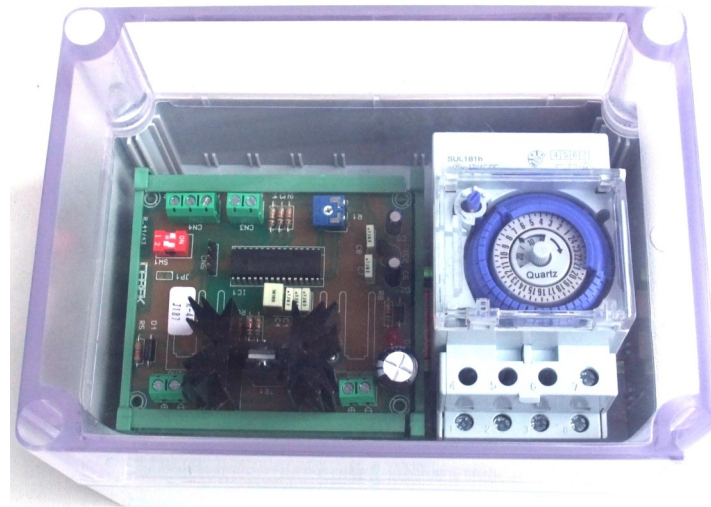


Automatic LED Light Sunrise to Sunset Controller



Analogue Controller

Thank you for purchasing this Automatic LED Sunrise to Sunset Controller. Please read these instructions carefully and leave with the user of the product for future reference. If the product is sold on, then the instruction/manual should pass on as well.

The Automatic LED light sunrise to sunset controller has been designed for use with aviaries, fish tanks and reptile enclosures. It simulates the natural progression from day to night and from night to day to give your animals a more natural environment. The on and off times are easy to adjust and the rate of change from light to dark can also be adjusted to suit you and your animals requirements. The controller is supplied with a reel of 'Daylight' LED tape (6000k). The tape is IP65 rate with 60 LED's per metre. The LED's are covered in epoxy resin to give them good protection from the elements. The tape is just 2.8mm deep and at 10mm wide. It supplied on a 5 metre reel which has a self-adhesive back. It is highly flexible and versatile and with a low power consumption

SAFETY

Please read the manual thoroughly before using this equipment. If the unit was damaged in transit, do not install or use it and contact your dealer.

- Not Suitable for children under the age of 16 years
- Children shall not play with the appliance
- For indoor use only
- Do not use in bathrooms, wet rooms or other damp locations
- Do not operate equipment with wet hands to reduce the risk of electric shock
- Do not use this appliance in locations where paint, petrol or other flammable liquids are used or stored
- Please ensure the unit is switched off and unplugged when not in use
- Do not use the appliance for other than its intended use
- Do not use this product in close proximity to gas appliances
- Periodically check this product for any signs of damage. If any damage is detected stop using it immediately and consult your supplier
- Only install in well ventilated areas
- There are no user serviceable parts in this product
- Do not move or knock this product while in use
- Do not overload. Maximum load is 4A (48W)
- This product must only be used in an upright position
- Do not cover
- Do not use in areas with high concentrations of dust or fibre particles
- Care should be taken when fitting this product.

Included in the package

- 1 x 5 metre LED Tape
- 1 x 4 Amp Power Supply
- 1 x Automatic LED Sunrise to Sunset Controller
- 1 x DC Coupler
- 4 x Fixing Screws
- 1 x Pack of LED tape couplers (5) 156.658
- 1 x Instruction Manual

Installation

Installation must take place before the unit is plugged in.

1/ Install the LED Tape in a suitable position to give you maximum light coverage. The surface must be completely free of dust and grease.

Note. The LED Tape can be cut at 50mm (3 LED's) intervals to the required length, highlighted by a line with a pair of scissors. This cut can be made with regular scissors (not supplied).

If you need to join the LED Tape to negotiate corners and bends use the connectors provided or if you feel competent solder the joint.

Once the final location has been established simply remove the self-adhesive backing on the rear of the tape and apply firm pressure along the length of the tape to ensure it has adhered in all locations.

2/ If required you can mount the Automatic LED dimmer to a wall with the fixing screws provided. Or it can be used as free standing unit on a shelf or table. Fit the DC **RED** Coupler to the DC power plug from the LED tape then connect it into the **RED** DC Socket located on the top of the case. You can now connect the power supply for the Automatic LED Sunrise to Sunset Controller into the **Black** DC socket and plug the mains plug into a suitable socket outlet.

3/ It is recommended to leave the unit with power on for approximately 2 hours before setting the clock or altering the running times. This is to allow the battery in the timer module to charge.

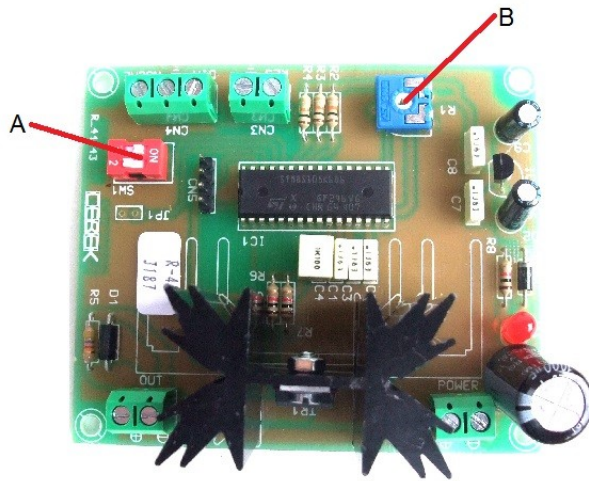
4/ Set the clock on the Timer module. (See time clock operating instructions)

5/ The Automatic LED Sunrise to Sunset Controller will now run with the settings used to test the unit.

6/ If you wish to alter the 'On' and 'Off' times or the time from sunrise to sunset follow instruction for the dimmer module.

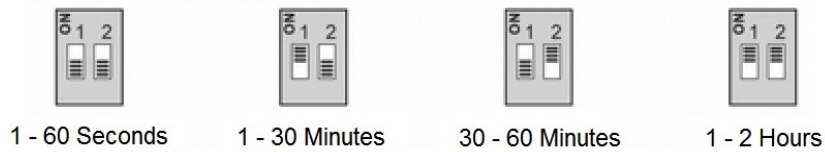
LED Dimmer Module

The control module has been designed to give you precise control of 12 volt LED lighting. It has been set to take approximately 45 minutes to simulate a sunrise to sunset and sunset to sunrise. This time can easily be adjusted to suit your own requirements by following these instructions.

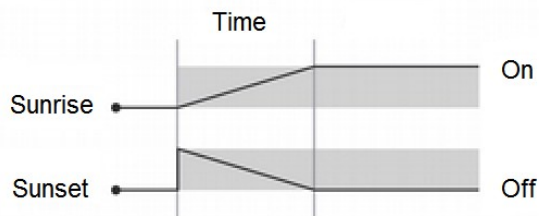


Electronic Dimmer Module

Setting the transition time from Day to Night, Night to Day:



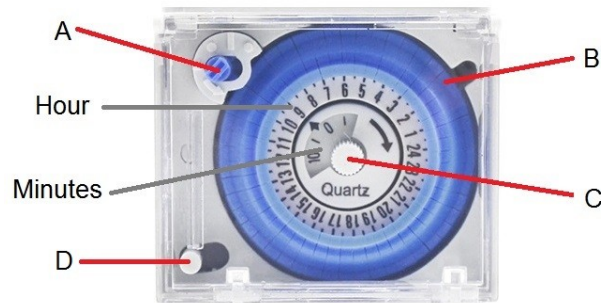
With the power switched off, using the DIP switch (A) you can select a dimming time of between 1sec and 2 hours. By rotating preset potentiometer (B) in a clockwise rotation the time can be increased from the minimum to the maximum of the selected range.



Analogue Time Clock

Operating Instructions:

The analogue timer has set before you receive the unit. The Initial program has been set for the LED tape to start to come on at 7.00 and at 21.00 the LED's will start to dim to 'Off'. The dimming function has been set for approximately 45 minutes, this and the clock can be adjusted to suit your own personal requirements. To alter the clock time or the On/Off times please follow these instructions.

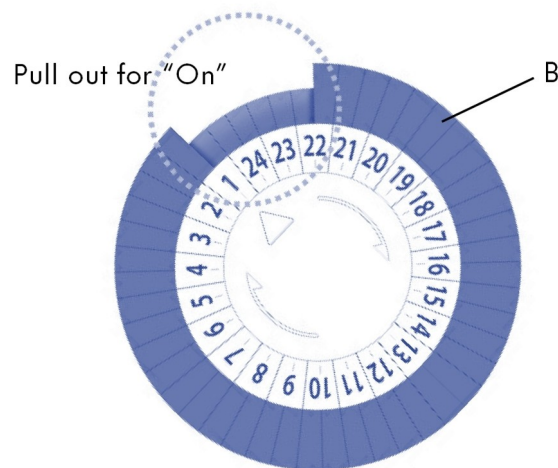


A	Rotate clockwise for On/Off
B	Pull out to segments to switch On
C	Rotate clockwise to select time
D	Auto or Manual operation

Setting the Clock:

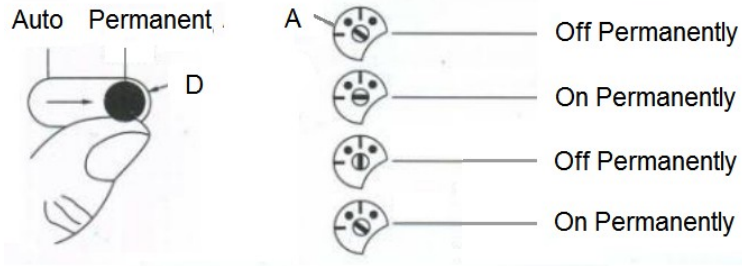
Rotate the centre thumb wheel (C) clockwise until the correct hour on the numbered wheel lines up with the arrow on the facia.

Setting the On/Off times:



To select the on time pull the blue segments (B) out at the select the time you would like the unit to switch on. Working anti-clock wise pull segments out until you have reached the point where you want the unit to switch off.

Running Sequence:



Turn the control knob (A) in the direction of the arrow (Four positions are possible as indicated in Figure 6). On, Off, On and Off. The manual control is automatically overridden by the following counteracting command of the automatic program sequence

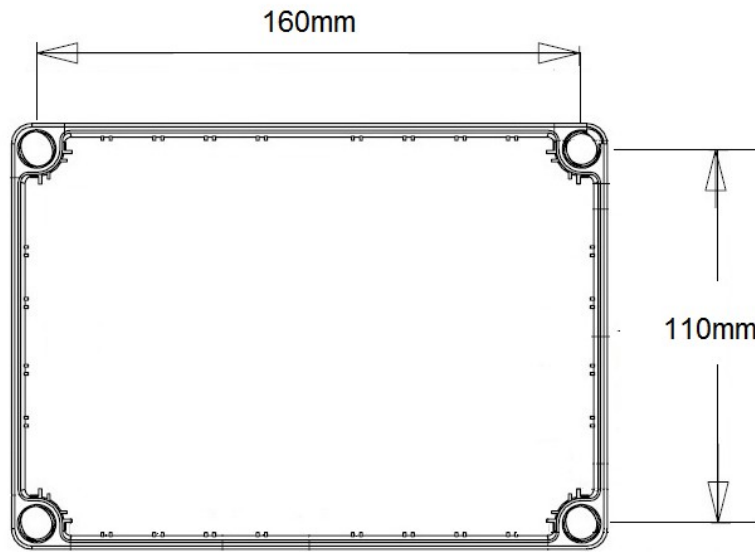
Set the lever (D) to Perm (Permanent Control) Turning (A) to the required mode the LED tape will stay either permanently on or off.

Set lever (D) to Auto (Automatic Control) the permanent control is terminated. The actual switch position is maintained until the next counteracting command of the automatic program sequence is triggered.

Specifications:

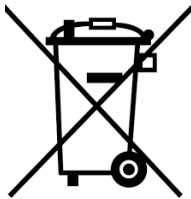
LED Tape	
No LED's	120
Colour Temperature (K)	6000
LED Tape 5 metre	2.8 x 10mm
Cut Intervals	50mm
IP Rating	65
LED Type	5050
LED's per metre	60
Power Supply	12Vdc
Dimmer Module	
Dimming Range	1 second to 2 hours
Maximum Load	4A (48 watts)
Time Clock Analogue	
Drive	Quartz-controlled stepper motor
Program	Daily
Switching Times	<30 mins
Accuracy	$\leq \pm 1$ s/day
Number of switching elements	48
NiMh Battery Back up	6 Hours
Power Supply	4 Amp 230Vac
Dimensions	125 x 175 x 125mm
Weight	

Fixing Locations



Not to Scale

Product Designed and Assembled in the UK. Manufactured in Europe and Asia



This symbol on the device or the package indicates that disposal of the device after its lifecycle could harm the environment. Do not dispose of the unit (or batteries) as unsorted municipal waste; it should be taken to a specialized company for recycling.

This device should be returned to your distributor or to a local recycling service. Respect the local environmental rules. If in doubt, contact your local waste disposal authorities.

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