



Kill A Watt Wireless

with Carbon Footprint Meter

**Wireless Sensor Unit
P4220**

Kill A Watt sans fil

avec dispositif d'empreinte au carbone

**Module de capteur sans fil
P4220**

Please read these operating instructions carefully before using the product, and keep the instructions in a safe place for reference. If you allow third parties to use this product, make sure you pass on the operating instructions.

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1. Introduction

Dear Customer,

Thank you for purchasing this product.

The product has been EMC-tested and meets the current national requirements. See also FCC-Information.

Please observe these operating instructions in order to maintain this condition and ensure safe operations.

Prior to using the product for the first time, please read the entire operating manual and observe all operating and safety instructions.



Please note the correct order for commissioning the product. Please also observe the mounting instructions and the information on radio interference between the sensors and base station.

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1.1. Intended use

The wireless sensor unit is a socket adapter with an integrated energy measuring unit. The energy sensor sends measurement values via radio signal to the wireless sensor display panel.

The energy measurement system is only to be operated in dry interior rooms.

Manufacturer assumes no responsibility for incorrectly displayed or measured values, and/or any consequences ensuing from them.

The product is intended for private use only. It is not designed for medical, commercial or public safety purposes.

The components of this product are not toys. Do not allow children to operate them.



Any other use than that described above may lead to damage to the product or to other danger.

Please read these operating instructions carefully for important information on deploying, using, and operating the product.

2. Scope of delivery

- Wireless sensor unit
- Operating instructions

3. Terminology



An exclamation mark in a triangle indicates important instructions in the operating manual which must be observed under all circumstances.



The "hand" icon points to special tips and instructions on using the product.

4. Features and functions

4.1. General

Kill a watt wireless allows the user a simple cost check and a resulting cost prediction. Technical measuring data (instantaneous power, current, consumed energy) is shown here, but it is in the background compared with cost, which is made clear by permanently showing the cost/predicted cost and the highlighted button (with \$ sign).

The system consists of two types of devices:

- Display unit with display and control elements (data presentation)
- Wireless sensor unit realized as socket adapter

The device can be installed without any tools and is easy to operate.

Up to 8 wireless sensor units can be assigned to each display unit.

Values are transmitted from the wireless sensor unit to the display unit via radio signal.

4.2. Wireless sensor unit

All physical values for cost calculation are determined in the wireless sensor unit:

- Current
- Voltage
- Phase angle
- Effective power
- Power consumption since previous data transmission
- Accumulated power consumption

Data is transmitted cyclically.

The wireless sensor unit has to be taught-in to the respective wireless sensor display. For further information about the teach-in procedure please refer to the manual of the wireless sensor display that is delivered with the kill a watt wireless set.

5. Safety instructions



We shall not assume any liability for damage to items or persons caused by improper handling or non-observance of the safety instructions!

In such cases, any guarantee claims shall become null and void.

- Do not use this product in hospitals or medical institutions. Although the sensors only emit relatively weak radio signals, these may cause interference to life-support systems. The same can also apply in other areas.
- Do not use the unit, if there is damage to the housing.
- Do not subject the device to temperatures below 32°F (0°C) or above 158°F (70°C).
- For safety and licensing reasons (FCC), it is not permitted to convert or modify the product.
- Do not leave the packaging material laying around. Plastic foil and bags, polystyrene parts etc. are dangerous in the hands of children.
- This product is not a toy. It contains small parts. Children can be injured by swallowing them. Use the unit out of the reach of children.
- This product is not a toy for pets. It contains small parts. Pets can be harmed if they play with the unit.

6. Starting up the sensors

The energy sensors are integrated in socket adapters. Insert the sensor in the socket outlet to which the device you want to meter is connected. Plug the power cable of the device that you want to monitor into the receptacle of the energy monitor. To teach in the sensor please refer to the manual of the wireless sensor display.

7. Troubleshooting



Observe the safety instructions contained in these operation instructions!

Problem	Remedy
No reception	<ul style="list-style-type: none">• The distance between the wireless sensor display panel and sensors is too great. Relocate the sensors.• Objects or shielding materials are interfering with the radio reception. Relocate the sensors and the wireless sensor display panel.• Another transmitter on the same or a neighboring frequency is interfering with the radio signal from the sensors.• If possible, set other devices to a different frequency• The wireless sensor unit is not inserted into the socket• The socket inserted in the wireless sensor unit has no voltage applied• Power failure, the sensor is not being supplied with power

8. Range

The transmission range of the radio signals to the wireless sensor display panel is 300 ft. under optimum conditions. This is often described as the "free field range".



This ideal arrangement (e.g. wireless sensor display panel and wireless sensor unit on a smooth, level field without trees, houses etc.) is, however, never found in practical conditions.

You will normally wish to set up the wireless sensor display panel in your home, with the sensor and additional sensors somewhere else in your home.

The following can considerably reduce the reception range:

- walls, reinforced steel ceilings
- coated/layered insulation glass panes
- vehicles
- trees, bushes, earth, rocks
- proximity to metal & conductive objects (e.g. radiators)
- proximity to the human body
- broadband disturbances, e.g. in residential area (Cordless telephones, mobile phones, radio headphones, radio loudspeakers, radio weather stations, baby monitors etc.)
- proximity to electric motors, transformers, switching power supplies or computers
- proximity to poorly shielded computers with open panels or other electrical devices



As the local circumstances are different at every location, we cannot guarantee a specific reception range. If your wireless sensor display panel is not receiving data from the sensor reduce the distance between the sensors and the wireless sensor display panel, and relocate the devices.

9. Maintenance and cleaning

9.1. General

Check the technical safety of the product regularly, e.g. damage to the housing.

If it can be assumed that the device is not safe for operations, switch the device off, and secure against inadvertent switching on.

You can assume that the device is not fit for use if

- the device shows visible damage
- the device is no longer functional
- after extended periods of storage in unfavorable conditions
- after transportation in unfavorable conditions

Observe the following safety instructions before cleaning or servicing the device:



There are no user-serviceable parts on the inside; do not open the device. Repairs may only be carried out by a specialist who is familiar with the associated hazards and relevant regulations applying to the device.

9.2. Cleaning

Dust can be removed very easily with a vacuum cleaner and a soft, clean brush. Hold the vacuum cleaner nozzle close to the device (avoid touching the device as this may cause scratching!) and remove the dust with the brush. The dispersed dust will be sucked in by the vacuum cleaner. Use a soft, dry, lint-free cloth to clean the exterior of the product. In case of heavy soiling, you can use a cloth slightly moistened with warm water. Never use aggressive cleaners or chemical solutions as this could damage the surface of the device or impair its functionality.

10. Handling



Observe the safety precautions in these operation instructions!

Never open or dismantle the product (except for the tasks described in these operating instructions, e.g. changing the batteries). There are no user-serviceable parts inside the product.

Dropping the product will cause damage, even from a low height.

Avoid the following adverse ambient conditions during operation or transport:

- moisture or excessive humidity
- extreme cold or heat
- direct sunlight
- dust or flammable gases, vapors or solvents
- heavy vibration
- strong magnetic fields, such as, for example, in the vicinity of machines or speakers

Never use the product immediately if it has been taken from a cold area to a warm area. This causes condensation which could destroy the device under certain circumstances.

Wait until the devices have reached room temperature. This can take several hours!

11. Disposal

Dispose of the unusable product according to valid legal regulations.

12. Technical specifications Wireless sensor unit

Operating voltage:	115 V / 60 Hz
Max. operating voltage:	125 V / 60 Hz
Load current:	max. 15 A
Max. connection load:	1875 VA
Measurement category:	CAT II
Pollution degree:	2
Data transmission:	
Transmission frequency:	916.5 MHz
Modulation type:	AM, 100 % (OOK)
Transmission power sent:	max. 93.9 dB μ V/m @ 3 m
Ambient temperature:	0°C to 50°C (32°F to 122°F)
Relative humidity:	max. 80 % rel. H. @ 30°C
Altitude:	max. 2000 m
Connections:	NEMA 5-15 (2 pole, 3 wire, grounding type)
IP degree of protection:	IP 20 – Indoor use
Dimensions (W x H x D):	56 mm x 134 mm x 61 mm (2.2 inch x 5.3 inch x 2.4 inch)
Approval:	
FCC:	FCC Part 15, Subpart C, Section § 15.249
Safety:	UL 61010-1 Second Edition, CAN/CSA C22.2 No. 61010-1 Second Edition

13. FCC information Wireless sensor unit

FCC ID: RNT-ECC100S-US

Changes or modifications not expressly approved in writing **P3 International** may void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The internal antenna used for this mobile transmitter must provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This device, complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

If you experience difficulty in the operation of your unit, or if your unit requires repair please contact:

P3 INTERNATIONAL CORPORATION

TECHNICAL SUPPORT

132 Nassau Street

New York, NY 10038, USA

Tel: 212-741-7289

Fax: 212-741-2288

Email: techsupport@p3international.com