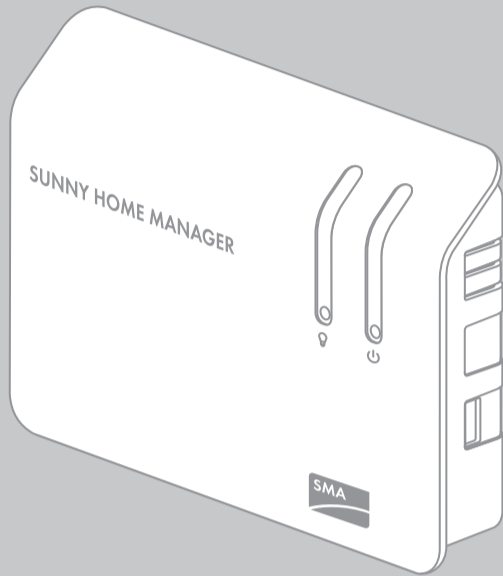




# 1 INFORMATION ON THIS DOCUMENT

## Quick Reference Guide for Commissioning SUNNY HOME MANAGER



HoMan-IS-en-1.5 | Version 1.5

CE ENGLISH

### Validity

This document is valid for device type "HM-BT-10.GR2" (Sunny Home Manager) from software package 1.1.2. You can find the latest version of this document, matching the current software version of the products, at [www.SMA-Solar.com](http://www.SMA-Solar.com). This document is not a substitute for the documentation of any Plugwise devices which may be installed.

### Target Group

This document is intended for qualified persons. Only persons with the appropriate skills are allowed to perform the activities described in this document. Qualified persons must have the following skills:

- Training in the installation and commissioning of electrical devices.
- Knowledge of all applicable standards and directives

### Intended Use

The Sunny Home Manager is a device responsible for energy management in households with a PV system. The Sunny Home Manager carries out the following basic tasks:

- Readout of energy meter data and data from SMA devices with BLUETOOTH or Speedwire communication interface and from Plugwise radio-controlled sockets
- Energy management with forecast-based appliance control via various interfaces
- Transmission of data to Sunny Portal
- Support for increase of self-consumption rate
- Limitation of active power feed-in

The product is designed for indoor use only.

The Sunny Home Manager must only be used in conjunction with supported devices (for list of supported devices, see Sunny Home Manager installation manual at [www.SMA-Solar.com](http://www.SMA-Solar.com)). For safety reasons, it is not permitted to modify the product or install components that are not explicitly recommended or distributed by SMA Solar Technology AG for this product.

Use this product only in accordance with the information provided in the enclosed documentation and with the locally applicable standards and directives. Any other use can result in personal injury or property damage.

Do not use the Sunny Home Manager in systems which include a Sunny WebBox.

The enclosed documentation is an integral part of this product. Keep the documentation in an easily accessible place for future reference and observe all instructions contained therein. **Before installing or using the product, read and observe all instructions, safety precautions and warning messages in this document and in the user and installation manual of the Sunny Home Manager at [www.SMA-Solar.com](http://www.SMA-Solar.com).**

### Declaration of Conformity

SMA Solar Technology AG hereby declares that the equipment described is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The complete EC Declaration of Conformity can be found at [www.SMA-Solar.com](http://www.SMA-Solar.com).

## 2 SAFETY

### DANGER

#### Danger to life due to electric shock

Lethal voltage levels are present in the conductive parts of the plug-in power supply and the top-hat rail power supply.

- Only use the Sunny Home Manager indoors and in a dry environment; keep it away from liquids.
- Do not open the plug-in power supply.

### CAUTION

#### Risk of injury due to incorrect cable routing

Incorrectly routed cables may cause a tripping hazard.

- Ensure that the cables are routed so that no one can step on or trip over them.

### NOTICE

#### Damage to the Sunny Home Manager due to moisture penetration

The Sunny Home Manager is not splash-proof.

- Only use the Sunny Home Manager indoors and in a dry environment.

## 3 REQUIRED MATERIAL

For commissioning, you will need the following items from the package:

- 1 x Sunny Home Manager
- 1 x plug-in power supply
- 1 x network cable
- 2 x screw
- 2 x screw anchor
- 6 x label
- 3 x 4-pole plug

If you are using an SMA Energy Meter in your Sunny Home Manager system, you will need the following additional material (not included in the scope of delivery):

- 1 x network cable

If you wish to connect the Sunny Home Manager to an energy meter with S0 interface, you will need the following additional material (not included in the scope of delivery):

- Per energy meter 1 x cable with at least 2 insulated conductors, core cross-section: 0.2 mm<sup>2</sup> to 1.5 mm<sup>2</sup>, maximum cable length: 30 m

If you wish to connect the Sunny Home Manager to an energy meter with D0 interface, you will need the following additional material (not included in the scope of delivery):

- Per energy meter 1 x cable with optical probe and 4-pole plug

## 4 PREPARATION

1. If a Plugwise Stretch and Plugwise RC sockets Circle are used in the system, commission and register all Plugwise devices in the Plugwise app (see manufacturer's manual). At a later stage you will be able to add the Plugwise radio-controlled sockets to your Sunny Home Manager system.
2. Determine the mounting location for the Sunny Home Manager. Bear in mind the requirements for the mounting location (see Sunny Home Manager installation manual at [www.SMA-Solar.com](http://www.SMA-Solar.com)).
3. If SMA radio-controlled sockets are being used in the system, plug all of them into available wall outlets and make sure to use the assigned PV systems's NetID. (see the Sunny Home Manager installation manual at [www.SMA-Solar.com](http://www.SMA-Solar.com)). This will enable you to register the SMA radio-controlled sockets together with the Sunny Home Manager.
4. Note the serial numbers of all SMA devices with BLUETOOTH or Speedwire interface and of any Plugwise radio-controlled sockets. For each radio-controlled socket, also note the appliance to be assigned to the particular socket. This will facilitate the registration of your system in Sunny Portal.
5. Mount the Sunny Home Manager on the wall using the screws and screw anchors (distance between drill holes: 58 mm).

Device	Serial number

## 5 CONNECTING ENERGY METER

### Connecting the SMA Energy Meter

- Connect the SMA Energy Meter and the Sunny Home Manager to the same router in the local network.

### Connecting Energy Meters with S0 Interface or D0 Interface

You can connect up to three energy meters with S0 interface or D0 interface to the Sunny Home Manager. Depending on the interface of the particular energy meter, the manner of connection to the Sunny Home Manager will vary.

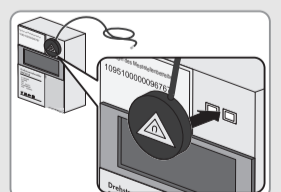


#### Requirements for energy meters

The energy meters must comply with the defined requirements (see the Sunny Home Manager installation manual or planning guidelines "SMA SMART HOME" at [www.SMA-Solar.com](http://www.SMA-Solar.com)).

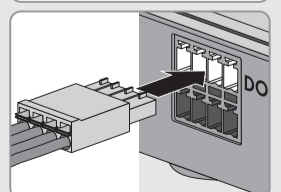
### Connecting Energy Meter with D0 Interface

1. Position the magnetic retainer of the optical probe at the front upper right-hand corner of the energy meter. The infrared interfaces on the optical probe and on the energy meter must be perfectly aligned.



2. Connect the four-pole plug of the optical probe to the pin connector assigned to the given energy meter. Insert the plug into the upper pin row:

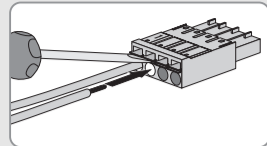
Energy meter	Pin connector
Purchased electricity meter, bidirectional meter for feed-in and purchased electricity	Meter 1
Feed-in meter	Meter 2
PV production meter	Meter 3



3. Use the labels provided to mark each cable with the pin connector and energy meter to which it is assigned.

## Connecting Energy Meter with SO Interface

- Strip the cable by 4 cm.
- If applicable, shorten the cable shield to 5 mm. Fold the surplus cable shield back onto the cable sheath.
- Shorten unused insulated conductors flush with the cable sheath.
- Strip off the conductor insulation by 6 mm.
- Release the pin connectors of the four-pole plug with a screwdriver and insert the insulated conductors into pins 1 and 2 of the plug.

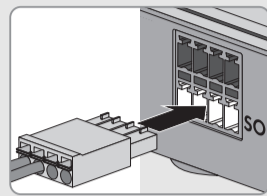


- Write down the color of the insulated conductors.

Pin	4-pole plug for	
	Purchased electricity meter	PV production meter
1 (SO-)	Feed-in meter	
2 (SO+)		

- Connect the four-pole plug to the pin connector assigned to the corresponding energy meter. Insert the four-pole plug into the lower pin row.

Energy meter	Pin connector
Purchased electricity meter	<b>Meter 1</b>
Feed-in meter	<b>Meter 2</b>
PV production meter	<b>Meter 3</b>



- Connect the end of the cable to the energy meter. Observe the polarity of the insulated conductors.
- Use the labels provided to mark each cable with the pin connector and energy meter to which it is assigned.
- Make a note of the SO pulses per kWh of each energy meter. This will facilitate the meter configuration in Sunny Portal.

## 6 COMMISSIONING

### Requirements:

- If Plugwise devices are installed: All Plugwise devices must be commissioned and registered in the Plugwise app (see manufacturer's manual).
- The PV system must be commissioned:
  - The same NetID must be configured for all BLUETOOTH devices, and the BLUETOOTH devices must be commissioned.
  - The Speedwire devices must be connected to the Sunny Home Manager via a router/network switch and must be commissioned.
  - NetID **0** must be set for Speedwire devices which also have an integrated BLUETOOTH interface.
- Smart appliances with direct data connection must be connected to the router in the same local network as the Sunny Home Manager.
- DHCP must be active for the router (see router manual). If your router does not support DHCP, use the Sunny Home Manager Assistant (see Section 8 "TROUBLESHOOTING", page 2).
- The routers and network switches with router function must forward the Multicast telegrams (telegrams with destination address 239.0.0.0 to 239.255.255.255) required for the Speedwire connection to all nodes of the Speedwire network. Therefore, all network components must support the IGMP protocol, minimum Version 3 (IGMPv3).

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For registration, you will need the following data from the type label of the Sunny Home Manager:

- Registration ID of the Sunny Home Manager ("Registration ID") (RID)
- Serial number of the Sunny Home Manager ("Serial Number") (PIC)

### Starting the PV System Setup Assistant

The PV System Setup Assistant will guide you through the registration of your Sunny Home Manager system in Sunny Portal.

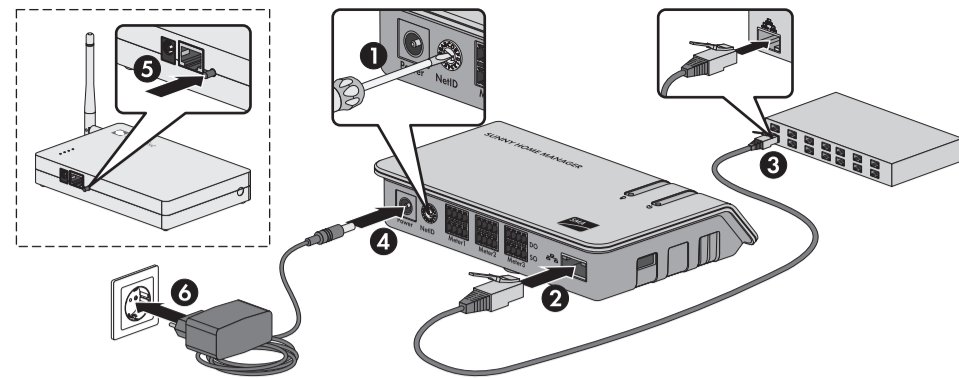
#### Procedure:

- Open [www.SunnyPortal.com](http://www.SunnyPortal.com) and select [**PV System Setup Assistant**].  
or  
Go to [www.SunnyPortal.com/Register](http://www.SunnyPortal.com/Register).  
 The PV System Setup Assistant opens.
- Select [**Next**].  
 The page **User registration** opens.
- Follow the instructions of the PV System Setup Assistant. Mark all the SMA radio-controlled sockets that you want to add to the Sunny Home Manager system.
- After completion of registration, configure further settings in Sunny Portal (see the Sunny Home Manager user manual at [www.SMA-Solar.com](http://www.SMA-Solar.com)):
  - Configure radio-controlled sockets and loads
  - Enter string properties
  - Set optimization target
  - Configure settings for PV system monitoring

## 8 TROUBLESHOOTING

Error	Cause and corrective measure
The status LED on the Sunny Home Manager is flashing red continuously.	It is possible that DHCP is not activated in your router, DHCP is not supported by the router, or there is a proxy server in your network. <b>Corrective measures:</b> <ul style="list-style-type: none"> <li>• If possible, activate DHCP in the router.</li> </ul> If the router does not support DHCP or there is a proxy server in your network, use the Sunny Home Manager Assistant (see page 2).
The PV System Setup Assistant does not detect the Sunny Home Manager, although you have entered the serial number correctly.	It is possible that the Sunny Home Manager is not properly connected to the router. <b>Corrective measures:</b> <ul style="list-style-type: none"> <li>• Ensure that the Sunny Home Manager is properly connected to the router.</li> </ul> It is possible that the Sunny Home Manager is not connected to the voltage supply. In this case, all LEDs on the Sunny Home Manager will be off. <b>Corrective measures:</b> <ul style="list-style-type: none"> <li>• Connect the Sunny Home Manager to the voltage supply (see Section 6 "COMMISSIONING", page 2).</li> </ul> It is possible that the registration procedure was previously initiated but not completed. <b>Corrective measures:</b> <ul style="list-style-type: none"> <li>• Perform a complete reset of the Sunny Home Manager (see the Sunny Home Manager installation manual at <a href="http://www.SMA-Solar.com">www.SMA-Solar.com</a>).</li> </ul>

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#### Procedure:

- On the Sunny Home Manager, use a screwdriver to turn the arrow of the rotary switch **NetID** to the NetID of the PV system (blade width of the screwdriver: 2.5 mm).
- Connect the network cable to the network terminal of the Sunny Home Manager.
- Connect the other end of the network cable to the router.
- Connect the DC plug of the plug-in power supply unit to the **Power** socket of the Sunny Home Manager.
- If a Plugwise Stretch with registered Plugwise radio-controlled sockets is installed:
  - On the front panel of the Plugwise Stretch hold the button pressed until the status LED flashes twice, and then release the button.
  - The status LED on the Plugwise Stretch flashes green.  
The detection mode of the Plugwise Stretch is active for 5 minutes. Within these 5 minutes you must perform a power cycle for the Sunny Home Manager (power off, power on). This will establish a stable data connection between Sunny Home Manager and the Plugwise Stretch. The Sunny Home Manager is connected to the Plugwise radio-controlled sockets via the Plugwise Stretch.
- Plug the plug-in power supply of the Sunny Home Manager into the outlet.
- The status LED of the Sunny Home Manager first glows red, and then flashes red. After approximately two minutes, the status LED intermittently flashes green and orange.
- The Sunny Home Manager's status LED is flashing red continuously.
  - See Troubleshooting (see Section 8, page 2).
- Once the Sunny Home Manager has booted the status LED of the Plugwise Stretch stops flashing. The Sunny Home Manager and the Plugwise Stretch are now connected. Now, the Sunny Home Manager can detect the Plugwise radio-controlled sockets and use them for energy management.

## 7 REGISTRATION IN SUNNY PORTAL

Sunny Portal serves as the user interface of the Sunny Home Manager. Therefore, you must register the Sunny Home Manager in Sunny Portal.

#### Requirements:

- If Plugwise devices are installed: All Plugwise devices must be commissioned and registered in the Plugwise app (see manufacturer's manual).
- If you are using SMA radio-controlled sockets, these must be plugged into outlets and the NetID of the PV system must be correctly configured (see the Sunny Home Manager installation manual at [www.SMA-Solar.com](http://www.SMA-Solar.com)).
- The PV system must be commissioned (see Section 6, page 2).
- The status LED of the Sunny Home Manager is flashing intermittently green and orange.

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### Using the Sunny Home Manager Assistant

The Sunny Home Manager Assistant will help you configure the Sunny Home Manager for your network if the Sunny Home Manager does not automatically connect to Sunny Portal. In addition, you can use the Sunny Home Manager Assistant to display the latest connection status to Sunny Portal, the network settings and the connected SMA BLUETOOTH devices, and to save these as a log file. If a service assignment should be necessary, Service can use this log file to analyze the problem.

#### Procedure:

- Use a network cable to connect the computer to the router to which the Sunny Home Manager is also connected.
- Download the Sunny Home Manager Assistant for the operating system of your computer (you will find the installation file at [www.SMA-Solar.com](http://www.SMA-Solar.com)).
- Start the Sunny Home Manager Assistant with a double click.
- Follow the instructions of the Sunny Home Manager Assistant.

## 9 CONTACT

If you have technical problems with our products, please contact the SMA Service Line. We require the following information in order to provide you with the necessary assistance:

- Serial numbers and software packages of the Sunny Home Manager and SMA radio-controlled sockets
- Type of energy meters
- Type of optical probes

If you encounter technical problems with Plugwise radio-controlled sockets used in the Sunny Home Manager system, please contact the SMA Service Line.

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