

enistic

Energy Saving Starter Kit – User Guide



For further support:



- Website: **www.enistic.com**
- Support Forum: **www.enistic.com/forum**
- Email: **support@enistic.com**
- Telephone: **+44 (0)844 875 1600**

Contents

1. **What's in the pack?**
2. **Quick start guide**
3. **What is energy management?**
4. **Installation**
 - Setting up the Smart Energy Controller (SEC)
 - Using the 5-way Smart Socket
5. **Using your Energy Saving Starter Kit to save energy**
 - Getting started
 - Identifying power hogs
 - Standby/overnight savings
 - Making energy saving more visible
 - Monitoring in more detail
 - Taking control of your energy consumption
6. **Troubleshooting guide**
7. **Extending your kit**
 - Recommended add-ons



1. What's in the pack?
Energy Saving Starter Kit (EN-ESSK)

<p>1 x Smart Energy Controller (SEC)</p>	 A white rectangular Smart Energy Controller (SEC) with a black LCD screen at the top. Below the screen are two small indicator lights. At the bottom, there is a control panel with four buttons: 'In', an up arrow, a down arrow, and 'Out'.
<p>1 x 5-way Smart Socket</p>	 A white 5-way Smart Socket with five individual outlets. On the right side, there are three indicator lights labeled 'Surge Protected', 'Activity', and 'Program'. A white power cord with a three-pronged plug is attached to the bottom.

2. Quick start guide

(See below for more detailed installation instructions)

1. Your Smart Energy Controller (SEC) needs to be plugged into a power supply.

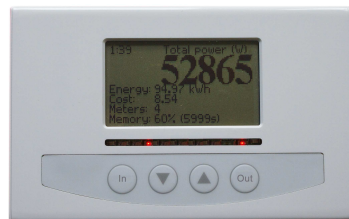
If you want to connect your controller to any of the Enistic software (not included in this kit), then you will also need to connect a network cable.



2. Plug the 5-way Smart Socket in to an electrical socket and then connect up to four electrical devices of your choice – e.g. photocopier, printer, PC.



3. As soon as the Smart Socket is in use, the SEC will automatically detect it and begin to display energy readings.



3. What is energy management?

The first target in an energy management programme is to raise awareness of energy consumption and work out exactly where you might be able to make improvements. By measuring and analysing your current usage, you can identify areas of wastage and come up with measures to make energy savings.

The Enistic Energy Saving Starter Kit is suitable for use on all office-based electrical equipment, such as desk-based PC systems, photocopiers, printers, vending machines, audio or visual equipment, televisions, plasma screens and servers. With this level of flexibility, you are able to start measuring how much individual pieces of equipment cost to run and begin the process of identifying the energy hogs within your organisation. This information can be used to encourage behavioural change and, over time, to replace certain devices with more energy-efficient equipment.

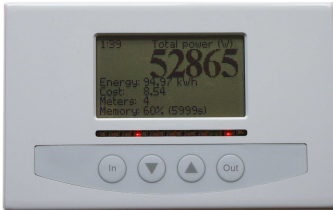


Once targets have been set for reducing the energy bill and carbon emissions, it is important to be able to track the impact of any behavioural or infrastructure changes, through ongoing monitoring.

Quick savings are usually possible for most organisations, simply through behavioural changes. Extensions to your Enistic kit can easily be purchased as required, to allow you, for example, to automate certain equipment (such as PCs or overhead projectors) so that they turn off automatically overnight and/or at weekends. Further savings can be made through longer-term projects, and ongoing monitoring will help ensure that an organisation continues to make progress towards its targets.

4. Installation Instructions

Smart Energy Controller (SEC)



To connect the power supply or the network cable (optional, for connecting to additional Enistic software, not included in this kit):

1. Turn off and unplug the 5V power supply to the controller if you have already fitted one.
2. Slide the back of the unit off to reveal the sockets where the cables plug in. To remove the back of the unit unclip it along the two long edges. This can easily be achieved, using something thin that you can slide along the clip or a fingernail.
3. Fit the cables into the sockets inside the unit as required.

4. Replace the back of the case, placing the wires through the hole provided.

5. Press firmly on the back of the case to reseat it along the two clip-in edges.

Wall-mounting

To display your SEC on a wall, screw in two flat-head screws to match the two key cuts in the case. Ensure that the screws stand proud enough so that the controller can slide down over them.

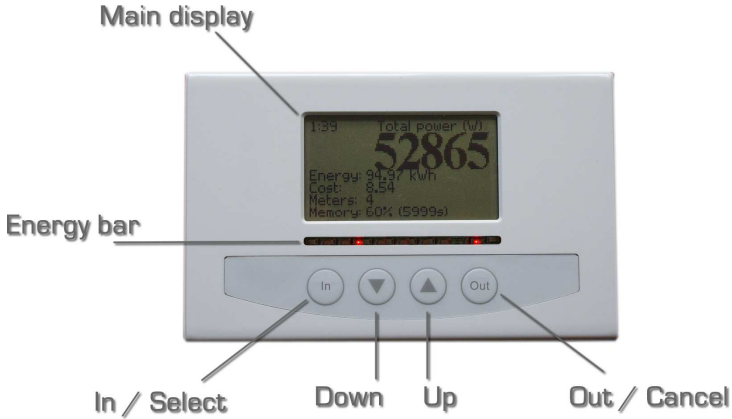
Connecting the desk stand

The enclosed optional stand can be used to support the unit on a desk.


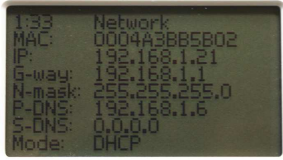

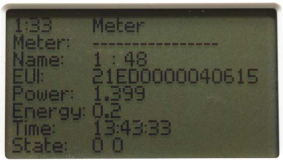
To attach the stand, place one end of the stand in the back of the case with the large slot in the stand pointing towards the top of the controller. Then swing the stand back around until it clicks into place.



Your Smart Energy Controller Explained



Function	Description
Main Display	The main display of the controller.
Energy bar	The energy bar lights up to show your energy use. Red means your energy use has gone up, blue means it has gone down and green means it is roughly the same.
In / select	Press to go to different screens within the controller.
Down and Up	These buttons help you navigate through the built-in menus.
Out / cancel	Cancels a current action.

 <p>1:39 Total power (w) 52865 Energy: 94.97 kWh Cost: 10.54 Meters: 4 Memory: 60% (5999s)</p>	<p>The main screen of the controller shows the power currently being used in large numbers and also:</p> <ul style="list-style-type: none"> ▪ The time in the top left. (This is set to Central European Time. For UK users this is 1 hour out.) ▪ Energy use in kWh since the controller was switched on. ▪ Cost of that electricity, priced at £0.11 per unit. ▪ Number of meters connected. ▪ The amount of memory used. ▪ The last time that the internal memory was transferred to the online system shown in brackets.
 <p>1:33 Network MAC: 0004A3BB5B02 IP: 192.168.1.21 G-way: 192.168.1.1 N-mask: 255.255.255.0 P-DNS: 192.168.1.6 S-DNS: 0.0.0.0 Mode: DHCP</p>	<p>The internal network state:</p> <ul style="list-style-type: none"> ▪ MAC address ▪ IP address ▪ Gateway address ▪ TCP/IP Netmask ▪ Primary DNS server ▪ Secondary DNS server ▪ DHCP or static IP address mode
 <p>1:33 Server Server: www2.enistic.com Port: 80 Sched: 5595s Last: 5619s Resp: :wwwq:WG::ΔWw!::[] State: 1 PIN: Unknown</p>	<p>The next screen shows the current online server state. The SEC does not have to be online in order to work, but will need to be connected to a network if used with Enistic Energy Manager software (not included in this kit).</p>
 <p>1:33 Meter Meter: ----- Name: 1 : 48 EUI: 21ED0000040615 Power: 1.399 Energy: 0.2 Time: 13:43:33 State: 0 0</p>	<p>The meter store information shows:</p> <ul style="list-style-type: none"> ▪ The meter name ▪ The internal meter storage location and its channel number ▪ The serial number of the meter (known as the Enistic Unique Identifier) ▪ The power it was using when last read ▪ The energy used since the controller was last turned on ▪ The state of the internal relay if it has one
<p>The final screen (Communications) is an internal debug screen and can be ignored.</p>	

Using the 5-way Smart Socket

1. The 5-way Smart Socket will measure the total electricity used by any equipment that is connected to it, and relay this data wirelessly to the Smart Energy Controller (SEC), which is pre-configured so that it will automatically detect your Smart Sockets.

2. The Smart Socket works in the same way as a standard power strip – simply plug it in to an electrical socket. When first plugged in, the red light marked ‘Activity’ will flash rapidly – this means the Smart Socket is searching for other Enistic devices. It may take up to five minutes for the Smart Socket to connect wirelessly to your Enistic network – once done, the red light will pulse occasionally.



3. Select the electronic device(s) you wish to monitor and plug them in to the sockets on the 5-way.



Simply connect and disconnect different pieces of equipment to compare their energy usage.

4. The red button marked ‘Program’ on the Smart Socket is an on/off button that will turn power on or off to all five sockets. When pressed, the red light will come on for a moment. This button can be controlled remotely / automatically if you decide to use Energy Manager software with your kit.

5. You must locate your Smart Socket within 30 metres of the SEC.

5. Using your Enistic Kit to Save Energy

Getting Started

Once the equipment in the kit is connected and plugged in, you are ready to take the first step in monitoring your energy usage and then use this knowledge to make savings. Your Enistic starter kit will enable you to access real-time data and focus right in on the energy consumption of specific devices.

Identifying Power Hogs

Your Smart Energy Controller (SEC) will show at a glance the energy usage of your selected devices. It can be used to assess which devices are using the greatest amounts of energy and at what times.

Standby / Overnight Savings

The SEC is also useful for determining how much power is used when a device is on standby, compared to when it is turned off. This can give your organisation a better idea of where energy is being wasted overnight or at other times when the equipment is not



in use. Significant savings can be achieved by using this data to encourage behavioural change (such as turning off the photocopiers at night, rather than leaving them on standby). It might also indicate that greater savings could be made by automating some of the switching off of equipment – something that is easy and inexpensive to achieve by extending your kit and using Enistic Energy Manager software.

Making Energy Saving More Visible

The Smart Energy Controller presents energy data in a very visible format, so that it is easy to share findings with colleagues and encourage everyone to take more of an interest in energy saving.

Monitoring in More Detail

Further information is provided below about options for extending your kit. The Enistic system makes it simple to monitor your total energy usage, and to break down this information to analyse the energy consumption of a department, an individual workstation or a circuit such as the air-conditioning or server room.

This can be helpful when encouraging people within an organisation to take responsibility for reducing their own personal energy usage. Enistic Energy Manager software also works as a good visual aid within the classroom when teaching about energy costs and how to reduce carbon emissions.

If you are interested in gaining a more comprehensive breakdown of your energy usage, please

contact one of our energy experts for advice on 0844 875 1600, or see our website.



Taking Control of your Energy Consumption

The Enistic system makes energy data accessible – both real-time and historical – and helps individuals and organisations to create an easily understandable profile of their energy usage.

It also allows users, very accurately and quickly, to gauge the success of any energy saving changes introduced to their organisation.



6. Troubleshooting Guide

Symptom	Possible resolution
Your SEC looks like it is working, but the Smart Socket is not connecting.	<p>Check that the 5-way Smart Socket is located no more than 30 metres away from the SEC. The wireless signal should pass through walls and ceilings, but it may be blocked by some materials (e.g. foil-backed insulation). You may need to reposition the devices.</p> <p>The Enistic system uses a meshing technology, meaning that every module ‘talks’ to every other module, in order to maximise range and reliability. If you decide to extend your kit, you should not require an additional SEC, so long as you ensure that each module is placed within 30 metres of any other module.</p> <p>If a Smart Socket is more than 30 metres away from the SEC, it will not be able to communicate directly but will use other modules (e.g. other smart sockets) that are in range to ‘pass on’ the message to ensure 100% operation.</p> <p>When Smart Sockets are trying to connect, the LEDs on the units flash rapidly. Once they have connected to your SEC, they will flash occasionally (usually every 10 seconds).</p>
There are no lights on your SEC.	<p>The power supply is not plugged in. To reset your SEC, simply turn it off and on again.</p>

7. Extending your kit

It is easy to extend your Energy Saving Starter Kit, with any other product in the Enistic range (see www.enistic.com for the full product range).

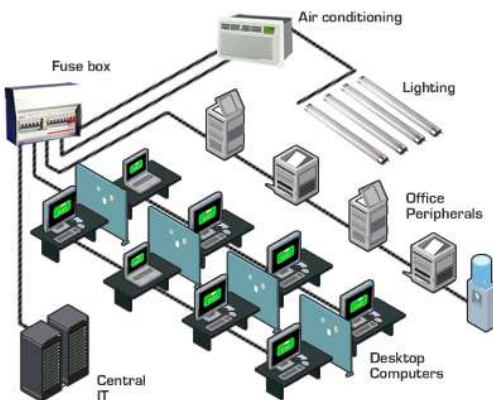
If you want to analyse your electricity usage in greater detail, you can add more single or 5-way Smart Sockets. A range of Channel Smart Meter kits are also available, for installation on your distribution board (fuse box), to measure the energy used by particular circuits. This enables you to measure things such as your lighting or air-conditioning.

Channel Smart Meters should be fitted by a qualified electrician, but this is quick and easy and should not involve any disruption to your power supply.

Any new Enistic devices will be automatically detected by your system, so that you can start to monitor them immediately via your Smart Energy Controller.

Energy Manager Software

If you would like to access detailed reporting and breakdowns of your energy usage, it is easy to connect your kit to Enistic Energy Manager (available in desktop or online versions).

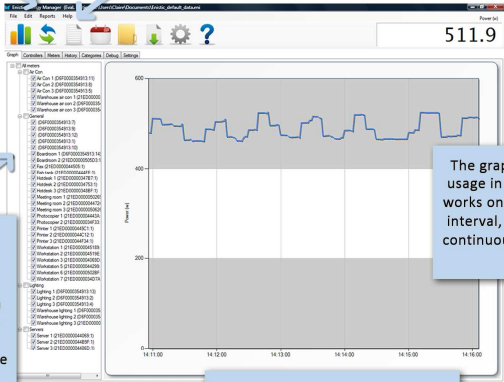


Energy Manager allows you to monitor all your devices, in easy-to-understand graphs. More advanced features include the ability to control devices remotely (switching them on and off) or to automate this process, and to create personalised PDF energy reports at the touch of a button.

Energy Manager Lite / Pro (desktop software)

The Reports tab enables you to export your energy data into Excel for further analysis (n.b. feature only available in Energy Manager Pro).

Click on the Meters tab or icon to see a list of all the devices / circuits you are measuring.



Energy Manager Lite will allow you to analyse up to 20 different smart meters, while the Pro version has a maximum of 100. Click the checkboxes to view the energy usage of one or more of your sockets / circuits.

The graph shows your energy usage in real-time. The system works on a 10-second reporting interval, so the data you see is continuously updated every ten seconds.

At the bottom of your screen is a quick summary of how many controllers and meters are connected to your system, and your current energy usage, cost and CO2 levels.

Energy Manager Online – an even more advanced set of reporting tools, and the ability to control devices remotely (e.g. shut down certain devices automatically outside of normal working hours).



Recommended Add-Ons:

- **Plug-in Smart Sockets** – monitor (and/or control) more devices simultaneously, and compare their electricity usage.
- **Powerdown Strips** – turn your peripherals (e.g. printer, speakers, monitor) off automatically when your PC shuts down.
- **Powerdown Screensavers** – significantly reduce the amount of energy used when the computer is inactive, whilst automatically saving the user's work.
- **Channel Meter kits** – available in 1, 3, 6, and 16 channel versions, to measure the energy usage of particular circuits (e.g. air conditioning, servers, lighting).

