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watson

User Guide

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What does wattson do?

Congratulations on choosing wattson, your personal energy-saving device. Wattson lets you monitor your electricity consumption, giving you the motivation to use less. It also shows your energy generation, letting you see when you can use your own electricity.

With both numbers and colours, wattson shows you how much electricity your home is using and generating at any given moment. Wattson can also store up to 28 days of energy use and generation history which can be downloaded to your computer and viewed using software available from our website. www.diykyoto.com/holmes

We hope you'll experience your wattson to the full and that you'll find a nice spot for it in your home.

Wattson itself is a very safe product but installing wattson could be dangerous if done incorrectly. Extreme care must be taken when working with electrical equipment as touching exposed electrical wires or components may result in electrocution causing death.

Warning: In AUSTRALIA Wattson must be installed by a licensed electrician.

In other countries, when installing yourself, never pull on the electricity cables while fitting the clip, watch out for any exposed wiring and if in any doubt consult a qualified electrical installer for advice.



DON'T FORGET
TO RECYCLE MY
PACKAGING

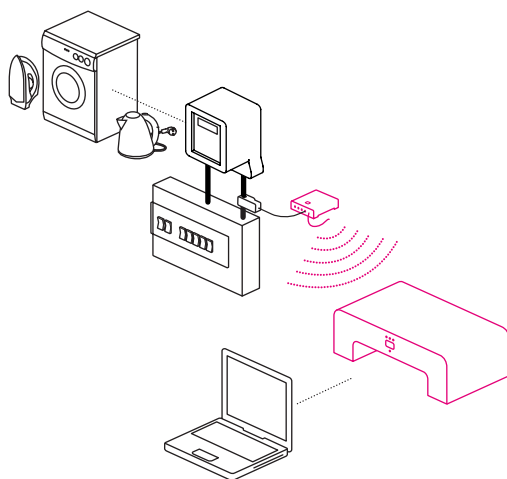
How does wattson work?

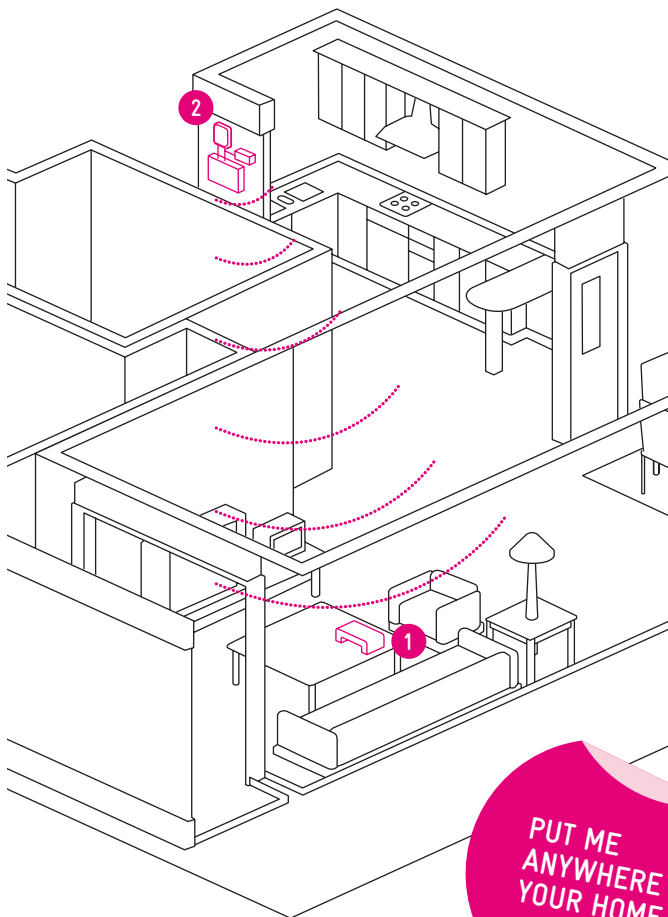
Wattson measures the total amount of electricity being used in your home at any given time, and shows this value on an easy-to-read display. When connected to a Solar PV power system it will also show how much energy you are generating.

A home's electrical system is made up of several circuits, such as ring mains, lighting circuit, cooker circuit etc. as well as a circuit supplying home generated electricity. These circuits are all connected together at the main electricity entry point to your home, through the meter and the fusebox. This is where the sensor clips measures the power.

The sensor clips are connected to the transmitter which sends the data wirelessly to the wattson display. The display is portable, so can be located anywhere in your home (up to 100 meters away through air, or 30 meters through walls).

The wattson display unit can be positioned anywhere you like in your home **1**, as long as it is within range of the transmitter **2**. We think the best place for it is somewhere in your living room, so you can watch the pulsing coloured lights and keep an eye on your consumption.





What's in the box?

1 / Wattson display unit

The wattson display unit receives data from the transmitter and shows your total electricity usage at any given time in watts, (£/S/€)s /year and the carbon equivalent (kg/t) of that electricity and colour changing light.

2 / Transmitter

The transmitter takes the signal from the sensor clips, converts them to a digital signal and sends it wirelessly across your home to the wattson display. The transmitter can be powered by batteries OR a power supply. **DO NOT** store batteries in the transmitter, they may damage the transmitter.

3 / Transmitter batteries

We have included 4 AA alkaline batteries.

4 / Sensor clip(s)

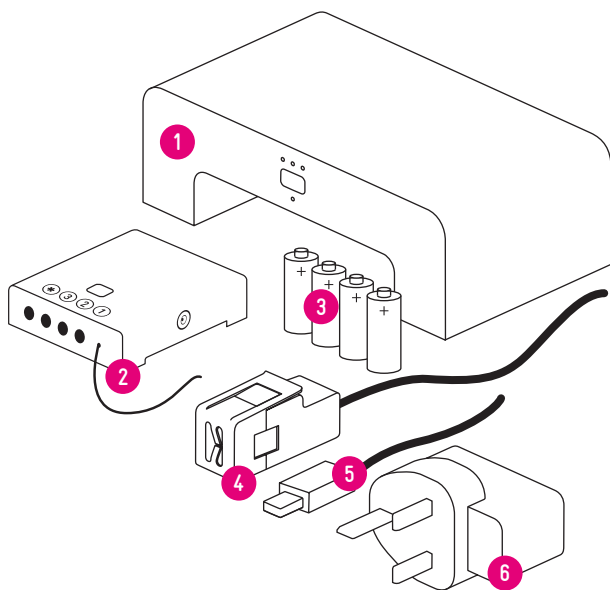
The sensor clip measures the amount of electricity running through the single cored wire it is attached to. The number and size of sensors varies by model, see box.

5 / The USB lead

The USB lead connects your wattson to your Mac/PC so you can view your energy-use history with the software. (Available for download at www.diykyoto.com/holmes)

6 / Power supply(ies)

A power supply is provided for the wattson display unit, and may also be used to supply power to the transmitter. The number and type of power supply varies as to the model and country of supply.




HERE
ARE
MY BITS

Installing the sensors and transmitter.

1 / Attach the sensor clips.

The sensor clips must be attached to single-cored cables (either live or neutral) in order to measure the electrical power. Simply undo the clip and fit it around the relevant cable. Make sure the clip top is firm and secure in the clip base.

 **Warning:** The cables must be easily accessible for the sensor clip to be fitted - if they are not, please consult a qualified electrician. Further information on www.diykyoto.com.

In AUSTRALIA this step must be undertaken by a licensed electrician.

For electricity consumption: attach the clip to the cable running from the electricity meter to the fusebox. For three phase systems attach one clip per phase. If your meter is a long way (>10m) from your fusebox, connect the clip to either the positive or neutral cable where it enters the fusebox or in the fuse box, if accessible.

For electricity generation: attach the clip to the single-cored generation output (live or neutral) from the inverter to the junction box.

A Henley junction box should have been installed by a qualified electrician. Alternatively, a Y-Cable and extra clip can be used. (Please contact your supplier to obtain the Y-Cable. and extra clip.)

2 / Plug in the sensor lead(s).

There are 4 sockets on the transmitter. Plug the electricity consumption sensor lead(s) into the sockets marked 1-3. (If using the Y-cable, please refer to the Y-Cable instructions)

Plug the electricity generation sensor into the socket marked 


3 / Fit batteries or attach power.

Either insert the 4 AA batteries provided or connect the DC power supply and the transmitter's LED will begin to flash.

Battery Installation: Make sure the end of the battery marked + goes in the end of the tray marked +.

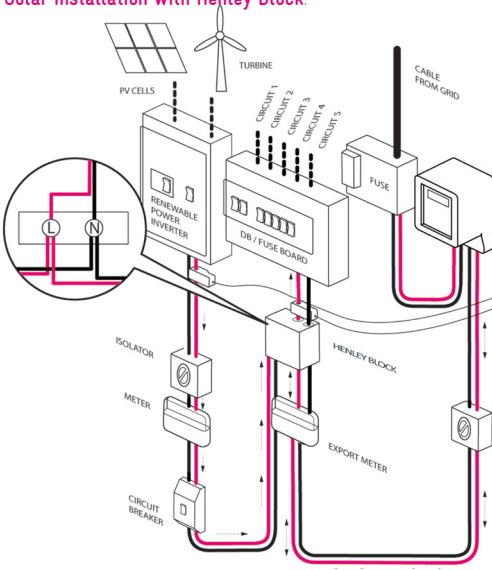
Mains Power: Plug power supply unit firmly into socket on transmitter.

DO NOT store unused batteries in transmitter.

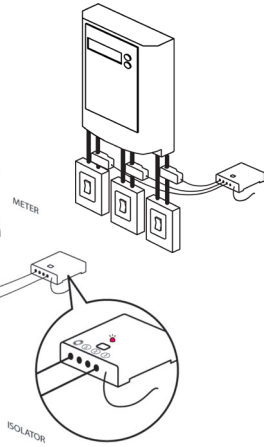
 For best operation make sure that the white aerial on the transmitter is extended. Metal and dense building materials will shorten the range of transmission and should be avoided where possible.

Warning: The transmitter must not be left hanging from its leads or put strain on your wiring. The transmitter must be protected from water and the elements and must not be used outdoors - this will invalidate your warranty.

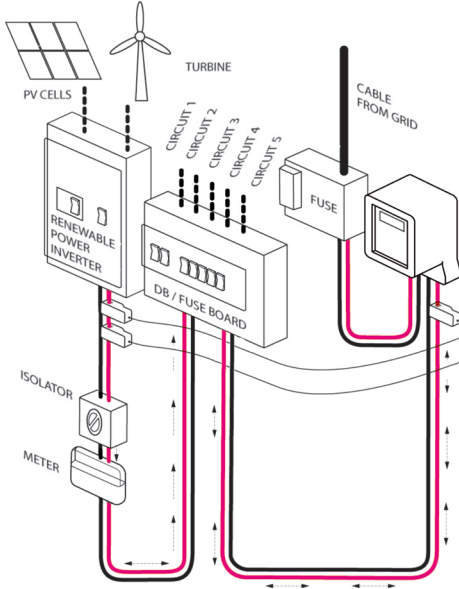
Solar installation with Henley Block



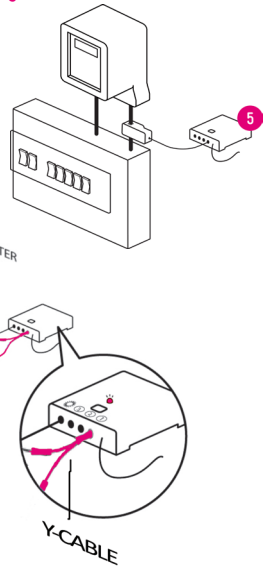
Three Phase



Solar installation with Y-Cable

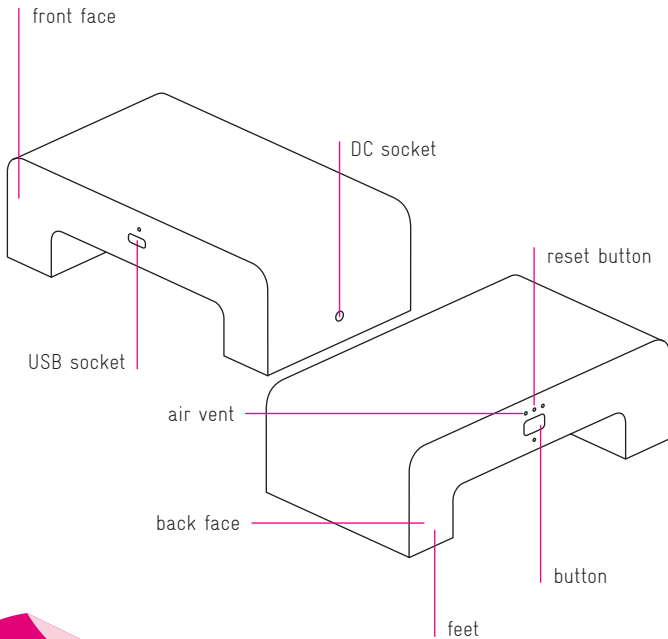


Single Phase



The wattson display unit.

Once you have installed the transmitter and found a nice place for wattson display unit, connect the power charger and switch wattson on by pressing the button once.



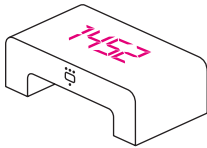
HERE'S
HOW
I WORK

Watson only has 1 button.

When you first turn watson on, the display will show the amount of power your home is using in watts. This is the total number of watts your home is consuming at that given moment.

Pressing the button changes the display mode. To turn the display unit off, press and hold the button down until 'goodbye' starts to scroll. Continuing to hold the button, until 'goodbye' has scrolled completely, will allow you to change some display settings.

Number Modes.



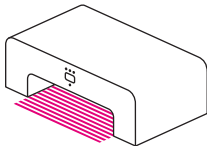
Grid: Shows how much power is being imported from (+ve) or exported to (-ve) the grid for Solar Plus users.

Usage: Shows how much power is being used at this time.

Solar: Shows how much power is being generated for Solar Plus users.

Total Energy Generated: This is a counter showing how much energy has been generated. This counter can be reset to zero by giving the display a gentle shake.

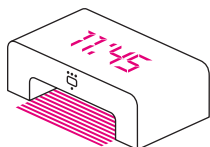
Colour Modes.



Colours Only: The light changes from blue, low usage through purple, medium to red, high usage. For Solar Plus users the light turns green when energy is being exported to the grid.

Night Mode: This mode reduces the number of lights that are on, reducing the amount of energy the display uses. Watson continues to receive and store data in the mode.

Clock Mode.



Time is displayed together with power, either in colour or as numbers (in watts) for 3 seconds every minute. You can toggle between colours and number display by tilting wattson. You will need to connect to Holmes in order to set the time (See page 18 for more information).

Settings.

By holding the button down for longer than 3 seconds you enter the Settings Mode. You can exit the settings mode at any time by holding the switch down for a short time (less than 3 seconds) to switch the display off.

You can select the individual settings by tilting the display, and choose with a short press of the button.

Set the language: LANG

By tilting the display you can see the different languages available. You can select the language by a short press of the button.

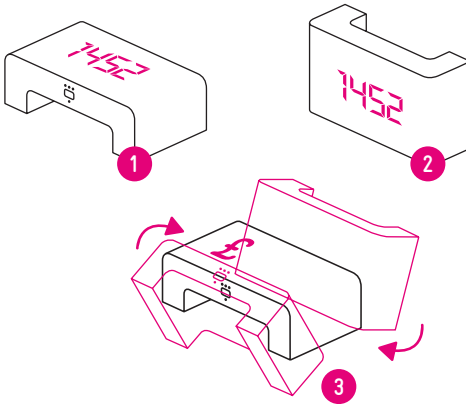
Reset the energy generated counter: ZERO

By tilting the display you reset the energy generated counter. This is an alternative method to the gentle shake when displaying in that mode.

Unpair the display from transmitters: UPAIR

This instruction allows all transmitters to be decoupled or unpaired from the display unit. To re-pair a transmitter with the display unit see the trouble shooting guide on page 20

Wattson has been designed to be positioned on its feet **1**, or on its front face **2**. A backward tilt changes between watts, money and display for carbon **3**.



By tilting wattson the unit of measurement changes from power in watts or KW to cost per year in £/S/€ to amount of carbon used or saved in kg or tonnes.

The cost figure indicates how much the electricity would cost if you left everything in the house exactly as it is for a whole year (or how much you earn for Solar Plus users, if the sun shone 24/7 all year round). The tariffs for energy cost and generated energy payment can be easily updated using the wattson software (Available for download at www.diykyoto.com/holmes).

The carbon figure is the equivalent amount of carbon used or saved by the electricity you use or generate. Carbon emissions calculations have been provided by AMEE, which has used the methodology for greenhouse gas emissions associated with the consumption of grid electricity in the United Kingdom established by the UK Government's Department of Environment, Food and Rural Affairs in the United Kingdom.

At the time of printing of this manual, the CO₂ emissions factor used in wattson is 0.48152 kg/kWh.

The wattson has a lovely system of coloured lights which can change to reflect the amount of electricity being used at the time.

Low Usage.

A pure blue colour with a gentle breathing behaviour indicates that the electricity being used is low, maybe just a light or two.

Mid Usage.

If the colour is showing purple and is a little more active, then maybe the TV or stereo are on.

High Usage.

If the light is bright red and it is very active then a lot of electricity is being used - one or more high power appliances may be on, such as kettles, cookers, heaters or tumble dryers.

Generated Electricity

If the light is green, more energy is being generated than being used.

Special messages.

Wattson also displays the following messages:

OUT OF RANGE Means there is no communication from the transmitter.

LOW SENSOR BATTERY Means the transmitter batteries are running low. Change 4xAA batteries ASAP to avoid missing out data collection.

REPLACE SENSOR BATTERY Means that the transmitter batteries have failed.

LOW MAIN BATTERY Means the wattson display unit battery is low. Note: when the battery gets within 5 minutes of going dead the wattson will drop into low power mode.

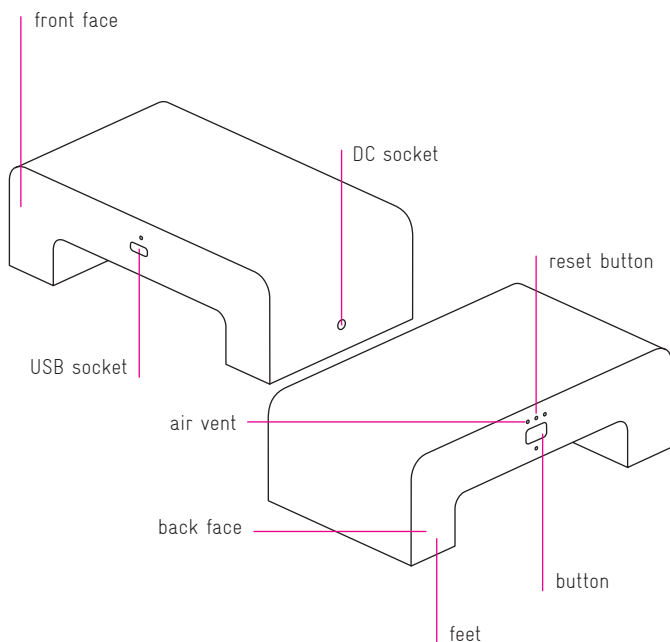
To turn the display unit off, press and hold the button down until it starts to scroll 'goodbye'.

How do I reset wattson?

If you need to reset the display unit for any reason (see Troubleshooting on page 20), insert a pin into the middle air vent hole above the button. Wattson will say HELLO.

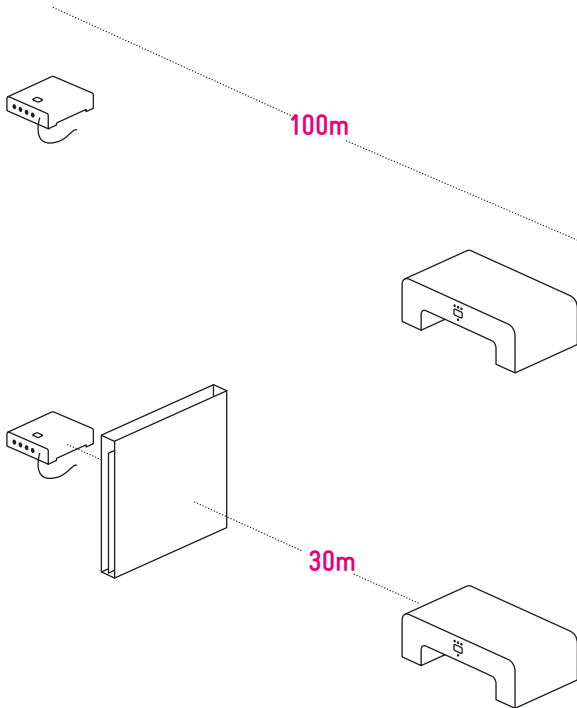
How do I re-pair wattson?

If the display unit has forgotten its transmitter for any reason you will need to re-pair them. Firstly press the transmitter button until the red LED lights continuously. Secondly reset wattson and it will re-find the transmitter. The message PAIRING SUCCESSFUL will be displayed.



How far does the signal go?

The transmitter uses an FM radio module and can transmit up to 100 meters through air and up to 30 meters through walls, depending on the structure of the building. The range will be shorter in buildings with thicker walls.



How do I charge wattson?

To charge wattson plug the charger into the DC socket. The wattson does not charge via the USB socket.

The button on the transmitter changes the rate at which the transmitter sends new information to the wattson display unit (the update rate). The update rate can be set to low, medium or high. The slower the rate, the less often the information will change on your wattson display but the longer your batteries will last. Using the low update rate could extend the life of your batteries by over 2 months. The light on the transmitter will indicate the update rate by pulsing in time.

- 3 flashes = high update rate.
- 2 flashes = medium update rate.
- 1 flash = low update rate.

How is the wattson display powered?

Wattson has an internal battery pack that will provide power for between 5 - 32 hours depending on what mode it is set to (see pages 11-12 for more information).

The power charger supplied will charge the batteries fully in 24 hours. When portability not needed, Wattson display should be left permanently connected to the power supply.

Wattson does not charge the internal batteries via the USB connection, although it can be powered from the USB.

How much power does wattson use?

4 watts in modes with colours and numbers and less than 1 watt in night mode.



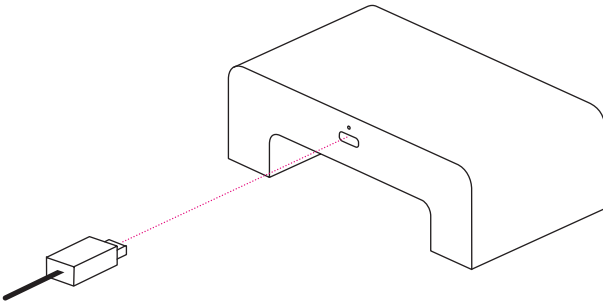
WHAT'S
GOING ON
INSIDE

View your energy-use history.

Watson can store up to 4 weeks of energy-use history which can be uploaded to your computer via the USB lead.

We have developed easy-to-use software (holmes) for your PC/Mac which will allow you to look at the history of your electricity use over a period of days, weeks or months. Please visit the users' page on www.diykyoto.com/holmes to download the software.

The USB lead connects via the socket on wattson's face.



USE YOUR
COMPUTER TOO

Looking after wattson.

To get the best out of wattson for years to come, please follow these guidelines:

Clean the plastic parts of wattson with a damp cloth only.

The holes are designed to keep wattson cool and should not be blocked or covered. Blocking the vents can cause wattson to overheat and damage the circuitry.

Please contact us or an authorised repair agent if any repairs are needed, and use only the replacement parts we recommend. For details on returns policy please check the customer service section on our website diykyoto.helpserve.com or email helpdesk@diykyoyo.com

Please do not attempt to repair the product or modify the circuitry yourself as this will invalidate your warranty.

If this

No lights on your wattson when you switch it on.

Try this

1 / Make sure the display unit is connected to power or its batteries are fully charged. Full battery charge takes around 24 hours but wattson can still display your energy use whilst it charges. Note that Wattson does not charge via the USB connector.

2 / Reset wattson manually (as described on page 15)

Your wattson displays 'out of range'

If wattson hasn't heard from the transmitter for a little while it will show 'out of range' on its display.

1 / Take wattson closer to the transmitter.

2 / Check that the transmitter LED is flashing. If not check the power supply or transmitter batteries and replace if necessary.

3 / If the display unit has a flashing dot on the left of the display and the OUT OF RANGE message then you may need to re-pair the display and transmitter (see page 15).

If you still have a problem please contact us at the helpdesk.
diykyoto.helpserve.com



If this**Try this**

Can't attach the sensor clip to your electricity wire.

If there is not enough space to simply attach the clip to one of the wires please consult a certified electrician. They may be able to fit the clip within your fusebox or distribution unit. **DO NOT** under any circumstance attempt this yourself.

If wattson displays 0W

1 / Check that you have at least one electrical appliance switched on.

2 / Check that the transmitter LED is flashing (see OUT OF RANGE).

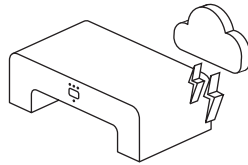
3 / Check that the sensors are firmly plugged into the transmitter.

4 / Check that the sensor clips are connected to a single-cored electrical wire. This is the most common cause of zero readings.

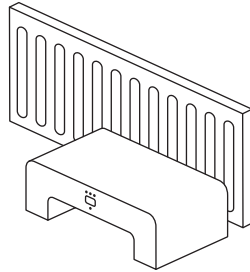
If you still have a problem please contact us at the helpdesk.
diykyoto.helpserve.com

Safety guide.

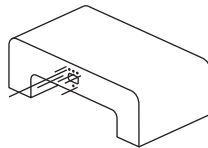
To avoid power surge disruption, disconnect the cable between the sensor clip and transmitter during any electrical storm.



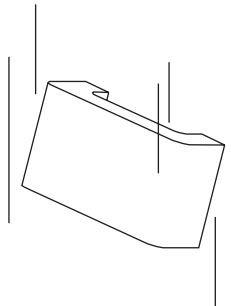
Keep wattson away from heat sources such as radiators, stoves, heaters and any other heat-generating products.



Do not obstruct the holes on wattsons face, doing so can cause overheating and lasting damage.

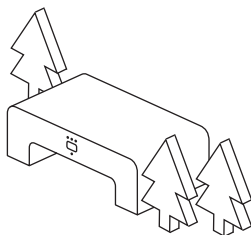


Do not subject your wattson to impact or shock.

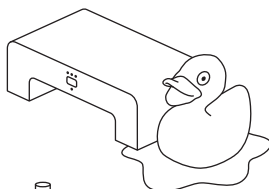


If wattson is misused or you do not follow these instructions Energeno ltd can not be held responsible for any losses or injury that may result.

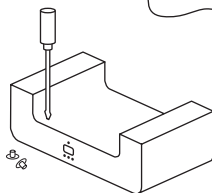
Do not use the sensor clip and transmitter outside. Outside usage of the wattson will invalidate your warranty.



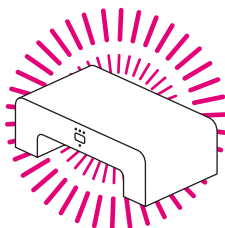
Do not use wattson in or near water or in high moisture areas such as the bathroom.



Do not expose or touch the electronic circuitry of your wattson. Doing so may result in electric shock.



Sufferers of epilepsy should be aware that wattson has bright flashing lights that could potentially trigger a seizure.



Do not leave old/used batteries in the transmitter unit for any length of time as they may leak and cause corrosion.



