



Set up and Operating Instructions

Eco-eye Elite and Mini



Both Eco-eye Elite and Mini conform to quality standards: CE, PB, RoHS, amendment 2004/108/EC, EN55 022 Class B and EN 55 024 RTTE, 89/336/EEC.



Thank you for choosing to purchase this Eco-eye product. We hope that it will provide you with a long and trouble-free service and will encourage you to use electricity wisely.

IMPORTANT

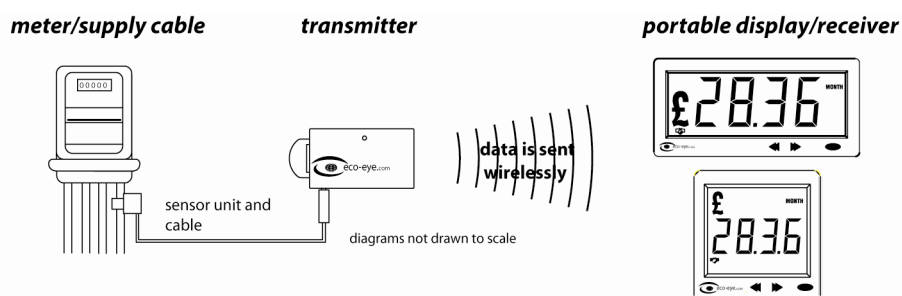
Safety and Care

1. Before attempting to fit Eco-eye, ensure you have read and understood the fitting instructions fully.
2. Do not attempt to carry out any repairs to Eco-eye. Contact your retailer or Eco-eye direct if problems occur.
3. Use of Eco-eye near moisture or liquids; or in extreme temperatures can cause malfunction and damage.
4. Take care when handling and disposing of batteries. They can cause burns to skin or property if in contact with heat, conductive or corrosive materials. Remove batteries when storing Eco-eye for long periods to avoid corrosion.
5. The LCD screen is glass and should be treated carefully to avoid scratches. Should it become damaged, it may leak crystals which could be harmful to your health. Dispose of with great care.
6. Eco-eye should only be cleaned using a damp cloth. – Under no circumstance should any chemicals or cleaning agents be used.
7. Do not subject Eco-eye to any form of impact or shock.
8. IF IN ANY DOUBT regarding the installation of this product, consult a qualified electrician before proceeding.

Instructions for Eco-eye Elite and Mini

1. Overview

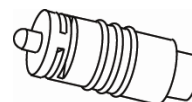
Eco-eye consists of a sensor, transmitter and receiver/display unit. The sensor clips around the incoming supply cable, usually at the meter, and monitors the total current passing through it. This is done by the user without disturbing or cutting any wiring and without the need for a qualified electrician. The sensor plugs into the transmitter unit and the information is sent wirelessly to the receiver unit which translates it into meaningful information - Kilowatts, Cost or CO2 emissions.



Sensor unit clips onto the meter/supply cable and plugs into the Eco-eye transmitter

Display shows the readings of your choice - Kilowatts, Cost or CO2 emissions.

Live electricity cable tester



Supplied to ensure that the sensor is clipped around the correct electricity cable. The LED should light up if you have located the live electricity cable. Remove tester once you have located the correct cable and plug the sensor cable into the transmitter.

Note - No harm will be done to Eco-eye or to the electricity supply if the sensor is inadvertently fitted around an incorrect cable.

2. The Sensor

The standard sensor is of a two part construction and clips around any live cable up to 13mm in diameter. Typically this will be found on the far right of the meter and coloured or marked with red or brown. If the meter is situated remotely or in an external box, the sensor can either be fitted onto the cable at the meter or inside the property where it enters the fuse board. The latter is preferable in order to minimise signal loss.

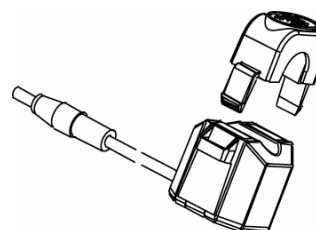
NOTE 1: THE SENSOR UNIT MAY BUZZ ESPECIALLY WHEN NOT CONNECTED TO THE TRANSMITTER. THIS IS PERFECTLY NORMAL.

NOTE 2: ECO-EYE WILL ONLY WORK WITH INDIVIDUAL CABLES (I.E. NOT MULTI-CORE CABLES) AND IS THEREFORE NOT INTENDED FOR THE DIRECT MONITORING OF INDIVIDUAL APPLIANCES.

NOTE 3: DO NOT FORCE THE CLIP TO CLOSE AROUND A CABLE WHICH IS TOO LARGE. IT IS ESSENTIAL THAT THE FACES OF THE SENSOR ON BOTH SIDES OF THE CLIP MAKE CONTACT WITH EACH OTHER. IT IS ACCEPTABLE FOR THE SENSOR TO BE A LOOSE FIT AROUND THE CABLE. ALTERNATIVE -SIZED SENSORS ARE AVAILABLE ON REQUEST.

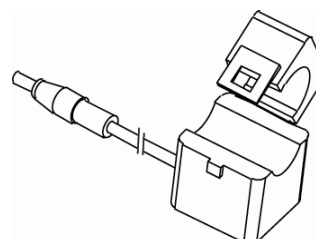
Standard Size-

- Suitable for cables up to 13mm in diameter.
- Press the sides to separate the two parts. Click shut when round the cable.



Larger Size-

- Suitable for cables up to 16mm in diameter.
- This unit is hinged - Pull the catch to open. Click shut when round cable.



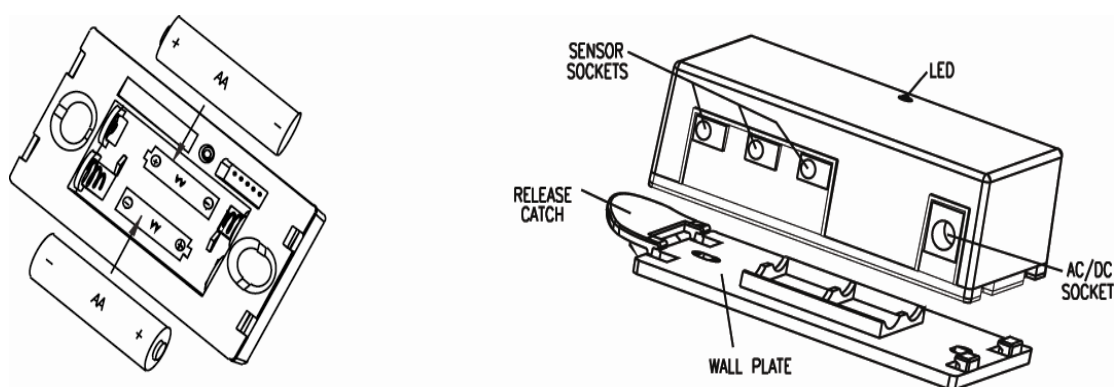
3. The Transmitter Unit

Press the release catch to remove the wall plate from the transmitter and using the two self-adhesive pads (supplied) or screws (not supplied) affix in a

convenient position close to the cable being monitored. Ensure the release catch is positioned to the left side.

Fit 2 x AA batteries into the transmitter ensuring the correct orientation and polarity (see below). The LED should initially flash twice (brightly) and then emit a regular 4 second low intensity flash.

NOTE: THE RED LED LIGHT FLASHING EVERY 4 SECONDS INDICATES THAT THE WIRELESS SIGNAL IS TRANSMITTING CORRECTLY. A SOLID LIGHT INDICATES AN IRREGULARITY HAS BEEN DETECTED. IN THIS SITUATION, REMOVE THE BATTERIES AND RECOMMENCE THE START UP PROCEDURE.



ONLY NOW SHOULD YOU FIT BATTERIES TO THE RECEIVER UNIT

4. Receiver/Display Unit - Elite or Mini

Remove the battery cover and insert 2 x AA batteries, ensuring correct polarity. (See figs 1 and 2 below). Replace the battery cover. The unit goes through a power-up routine whereby it is possible to change certain parameters (currency symbol, voltage etc. - see Section 10). If the sensor and transmitter units are connected correctly, the Eco-eye receiver will automatically display the current KW reading. A handshake icon will also become visible at the bottom left hand side of the screen and 'blink' every time an incoming signal is received.

NOTE: ALL ECO-EYE UNITS CAN BE POWERED WITH THE OPTIONAL AC/CD MAINS ADAPTORS. THE SOCKET FOR THE TRANSMITTER IS LOCATED ADJACENT TO THE SENSOR SOCKET. THE SOCKET FOR THE MINI DISPLAY IS ON THE SIDE OF THE UNIT AND THE SOCKET FOR THE ELITE IS LOCATED UNDER THE BATTERY COVER.

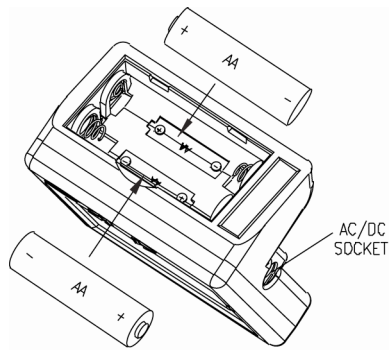


Fig.1 – Eco-eye Mini underside showing battery compartment

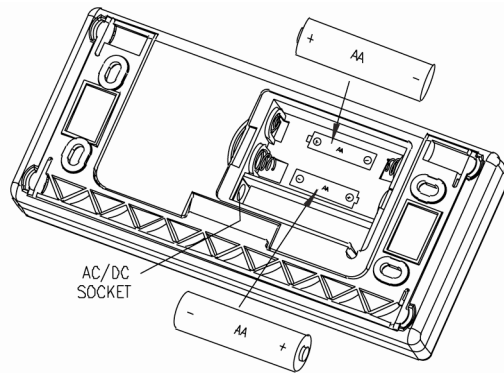


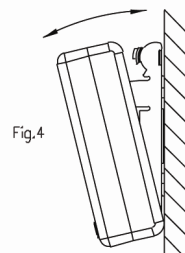
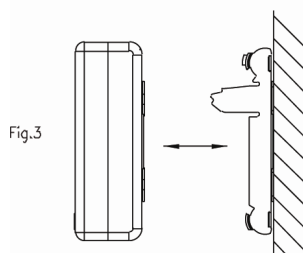
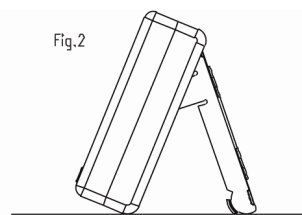
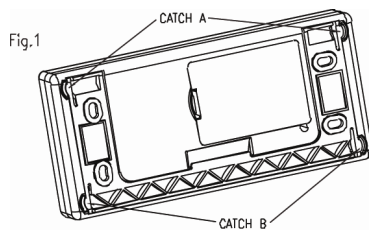
Fig. 2 – Eco-eye Elite reverse showing battery compartment

5. Elite Mounting Options

Free-standing option: Release catches at B (see fig. 1) and gently pull out the hinged stand until it clicks into the open position. Eco-eye can then be used on a table, desk or other flat surface (as in fig. 2).

Wall-mounted option: Release catches at A and B (see fig. 1) and gently remove the mounting frame. Fit the mounting frame to the wall in the required position using the adhesive pads (supplied) or screws. Present Eco-eye squarely to the mounting frame until catches A and B are lined up and can latch into position. (See fig. 3)

Alternative wall-mounting option: Once fitted as above, Eco-eye can also be pivoted forward (see fig.4) until a 'click' is felt. This option is ideal for mounting your unit at a higher level on the wall. NOTE: Eco-eye must be returned to the standard wall mounting position before it can be removed from the mounting frame.



6. Programming Cost and Time

Eco-eye needs to know the time and the unit cost of your electricity in order to provide you with the correct information.

(a) Press and hold the OVAL BUTTON A for 3 - 5 seconds minimum. On release the default currency symbol (£, \$ or €), 'KW' icon and 'SET MODE' icons will be displayed together with flashing numerals which can be adjusted to your own electricity tariff using the + and - ARROW KEYS.

NOTE: THE DISPLAY IS TO 3 DECIMAL PLACES FOR GREATER ACCURACY. I.E. 10.5 PENCE PER UNIT IS DISPLAYED AS £0.105.

Remember:

1 kW = 1000 watts,

1000 watts for 1 hour duration = one kWh

1 kWh = 1 unit of electrical energy

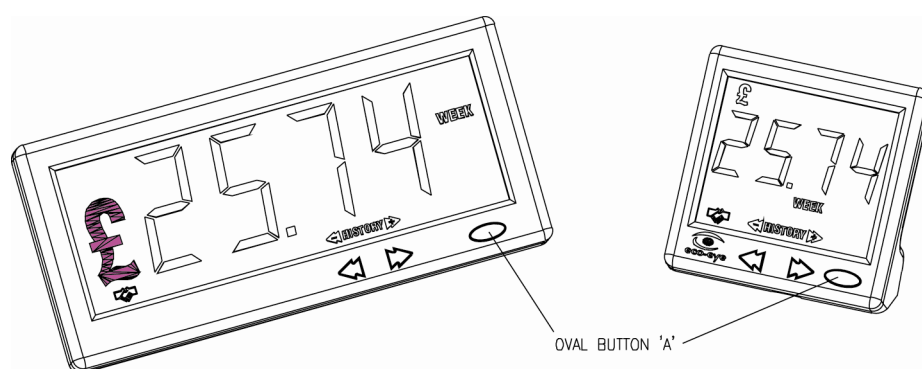
(b) Press the OVAL BUTTON A again to enter the current time. The 'TIME' icon becomes visible and minute numerals will flash. Use the + and - ARROW KEYS to set the minutes.

(c) Press the OVAL BUTTON A again to activate the HOUR numerals. Use + and - ARROW KEYS to set the hours in 24 hour format.

(d) Press the OVAL BUTTON A to return to normal display mode and save changes.

NOTE: 10 SECONDS OF INACTIVITY IN SET MODE WILL RETURN THE UNIT TO NORMAL DISPLAY MODE, WITHOUT SAVING CHANGES.

7. Operation



The operation of the Eco-eye receiver/display unit for real-time USAGE is controlled solely by the OVAL BUTTON A.

From the initial KW usage screen:

- (a) Press the OVAL BUTTON A once to show the 'COST PER HOUR' mode.
- (b) Press the OVAL BUTTON A again to show the 'COST PER DAY' mode.
- (c) Press the OVAL BUTTON A again to show the 'COST PER WEEK' mode.
- (d) Press the OVAL BUTTON A again to show the 'COST PER MONTH' mode.
- (e) Press the OVAL BUTTON A again to show the 'COST PER YEAR' mode.
- (f) Press the OVAL BUTTON A again to show the 'KG CO2' mode. This displays the amount of CO2 which will be discharged into the atmosphere per month based on your CURRENT usage.
- (g) Press the OVAL BUTTON A again to show the current time.
- (h) Press the OVAL BUTTON A once more to return to KW consumption mode.

8. Historical Data

Whilst you are in the real-time modes (listed in 7. operation) you are able to recall historical data related to that mode. For example, if you are displaying COST PER DAY, you can look at the individual costs for the last 32 days.

The 'HISTORY' icon flashes when historical data is on the display.

(a) Pressing the - ARROW KEY once will take you to the ACCUMULATED history mode and will display the actual amount/cost already consumed in the current period. e.g. – Current hour or day, etc.

(b) Pressing the - ARROW KEY again will display '-01' whilst the key is depressed and upon release the value displayed will be the actual amount/cost of usage in the '-01' selected time period. Pressing the key again will display '-02' etc.

(c) Pressing the Oval Button A at any time returns the unit to real-time operation.

NOTE: THE MEMORY IN YEAR MODE CAN BE RESET AT ANY POINT BY SIMPLY PRESSING AND HOLDING THE OVAL BUTTON A FOR 15 SECONDS AT WHICH POINT ' - - - - ' WILL BE DISPLAYED. THIS DATA CAN BE VIEWED AT ANY POINT BY FOLLOWING THE INSTRUCTIONS AT (A) ABOVE. THIS IS PARTICULARLY USEFUL IF YOU WISH TO MEASURE THE COST OF YOUR CONSUMPTION OVER A SPECIFIC PERIOD OF TIME.

9. Sequential Mode

Eco-eye can automatically cycle through the real-time modes coincidentally with the 4 seconds transmission update enabling you to view all modes in 7 (a) to (h) consecutively. To initiate this mode, use the following sequence in quick succession:

- (a) Press and hold the OVAL BUTTON,
- (b) Press and hold the + ARROW BUTTON,
- (c) Release the OVAL BUTTON,
- (d) Release the + ARROW BUTTON.
- (e) To cancel the sequential mode, simply repeat this operation.

10. Changing currency and voltage symbols

REMINDER: When Eco-eye is initially activated, it goes through the 'power-up' routine, whereby several screens of information are displayed in succession. Whilst the following screens are visible it is possible to change the default icons/values.

(a). Currency: When a currency symbol (£, \$ and €) becomes visible, press either + or - ARROW KEY to toggle through the available options. Once the desired currency symbol is displayed, allow the unit to continue the 'power-up' routine and that setting will be stored as the new default.

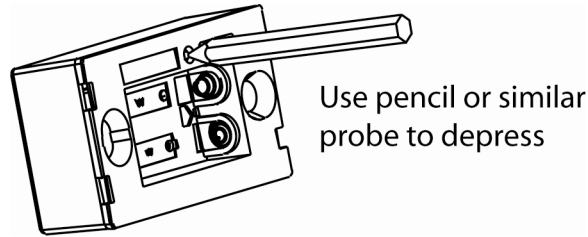
(b). Voltage: When the VOLTAGE icon is visible, press either + or - ARROW KEY to change the numeric display. Once the desired value is displayed, allow the unit to continue the 'power-up' routine and that setting will be stored as the new default.

11. To change send/transmit frequency

If a number of Eco-eyes are situated in close proximity it may be necessary to change the transmission frequency. The default channel is 2 but any other number from 1 to 30 can be selected, provided both the transmitter and receiver are set to the same number.

a) Transmitter Unit

Remove the batteries. Press and hold the small recessed button adjacent to the battery compartment using a pencil or similar probe (see diagram), whilst at the same time re-installing the batteries. The LED on the front will illuminate. Release the button, then immediately press it the same number of times as the desired channel number e.g. Press 5 times for Channel 5. The LED on the front will then flash (brightly) the same number of times as the channel selected before emitting the normal low intensity flash coincidental with the selected update rate. The default channel is now redefined.



(b) Receiver Unit

During the 'power-up' routine, the receiver will display 'CH02' (default channel being 02). Use the + and - ARROW KEYS to change the channel number to the same number you have selected for the transmitter unit (1 - 30). Allow Eco-eye to continue the 'power-up' routine and the revised selection is stored.

12. Trouble Shooting

Low Battery

A double flash on the transmitter indicates that the batteries will soon need replacing. The VOLTAGE icon is also shown on the display screen to denote this.

Signal Strength

The handshake icon (bottom left of screen) has the following functions:

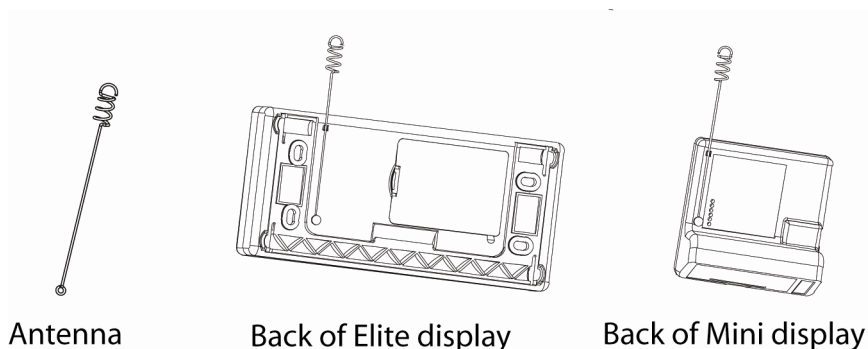
Long on, short off = good signal

Long off, short on = weak signal

No icon visible = no signal from transmitter

Improving the Range of your Eco-eye

In rare situations the range may be weaker than it should be and may result in no or rogue readings on the display unit. This problem can be overcome by using the supplied antenna (as shown below) and simply fixing it to the back of the Eco-eye display unit in the recess provided.



Channel Identification

As soon as batteries are put into the transmitter, the LED flashes to indicate the channel E.G: for Channel 2

(The normal default), it will flash twice. Channel selection is one of the set-up screens on the display, so can be seen by removing and replacing the batteries. It is displayed as, for example, ch02. See section 11 for information of changing channels.

For further information, see the FAQs and Technical Support pages on the website: www.eco-eye.com

Would you like to start your own business by becoming an Eco-eye distributor? For further information, log onto our website today.

Guarantee

This Eco-eye product is guaranteed for the period of one year from the date of purchase against defects in respect of both material and workmanship. HOWEVER, this warranty does not apply to normal wear and tear and does not cover any parts damaged by misuse or neglect in any way, or by modifications made by any person other than those working for Eco-eye. This guaranteed does not cover cracks or scratches to the screen under any circumstance, nor shall Eco-eye be held liable fro any direct, indirect, incidental, special or consequential loss or damages whatsoever caused by the use of Eco-eye even if advised of the possibilities of such damages. In order to validate this guarantee, please ensure you keep your original receipt and read all instructions carefully.

**Eco-eye is a trading name of
Modern Moulds and Tools Ltd,
The Modern Moulds Business Centre,
Commerce Way, Lancing,
West Sussex, BN15 8TA.
Email: info@eco-eye.com
Website: www.eco-eye.com**

Also available:

Eco-eye Solo — An extra Mini display for use with all Eco-eye systems.

AC/DC adapters - For use with sender and/or transmitters.

3 metre sensor cable extension - for use (a) where the meter or fuse box is in a remote location (b) to reduce the distance between the sensor/transmitter and the receiver (c) to enable the transmitter unit to be positioned near a mains electricity socket (d) to enable to connection of an additional sensor where 2 supply cables need to be monitored.

Additional Sensor - For use with multi-phase or split source supplies.

Wi-eye - Enables collection of data from your Eco-eye for analysis using your PC.

Eco-eye Plug-in - Measure individual appliances with this easy to use plug-in unit.