

RATINGS

OPERATING VOLTAGE RANGE	: 192 - 265 V 50Hz a.c.
MAXIMUM LOAD CURRENT	: 10A
MINIMUM LOAD CURRENT	: 40 mA
OFF-STATE LEAKAGE CURRENT AT 240V a.c.	: 8.2 mA (capacitive) max.
DC COMPONENT OF OFF-STATE LEAKAGE CURRENT	: 0 mA
TIMING RANGE	: 15 Sec. - 254 Min.
SETTING STEP LOW RANGE	: 15 Sec.
SETTING STEP HIGH RANGE	: 2 Min.
TIMER ACCURACY	: +/- 8 %
OPERATING TEMPERATURE RANGE	: -10 Deg. to + 45 Deg. C
WARM-UP TIME AT 240V a.c.	: approx. 30 Sec.

NOTE 1: Two wire devices draw their power through the load. This results in current flowing through the load even in the OFF state. Relatively high off state capacitive leakage current of this device should be taken into consideration for some 'Loads'. For incandescent loads down to 15W it can be neglected since the resistance of an incandescent light globe in cold state is much lower than in the warm state (up to 12 times) so there is no significant power consumption in the off state.

In the case of fluorescent lamp loads which are power factor corrected, the off-state leakage current is bypassed through the power factor correction capacitor and does not result in active power dissipation. Fluorescent lamp loads without power factor correction capacitor require a mains rated capacitor of a minimum value 220nF 250V a.c. (X or Y rated) in parallel with the load to be driven by 2031VETR. Electronically ballasted fluorescent lamp loads will require a mains rated capacitor of a minimum value 470nF 250V a.c. (X or Y rated) in parallel with the load. This capacitor is not required if the internal capacitance of the electronic ballasts connected to the timer reaches the required value (usually around 4 ballasts) or if an additional resistive load exists

NOTE 2. When the push-button is pressed consecutively to turn the load off and than on again the turn-on action may be delayed by up to 7 seconds due to the recharge cycle which is automatically inserted by the unit. This recharge cycle does not interfere with the ability of the unit to accept the turn-on command.

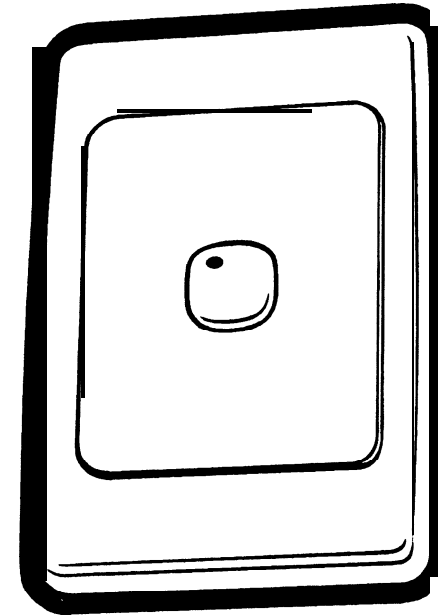


CLIPSAL

Two Wire Electronic Time Delay Switch

Operating Instructions

**2031VETR
& 31VETR**



The Clipsal 31/2031VETR is a push-button electronic time delay switch with a toggle action 'Time Cycle' CANCEL and remote control facilities. It is designed to control lighting which could be left on unnecessarily. Significant energy savings can result when used for staircase, hallway, classroom and similar applications. The 31/2031VETR does not require a direct neutral connection and is consequently known as a two wire device.

This time delay switch is suitable for both incandescent and fluorescent 'loads' with power factor correction capacitor built-in (Note 1). Other loads may be driven, please check with your nearest Clipsal office/representative.

OPERATION

Pressing the push-button when the load is off will turn the load on. Pressing the push-button when the load is on, will turn the load off. Resetting of the timer is done by performing consecutive turn-off and turn-on functions (Note 2). The load cannot be turned on for 30 seconds after power is applied to the device e.g. power failure/return, initial installation, replacement of the globe. The built in light indicator indicates the status of the load. It is on when the load is off and off when the load is on. If the push-button is pressed to turn the load on almost immediately after connecting the timer to the mains or after a long timeout period, the timer will turn on after the warm-up period has elapsed. In these cases the turn-on command will be memorised and the acceptance of the command will be confirmed by the indicator light being turned off.

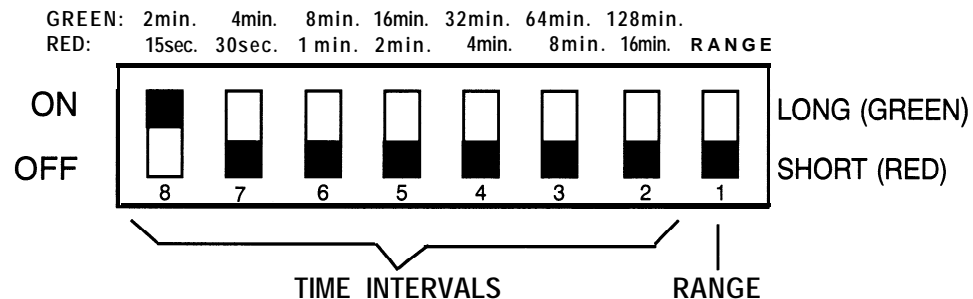
SETTING THE TIMER

WARNING: For safety reasons the setup should be performed with the timer isolated from the mains supply

Setting of the timer is achieved by the use of an eight way switch accessible via a window at the back of the enclosure. Two timer ranges can be selected by the position of switch 1:

- **SHORT RANGE** - RANGE switch (No. 1) is switched in the direction of RED arrow.
Time can be set via switches 2 to 8 from 15 seconds up to 31 minutes and 45 seconds.
The achievable settings are multiples of 15 seconds (e.g. 15 sec, 30 sec, 45 sec...)
- **LONG RANGE** - RANGE switch (No. 1) is switched in the direction of GREEN arrow.
Time can be set via switches 2 to 8 from 2 minutes up to 4 hours and 14 minutes.
The achievable settings are multiples of 2 minutes (e.g. 2 min, 4 min, 6 min...).

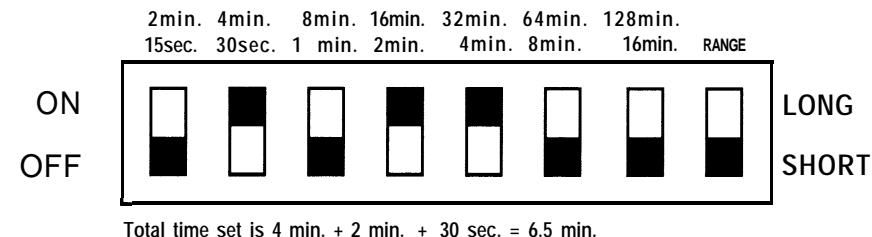
The switches 2 to 8 are used to add specific time intervals to the total time delay. Every switch is marked with the two time interval values by which the individual switch contributes to the total time interval when turned on. The time interval value marked green is added if the long range is selected by the range switch while the value marked red is added if the short range is selected.



SETTING EXAMPLES

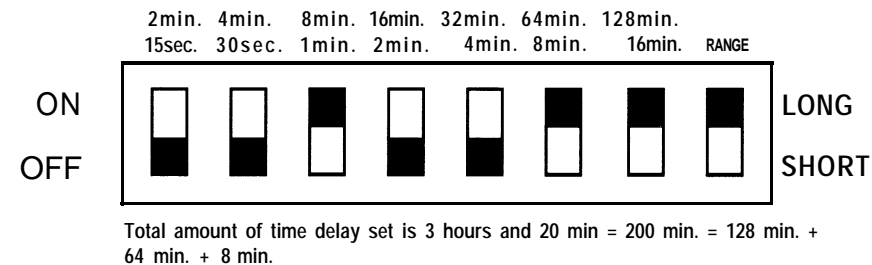
Example 1: Required time delay 6 minutes and 30 seconds (6.5 minutes). Initially set all the switches to off position. As 6.5 minutes setting is lower than the maximum setting for the short range, set the range switch to short range (in the direction of the red arrow).

The highest time value for an individual switch lower than 6.5 is 4. Set the switch 4 min up. Remaining time required is $6.5 - 4 = 2.5$ min. The next highest value lower than 2.5 is 2 min. Set the 2 min. switch up. The remaining time required is $6.5 - 4 - 2 = 0.5$ min. Set the 30 sec. switch up.



Example 2: Required time delay 3 hours and 20 minutes

This setting is first converted in minutes $3 * 60 + 20 = 200$ minutes. Initially set all the switches to off position. As 200 minutes setting is higher than the maximum setting for the short range, set the range switch to long range (in the direction of the green arrow).



WIRING DETAILS

The timer is wired as shown in the figure below. Additional switches may be installed in parallel for remote operation. Due to the capacitance of the cable the maximum recommended length of the remote control wire is 100 metres.

