homematic IP

Operating manual

Pluggable Dimmer – trailing edge (UK) p. 2

HmIP-PDT-UK

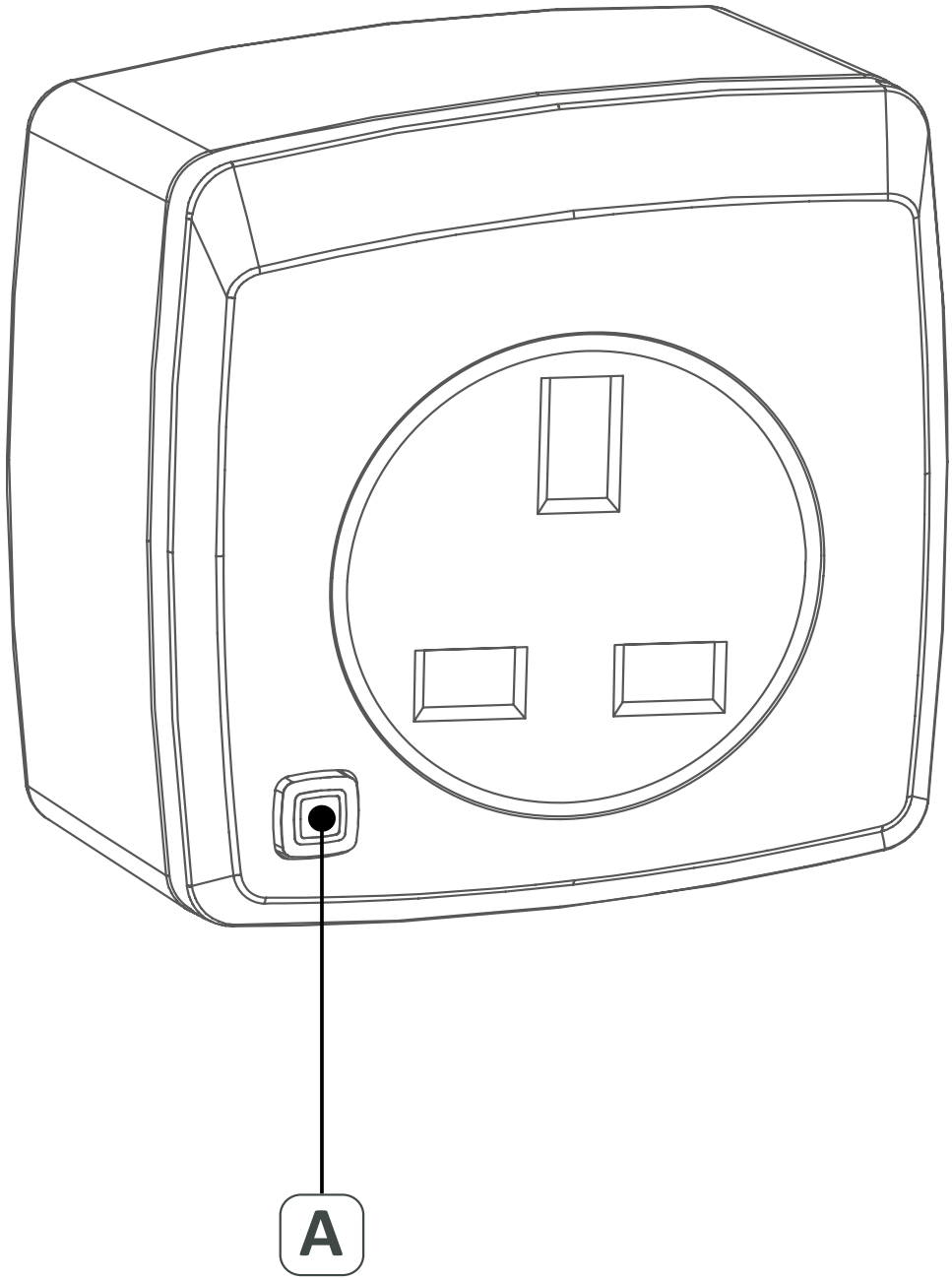
Package contents

Quantity	Description
1	Homematic IP Pluggable Dimmer — trailing-edge (UK)
1	Operating manual

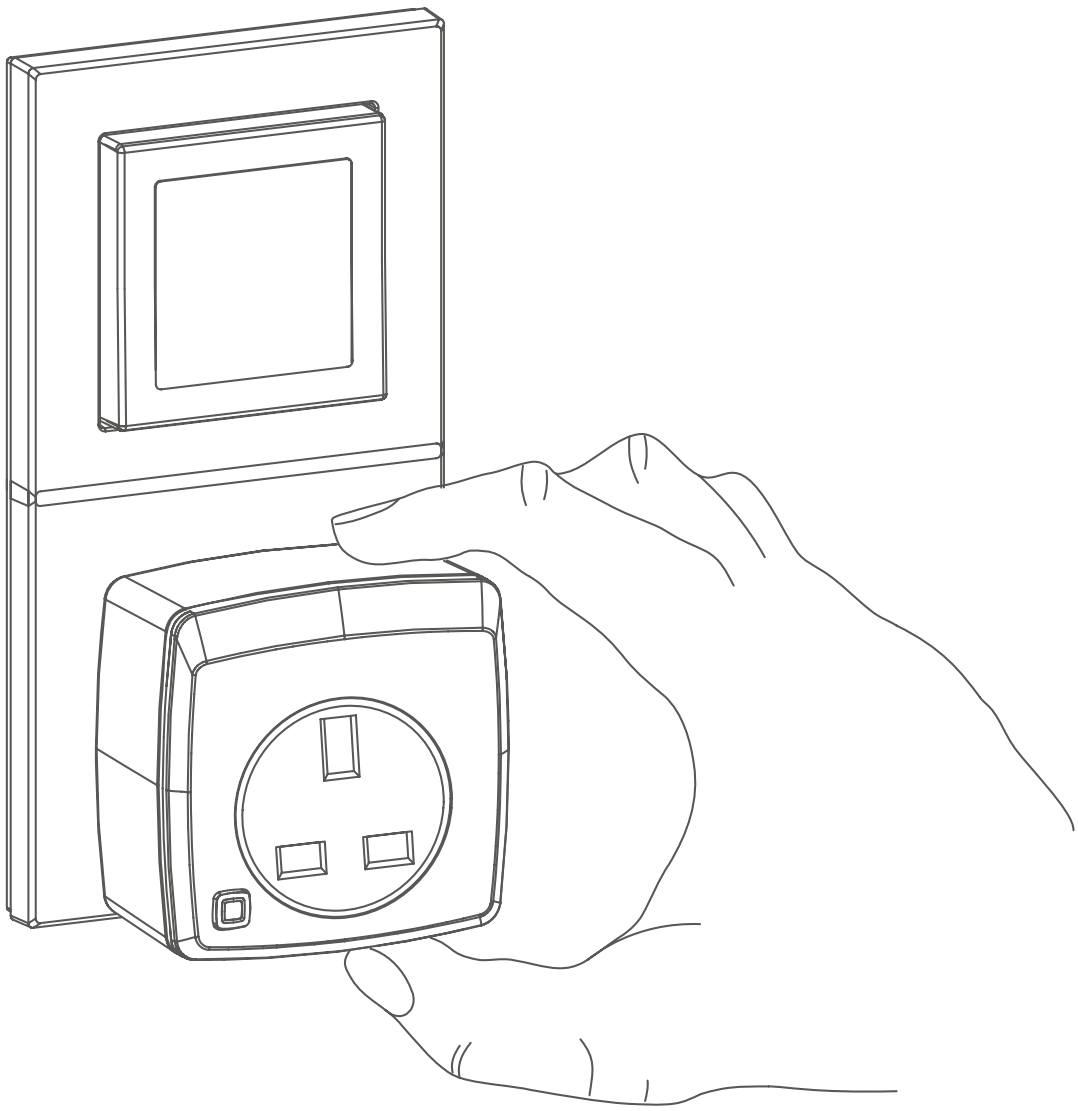
Documentation © 2017 eQ-3 AG, Germany.
All rights reserved. Translation from the original version in German. This manual may not be reproduced in any format, either in whole or in part, nor may it be duplicated or edited by electronic, mechanical or chemical means, without the written consent of the publisher.
Typographical and printing errors cannot be excluded. However, the information contained in this manual is reviewed on a regular basis and any necessary corrections will be implemented in the next edition. We accept no liability for technical or typographical errors or the consequences thereof.
All trademarks and industrial property rights are acknowledged.
Printed in Hong Kong
Changes may be made without prior notice as a result of technical advances.

151481 (web)
Version 1.0 (04/2017)

1



2



3

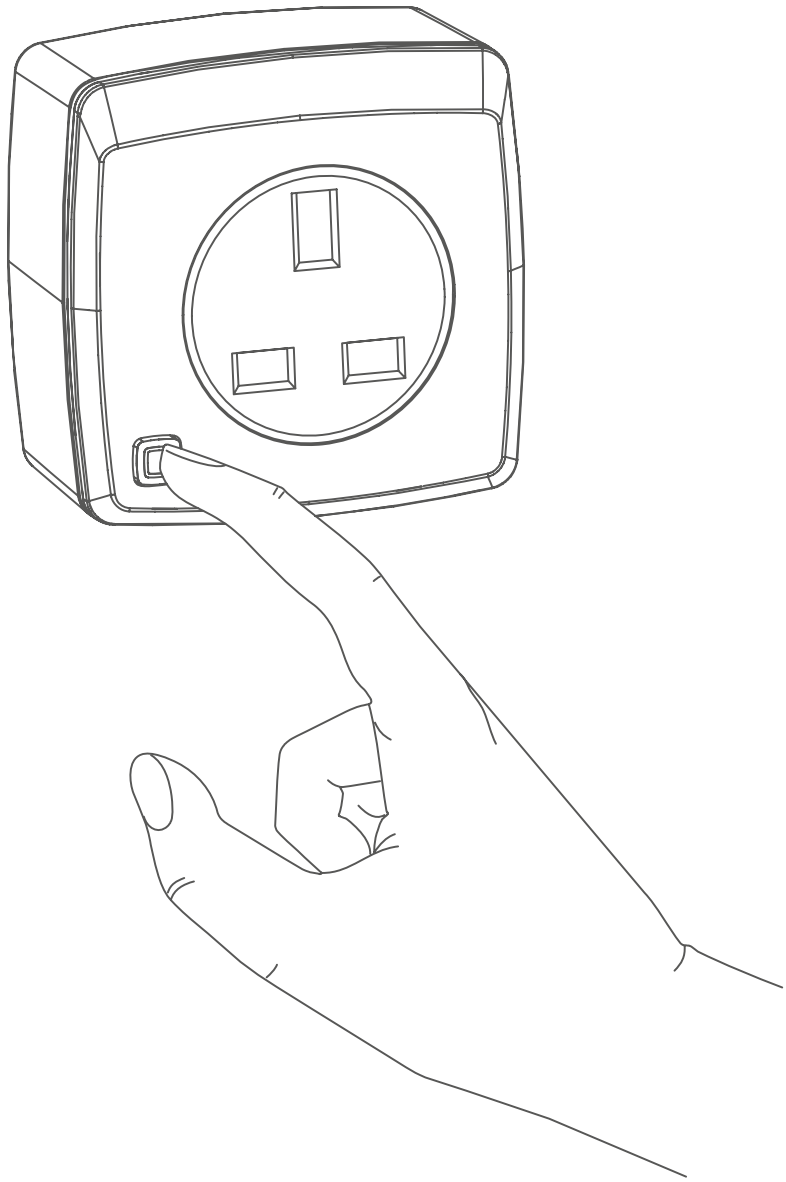


Table of contents

1 Information about this manual 7
2 Hazard information 7
3 Function and device overview 12
4 General system information 13
5 Start-up 13
5.1 Installation and teaching-in 13
6 Operation 16
7 Response to power recovery 17
8 Troubleshooting 17
8.1 Command not confirmed 17
8.2 Duty cycle 18
8.3 Error codes and flashing sequences 19
9 Restore factory settings 20
10 Maintenance and cleaning 21
11 General information about radio operation 21
12 Technical specifications 22

1 Information about this manual

Please read this manual carefully before beginning operation with your Homematic IP components. Keep the manual so you can refer to it at a later date if you need to. If you hand over the device to other persons for use, please hand over this manual as well.

Symbols used:

Attention!
This indicates a hazard.

Note
This section contains important additional information.

2 Hazard information

We do not assume any liability for damage to property or personal injury caused by improper use or the failure to observe the hazard information. In such cases, any claim under warranty is extinguished! For consequential damages, we assume no liability!

Do not open the device. It does not contain any parts that can be maintained by the user. There is a

risk of electric shock if the device is opened. In the event of an error, please have the device checked by an expert.

Do not use the device if there are signs of damage to the housing, control elements or connecting sockets, for example, or if it demonstrates a malfunction. If you have any doubts, have the device checked by an expert.

For safety and licensing reasons (CE), unauthorized change and/or modification of the device is not permitted.

The device may only be operated indoors and must be protected from the effects of moisture, vibrations, solar or other methods of heat radiation, cold and mechanical loads.

The device is not a toy; do not allow children to play with it. Do not leave packaging material lying around, plastic films/bags, pieces of polystyrene etc., can be dangerous in the hands of a child.

Please take the technical data (in particular the maximum permissible switching capacity and the type of load to be connected) into account before connecting a load! All load data relates to ohmic

loads! Do not exceed the capacity specified for the device. Exceeding this capacity could lead to the destruction of the device, to a fire or to an electrical accident.

The device may only be connected to an easily accessible power socket outlet. In case of danger, disconnect the device from the power socket outlet.

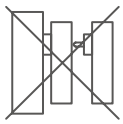
Only use the device with properly installed wall outlets with earth contacts and not with multiple socket outlets or extension cables.

Do not connect devices to the pluggable dimmer which could cause fire or other types of damage in unattended operation.

Remove the plug of the connected device from the pluggable dimmer, whenever you make changes or modifications to the device (e.g. when changing light sources).

The device has not been designed to support safety disconnection. The load is not isolated from the mains.

Always lay cables in such a way that they do not become a risk to people and domestic animals.



Do not connect multiple pluggable switches into one another.

If the dimming actuator is operated with electronic transformers, only those which meet the requirements of DIN EN 61347-1 (VDE 0712-30, Part 1) along with DIN EN 61047 /VDE 0712-25, Part 2) may be used.

Only dimmable 230 V LED lamps may be used. Not dimmable 230 V LED lamps may destroy the device and/or the light source.

Switching on of loads during power-on state (dimming level unequal to 0) is not permitted. Doing so may generate very high inrush currents that can destroy the device.

Please note that 230 V LED lamps may glow or flash while they are switched off due to the very low power consumption.

The dimming actuator is only suitable for light bulbs and high-voltage and low-voltage halogen lamps with electronic transformers as well as

dimmable LED lamps! Please only connect ohmic and capacitive lamp loads to the dimming actuator, and no televisions, computers, motors etc.

In order to avoid changes in the level of brightness, the device is able to detect ripple control signals. However, short-time flickering of the light source due to ripple control signals cannot be completely excluded.

The dimming actuator contains a thermal cut-off. Please note that in the event of overheating the loads will be switched off completely.

Using the device for any purpose other than that described in this operating manual does not fall within the scope of intended use and shall invalidate any warranty or liability. This also applies to any conversion or modification work. The device is intended for private use only.

The device may only be operated within residential buildings.

3 Function and device overview

With the Homematic IP Pluggable Dimmer, connected loads (e.g. lights) can comfortably be switched on or off and dimmed via a Homematic IP Remote Control or the Homematic IP app.

The pluggable dimmer is connected quickly and without any tools. Simply plug in the device to a socket and it is immediately ready for use. Thanks to the compact design, the device does not block the surrounding sockets.

Once installed, the device offers dimming and switching of e.g. incandescent lamps, HV and LV halogen lamps (with electronic transformer) and dimmable energy-saving lamps as well as many dimmable LEDs.

Device overview *(see figure 1)*:

(A) System button (teaching-in, switching connected loads on and off, LED)

4 General system information

This device is part of the Homematic IP smart home system and works with the Homematic IP radio protocol. All devices of the system can be configured comfortably and individually with the Homematic IP smartphone app. Alternatively, you can operate the Homematic IP devices via the Homematic Central Control Unit CCU2 or in connection with various partner solutions. The available functions provided by the system in combination with other components are described in the Homematic IP User Guide. All current technical documents and updates are provided at www.eQ-3.de.

5 Start-up

5.1 Installation and teaching-in

Please read this entire section before starting the teach-in procedure!

First set up your Homematic IP Access Point via the Homematic IP app to enable operation of other Homematic IP devices within your system. For further information, please refer to the operating manual of the Access Point.

You can connect the device either to the Access Point or to the Homematic Central Control Unit CCU2. For detailed information, please refer to the Homematic IP User Guide, available for download in the download area of www.eQ-3.de.

To integrate the pluggable dimmer into your system and enable it to communicate with other Homematic IP devices, you must teach-in the device to your Homematic IP Access Point first.

To teach-in the pluggable dimmer, please proceed as follows:

- Open the Homematic IP app on your smartphone.
- Select the menu item **“Teach-in device”**.
- Plug in the pluggable dimmer into the desired socket *(see figure 2)*.
- Pairing mode remains activated for 3 minutes.

You can manually start the teach-in mode for another 3 minutes by pressing the system button **(A)** shortly *(see figure 3)*. The pluggable dimmer will be switched on or off (depending on the previous state).

- Your device will automatically appear in the Homematic IP app.
- To confirm, please enter the last four digits of the

device number (SGTIN) in your app or scan the QR code. Therefore, please see the sticker supplied or attached to the device.
- Please wait until teach-in is completed.
- If teaching-in was successful, the LED lights up green. The device is now ready for use.
- If the LED lights up red, please try again.
- Please select, in which application (e.g. light and/or security) you would like to use the device.
- In the app, give the device a name and allocate it to a room.

After teaching-in, you can simply plug in loads into the switched-off pluggable dimmer and dim as well as switch devices on or off. Especially observe the safety instructions in the chapters “2 Hazard information” on page 7 and “6 Operation” on page <?>.

6 Operation

After teaching-in and installing have been performed, simple operations are available directly on the device.

- Press the system button **(A)** shortly to switch connected loads on and off.
- Press and hold down the system button **(A)** to lower or increase the brightness level of your connected loads.

Improper usage or a defective installation (e.g. low-quality or defective plugs or sockets) can lead to overheating of the pluggable dimmer. The integrated temperature control automatically switches off the load. The device is protected against overheating and secure operation is ensured. As soon as the temperature reaches a non-critical value, you can switch on the pluggable dimmer again. Always observe the permitted ambient temperature of the device and, if necessary, have the installation checked for possible error sources by an expert.

Switching on of loads during power-on state (dimming level unequal to 0) is not permitted. Doing so may generate very high inrush currents that can destroy the device.

7 Response to power recovery

After the device has been inserted to a socket or after power recovery, the pluggable dimmer performs a self-test/restart (approx. 2 seconds). The device LED flashes orange and green briefly (LED test display). The LED will flash if an error is detected during this test (see “8.3 Error codes and flashing sequences” on page 19). This is repeated continuously and the device does not perform its function. If the test is completed without errors, the pluggable dimmer transmits a wireless telegram containing its status information.

8 Troubleshooting

8.1 Command not confirmed

If at least one receiver does not confirm a command, the device LED lights up red at the end of the failed transmission process. The failed transmission may be caused by radio interference (see “11 General information about radio operation” on page 21). This may be caused be the following:

- Receiver cannot be reached
- Receiver is unable to execute the command (load failure, mechanical blockade, etc.)
- Receiver is defective

8.2 Duty cycle

The duty cycle is a legally regulated limit of the transmission time of devices in the 868 MHz range. The aim of this regulation is to safeguard the operation of all devices working in the 868 MHz range.
In the 868 MHz frequency range we use, the maximum transmission time of any device is 1% of an hour (i.e. 36 seconds in an hour). Devices must cease transmission when they reach the 1% limit until this time restriction comes to an end. Homematic IP devices are designed and produced with 100% conformity to this regulation.
During normal operation, the duty cycle is not usually reached. However, repeated and radio-intensive teach-in processes mean that it may be reached in isolated instances during start-up or initial installation of a system. If the duty cycle is exceeded, this is indicated by one long flash of the device LED, and may manifest itself in the device temporarily working incorrectly. The device starts working correctly again after a short period (max. 1 hour).

8.3 Error codes and flashing sequences

Flashing code	Meaning	Solution
Short orange flashing	Radio transmission/ attempting to transmit/data transmission	Wait until the transmission is completed.
1x long green lighting	Transmission confirmed	You can continue operation.
Short orange flashing (every 10 s)	Teach-in mode active	Please enter the last four numbers of the device number to confirm (see “5.1 Installation and teaching-in” on page 13).
1x long red lighting	Transmission failed or duty cycle limit is reached	Please try again (see sec. “8.1 Command not confirmed” on page 17 or “8.2 Duty cycle” on page 18).
6x long red flashing	Device defective	Please see your app for error message or contact your retailer.

1x orange and 1 x green lighting (after plugging into a socket)	Test display	Once the test display has stopped, you can continue.

9 Restore factory settings

The factory settings of the device can be restored. If you do this, you will lose all your settings.

To restore the factory settings of the pluggable dimmer, please proceed as follows:

- Unplug the device from the socket *(see figure 2)*.
- Plug in the device into the socket again while pressing and holding down the system button **(A)** for 4 seconds at the same time, until the LED will quickly start flashing orange *(see figure 3)*.
- Release the system button.
- Press and hold down the system button again for 4 seconds, until the status LED lights up green.
- Release the system button to finish the procedure.

The device will perform a restart.

10 Maintenance and cleaning

The device does not require you to carry out any maintenance. Enlist the help of an expert to carry out any maintenance or repairs.

Before cleaning the device, unplug it from the socket outlet. Use a dry linen cloth to clean the device. If the device is particularly dirty, you can slightly dampen the cloth to clean it. Do not use any detergents containing solvents, as they could corrode the plastic housing and label. Make sure that no moisture will ingress into the housing.

11 General information about radio operation

Radio transmission is performed on a non-exclusive transmission path, which means that there is a possibility of interference occurring. Interference can also be caused by switching operations, electrical motors or defective electrical devices.

The range of transmission within buildings can differ greatly from that available in the open air. Besides the transmitting power and the reception characteristics of the receiver, environmental factors such as humidity in the vicinity have an important role to play, as do on-site structural/screening conditions.

Hereby, eQ-3 AG, Maiburger Str. 29, 26789 Leer/Germany declares that the radio equipment type Homematic IP HmIP-PDT-UK is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.eq-3.com

12 Technical specifications

Device short description:	HmIP-PDT-UK
Supply voltage:	230 V/50 Hz
Current consumption:	0.35 A
Minimum load:	3 VA
Maximum switching capacity:	80 VA
Standby power consumption:	0.4 W
Dimming method:	reverse phase control
Kind of load:	ohmic and capacitive lamp load
Switch type:	independently mounted switch
Operating mode:	S1
Withstand voltage:	2500 V
Degree of protection:	IP20
Protection class:	I
Device protection (not interchangeable):	fuse protection for over-loads and overtemperatures

Pollution degree:	2
Temperature of ball pressure test:	125 °C
Temperature of glow wire test:	850 °C
Ambient temperature:	-10 to 35 °C
Dimensions (W x H x D):	70 x 70 x 39 mm (not incl. mains plug)
Weight:	138 g
Radio frequency band:	868.0-868.6 MHz 869.4-869.65 MHz
Maximum radiated power:	10 dBm
Receiver category:	SRD category 2
Typ. open area RF range:	170 m
Duty cycle:	< 1 % per h/< 10 % per h

Subject to technical changes.

Instructions for disposal

Do not dispose of the device with regular domestic waste! Electronic equipment must be disposed of at local collection points for waste electronic equipment in compliance with the Waste Electrical and Electronic Equipment Directive.

Information about conformity

CE The CE sign is a free trading sign addressed exclusively to the authorities and does not include any warranty of any properties.

For technical support, please contact your retailer.

Free download of the Homematic IP app!

Download on the App Store

ANDROID APP ON Google play

Bevollmächtigter des Herstellers:
Manufacturer's authorised representative:

eQ-3

eQ-3 AG
Maiburger Straße 29
26789 Leer / GERMANY
www.eQ-3.de