



Home Energy Manager

Good to know – Driver's Manual



07/2022

Porsche, the Porsche Crest, Panamera, Cayenne and Taycan are registered trademarks of Dr. Ing. h.c. F. Porsche AG.

Printed in Germany.

Reprinting – even of excerpts – or duplication of any kind are only permissible with the written authorisation of Dr. Ing. h.c. F. Porsche AG.

© Dr. Ing. h.c. F. Porsche AG

Porscheplatz 1
70435 Stuttgart
Germany

Installation manual

Always keep this installation manual and hand it over to the new owner if you sell your charger.

Due to different requirements in various countries, the information in the thumb index tabs of this manual will be different. To ensure that you are reading

the thumb index tab that applies to your country, compare the article number of the charger shown in the “Technical Data” section with the article number on the identification plate on the charger.

Further instructions

For information on fitting the basic wall mount and charging dock and for the electrical installation of the Porsche charger, please refer to the installation instructions.

Suggestions

Do you have any questions, suggestions or ideas regarding your vehicle or this manual?

Please write to us:

Dr. Ing. h.c. F. Porsche AG
Vertrieb Customer Relations
Porscheplatz 1
70435 Stuttgart

Germany

Equipment

Because our vehicles undergo continuous development, equipment and specifications may not be as illustrated or described by Porsche in this manual. Items of equipment are not always according to the standard scope of delivery or country-specific vehicle equipment

For more information on retrofit equipment, please contact a qualified specialist workshop. Porsche recommends a Porsche partner as they have trained workshop personnel and the necessary parts and tools.

Because of different legal requirements in individual countries, the equipment in your vehicle may vary from what is described in this manual. If your Porsche is fitted with any equipment not described in this manual, your qualified specialist workshop will be glad to provide information on the correct operation and care of the items concerned.

About this Owner's Manual

Warning notices and symbols

Various types of Warning notices and symbols are used in this Driver's Manual.



DANGER

Serious injury or death

Failure to observe Warning notices in the "Danger" category will result in serious injury or death.



WARNING

Possible serious injury or death

Failure to observe Warning notices in the "Warning" category can result in serious injury or death.



CAUTION

Possible moderate or minor injury

Failure to observe Warning notices in the "Caution" category can result in moderate or minor injuries.

NOTICE

Possible vehicle damage

Failure to observe Warning notices in the "Notice" category can result in damage to the vehicle.



Information

Additional information is indicated by "Information".

- ✓ Conditions that must be met in order to use a function.
- ▶ Instruction that you must follow.

1. If an instruction comprises several steps, these are numbered.
2. Instructions that you must follow on the central display.

▶ Notice on where you can find further important information on a topic.

Further Information

You can access the full Driver's Manual at the following web address:

<https://tinyurl.com/porsche-e-help>



Table of contents

Security

Applicable documents.	3
Basic safety principles.	3
Proper use.	3
Qualification of personnel.	4
Notes on installation.	4

Scope of delivery.	5
--------------------------------	----------

Overview

Example of domestic installation.	6
Connection diagram.	7
Displays and controls.	7
Overview of device connections.	8

Installation and connection

Overview of connectors.	10
Connection to the power grid.	12
Connection to the building installation.	14
Establishing a connection to the device.	15

Initial start-up by the customer service.	17
---	-----------

Establishing a connection to the device.	18
--	-----------

Logging into the Web Application.	20
---	-----------

Starting Initial Installation.	21
--	-----------

Technical Data

Production information.	33
------------------------------	----

Index.	34
--------------------	-----------

Security

Applicable documents

Description	Type	Information	Info
External mains power supply unit	STEP-PS/ 1AC/24DC/0.75, article number 2868635		www.phoenixcontact.com
Push-on connector	2x1754571, 1x1790108, 1x1790111, 3x1790124, 1x1939439		www.phoenixcontact.com
WiFi antenna	HiRO H50284 Wireless 802.11n 2.4GHz WiFi Gain 2dBi OMNI	only 2.4 GHz mains compatibility	www.hiroinc.com
Current converter	EChun ECS1050-L40P	50 A input; 33.3 mA output	www.echun-elc.com
	EChun ECS24200-L40G	200A input; 33.3 mA output	
	EChun ECS36400-L40R	400A input; 33.3 mA output	
	EChun ECS36600-L40N	600A input; 33.3 mA output	
	TT 100-SD (LEM)	100 A input; 33.33 mA output	www.lem.com

Basic safety principles

DANGER

Danger to life due to electrical voltage!

There is a risk of injuries due to electric shock and/or burns, possibly resulting in death.

- ▶ During all work, make sure at all times that power to the system is switched off and secured so it cannot inadvertently be switched on.
- ▶ Do not open the housing of the energy manager under any circumstances.

Proper use

The energy manager is primarily used to safeguard the electricity supply (overload protection) by preventing the building's main fuse from tripping.

The following count as improper use:

- Carrying out your own modifications or additions to the energy manager
- Any other use of the energy manager not described in these instructions

The energy manager is designed as a series installation device. Installation must be performed under electrical and information-related conditions.

- ▶ In electrotechnical terms, the energy manager must be installed in a suitable distribution box.

Disclaimer

If the energy manager is damaged due to transport, storage or handling, repairs are not possible. If the housing of the energy manager is opened, your warranty will be invalidated. This also applies in the event of damage due to external factors such as fire, high temperatures, extreme ambient conditions and improper use.

Qualification of personnel

Electrical installation may only be performed by persons with the relevant knowledge of electrical/electronic equipment (qualified electrician). These persons must be able to provide proof of the required specialist knowledge for the installation of electrical systems and their components through a passed examination.

Improper installation can endanger your own life and that of others.

Requirements for the qualified electrician performing the installation:

- Ability to evaluate measurement results
- Knowledge of IP protection classes and their use
- Knowledge about fitting electrical installation material
- Knowledge of the applicable electrical/electronic and national regulations
- Knowledge of fire safety measures and general and specific safety and accident prevention regulations

- Ability to select suitable tools, testers and, if necessary, personal protective equipment, as well as the electrical installation materials for ensuring tripping conditions
- Knowledge of the type of power supply network (TN, IT and TT system) and the resulting connection conditions (neutral connected to earth in socket, protective earthing, required additional measures)

Notes on installation

Electrical installation must be performed in such a way that:

- Shock protection of the entire electrical installation is in place at all times, in accordance with locally applicable regulations.
- The fire safety regulations in force at the site are complied with at all times.
- The controls and displays and USB ports of the energy manager are accessible to the customer without restriction and without risk of electric shock.
- The cables do not exceed the maximum permitted length of 3.0m for each current sensor.
- The inputs for voltage measurement, the external power supply and the relays on the energy manager must be equipped with suitable backup fuses.
 - ▷ Refer to chapter "Connection to the power grid" on page 12.
- The correct length and product-specific bending radii must be complied with when laying installation cables.

If the installation environment requires Overvoltage Category III (OVCIll), the input side of the external power supply must be equipped with protective circuitry (e.g. a varistor) that conforms to local regulations.

Installation at high altitude

The supply leads of sensors that are installed in electrical facilities at an altitude of over 2,000m or that must conform to Overvoltage Category III (OVCIll) due to their installation location require additional insulation in the form of a shrink-fit hose or suitable insulating hose with a breakdown strength of 20kV/mm and minimum wall thickness of 0.4mm along the entire length of the cable between the sensor output (housing) and the input terminal on the energy manager.

Scope of delivery



Fig. 1: Scope of delivery

- A** Energy Manager
- B** External mains power supply unit
- C** Wall-mounted distribution box (availability dependent on country)
- D** WiFi antenna
- E** Letter containing access data
- F** 3x current converters in version 100 A – or – (depending on the country variant) 2x current converters in version 200 A
- G** One set of connectors

i Information

The current converters must have a higher rated current than the fuse.

- ▶ Based on the rated current of the fuse, select the version with the next highest rated current.

Disposing of the packaging

- ▶ To protect the environment, dispose of packaging materials in accordance with the applicable environmental protection regulations.
- ▶ Hand over any residual materials to a specialist disposal company.

Spare parts and accessories

You can order spare parts and additional current converters from your Porsche partner.

Overview

Example of domestic installation

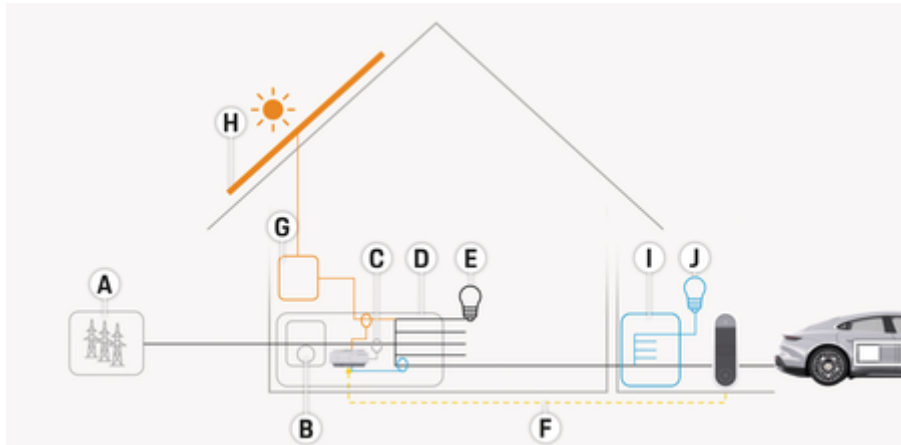


Fig. 2: Example of domestic installation with photovoltaic system and sub-distribution unit

- A** Power supply (1 or 3-phase, here: 1-phase)
- B** Electricity meter
- C** Current converter (1 current converter per phase)
- D** Distribution box
- E** Consumers in the home
- F** EEBus protocol
- G** Inverter
- H** Photovoltaic system
- I** Sub-distribution unit
- J** Consumers outside the home

Connection diagram

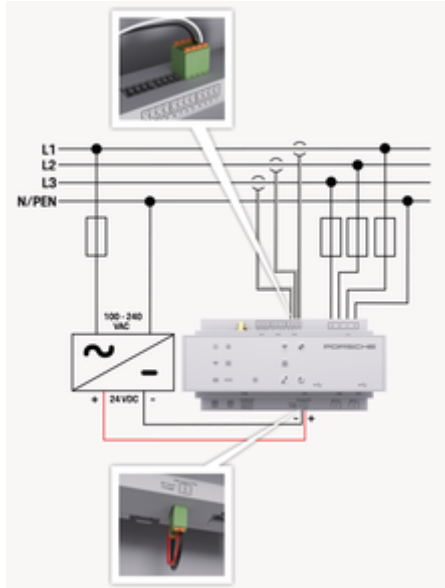


Fig. 3: Wiring Diagrams

L1/ L2/ L3	Up to 3 phases
N/PEN	Neutral wire
100-240 VAC	Input voltage
24 VDC	Output voltage

NOTICE

The allocation of phases L1 - L3 may differ from the illustration > (Fig. 3) shown. Please check the phase assignment at your house connection.




Displays and controls






Fig. 4: Displays and controls

Displays	Description
Status On/Off	LED lights up green: Energy manager is ready for operation.
Internet status	LED lights up green: Internet connection established
WiFi status	LED flashes blue. Hotspot mode, no client connected LED lights up blue: Hotspot mode, at least one client connected LED flashes green: Client mode, no WiFi connection available

Displays	Description
	LED lights up green: Client mode, WiFi connection available LED lights up or flashes blue: Parallel operation in client mode is possible. LED flashes yellow: WiFi connection via WPS
Status of Powerline Communication (PLC) network	LED flashes green Searching for PLC network connection. LED lights up green: PLC network connection in place. LED flashes blue. Activating DHCP. LED lights up blue: DHCP (for PLC only) is active and PLC network connection is in place.
Ethernet status	LED lights up green: Network connection in place.
I0101 RS485/CA N status	On: LED lights up green during communication (currently not assigned).
Fault status	LED flashes or lights up yellow: Fault present LED lights up red: Functions restricted

Controls	Description
 WPS button	<ul style="list-style-type: none"> To establish a WiFi connection using the WPS function, briefly press the WPS button (only network connection as client possible).
 WiFi button (hot-spot)	<ul style="list-style-type: none"> To enable WiFi, press the WiFi button briefly. To disable WiFi, press and hold the WiFi button for more than 1 second.
 PLC pairing button	<ul style="list-style-type: none"> To enable the PLC connection, briefly press the PLC pairing button. To enable the energy manager as DHCP server (for PLC connections only), press and hold the PLC pairing button for more than 10 seconds. For a PLC connection to a client, briefly press the PLC pairing button again.

Controls	Description
 Reset button	<ul style="list-style-type: none"> To restart the device, press the Reset button for less than 5 seconds. To reset the passwords, press and hold the Reset and CTRL buttons for between 5 and 10 seconds. To reset the device to the factory settings, press and hold the Reset and CTRL buttons for more than 10 seconds. This overwrites all current settings.
 CTRL button	<ul style="list-style-type: none"> To reset the device to the factory settings, press and hold the Reset and CTRL buttons for more than 10 seconds. This overwrites all current settings.
 USB connection	<ul style="list-style-type: none"> For information on network connection options, refer to the installation instructions of the Porsche Home Energy Manager on the Porsche website at the following address: https://tinyurl.com/porsche-e-help

Overview of device connections

Connections on top of device

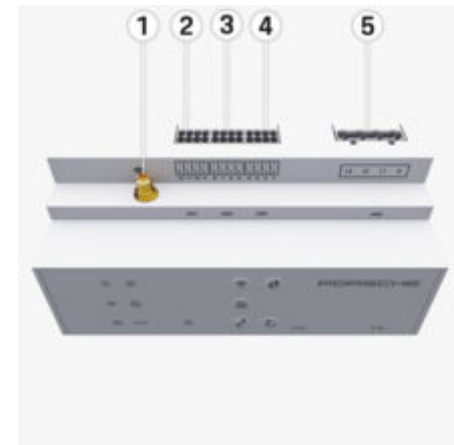


Fig. 5: Overview of connections on top of device

- 1** WiFi antenna
- 2/3/4** Current converter (J301), Current converter (J300), Current converter (J200)
- 5** Voltage measurement (J400), Voltage range: 100 V – 240 V (AC)(L-N)

Connections on underside of device

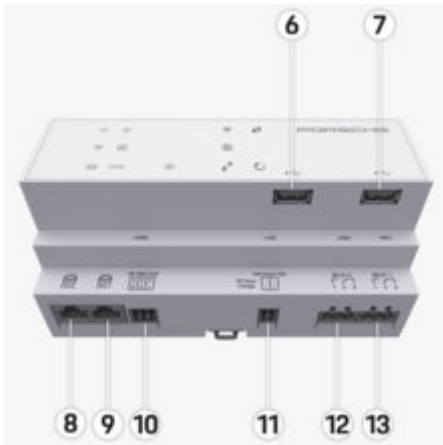


Fig. 6: Overview of connections on underside of device

- 6** USB1
- 7** USB2
- 8** ETH 0
- 9** ETH 1
- 10** RS485/CAN (J1000) (not assigned)
- 11** Power supply (J102), 24 V (DC)
- 12** Relay (J900) (not assigned)
- 13** Relay (J901) (not assigned)

► Refer to chapter "Overview of connectors" on page 10.

Installation and connection

Overview of connectors

The overview of device connections ((Fig. 5), (Fig. 6)) shows the connection position of connectors used for current converters, voltage measurement, relay contacts and communication. The diagram illustrates the position of the pins for each type of connector. The tables show the pin assignment with corresponding signal.

▷ Refer to chapter "Overview of device connections" on page 8.

Connector for current measurement

i Information

It is essential to note the connection positions of the current converters, the type of current converters, their phase assignment and the rated current of the phase fuse, as you will be asked for this information later on when configuring the energy manager (installation assistant of the web application).

Parameter	Value
Push-on connector	J200/J300/J301
Manufacturer	Phoenix Contact
Socket part number	1786853
Connector part number	1790124

Overview of J200/J300/J301 connectors

The connectors of the current converters (J200, J300, J301) are identical and can be connected to any of the connections provided ((Fig. 5 2/3/4)).

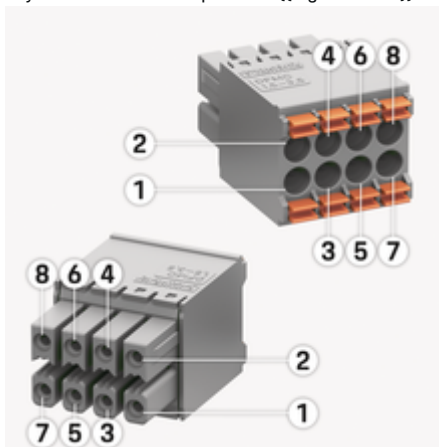


Fig. 7: Overview of J200/J300/J301

Pin	Current converter			Code
	J200	J300	J301	
1	1	5	9	"l", black
2	1	5	9	"k", white
3	2	6	10	"l", black
4	2	6	10	"k", white

Pin	Current converter			Code
	J200	J300	J301	
5	3	7	11	"l", black
6	3	7	11	"k", white
7	4	8	12	"l", black
8	4	8	12	"k", white

In the case of the LEM current converter cable (100 A), the cable is not white, but black/white.

i Information

Pay attention to connector orientation when plugging in Home Energy Manager! Pins 1, 3, 5, 7 are rounded and pins 2, 4, 6, 8 are rectangular.

Connector for voltage measurement

Parameter	Value
Push-on connector	J400
Manufacturer	Phoenix Contact
Socket part number	1766369
Connector part number	1939439

Overview of J400 connector



Fig. 8: Overview of J400

Pin	Signal
1	Neutral wire N
2	Live L1
3	Live L2
4	Live L3

Connector for power supply

Parameter	Value
Connector	J102
Manufacturer	Phoenix Contact
Socket part number	1786837
Connector part number	1790108

Overview of J102 connector

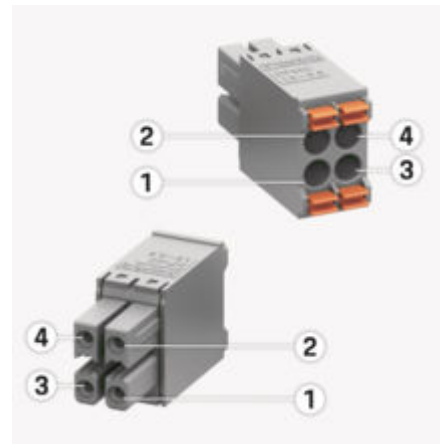


Fig. 9: Overview of J102

Pin	Signal
1	V (+) 24 V DC $\pm 1\%$
2	V (-) 24 V DC $\pm 1\%$
3	V (+) 24 V DC $\pm 1\%$
4	V (-) 24 V DC $\pm 1\%$

i Information

Pay attention to connector orientation when plugging in Home Energy Manager! Pins 1, 3 are rounded and pins 2, 4 are rectangular.

Connector for relay contact

Parameter	Value
Connector	J900/J901
Manufacturer	Phoenix Contact
Socket part number	1757255
Connector part number	1754571

Overview of J900/J901 connectors

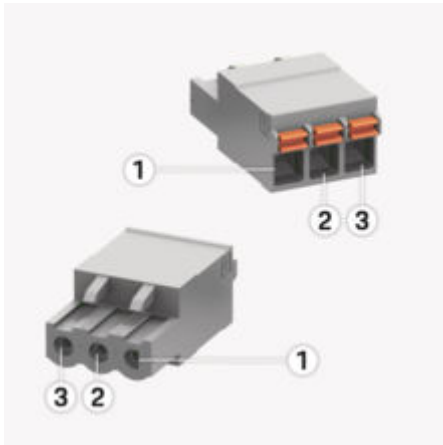


Fig. 10: Overview of J900/J901

Pin	Signal
1	NO contact
2	COM contact
3	NC contact

i Information

The relay connections for the Home-Energy-Managers are currently deactivated and have no function.

Connector for communication

Parameter	Value
Connector	J1000
Manufacturer	Phoenix Contact
Socket part number	1786840
Connector part number	1790111

Overview of J1000 connector

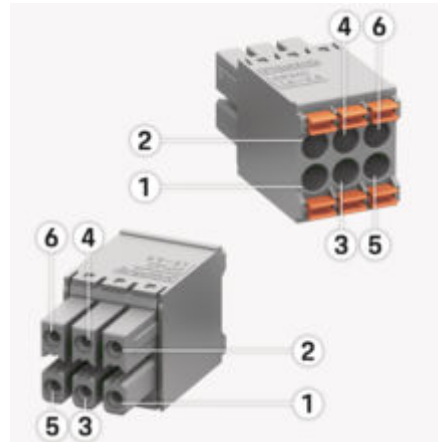


Fig. 11: Overview of J1000

Pin	Signal
1	RS485 signal B -
2	RS485 signal A +
3	Earth
4	Earth
5	CAN Low
6	CAN High

i Information

Pay attention to connector orientation when plugging in Home Energy Manager! Pins 1, 3, 5 are rounded and pins 2, 4, 6 are rectangular.

Connection to the power grid

Installing circuit breakers

i Information

Line protection fuses are not included in the scope of supply and must be installed by a qualified electrician.

The energy manager does **not have any internal fuses**. The voltage measurement, external power supply and relay inputs must therefore be fitted with suitable backup fuses.

- Use of the energy manager requires overcurrent protection for all supply leads. Make sure you select fuses with a sensitive trigger characteristic.
- Fuses are selected based on what components are available in the country of use.
- Use components with the lowest trip current and shortest trip time.

Preparing the distribution cabinet

For information on the required space for the energy manager:

► Refer to chapter "Technical Data" on page 32.

- To install the energy manager inside the distribution cabinet, allow a horizontal pitch (HP) of 11.5 on a DIN rail.
- Install the mains power supply unit of the energy manager at a minimum distance of 0.5 HP from its housing.
- Protect all electrical interfaces from direct/indirect contact.

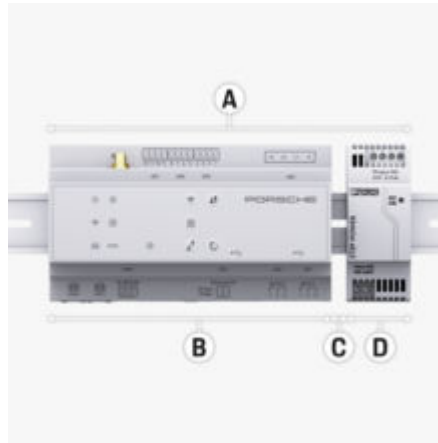


Fig. 12: Preparing the distribution cabinet

- A** Horizontal pitch 11.5
- B** Horizontal pitch 9
- C** Horizontal pitch 0.5
- D** Horizontal pitch 2

Installation in the distribution cabinet

- ✓ The DIN rail bracket on the housing of the energy manager has been released.
- 1. Position the DIN rail bracket at an angle against the DIN rail in the distribution cabinet.
- 2. Tilt the housing of the energy manager and lay evenly on the DIN rail.
- 3. Fasten the DIN rail bracket to the housing of the energy manager.

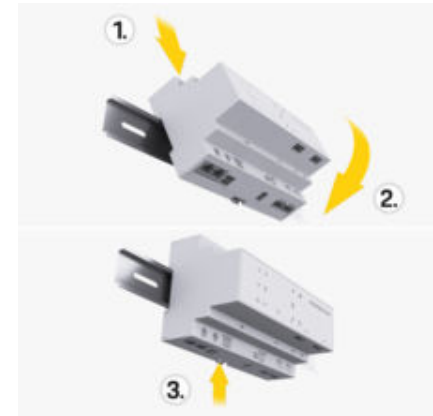


Fig. 13: Installation in the distribution cabinet

- 4. Check that the energy manager is securely engaged on the DIN rail.

Install current converter

NOTICE

Incorrect direction of measurement of the current converter

Installing the current converter with the incorrect direction of measurement can lead to incorrect results and malfunctions.

- Observe direction of measurement of the current converter (Fig. 15, yellow arrows).

Install the current converters for measuring the total current of the business premises/household in the relevant main phases downstream of the main fuse. The energy flows must not yet have been divided into further sub-circuits.

► Refer to chapter "Overview" on page 6.

- ▶ Make sure that all materials that protect against corrosion are removed from the current converter.
- ▶ Adhere to the maximum permitted cable length of 3.0 m for each current converter.
- ▶ Select an installation location that allows cables to be routed straight, and pay attention to the direction of measurement (arrow pointing towards the load) ((Fig.), yellow arrow).
- ▶ Insert the installation cable in the current converter and close the converter cap ((Fig. 14), yellow arrow).
- ▶ Make sure that the current converter actually has a higher rated current than the circuit breaker.
- ▶ First insert the current converter cables in the connectors, then insert the connectors in the sockets of the device.

i Information

Make a note of the type of current converter, its connection position in the energy manager, and the phase (e. g. L1 or L2) to which the current converter was attached. You will need this information for configuring the current converters in the Web Application.

If you need to extend the measurement leads, use the same type of lead if possible.

If the installation environment requires the use of the optional wall-mounted distribution box, route the leads into this distribution box via suitable cable guide systems (empty conduits, cable ducts, etc.).

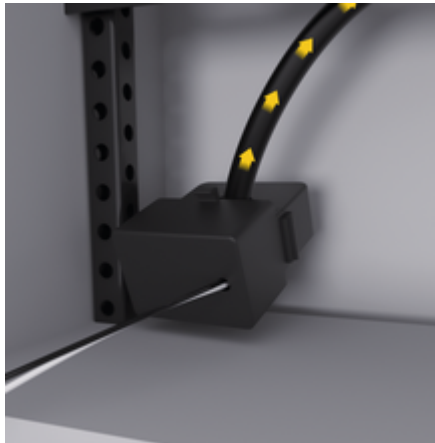
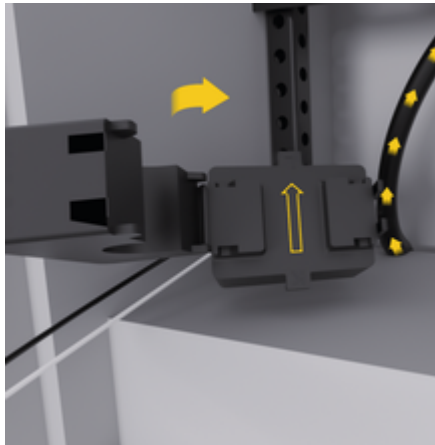


Fig. 14: Installation example of current converter

Routing connecting cables

Before installing any equipment, route the connecting cables inside the distribution cabinet in accordance with local regulations, and protect all electrical interfaces from contact.

- ▶ Use suitable installation cables in accordance with local regulations.
- ▶ Cut the installation cables to length to suit the available space and installation locations.
- ▶ Make sure the installation cables comply with the product-specific bending radii, to prevent faults with cables and hardware.

Connection to the building installation

NOTICE

Incorrect phase assignment

Incorrectly assigned phases can lead to incorrect results and malfunctions.

With a multiphase power grid, make sure that a phase in the domestic connection matches the phase at the Porsche charger connection and, if applicable, the inverter phase of the photovoltaic system. Phase shifts should not exist anywhere, as otherwise the phase-individual charging functions will not work. With this installation, you can assign current converters to power sources and current converter in the Web Application in the normal phase sequence (e.g. L1-L2-L3), as for the voltage measurement phases.

Connect all devices to the existing building installation in accordance with local regulations and standards.

Charging cable communication with the energy manager

- The intelligent charging cable features a multi-phase connection (electrical socket or permanently installed):
 - ▶ Make sure that the phases of the energy manager and the charging cable match.
- The intelligent charging cable features a single-phase connection:
 - ▶ When assigning phases in the Web Application, use the phase to which the intelligent charging cable is connected.

Connecting an external mains power supply unit

- ▶ Follow the manufacturer's installation instructions.
 - ▷ Refer to chapter "Applicable documents" on page 3.
- ▶ Connect the DC output to the energy manager using the terminal assignment of the connector for the power supply (J102).
- ▶ Connect the mains power supply unit to the energy manager via cables. These cables must be prepared by a qualified electrician.

Connecting RS485/CAN communication

Information

The software (08/2019) does not cover the connection to RS485/ CAN. For future features, please pay attention to information on new software releases.

When connecting the energy manager to the building installation, there is a risk of inserting the DC power supply connector (J102) into the RS485/CAN port by mistake. This can damage the energy manager. By inserting the 6-pin connector without connecting cable, included in the scope of supply (J1000), you will avoid interchanging connectors.

- ▶ Insert the connector without connecting cable into socket J1000 in the housing of the energy manager.

Connecting relay channels

Information

The software does not cover the connection to relay channels. For future features, please pay attention to information on new software releases.

The energy manager scope of supply includes a suitable connector without connecting cable.

- ▶ Insert the connector without connecting cable into socket J900/J901 in the housing of the energy manager.

Connecting current and voltage measurement

The current and voltage measurement channels are connected via several plug connections. The required connectors are included in the energy manager scope of supply. If the current converters or voltage measurement leads are not connected, or connected incorrectly, function will be extremely restricted.

- ▶ Pay attention to the markings on the device when connecting current converters and voltage measurement leads. You will find a video for single-phase installation on the Porsche website at the following address:
 - <https://tinyurl.com/porsche-e-help>

Establishing a connection to the device

To use the energy manager via the Web Application, your device (PC, tablet or smartphone) and the energy manager must be in the home network (via WiFi, PLC or Ethernet connection).

All the functions of the Web Application can be used via the internet connection of the home network. The network connection of the device via an Ethernet cable is recommended. If there is no home network available at the place of use, your device can log in to the energy manager directly via its WiFi hotspot.

- ▶ The Home Energy Manager operates exclusively in the 2.4 GHz network (see ▶ P. 32)
- ▶ Select the connection type suitable for the prevailing signal strength and availability.

Connecting the WiFi antenna

You can connect a WiFi antenna to boost the WiFi signal.

Installation and connection

1. Connect the WiFi antenna to the energy manager via the plug-in/screw connections provided for this purpose.
2. Secure the WiFi antenna to the outside of the metal distribution cabinet by its magnetic base (if the WiFi antenna is inside the metal distribution cabinet, it cannot receive a signal). Make sure that the WiFi antenna is positioned correctly (e.g. at an angle of 90° to the router).

Checking the signal quality of the PLC network

Information

The software and Ethernet PLC converter described in this section are not included in the scope of supply.

To check the connection quality of the PLC network, you can determine the PLC data transfer rate through the domestic electrical system using software and Ethernet PLC converters. For this purpose, connect the converters to the mains supply at the installation locations. Select the installation locations of the energy manager and the current consumers with PLC functionality (such as the Porsche charger) as installation locations for this. The real data transfer rate between the installation locations can be visually displayed using powerline software. Data transfer rates of 9 Mbit or more are sufficient.

If electrical installations are not ideal, PLC communication may be impossible or so weak as to prevent stable EEBus communication with the Porsche charger.

- ▶ In this case, select an alternative communications interface (Ethernet or WiFi).

Initial start-up by the customer service

After the energy manager has been installed, the device must be configured for initial start-up.

i Information

Initial start-up may only be carried out by a qualified electrician.

During initial start-up, a setup wizard in the Web Application guides through the necessary settings (e. g. connections, user profile, optimised charging). Some of the settings entered here, such as those involving the system and maintenance, can also be changed later on by the home user. Within the installation wizard, the electrician must carry out the home installation. This includes the configuration of the current converters and the addition of EEBus devices. After this, the energy manager is ready for operation.

Requirements for initial start-up

Have the following information to hand for setting up the energy manager:

- Letter containing access data for logging into the Web Application
- Private data such as the access data of your home network and the access data of the user profile (to link it with your Porsche ID) do not need to be specified.
- Information on electricity tariffs/prices and any feed-in remuneration

i Information

Only the letter containing access data is required for partial commissioning. All other settings can also be made later.

The following browsers are supported by the Web Application:

- Google Chrome version 57 or later (recommended)
 - Mozilla Firefox version 52 or later (recommended)
 - Microsoft Internet Explorer version 11 or later
 - Microsoft Edge (recommended)
 - Apple Safari version 10 or later
- ▶ The detailed description of the installation assistant with all the steps can be found in the online version of the installation instructions on the Porsche website at the following address:
<https://tinyurl.com/porsche-e-help>



Establishing a connection to the device

To enable access to the Web Application of the energy manager, a connection must be established between your device (PC, tablet or smartphone) and the energy manager. For an overview of all connection options, ▶ Refer to chapter "5. Selecting a network connection" on page 22.

- ▶ Select the connection type suitable for the prevailing signal strength and availability.

Redirecting to Web Application

Information

Depending on which browser you are using, the Web Application may not open immediately. Instead, a notice regarding the browser's security settings may be displayed first.

1. In the browser warning message that appears, select **Advanced**.
2. In the next dialogue box, select **Add exception**.
 - ➔ The SSL certificate is confirmed and the Web Application opens.

WiFi

There are two options for a WiFi connection:

- hotspot:
The energy manager has a wireless access point (hotspot), which is password-protected and requires manual login. A WiFi-capable end device can connect to the hotspot and then access the Web Application of the energy manager.
- WiFi network via WPS function:

The energy manager can be paired with an existing home network, e.g. network router, using the WPS function, without entering a password.

Web Application Opening via hotspot

- ✓ The energy manager is switched on. The energy manager automatically enables its WiFi hotspot.
1. If **WiFi status** does not flash or light up blue, press the **WiFi** button on the energy manager.
 2. On your device, press the network or WiFi icon on the taskbar or notification panel.
 3. Select your WiFi network from the list. The name of the WiFi network is the same as the SSID in the letter containing access data, and is shown as **HEM-#####**.
 4. Select button **Connect**.
 5. Enter the security code. The security code is shown as **WiFi PSK** in the letter containing your access data.
 - ➔ The connection to the WiFi network is established.
 - Note:** In the Windows 10 operating system, you are first asked to enter the router PIN. Select the link **Establish connection with PLC security code** and then enter the key.
 6. Open your browser.
 7. Enter the IP address of the energy manager in the address bar of your browser: 192.168.9.11 – or –
Enter the DNS address of the energy manager in the address bar of your browser: <https://porsche.hem>
- ▶ Refer to the Porsche Home Energy Manager Operating Manual.

Open Web Application via WiFi (WPS function)

1. Press the WPS button on the network router.
2. Within 2 minutes, press the **WPS** button on the energy manager.
3. Select the appropriate network in the router settings and find out the IP address of the energy manager.
4. Enter the IP address of the energy manager in the address bar of your browser.

▶ Refer to the Porsche Home Energy Manager Operating Manual.

Information

Some routers offer the option of accessing the Web Application using the host name **Porsche-HEM** (e.g. via <https://porsche-hem/>).

Ethernet

1. Connect the Ethernet cable to the energy manager (port ETH0).
2. Select the appropriate network in the router settings and find out the IP address of the energy manager.
3. Enter the IP address of the energy manager in the address bar of your browser.

PLC client

The energy manager can be integrated in a PLC network as a client.

Note: For this, you will need a PLC modem with HomePlug standard (not included in the scope of delivery).

- ▶ On the PLC modem, enter the security code of the energy manager to register it in the PLC network.
– or –
Press the pairing button on the PLC modem, then press the **PLC** button on the energy manager within 60 seconds.

Overview network connections

You will find an overview of the network connections after the last language at the end of the operating instructions.

Logging into the Web Application

Two users (user roles) are available for logging into the Web Application: **Home user** and **Customer service**.

The **Customer service** user may only be used by a qualified electrician or Porsche service partner. The qualified electrician is responsible for setting up the energy manager. He carries out the setup wizard including home installation and has access to all the configuration options in the web application.

Logging into the Web Application

- ✓ The access data is to hand.
- 1. Select the user **Customer service**.
- 2. Enter the password (shown as **Tech User Password** in the letter containing access data).

Starting Initial Installation

The setup wizard guides the qualified electrician through the entire installation via individual steps.

- ▶ To complete a step in the setup wizard, enter the desired setting and press **Next** to confirm.
- ▶ To go back one step, press Web Application **Back** in the web application. **Do not use the Back button of the browser.**

Information

If the installation process is interrupted, it can be resumed by logging in again. After 25 minutes of inactivity, the user is automatically logged out of the Web Application.

The installation assistant can only be started as a customer service. When logging in as a home user, the prompt to log out follows the greeting.

1. Starting installation

- ▶ On the start page, select **Next** to start going through the configuration steps of the setup wizard.

2. Set language, country and currency

Field	Explanation
Language	Select the language for Web Application.
Country	The country of use. The configuration settings vary depending on country. If you enter a country that is not the actual place of use, some settings may not be available.
Postcode	The postcode where the device will be used. In a future software version, entering the postcode will enable a more precise weather forecast. This will improve the management of solar energy.
Date and time	When there is a network connection, the date and time are applied automatically. Time zone: Has to be selected manually. User-defined time: Enter the current time if the network time is not available as a reference.
Currency	The desired currency.

3. Consent to the transfer of data

Read the data privacy information concerning Web Application of the energy manager carefully.

- ▶ Select **Next** to consent to the data privacy information.

Information

Legal information and data privacy guidelines with information on third-party content and licences may be accessed via the link from Web Application at any time.

4. Selecting update and backup

Automatic software updates

Information

For automatic software updates, the energy manager must be connected to the Internet.

When this function is enabled, software updates are installed automatically.

- ▶ Enable **Automatic software updates** the function.

Automatic backup

When this function is enabled, backups are automatically saved to the connected USB storage device.

1. Insert a USB storage device in one of the two USB ports in the energy manager (USB storage device has an ext4 or FAT32 file system).
2. Enable the function.
3. **Assign password:** Enter a password.

The password protects your data and must be entered when you import or restore the backup.

Information

It is still possible to do manual backups.

5. Selecting a network connection

To use the energy manager via the Web Application, your device (PC, tablet or smartphone) and the energy manager must be in the home network (WiFi, PLC, Ethernet). All the functions Web Application of the can be used via the Internet connection of the home network.

If there is no home network available at the place of use, your device can log in to the energy manager directly via its WiFi hotspot. However, in this case there is no Internet connection, and only locally installed functions are available.

Information

In the Web Application, only disable the hotspot connection if a connection to a home network is possible.

▶ Refer to the Porsche Home Energy Manager Operating Manual.

- ▶ Select the desired network connection (WiFi, Powerline Communication (PLC), Ethernet).

WiFi

The energy manager can be connected to an existing WiFi network (e.g. via a network router).

Client mode is activated in the Web Application. The energy manager can be added to the network either manually by entering a password or automatically using the WPS function.

If the energy manager is connected to the network router, it automatically gets an IP address in which you can view the settings of the energy manager and the router.

In order to use a WiFi connection, the WiFi network has to be received at the location where the device is being used. Does your smartphone, which is signed

into your WiFi network, have WiFi reception at the location where the energy manager is being used? If the signal is weak, it may be possible to improve it by repositioning the WiFi router or using a WiFi repeater.

1. Enable WiFi.
 - ➔ Available WiFi networks are displayed.
 2. Add the energy manager to the WiFi network:
 - **Option 1:** with password entry
 - Select your network from the list and enter the security code.
 - Other network:** Select this if you are using a network that is not on the list.
 - Choose whether to have the IP address assigned automatically (recommended).
 - **Option 2:** with WPS function
 - Press the WPS button on the network router.
 - Within 2 minutes, press the button **WPS** in the Web Application and select your network from the list of available networks.
- ➔ The IP address appears once the connection to the network is established.
- The status **Connected** appears by the network on the list.

Powerline Communication (PLC)

With Powerline Communication, communication takes place via the power grid. For this to happen, the existing mains supply is used to set up a local network for data transfer.

There are two options for connecting the energy manager to a PLC network:

As a PLC client:

The energy manager is registered as a client in a PLC network. The PLC modem assigns an IP address to the energy manager and enables communication via the power grid. You must enter the energy manager's security code on the PLC modem.

- Note: For this, you will need a PLC modem with HomePlug standard (not included in the scope of delivery).

With a DHCP server:

The energy manager can function as a DHCP server. This way, the charger can be connected directly to the energy manager without the need for a PLC modem. For this to happen, the DHCP server needs to be enabled in the Web Application. Other connections (e.g. WiFi or Ethernet) can be maintained at the same time. This way, internet can also be made available to the charger.

1. Activate **Powerline Communication**.
2. Add the energy manager to the PLC network:
 - **Option 1:** with the pairing button
 - Press the pairing button on the PLC modem.
 - Within 60 seconds, select button **Connect** in the Web Application.
 - **Option 2:** by entering the security code on the energy manager
 - Select option **Establish connection with PLC security code** in the Web Application,
 - Enter the security code of the PLC modem.
 - Select button **Connect**.
 - **Option 3:** by entering the security code on the PLC modem.

Note: For this, you will need a PLC modem with HomePlug standard (not included in the scope of delivery). This option is only possible if no other PLC connection has already been established.

 - On the PLC modem, enter the security code of the energy manager to register it in the PLC network.
 - Choose whether to have the IP address assigned automatically (recommended) or to define it each time.
- ➔ If the IP address is assigned automatically, it appears as soon as the connection to the network has been established.

Establish direct PLC communication with the charger:

1. Activate **DHCP server** in the Web Application.
 - or -
 - To enable the DHCP server, press and hold the PLC pairing button on the Home Energy Manager for more than 10 seconds.
2. Select button **Connect** in the Web Application.
 - or -
 - Briefly press the PLC pairing button at Home Energy Manager.
3. Within 60 seconds, press the **PLC pairing button** on the charger (**Settings ▶ Networks ▶ PLC**).

Information

Interfering power consumers, power network equipment or an unsuitable network topology can cause temporary or permanent PLC communication failures.

Ethernet

Data is sent via an Ethernet cable that connects the energy manager to the network, e.g. network router. Once a connection has been established, an IP address is automatically assigned to the energy manager.

1. Connect the Ethernet cable to the energy manager (port ETH0).
2. Choose whether to have the IP address assigned automatically (recommended) or to define it each time.

6. Set user profiles

Information

If you don't yet have a Porsche ID, you can create one first. You can link the Porsche ID later on. To do this, go to **Connections > User profiles**. To transfer data to your Porsche ID account, the device must be connected to the Internet.

You can also retrieve information on the energy manager in your Porsche ID account. For this purpose, the energy manager must be linked with the Porsche ID.

✓ The energy manager has an Internet connection.

1. Select button **Link Porsche ID**.
 - ➔ The dialogue **Link user profile** opens.
2. Select the appropriate option, depending on whether there is an Internet connection:

Optional	Explanation
To My Porsche	<ul style="list-style-type: none"> ✓ Your device has an Internet connection ▶ You will be redirected straight to the login page of the Porsche ID account.
Further options	<ul style="list-style-type: none"> ✓ Your device does not have an Internet connection ▶ Using a device that has an Internet connection, scan the displayed QR code or enter the displayed URL manually in your browser.

- ▶ On the Porsche ID account website, enter your login data (Porsche ID, password).

Information

It can take up to 2 minutes to complete registration in the HEM following registration on the Porsche website. Do not click anything until the successful link is also confirmed in the HEM web application.

7. Home installation: Set mains phases

Set the number of available mains phases of the house connection.

Optional	Explanation
Individual phase	Only one phase is used.
Shared phases	Single-phase three-wire network
Three phase	Three phases are used.

8. Home installation: Assign current converter

The possible connection positions of the current converters are listed here in a table.

The **Connection position** on the device (CT_x, where $x = 1-12$) must be individually set for each current converter.

The connection positions that need to be enabled and configured are the current converter cable connections on the device itself (numbered 1–12 on the device from right to left). In addition, you need to determine which current converter measures which phase.

Information

A maximum of 12 current converters can be connected and configured. This enables the monitoring of both the main cables and cables to sub-distribution panels and a solar installation.

- ✓ The connection positions of all connected current converters on the charger have been checked.
- 1. In the table, enable the current converters to be used for monitoring.
- 2. Enter the appropriate settings for each current converter:

Column	Explanation
Active	Connection position is active
Connection position	Connection position on device See designations on device 1 — 12 from right to left.
Phase	Enter the phase that will be measured by the current converter in the given connection position (CT _x).
Current sensor	Designation of the installed current converter.

Column	Explanation
Current limit [A]	If in doubt, check the marking on the installed current converter. Enter the current limitation of the line fuse to which the current converter is connected. The value must not exceed the rated current of the fuse of the line to which the current converter is connected. A 2 A lower value is recommended. Therefore, the default setting is 30 A for 32 A fuses.
Live Analysis*	Visibility in the live analysis

* Go to live analysis

Live analysis is used by the qualified electrician to check whether the phase is configured correctly and whether the installation of the current converters was performed correctly. The live analysis shows current values with direction (+/-) above a measured current of 3 A and also shows an assessment of the phase at which the current converter is located. With regard to the current direction, negative values represent consumption, positive values represent supply at the measuring point. The measured current of a solar installation must be negative.

The live analysis does not claim to be completely accurate. However, it is recommended to check the installation and configuration in case of deviating specifications:

- **If the current direction is incorrect:** Check installation of the current converters and the connection of the power converter lines on the device to ensure that the individual power converters were not connected the wrong way round.
- **If the phase deviates:** Check that the current converters are installed at the correct phase and adapt the configuration of the phase in the web application for the current converter if necessary.

9. Home installation: Configure power sources

Define the connected current converter for each phase of the house connection and for other power sources at the place of use (e.g. photovoltaic system).

House connection

Only the current converters created in Step 8 are displayed.

1. Assign a current converter to a phase.
2. If necessary, add further current converters in step 8.

Photovoltaic system

If the place of use has a photovoltaic system, information about the type of connection and feed-in remuneration is required for energy management.

1. Enable the function.
2. Select the type of connection of the photovoltaic system:

Optional	Explanation
Load-connected/ excess feed-in	<p>The system is connected to the power grid after the house connection.</p> <p>Excess power from the photovoltaic system flows via the house connection into the grid (in this case, the current that the energy manager measures at the house connection may be positive).</p>
Grid-side/full feed-in	<p>The system is connected to the power grid upstream of the house connection. The power from the photovoltaic system is fed directly into the grid.</p>
Example	Shows the two configuration types in one example.

Phase and current converters

If a photovoltaic system is installed, the phases can be selected and the current converters can be assigned here.

1. Select the number of phases.
2. Assign current converter.
3. If necessary, add further current converters in step 8.

Information

Additional current converters are available as spare parts from your Porsche partner.

Information

In the case of load-side installation or excess feed-in, the assignment of current converters is not mandatory for the use of the self-consumption optimization function. In this case, only the number of phases must be selected. However, this does not guarantee complete energy statistics.

10. Home installation: Enter current consumers

Existing current consumers (e.g. garage, sauna) and EEBus devices (e.g. charger Porsche Mobile Charger Connect, Porsche Mobile Charger Plus) are specified here and the current converters are assigned to the phases used accordingly.

EEBus describes a communication protocol that is integrated in the Porsche Mobile Charger Connect, for example. If both the energy manager and an EEBus device are in the same network, the protocol enables both devices to be paired.

It is important to note the following requirements when adding a load:

- The current consumer or EEBus device must have a current sensor for each phase.
- The number of phases in the supply cable of the EEBus device are known and are configured accordingly.

For each of the current consumers shown here, the power supply can be displayed in the **Overview** and in **History**.

Displaying house connection phases as current consumers

Instead of listing current consumers here, you can also add the individual phases of the house connection. This allows phase-specific consumption to be displayed in the **Overview**.

Configure the following settings:

1. Select **Add current consumer**.
2. Enter a name for the fictitious current consumer (e.g. **L1**, **L2** or **L3**).
3. Select **Single phase** as mains phase.
4. Assign the current converter that measures this phase to the house connection.

Adding an EEBus device

- ✓ EEBus devices (e.g. charger Porsche Mobile Charger Connect, Porsche Mobile Charger Plus) and energy manager are located in the same network.
 - ✓ The EEBus device is switched on and not in standby mode.
1. Select **Add EEBus device**.
 - ➔ Available EEBus devices are displayed. Only devices that are not already connected to the energy manager are displayed.
 2. Select and configure:

You can identify the EEBus device by its ID number (SKI). The SKI of the charger Porsche Mobile Charger Connect can be found in Web Application of the charger (**Connections** ▶ **Energy manager**).

Information

Deactivate the standby mode of the charger Porsche Mobile Charger Connect in the Web Application of the charger.

Optional	Explanation
Name	Name of current consumer
Type	Set by default as an EEBus device
Mains phases	Number of phases in the EEBus device supply cable
Assign current sensor to a phase.	Select the current converter that is connected to the EEBus device cable

- ▶ Start connection on the charger.
 - charger Porsche Mobile Charger Connect: Start EEBus connection in the Web Application of the charger (**Connections** ▶ **Energy manager**) or on the charger (**Settings** ▶ **Energy manager**).
 - Charger Porsche Mobile Charger Plus: Activate the charge status **Energy manager** on the device. The charger automatically attempts to establish a connection to the PLC network and to the energy manager.
- ▶ Information on adding the energy manager in the Web Application of the charger can be found in the Installation Manual on the Porsche website at the following address:
<https://tinyurl.com/porsche-e-help>

Information

Look out for a possible phase shift in the socket to which the charger is connected.

Example:

An EEBus device is to be connected to a phase-shifted socket, which does not use phase 1 as usual, but uses phase 2 or is multi-phase, and which does not begin with phase 1, but with phase 2. The current converter that is assigned to phase 1 is selected as the **first current converter of a phase**. The current converter is now assigned to the EEBus device cable.

Note: The **Optimised charging** function cannot be used without mutual EEBus pairing with a charger such as the Porsche Mobile Charger Connect. You can tell that pairing was successful by the **Energy manager connected** symbol (house icon) in the status bar of the charger.

Information

Phase-individual reduction

Porsche vehicles supplied with an energy manager can carry out a phase-specific reduction in the charging current. The chargers should therefore always be configured for the correct phase, otherwise charging will be restricted to the wrong phase.

i Information

The overload protection always protects the fuse on the cable where the current converter configured for the EEBus device is located, and the main fuse.

If the place of use does not have any additional current converters, the current converters of the house connection can be used for measuring the EEBus device.

Additional current converters are available as spare parts from your Porsche partner.

11. Change tariff settings

Here, you can enter information on possible time differences in electricity prices, in line with your tariff.

- ▶ Select whether the tariff will change within a given period.
- ➔ Further information can be entered, depending on the selected setting.

Optional	Explanation
Static tariff	The electricity price does not change at different times. <ul style="list-style-type: none"> ▶ Price per kWh: Enter your agreed electricity price per kilowatt hour.
Variable tariff	The electricity price varies at different times. <ul style="list-style-type: none"> ▶ Press Yes to select this variation (seasonal, days of the week, times of day) and define the time

Optional	Explanation
	intervals and their electricity prices per kilowatt hour. <ul style="list-style-type: none"> ▶ Create and adjust further intervals if necessary.
Feed-in remuneration	▶ Enter reimbursement if power is fed to the grid.

12. Optimised charging**Overload protection**

Using current converters, the energy manager is informed about currents and so protects the fuses of your domestic installation from overload. Current converters on the house connection only protect the main fuses. We therefore recommend additional current converters (not included in the scope of delivery) on the leads of the sub-distribution boards, which are used for EEBus devices such as chargers. Overload protection is triggered if the rated current of a fuse is exceeded. In this case, the charging current is reduced. If the minimum charging current is not reached (vehicle-specific), the charging process is aborted. If several chargers are used at the place of use, we recommend letting the energy manager coordinate the charging processes. The energy distribution principle of the energy manager offers the following options.

Optional	Explanation
Balanced	The available charging power is distributed between all charging vehicles as evenly as possible.
Chronological	The charger that starts charging first is prioritised in energy distribution.
Individual	The first EEBus device on the list is prioritised in energy distribution. <ul style="list-style-type: none"> ▶ To change the order of priority, drag devices to the desired position.

i Information

If several charging processes are taking place simultaneously, energy is distributed in accordance with the option selected here.

i Information**Update: Phase-individual reduction**

When the plug-and-Charge function is activated, Porsche vehicles supplied with an energy manager can carry out a phase-individual reduction in the charging current. The minimum charging power will then be much lower, and a reduction will no longer interrupt the charging process.

Own consumption optimisation

The function is deactivated by default.

- ▶ Activate the function using the switch.

If this function is enabled, the vehicle can decide whether it continues the charging process using power provided by the photovoltaic system after minimum charge has been reached. Until the minimum charge is reached (stated as a percentage of battery capacity), the vehicle is charged at the maximum possible power (unless limited by overload protection). After this, charging is optimised, i.e. the vehicle only charges if power is available from the photovoltaic system that would otherwise be fed as excess into the power grid.

The following conditions must be met for the function **Own consumption optimisation**:

- ✓ A photovoltaic system (or other home energy generator) is configured in the energy manager.
- ✓ The charger Porsche Mobile Charger Connect (USA: Wall Charger Connect) is used.
- ✓ Porsche Taycan: A charging profile that enables optimised charging is enabled in the vehicle. Minimum charge level is reached. Plug and Charge is active.

Cost-optimised charging

- ▶ Activate the function using the switch.

The energy manager uses the entered current tariff data to generate tariff and power tables, and sends them to the vehicle via the charger. Based on the tariff settings, the vehicle recognises the variation over time in the charging current price. Under consideration of additional constraints such as timer, preconditioning, etc., the vehicle can calculate and generate a cost-optimised charging plan. It then transfers this to the energy manager, which monitors compliance with the charging current limit.

If several charging processes are taking place simultaneously, energy is distributed in accordance with the **Overload protection** selected option. Porsche Vehicles have priority over other vehicles in terms of the available power.

- ▶ Enable the function.

A timer must be set to optimise costs. Porsche Taycan: A profile for optimised charging must also be set here.

Information

This function is only suitable for electricity tariffs that vary over time.

The energy manager's overload protection can restrict distribution if necessary.

13. Summary

The summary provides an overview of all your entered settings. You should check your entries again.

Changing settings

- ▶ Select the button for the setting to be changed.
- ➔ The selected installation step is opened and can be edited.

Tabular overview:

- **Connection position** of the current converters (line 1: CT_x, where x=1-12) and their assignment to one **Phase** of the house current network (line 2: L1 to L3).
- The rows **Power sources** and **Devices** list the configured current sources (house connection and photovoltaics, if applicable) and consumers (e.g. charger) one after the other, as well as their assignment to the relevant phase (L1, L2, or L3) or to the current converter (CT_x) is displayed.

Final steps

1. Search for a software update under **Settings**
 - ▶ **Maintenance**.
2. Perform a manual backup under **Settings**
 - ▶ **Maintenance**.

When the setup wizard has finished, you will automatically be taken to the overview of Web Application.

Information

If important settings are changed in the home installation system, the Installation Assistant is opened automatically. Starting from the changed step, the wizard must be run through to the end in order to check all settings again.

Troubleshooting: Problem and solutions

Problem	Possible cause	Remedy
No power is shown for the EEBus device in the overview of the Web Application	EEBus connection on the EEBus device (e.g. Porsche charger) has failed	<ul style="list-style-type: none"> ▶ Repeat EEBus connection on the EEBus device and, if necessary, boost the communication signal (WiFi or PLC). ▶ Pay attention to the manual of the EEBus device.
	No phase assignment in Web Application	<ul style="list-style-type: none"> ▶ In the HOME INSTALLATION of the Web Application assign phases to the EEBus device by current converters.
Power sources or configured current consumers show no or an incorrect power	No cables connected to voltage measurement	<ul style="list-style-type: none"> ▶ The qualified electrician connects the neutral and live wires to the energy manager via J400 connector.
	Current converter connected the wrong way round	<ul style="list-style-type: none"> ▶ The qualified electrician checks whether the direction arrow of the current converter is pointing towards consumption, and whether the cable is correctly connected to J200, J300 and J301 connectors.
	Current converter not or incorrectly configured	<ul style="list-style-type: none"> ▶ Check whether the connection positions of the current converters on the energy manager match the configuration Web Application in the HOME INSTALLATION (CT#). In addition, check that the configured phases of the current converters match the voltage measurement phases.
	No or incorrect current converters configured for current consumers	<ul style="list-style-type: none"> ▶ In the Web Application HOME INSTALLATION, check whether (the correct) current converters have been assigned to the current consumer.
The fuse trips despite active overload protection	Current converters are connected incorrectly	<ul style="list-style-type: none"> ▶ The qualified electrician checks whether the direction arrow of the current converter is pointing towards consumption, and whether the cables are correctly connected to J200, J300 and J301 connectors.
	Current converter not or incorrectly configured	<ul style="list-style-type: none"> ▶ Check whether the connection positions of the current converters on the energy manager match the configuration in the Web Application HOME INSTALLATION (CT#). In addition, check that the configured phases of the current converters match the voltage measurement phases.

Starting Initial Installation

Problem	Possible cause	Remedy
	EEBus connection was unsuccessful or connection was briefly interrupted	<ul style="list-style-type: none"> ▶ Repeat EEBus connection on the EEBus device and, if necessary, boost the communication signal (WiFi or PLC). ▷ Pay attention to the manual of the EEBus device.
	EEBus device has the wrong phase assignment	<ul style="list-style-type: none"> ▶ In the Web Application HOME INSTALLATION, check whether (the correct) current converters have been assigned to the current consumer.
	A fuse that does not protect the energy manager has tripped	<ul style="list-style-type: none"> ▶ You can purchase current converters for protecting further fuses for cables leading to the EEBus device from your Porsche partner. ▶ Have these fitted and configured by a qualified electrician.
The vehicle is not charged with the available excess solar electricity	Current converters are connected incorrectly	<ul style="list-style-type: none"> ▶ The qualified electrician checks whether the direction arrow of the current converter is pointing towards consumption, and whether the cables are correctly connected to J200, J300 and J301 connectors.
	Current converter not or incorrectly configured	<ul style="list-style-type: none"> ▶ Check whether the connection positions of the current converters on the energy manager match the configuration in the Web Application HOME INSTALLATION (CT#). In addition, check that the configured phases of the current converters match the voltage measurement phases.
	EEBus connection was unsuccessful or connection was briefly interrupted	<ul style="list-style-type: none"> ▶ Repeat EEBus connection on the EEBus device and, if necessary, boost the communication signal (WiFi or PLC). ▷ Pay attention to the manual of the EEBus device.
	EEBus device has the wrong phase assignment	<ul style="list-style-type: none"> ▶ In the Web Application HOME INSTALLATION, check whether (the correct) current converters have been assigned to the EEBus device or whether there is a phase rotation when connecting the EEBus device. The qualified electrician modifies the configuration or the wiring.
	Photovoltaic system incorrectly configured	<ul style="list-style-type: none"> ▶ The qualified electrician checks whether the photovoltaic system is connected on the grid side or on the load side and checks the corresponding configuration in the Web Application HOME INSTALLATION, as well as the assignment of the phases and current converters.

Problem	Possible cause	Remedy
	The software version of the Porsche charger and/or vehicle does not support the function	<ul style="list-style-type: none">▶ Update the Porsche charger.▶ For software updates for your vehicle, contact your Porsche partner.
	Function self-consumption optimisation inactive	<ul style="list-style-type: none">▶ Activate function self-consumption optimisation and follow the instructions.
	PV current too low	At least 2 A excess current per phase is required.

Technical Data

Description	Value
Ports	2 x USB, 1 x PLC, 2 x WiFi, 2 x Ethernet, 12 x CT input, 1 x RS485/CAN (not assigned)
Required space	Horizontal pitch 11.5 (1 horizontal pitch equals 17.5-18 mm/0.7 inches)
Measure current	0.5 A to 600 A (depending on current converter), maximum cable length 3.0 m
Voltage measurement	100 V to 240 V (AC)
Maximum length of supply cable to USB port	3.0 m
Energy manager input	24 V (DC)/0.75 A
External power supply (input)	100 V to 240 V (AC)
External power supply (output)	24 V (DC)/18 W
Relay (voltage/load)	Max. 250 V (AC), max. 3 A resistive load
Storage temperature range	-40 °C to 70 °C
Operating temperature range	-20 °C to 45 °C (at 10 % to 90 % relative humidity)
Type of item under test	Control unit
Description of device function	Household charge management
Connection to the electricity supply	External mains power supply unit
Installation/overvoltage category	III
Measurement category	III
Degree of contamination	2
Degree of protection	IP20

Description	Value
Protection rating to IEC 60529	Rail-mounted device
Protection class	2
Operating conditions	Continuous operation
Overall size of device (width x depth x height)	159.4 mm x 90.2 mm x 73.2 mm
Weight	0,3 kg
External current converter (accessory and removable part)	ECS1050-L40P (EChun; 50 A input; 33.3 mA output) TT 100-SD (LEM, 100 A input; 33.33 mA output) ECS24200-L40G (EChun; 200 A input; 33.3 mA output) ECS36400-L40R (EChun; 400 A input; 33.3 mA output) ECS36600-L40N (EChun; 600 A input; 33.3 mA output)
Antenna (accessory, removable part)	HIRO H50284
Transmission frequency bands	2,4 GHz
Transmission power	58,88 mW

Production information

<https://tinyurl.com/porsche-docs>

Declaration of conformity



The energy manager features a radio system. The manufacturer of these radio systems declares that these radio systems comply with the specifications for their use in accordance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available on the Porsche website at the following address:

Index

A

Activate DHCP server.....	22
Applicable documents.....	3
Applicable standards/directives.....	32

B

Backups	
Automatic backup.....	21
Basic safety principles.....	3

C

Charging current reduction.....	27
Circuit breakers.....	12
Confirm SSL certificate.....	18
Connecting	
Current measurement channels.....	15
External mains power supply unit.....	15
Relay channels.....	15
RS485/CAN communication.....	15
Voltage measurement channels.....	15
Connecting current measurement channels.....	15
Connecting external mains power supply unit.....	15
Connecting relay channels.....	15
Connecting RS485/CAN communication.....	15
Connecting the WiFi antenna.....	15
Connecting voltage measurement channels.....	15
Connection	
To the building installation.....	14
To the power grid.....	12
Connection diagram.....	7
Connections	
On top.....	8
On underside.....	9
Connector	
Communication.....	12
Current measurement.....	10

for voltage measurement.....	10
Power supply.....	11
Relay contact.....	11
Consent to the transfer of data.....	21
Cost-optimised charging.....	27
Current consumer	
Add.....	25
Configure.....	25
Enter house connection.....	25
Current converter	
Assign.....	24

D

Declaration of conformity.....	33
Disclaimer.....	4
Displays and controls.....	7
Disposing of the packaging.....	5
Domestic installation, example.....	6

E

EEBus devices	
Add.....	25
Configure.....	25
Enable connection.....	18
Establish connection	
Ethernet.....	15
Powerline Communication (PLC).....	16
WiFi.....	15
Ethernet	
Connect.....	18, 22
Setup.....	18

F

Fault Finding.....	29
--------------------	----

H

Home installation	
Add EEBus devices.....	25
Enter current consumer.....	25

Hotspot	
Connect.....	18

I

Initial Installation	
Start.....	21
Initial start-up	
Notes.....	17
Requirements.....	17
Install current converter.....	13
Installation and connection.....	10
Installation at high altitude.....	4
Installation in the distribution cabinet.....	13

L

Legal information and data privacy guidelines.....	21
Linking a user profile.....	23
Logging	
Into the web application.....	20

M

Main phases	
Select.....	24
Manufacturer of the energy manager.....	5

N

Network connection	
Select.....	22
WiFi network.....	22
Network connections	
Ethernet.....	22
PLC network.....	22
Powerline Communication network.....	22
Notes on installation.....	4

O

Optimised charging.....	27
Optional components.....	5

Overview of device connections. 5, 8
 Own consumption-optimised charging. 27

P

PLC network
 Connect. 18
 Set up. 22
 Porsche ID account
 Link. 23
 Register. 23
 Power sources
 Select. 25
 Powerline Communication (PLC)
 Checking signal quality. 16
 Display elements. 7
 Preparing the distribution cabinet. 13
 Product maintenance. 32
 Proper use. 3

Q

Qualification of Personnel. 4

R

Reduction charging current
 Phase-individual. 26
 Phase-synchronous. 26
 Registration
 Porsche ID account. 23
 Routing connecting cables. 14

S

Scope of delivery. 5, 8
 Set charging behaviour. 27
 Set country. 21
 Set currency. 21
 Set energy distribution. 27
 Set language. 21
 Set postcode. 21

Settings

 Country. 21
 Currency. 21
 Language. 21
 Postcode. 21
 Time. 21

Signal quality. 16

Software updates

 Automatic download. 21

Spare parts and accessories. 5

Symbols in this Owner's Manual. 1

T

Tariff setting

 Enter electricity price. 27

Technical Data. 32

Time

 Set. 21

W

Warning notices setup. 1

Web application

 Login. 20

Wifi network

 Configure. 22

 Connect. 22

WiFi network

 WPS function. 18

WPS function. 18, 22