Plugwise

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Be wise, plug in.

Content

Check the content of your package for the following parts. If something is missing we request you to contact us as soon possible.

8 x Circle (white)

1 x Circle+
(white with grey back)

1 x Stick

license code

1 x This manual

1 x Installationlist
with software license code

Welcome

Thank you for purchasing the Plugwise Energy Management System, the system that monitors and controls your energy consumption.
This User Manual provides you with information about installing the system, the use of the software, technical details and safety matters.

Installation

Install the software (Source)
- Go to the site www.myplugwise.com and follow the steps as they appear on the screen.
- Download the installation-file and execute the installation.
- The installation-wizard starts up.
- Follow the steps and press "complete" . The software will be installed automatically on your computer.
- Extensive information will be found in the User Manual which will appear when you click on the Question-Mark Icon, located on the lower right side of the program.

CONFIGURATION OF THE NETWORK
- After the installation of the software is complete, the configuration- wizard starts up automatically.
- Complete the steps 'Welcome' and 'Licence'. You can find the Licence Code (25 characters) on the installation list. If you cannot proceed after having filled in the Licence Code, please verify if you have used the correct code and your firewall does not block the internet access. Allow the Plugwise Configuration Wizart full access in your firewall . If needed , cancel the installation and complete the steps again.
- The next step 'Security' of the wizard makes sure that your network is secure.
  Part I: Registration of the plug-ID's. Enter the plug-ID of the Circle+ and of the rest of the Circle(s).
      The plug-ID (five characters) is located on the sticker attached to the back of the plug. Do not remove the sticker yet.
  Part II: Enter your personal password. This will prevent undesirable third parties' access to your network.
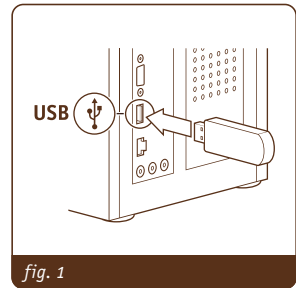   Attention: your personal password must consist of a minimum of 6 and a maximum of 10 characters.

Unfold this User Manual for continuation of the installation process.
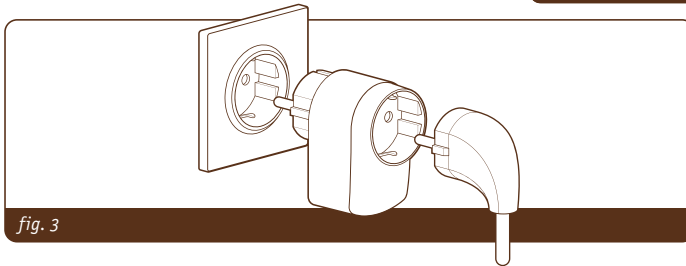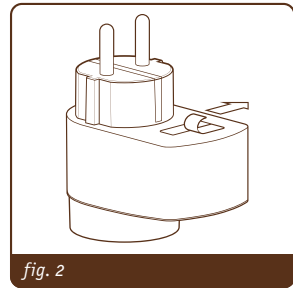
Be wise, plug in.

Continue installation

- **Stick**
  Connect the Stick to your computer. (See Fig. 1) Wait until a 'tick' appears next to the Stick, before proceeding with the Circle+.

Circle+
1. Pick up the plug Circle+ (recognizable by the grey back), the supplied installation list and a pen.
2. Choose an appliance, located in the vicinity of the Computer to be connected to the Circle+ .
3. Two stickers are attached to the back of the plug. Tear off one of the stickers and stick it on the reserved space on the installation list. Leave the other sticker on the plug (See Fig. 2)
4. Write on the installation list (next to the sticker) the name of the Appliance connected to the plug and the room or location of the plug.
5. Insert the plug in the socket and connect the appliance to the plug (See Fig. 3)

fig. 1

fig. 2

fig. 3

6. Return to your computer. Wait until the tick appears next to the Circle+, before proceeding. This may take a few minutes.

- **Insert and Check**
  - Repeat the same procedure, placing the next Circle, attaching the sticker to the list, until all of the Circles have been placed.
    You may place the other Circles one after the other without having to return to your computer, in between.
  - Return to your computer when all of the plugs have been placed and the installation list is completed. The wizard will show a tick each time contact has been established with one or more of the Circles. When the icon appears you may click on 'Next'.

- In the screen 'Select modules' your network is displayed. There are two (2) lists: (1) 'Found Modules' en (2) 'Your Plugwise Network'.
  The plug-ID's displayed in the (2) list are already part of your network. The plug-ID's in the list (1) 'Found Modules' not yet.
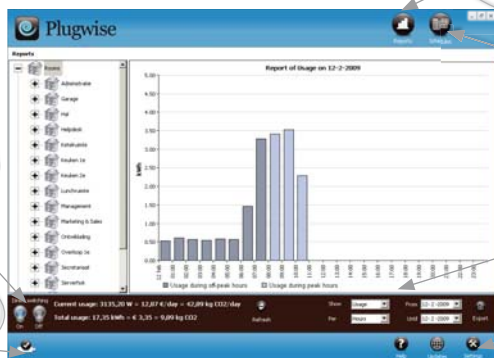 Select only the plug-ID's from the list (1) 'Found Modules' that correspond with the plug-ID's of your already-placed Circles. Then click on the green arrow to incorporate those plugs into your network.

Attention: When not all placed plugs appear in the list, this can be due to one of the following reasons:

-   *Not all plugs have been signed on or recognized by the network:*
    If multiple networks are active in the immediate surroundings, the process to sign on the plugs may take a little longer. After approximately 5 minutes all plugs should appear on screen.
-   *One or more plugs are unreachable:*
    When a plug is placed too far from the others it cannot communicate with the network. To solve this you can place the plug closer to the others or place another plug in between the unreachable plug and the others. Please make sure that the distance between the plugs is no more than 5 meters.
-   *The plug does not work:*
    If both abovementioned steps do not lead to a complete picture of your network in the screen of 'Select Modules', you may reset the plug. For a complete explanation of this procedure we refer you to the Detailed Manual to be accessed by clicking on the Question-mark Icon on the lower right side of the program.

•   The Wizard will guide you further through a number of screens to entering data in order to create a network. Proceed with all the steps of the wizard and click on 'complete'. The system will be activated.
•   Save the installation list with the Licence Code.

Use software

Your Energy Management System is now installed! By using the software you can now measure and switch your appliances. You can save on your energy-consumption by sending switching schedules to the plugs. As a service you may find hereunder a software-window with instructions.

Overviews, look at reports and graphs of the energy consumption, the costs and the CO2-emission.

Switching, program switching schedules in order to save.

irect Switching, the cted appliance or group rectly switched on/off .

Usage data, preset the timeframe for use. The graph is empty until data have been received.

tick, the Stick flashes hen data are retrieved

Settings, add plugs, create groups and rooms.

Technical information

The computer can be switched off whilst the system continues to operate. The plugs have their own memory so even when the computer is not switched on the measured data are stored and the plugs will switch according to the switching schedules you entered. As soon as the computer is switched on (with the Stick connected) the stored data are retrieved from the plugs and the complete overview of the energy-consumption is realized.

In order for the software to communicate with the products the Stick should be kept connected to the computer. You may disconnect the Stick however this leads to interrupted communication between the plugs and the computer which means that the current usage is not displayed and new usage data are not claimed. The disconnection does not interrupt the actions of the network or the data already stored in the software, like the switching schedules. As soon as the Stick in connected to the computer again, the software program will have to be started again. The computer then retrieves all data stored in the plugs and in case new switching schedules are entered, they will be activated.

Technical data

1. Circle

Parameters	Min.	Nominal/Type	Max.	Unit	Remarks
Power supply					
Supply voltage	220	230	240	VAC	
Frequency		50 / 60		Hz	
Power dissipation		0.5	0.8	W	
Energy measuring					
Cumulative accuracy		1%, ± 0.2W			At 25˚C ambient temperature
Actual accuracy		5%, ± 0.5W			At 25˚C ambient temperature
Permanent memory					
Storage capacity		512		kByte	
Dimensions					
(l × w × h)		81.3 × 72 × 43.5		mm	
ZigBee communication					
Baudrate			250	kbps	O-QPSK
Frequency	2400		2483.5	MHz	16 channels of the 2.4GHz ISM band
Bandwith		2.0		MHz	5MHz channel spacing
Recieving sensitivity (signal to noise ratio)		-92		dBm	@ 1% PER 20-byte packet
Transmission power	-27	0	3	dBm	

2. Circle+

The technical data of the Circle is useable for the Circle+ as well, except that the Circle+ has extra internal memory, a backup-battery and a real time clock. The next specifcation is specific for the Circle+:

Parameters	Min.	Nominal/Type	Max.	Unit	Remarks
Real time clock					
Operating time without power supply	6		20	days	

3. Stick

Parameters	Min.	Nominal/Type	Max.	Unit	Remarks
Power supply					
Supply voltage	5			Vdc	Powered by USB host
Dissipated power		0.375		W	
Connector		USB-A plug			

Usage- and storagetemperatures for the Circle, Circle+ and the Stick

Environmental conditions		Min.	Max.
Operational	°C	0	60
Operational	% RH (non condensing)	0	95
Storage	°C	-20	70
Storage	% RH (non condensing)	0	95

Guarantee (consumer products)

The general conditions of sale and delivery Plugwise B.V. – Consumer apply to the Plugwise products.
These conditions can be found on the website (www.plugwise.com) or can be obtained from Plugwise, free of charge.
During a period of twelve (12) months after delivery, if the Plugwise System turns out to be faulty, the Plugwise System shall be repaired, replaced by Plugwise free of charge or, to the extent relevant, a missing part shall be delivered.
The obligations of Plugwise regarding the products are limited to the repair or replacement of the product, such to the judgment of Plugwise.
Exchanged or replaced parts of products are property of Plugwise.

This guarantee is without prejudice to other statutory rights or claims of the Buyer.

The Buyer must inform Plugwise about the defect to the Plugwise System as soon as possible.
- you must show (a copy of) the original receipt of purchase or other proof of payment;
- explicitly excluded from all guarantee are components of use with a limited lifecycle, subject to normal wear like batteries;
- Plugwise is not liable for incidental damage or consequential damage resulting from or in connection with the use or misuse/abuse of Plugwise products;
- Plugwise does not accept any liability for a defect or damage that has occurred during transport.

The Buyer cannot rely on the guarantee if:
- the Plugwise System is used in another manner or for other purposes than for which it is intended;
- if the Buyer performs (or has others) perform work to the Plugwise System without Plugwise's prior approval;
- if the product has been exposed to careless behavior or has not been installed properly;
- the damages or defect is the result of willful conduct or gross negligence;
- the date on the purchase invoice is no longer legible;
- the serial number, the date code or the product-label has been removed.

The content of this document is distributed without any form of guarantee whatsoever. Unless required by applicable law, no guarantee is provided regarding the accuracy, reliability or content of this document, either explicitly or implicitly, including but not limited to implicit guarantees regarding to the sale-ability and the suitability for a specific goal.

Plugwise reserves the right to amend or rescind this document at all times without preceding notification.

Safety information

Save these instructions for future reference.

Electricity: safety
- Install and use the products only in the manner as described in de enclosed user-documentation to ensure safe usage.
- The maximum wattage to be connected to a plug is 3680 Watt.
- Do not make use of the products in case they are damaged or malfunction.
- Connect to the modules only appliances provided with the CE-quality symbol.
- This symbol shows that the appliance complies with the Directions for Low voltage (72/23/EEG; electricity safety).
- Never connect electrical appliances to the modules if the plug, the cord or the appliance itself shows signs of damage.
- Do not let the products come into contact with water or any other liquid.
- Never open up the casing of the product. The products do not contain spare parts which you can repair.

Environment
Old electrical and electronic appliances often contain valuable materials. They also contain harmful substances that were necessary for the operation and safety of the appliance. If you dispose of the appliance with regular waste or in case of faulty treatment, these substances can become harmful for the general health and for the environment. Never discard the appliance with household waste but turn it in at your local depot for collection of electrical and electronic appliances.

Interference with electronic equipment
Most modern electrical appliances are protected against RF-signals. However it is possible that certain electrical equipment is not protected against the RF-signals transmitted by the products. The products comply with the norm IEC/EN 61058.

Conformity with EU-rules
The products comply with the regulations of the Guideline for Radio-equipment and Peripheral Equipment (1999/5/EG).

Service

In case you have of questions after having read this Manual or in case part of it is either missing or damaged please visit our website or call our service-number :

www.plugwise.com

0900-PLUGGED (€ 0,30 per minute)
0900-758 44 33 (€ 0,30 per minute)