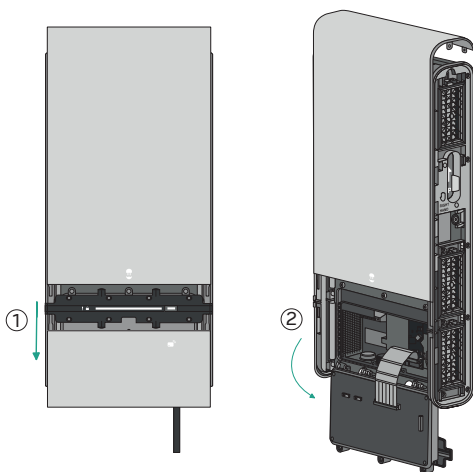
# POWER METER INSTALLATION

## Installation

### Activate terminating resistance

1. Quasar 2 terminating resistance is located on the interior of the HMI module. Remove the three screws (Torx Ø4 x 12mm) from the HMI module, then fold it down carefully until it hangs vertically.

**Note:** Do not disconnect under any circumstances the flat cable from any of the ends.

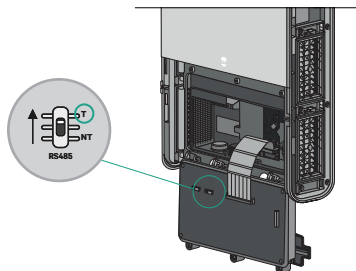




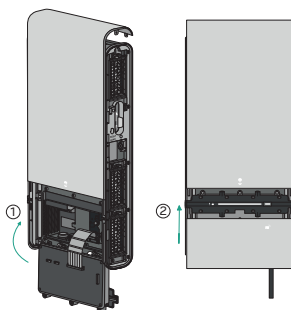
# POWER METER INSTALLATION

## Installation

- 2.** Set the switch into position T.



- 3.** Close the HMI module by folding it back and inserting the HMI module screws.



- 4.** Close the charger following the instructions in the **Quasar 2 Installation Guide**.

# POWER METER INSTALLATION

## Configuration

### Power Meter

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

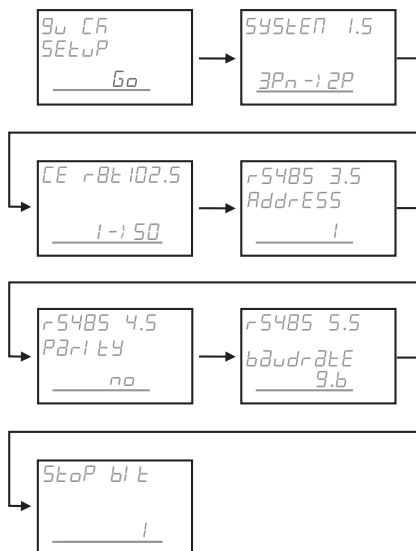
Proceed with the Software configuration. At this point when the meter is powered up and if connected correctly a blinking **Rx Tx** will appear on the screen.

If the meter is not configured, the screen will show a Quick Setup Menu.

1. Select **GO**.
2. On the **Systems** screen, scroll down to **2P** and press Enter.
3. Continue to the **Ct rAt** Menu
4. Press OK.
5. Set the **Ct rAt value up to 50**, so that it matches with the 250/5 A clamps supplied.
6. Continue to the **rS 485** Menu.
7. Press OK.
8. Set the **rS 485 address to 1, Parity to 1, baud rate to 9 and stop bit to 1**.
9. Press OK.
10. The meter has been successfully configured and the blinking **RxTx** will appear on the screen.

# POWER METER INSTALLATION

## Installation



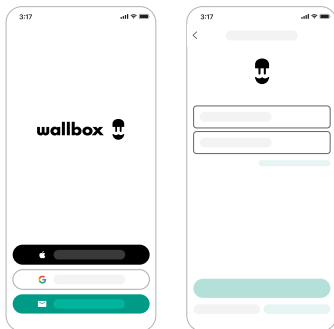
# WALLBOX APP

## Configuration

### Wallbox app

Once you have installed your charger and the smart meter, follow these steps to enable configure the Energy Management Features.

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.



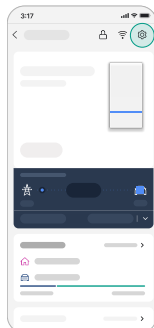
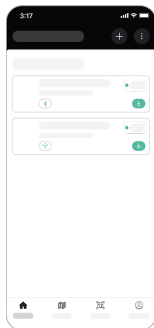
# DYNAMIC LOAD MANAGEMENT

## Configuration

### Enabling Dynamic Load Management

Once you have installed your charger and the smart meter, follow these steps to enable configure the Dynamic Load Management.

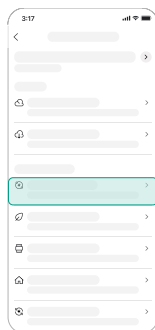
- 1.** Select the charger on which you want to enable Dynamic Load Management.
- 2.** Click the icon in the top right corner of the app screen to go to **Settings**.



# DYNAMIC LOAD MANAGEMENT

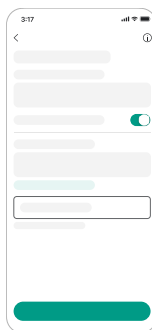
## Configuration

- 3.** On the Settings menu, go to the Energy Features section and select **"Load Management"**.



- 4.** Enable the Load Management feature by switching the button to the **ON** position.

**Note:** This step is protected by password and only certified Installers can edit it.



# DYNAMIC LOAD MANAGEMENT

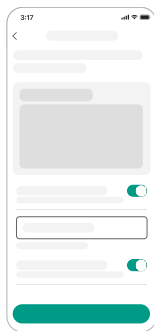
## Configuration

- 5.** Introduce the maximum current limitation of your system/electrical panel.



### Important

Only Max Current per phase greater than 2 amps is accepted for correct performance. In case of doubt, contact Wallbox Customer Service.



### Disclaimer

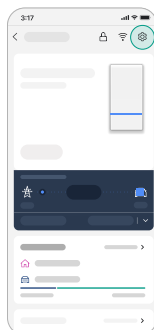
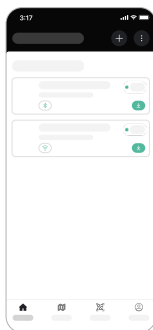
Be sure to follow all local regulations when setting up Dynamic Load Management and do not enable a higher power rating if otherwise restricted by local rules. Be sure to consult with a professional installer familiar with the regulations in your area.

# VEHICLE-TO-HOME Configuration

## Enabling Vehicle-to-Home

To activate the Vehicle-to-Home feature it is required to have previously activated the Dynamic Load Management feature.

1. Select the charger on which you want to enable Vehicle-to-Home.
2. Click the icon in the top right corner of the app screen to go to **Settings**.

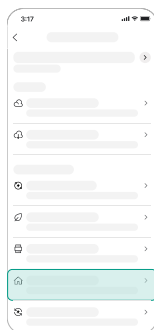




# VEHICLE-TO-HOME

## Configuration

- 3.** On the Settings menu, go to the Energy Features sections and select "**Home powering**".



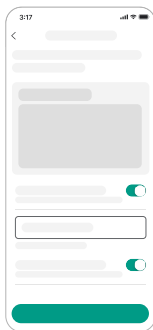
- 4.** On the Home powering screen select the "**Vehicle-to-Home**".

# VEHICLE-TO-HOME Configuration

- 5.** Enable the Vehicle-to-Home feature by switching the button to the **ON** position.

**Note:** This step is protected by password and only certified Installers can edit it.

- 6.** Introduce the maximum current per phase of your electrical installation.



## Important

The value specified has to be equal to or greater than the MAX. Current per Phase (in amps) set for Dynamic Load Management.

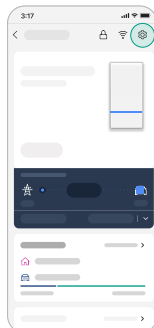
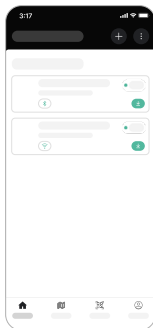
- 7.** Click "**Save**". Vehicle-to-Home is now active.

# SOLAR CHARGING Configuration

## Enabling Solar Charging

To activate the Solar Charging feature it is required to have previously activated the Dynamic Load Management feature.

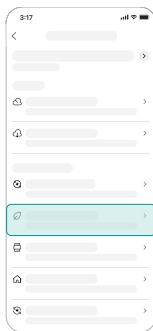
1. Select the charger on which you want to enable Solar Charging.
2. Click the icon in the top right corner of the app screen to go to **Settings**.



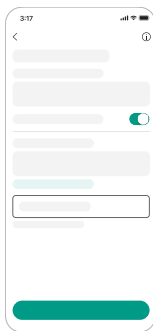
# SOLAR CHARGING

## Configuration

- 3.** On the Settings menu, go to the Energy Features sections and select "**Solar Charging**".



- 4.** Enable the Solar Charging feature by switching the button to the **ON** position. **Note:** It is recommended that you activate Dynamic Load Management before enabling Solar Charging.



- 5.** Click "**Save**". Solar Charging is now active.

# Service

Need more assistance? Contact our Support Team at:

**(888) 787-5780**

[support.wallbox.com/na](https://support.wallbox.com/na)

[service.na@wallbox.com](mailto:service.na@wallbox.com)



[support.wallbox.com/na](https://support.wallbox.com/na)