



Three Wire Electronic Time Delay Switch

Installation Instructions

31/2031VETR3

10A 250V a.c.

The Clipsal 31/2031VETR3 is a push-button electronic time delay switch with remote control and override off facilities.

It is designed to control both incandescent and fluorescent lighting which could be left on unnecessarily.

Significant energy savings can result when used for staircase, hallway, classroom and similar applications.

The 31/2031VETR3 features:

- State of the art microprocessor design.
- Time setting selectable from 10 sec to 15hr.
- High timing accuracy (0.5%).
- Micro switch configurable indicator function - on when contact closed or on when contact open.
- Micro switch selectable modes - contact open during timing or contact closed during timing.
- 10A rating for standard resistive, inductive or fluorescent loads.

OPERATION

Push-button Control

The built in or remote push-button has the following function:

- pressing the button when the timer is passive will initiate timing and set the load and the indicator to the active state according to the configuration switch settings
- pressing the button during timing will cancel timing and set the load and indicator to the passive state according to the configuration switch settings

To restart the timer at any stage switch to off and then to on.

Indicator Function

The built in light indicator is used to indicate the status of the load and it can be configured by the micro switch to be on when contact is either open or closed.

Relay Output

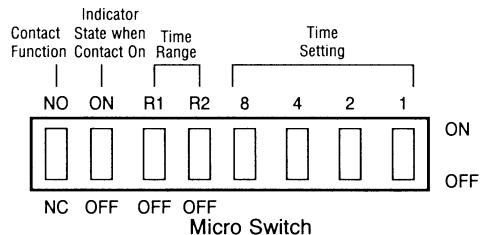
The relay contact can be configured by the micro switch to be closed during timing (normally open) or open during timing (normally closed). The contact is

always open when the supply is turned off regardless of the configuration

SETTING THE TIMER

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

The timer setting is achieved by the use of an eight way micro switch. The switch is accessible from the back of the unit through a window in the enclosure. The functions of the individual switches are presented on the following figure.



If the corresponding time setting switch is in the 'ON' position then the amount of time delay associated with that switch is added to the total time delay. The time setting is further multiplied by the range multiplier which is determined by the range setting. The following four ranges are available:

Range	R1	R2	Range Multiplier	Minimum Setting (Setting Step)	Maximum Setting
1	OFF	OFF	10 seconds	10 sec.	2 min & 30 sec
2	ON	OFF	1 minute	1 min	15 min
3	OFF	ON	10 minutes	10 min	2 hr & 30 min
4	ON	ON	1 hour	1 hr	15 hr

Range Selection Table

If the switch marked 'CONTACT FUNCTION' is in the 'NO' position (NO - normally open) then the contact is closed during timing. If the 'CONTACT FUNCTION' switch is in the 'NC' position (NC - normally closed) then the contact is open during timing.

When the 'INDICATOR STATE' switch is in the 'ON' position the indicator is configured to be on when contact is closed. When the 'INDICATOR STATE' switch is in the 'OFF' position then the indicator is on when the contact is open.

SETTING EXAMPLE 1:

- required time delay is 6 minutes
- contact must close during timing
- indicator is on when contact is closed

TIME DELAY SETTING

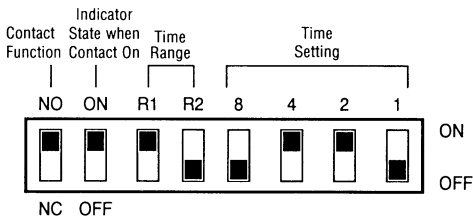
Initially set all 'Time Setting' switches to 'OFF' position. Select the first timing range in the range selection table for which 'Maximum Setting' is higher than the required time delay. Range 2 is selected (15min maximum setting). According to the table entry set the micro switches marked R1 to 'ON' and R2 to 'OFF'. The selected time multiplier is now 1 minute. The highest time value for an individual switch lower than 6 is 4. Set the micro switch 4 to 'ON'. Remaining time required is $6 - 4 = 2$. Set the micro switch 2 to 'ON'. Total amount of time set is $(4 + 2) * \text{RANGE MULTIPLIER}$ (1minute) = 6 minutes

CONTACT FUNCTION SETTING

Set the 'CONTACT FUNCTION' micro switch to 'NO' position to select the normally open contact function (contact closes during timing)

INDICATOR FUNCTION SETTING

Set the 'INDICATOR STATE' micro switch to 'ON' position so that the indicator is on when the contact is closed.



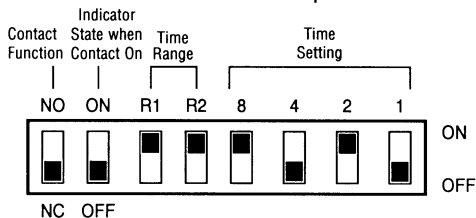
SPECIFICATIONS

Operating Voltage Range: 195-265 Vac 50Hz
 Maximum Load Current: 10 A
 Time Setting Range: 10Sec.-15Hr
 Setting Step (time range setting dependent): 10sec, 1min, 10min or 1hr
 Timer Accuracy (with 50Hz mains)*: +/- (0.5 % + 0.2sec)
 Maximum Length of Remote Input Cable: 100m
 Operating Temperature Range: -10°C TO +50°C
 Complies to relevant Australian EMC requirements

* The timer accuracy is dependent on the accuracy of the supply voltage frequency

SETTING EXAMPLE 2:

- required time delay is 10 hours
- required contact function is normally closed
- indicator is on when contact is open

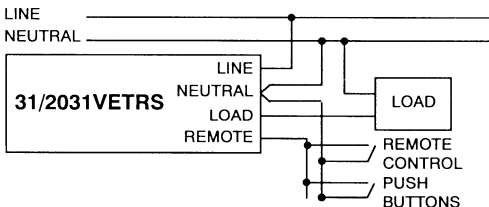


TERMINALS

Four terminals are provided. The function of the terminals is as follows:

- T1 - NEUTRAL - this terminal should be connected to the neutral potential.
- T2 - REMOTE - a remote push-button switch is connected between this terminal and the neutral.
- T3 - LINE - this terminal should be connected to the line (active) potential.
- T4 - LOAD - the load should be connected between this terminal and the neutral.

WIRING DIAGRAM



REMOTE OPERATION

The remote switch wiring must be rated for 240V a.c. The sum of cable lengths used to connect the remote switches must not exceed 100m. Normally open or normally closed momentary action switch can be used. A normally open switch type must be used if multiple remote controls are required. When a normally closed momentary switch is used for remote operation the timer enters the active (timing) state on power-up and times-out as per the configuration.