

# Home Energy Audit

## Understanding the Energy Meter

Pressing the FUNC button will cycle through the various displays on the meter.

Below is an explanation of the information displayed in each view.

Display	Meaning
VOLT ac	<p>This is a measure of the voltage being supplied to the energy meter. If the meter is plugged in to a standard household power socket, the value for this should read approx 240 volts.</p> <p>Note: This information does not provide much useful information when calculating how much energy is being used by an appliance.</p>
AMP	<p>This is a measure of the current being drawn by the device plugged in to the energy meter. This is usually a value between 0 and 10 amps.</p> <p>Note: Again, this does not provide much useful information when calculating how much energy is being used by an appliance.</p>
<p>WATT</p> <p>- Use this value to figure out how much energy an appliance is using.</p>	<p>This shows how much energy is being used by the appliance. This value will fluctuate as the appliance draws more or less power. The figure displayed represents the power currently being used.</p> <p>Note: This is one of the more important figures to use when calculating energy usage. The value shown is the number of Watt-hours that will be consumed by the appliance if it runs at that rate for one hour.</p> <p>For example, if the device currently shows 500 Watts while running an air-conditioner, then the air-conditioner will consume 500 watt-hours if left running for one hour at that same rate. (This is equivalent to 0.5 kWh.) This means it will consume 1kWh in two hours.</p>
WATT max	<p>This is the highest amount of Watts drawn by an appliance at any point in time since the device was “reset”.</p> <p>The time at which the device measured this peak usage is shown on the bottom right of the display.</p> <p>As an example, a fridge may draw 200 Watts during regular usage. However, during the heat of the day, the fridge may work much harder and at 2:30pm may be drawing 400 Watts. The figure of 400 will show in the <b>WATT max</b> view and the time 2:30 will display on the bottom.</p>
<p>Kwh</p> <p>- Use this value to figure out how much energy an appliance has used.</p>	<p>This is the total amount of kilowatt-hours (kWh) used since the device was last reset.</p> <p>Note: The kWh is the basic unit for measuring energy usage. This is the figure that your electricity provider monitors to calculate your bill. It is also the figure that you should be measuring to work out your own greenhouse gas emissions. 1 kWh is approximately equal to 1 tonne of carbon dioxide – the main greenhouse gas.</p>
<p>Total Price</p> <p>- Use this value to figure out how much energy an appliance has used (best for low-powered devices).</p>	<p>This display reveals the estimated cost (in cents) of electricity of all appliances plugged in to the device since the meter was last reset.</p> <p>The total running time is shown in the bottom-right of the screen.</p> <p>Note: The total running time does not include the time when an appliance draws no power. This is important to note, because some devices running in standby mode will only draw power intermittently. Although you may have an appliance plugged in for 6 hours, the totally running time may show 2 hours simply because the appliance was only drawing power for one third of that time (i.e. power on for 1 second, off for 2 seconds, then repeat). This is common in low-powered devices or devices running on standby. Therefore, you may need to look at a clock to accurately determine the running time being measured.</p>

## ***Using the Energy Meter***

To change display modes:

- Press the **FUNC** button to cycle through the various views on the display.

To reset the **kWh** and **Total Price**:

- Holding the **FUNC** button for 5 seconds while in either the **kWh** or **Total Price** views will reset both the **kWh** and **Total Price** values.

To reset the **WATT(max)**:

- Holding the **FUNC** button for 5 seconds while in the **WATT(max)** view will reset the **WATT(max)** value.

## ***How to measure energy used by each appliance***

There are 4 options for measuring the energy used (Watts) by an appliance.

- 1. Look at the value in the WATT display. (Quick-and easy option)**  
This value shows the energy currently being drawn by the appliance. This is a fairly rough guide as the figure will usually fluctuate. You can watch the device to get some idea of the average energy usage of the appliance.
- 2. Look at the value in the Kwh display. (Best option for high-powered devices)**  
Reset the **Kwh** and **Total Price**. Run the appliance for a period of time. Use the value of **Kwh** and the total running time to calculate the average energy usage of the appliance.  
*Note 1: You may need to look at a clock to accurately determine the duration of time that the appliance has been running.*  
*Note 2: Low powered devices may take many hours (or days) to register on the **Kwh** display. For these devices it is best to use option 3 (below).*
- 3. Look at the Total Price display. (Best option for low-powered devices)**  
Reset the **Kwh** and **Total Price**. Run the appliance for a period of time. Use the value of the **Total Price** and total running time to calculate the average usage of the appliance.  
*Note 1: You may need to look at a clock to accurately determine the duration of time that the appliance has been running.*  
*Note 2: Keep in mind that the **Total Price** is shown in cents – not dollars.*
- 4. Look at the packaging / markings on the appliance (Best for light-bulbs)**  
If you are unable to measure an appliance or electrical device by plugging it in to the energy meter (such is the case for most lights in the ceiling or other devices such as air-conditioners that may be hard-wired into the power supply), read the packaging, documentation or markings on the product to determine the energy usage. Try to find out how many Watts the appliance uses (1 kW = 1000 watts) Light bulbs usually have markings on the bulbs (eg. 40 watts, 60 watts, 12 watts). Other appliances like air-conditioners may have energy rating stickers stuck on the outside (usually in kilowatts). Otherwise, try reading through the documentation that came with the product.