



**selc**

### Reliability with a plus

SELC 86's superior electromechanical design ensures that it's second to none for those who seek the most reliable in standard lighting controllers.

This innovatory new model incorporates a specifically designed thermal relay introducing both gap and time delay adjustments. Housed under a self-cleaning UV-protected cover, the **Selc 86** Thermal Controller carries a four-year guarantee.

#### Overcomes heating problems

Device failure resulting from the effects of heat has been greatly reduced in the **Selc 86** by means of a patented cooling chamber. This dissipates heat generated by the heavy currents passing through the pins and disperses heat rising from the lantern-top itself. The chamber thus protects the control circuitry.

With a considerably reduced strip resistance, power consumption and through current is minimised. Thanks to a unique phototransistor/thyristor arrangement, no thermal strip current passes through the sensing component. This results in longer life for both the thermal strip and the sensor and there's no calibration drift over a number of years.

#### Overcomes high voltage pulses

**Selc 86**'s transient protector in the form of a varistor removes all irregularities from the incoming supply and similarly protects the device from high voltage pulses caused by lightning.

- Four year guarantee
- \* Fits all *Nema* twistlock sockets
- \* 20 second time delay
- \* Very low power consumption
- \* Manufactured to BS 5972 Specs
- \* Electronic calibration reduces drift and error
- 100% waterproof

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### The reliable alternative

SELC 85's superior mechanical design ensures that it's second to none for those who seek the most reliable in standard lighting controllers.

This innovatory new model incorporates a specifically designed thermal relay introducing both gap and time delay adjustments. Housed under a self-cleaning UV protected cover, the **Selc 85** Thermal Controller carries a two-year guarantee.

Like the **Selc 86**, each unit is packed individually and has a month and year calendar on the underside of the housing.

- \* Two year guarantee
- \* Fits all *Nema* twistlock sockets
- \* Manufactured to BS 5972 Specs
- 100% waterproof

# SELC

## The ultimate in reliability

THE SELC 84 is the first lighting controller in the world to completely eliminate contact arcing and light level threshold drift.

By overcoming the two most common causes of device failure - switch burn out and drift - the Selc 84 achieves a standard of reliability and sophistication unmatched anywhere else in the world today. With the inclusion of other problem-solving features, the cost-benefit advantages of the Selc 84 are enormous.

### Overcomes pitting

Selc 84's innovative RAT (Relay Assisted Triac) switching technique now offers these controllers an undisturbed operating life of 10 years or more. This drastically reduces the high maintenance and replacement costs which would normally be incurred over such a period.

When power is switched to a load, the line voltage can have a peak value of more than 310 Volts - enough to induce arcing across the contacts as they open or close.

Selc 84's patented RAT technique overcomes this problem. It uses a relay and triac operating in parallel. When power is to be applied to the load, the triac is switched in first followed a few milliseconds later by the relay. Arcing is avoided by ensuring that the relay is not subjected to high voltages during the "make" operation.

### ... threshold drift

To reduce threshold drift, caused by self-heating of the light sensor resistor (LSR), high external resistor values reduce power dissipation within the device from 3 Watts (in the more conventional device) to a mere 600m Watts in the Selc 84.

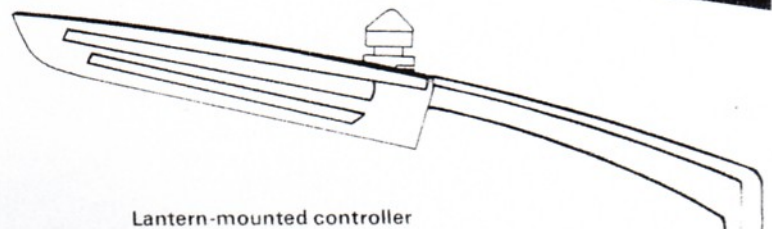
### ... heating destruction

The RAT technique ensures that the triac - an inherent heat dissipator - conducts for a very short time and so the temperature remains low. This helps keep the housing's internal temperature down.

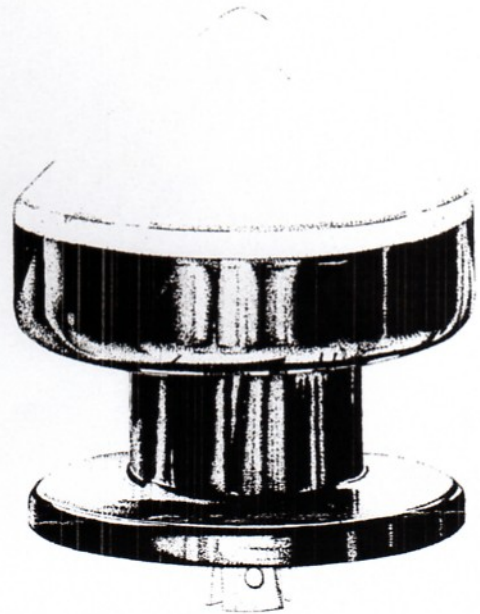
### ... destruction by the elements

A hermetically sealed LDR ensures that moisture and impurities cannot enter and alter its characteristics. Not only is each component on the printed circuit board given an acrylic coating but the unit's housing is also sealed as a primary defence against the elements.

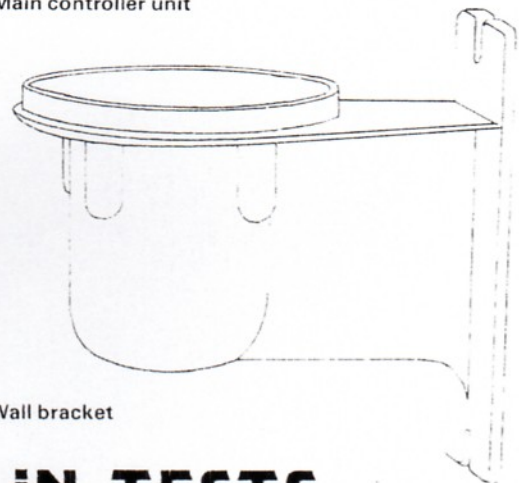
- Six year guarantee
- 30 second delay
- Long life military spec components
- Fully protected against surges and transients
- Manufactured to BS 5972 Specs
- Very long term stability
- Photo Transistor Light Sensor



Lantern-mounted controller



Main controller unit



Wall bracket

## BURN-IN TESTS

### AND OTHER PROCEDURES

All three units are subjected to the highest standards of quality control possible. A computerised burn-in tests the relays, time constants and triacs in a sequential testing mode.

Accelerated testing to military standards is carried out in an environmental chamber. Units are tested in temperatures of 85°C and humidities of 85%.

In order to test the longevity of the Selc 84, a number of prototype units underwent testing in which they were subjected to 40,000 switching operations - equivalent to 100 years operation. When examined subsequently, no pitting or other form of distortion could be found.