

ESWA

2 IN 1 FLOOR & CEILING HEATING SYSTEM

The **Eswa** system is approved by the E.S.B. for use in “*Gold Shield Homes*”. The under-floor heating is designed to offer background heat only (design parameters 0 to 15⁰C) and electricity consumption is charged at off-peak tariff. The cable is a copper alloy conductor with cross link polyethylene sheath and P.V.C. cover and rated @ 25 watts / metre with a max surface temperature of 50⁰C. Bathroom Cable is rated @ 17 watts / metre and is braided to comply with electrical regulations.

The cable is embedded in concrete of at least 150mm and a minimum of 60mm screed above the cable.

Under-Floor Heating

Electricity supply to the cables (and thereby the heat output) is managed by a Weather Sensitive Controller ref: E270 that operates the heating contactor. This unit comes in 2 parts i.e.

- 1) The indoor control box with a control knob (initially set at 12 o'clock) and then adjusted to suit the lifestyle and age group of the occupants by fine tuning adjustment.
- 2) The outdoor sensor that sends relevant signals to the control box as to the prevailing weather conditions and allows – for the appropriate amount of time that the cables should be energised.

As the weather changes, the control unit automatically adjusts the heating system to suit e.g. and average temperature of 7.5⁰C = ½ charge i.e. the heat input will operate only for the last 4.5 hours instead of 9 hours (full charge).

Ceiling Heating

Is a series of metal foil elements rated @ 150 watts per m² and sandwiched in a non-hygroscopic plastic laminate fixed to the timer ceiling joists and hidden from view. This is a radiant heating system controlled by electronic wall mounted thermostats fitted with an on/off switch. This heating is available on demand and is a top up to the under floor heating when needed as well as providing comfort levels in early Spring and late Autumn when the under-floor heating remains switched off (at the sockets) during Summer.

Points to Consider

Where a dual tariff meter is installed it is important to remember that all electricity used during the off peak period (pre-heating water cylinder, lights, T.V., washing machine, tumble dryer, deep freeze etc., is charged at the off peak. Ceiling heating left on during non-occupancy relies on the thermostat to control the heating it will naturally (depending on climate) be energised unnecessarily without any benefit. It is reasonable to expect a 70% / 30% split between night and day usage. 80% / 20% is not unusual.

However a lot depends on the lifestyle of an occupier / family and the management of the system.

REDBRO/ESWA HEATING & *NIGHTSAVER* ELECTRICITY

The overall (2-IN-1) Eswa Heating System **is designed so that customers get the best combination of low running costs and full comfort.**

NightSaver electricity plays a crucial role in achieving the low running costs and Eswa heating is designed to make the most of this less-than-half-price electricity.

The basis of the Eswa *Goldshield* design is that the underfloor heating is used to provide a continuous background temperature of about 16⁰ – 17⁰ C. using lower priced *NightSaver* electricity.

Ceiling Heating is used to top up this background temperature to full comfort conditions of about 22⁰C whenever needed – using day-rate or *NightSaver* electricity.

The Redbro / Eswa heating design makes the best use of *NightSaver* electricity, at the same time offering individual customers flexibility in selecting comfort conditions best suited to their own particular needs.

NIGHTSAVER ELECTRICITY 'LESS THAN HALF PRICE'

ALL electricity used in goldshield homes between 11pm and 8am wintertime and 12 midnight and 9am summertime is at less-than-half the standard rate.

In similar Goldshield energy efficient designed homes throughout the country, **up to 80% to 90% of total electricity used is at less-than-half-price NightSaver Rates.**