



# INSTALLATION GUIDE

## 1 Channel Timer

### Model: TC1

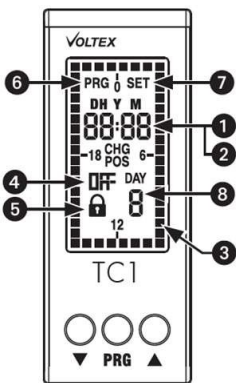


This product should only be installed by a licenced electrician in accordance with all the requirements of AS/NZS 3000 (current edition) and other relevant Standards and Regulations

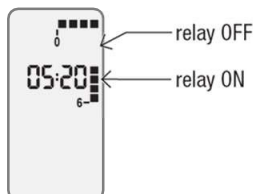
## SPECIFICATIONS

Power supply	240Vac (-15% to +10%) 50/60Hz
Terminals	1 x 4mm <sup>2</sup> cable maximum
Output	Normally open relay
Programming	Weekly (a different program for every day of the week), or Daily (same program each day)
Programming resolution	30 minutes
Operating temperature	-20 to +50 °C
Storage temperature	-10 to +70 °C
IP Rating	IP20
Relay capacity	16A @ 240Vac
Operating humidity	-20 to 90% non-condensing
Width	1 DIN module wide
Maximum Load	HWS up to 2kW. For HWS above 2kW, we recommend using with a 25A contactor. LED 500 VA Incandescent 2000 W Fluorescent 250 VA Low voltage halogen 1000 VA Halogen (240 V) 2000 W CFL 200 VA
Backup Battery life/type	4 years/Lithium CR-1632
Dimensions	18 mm wide x 91 mm high x 65 mm overall depth

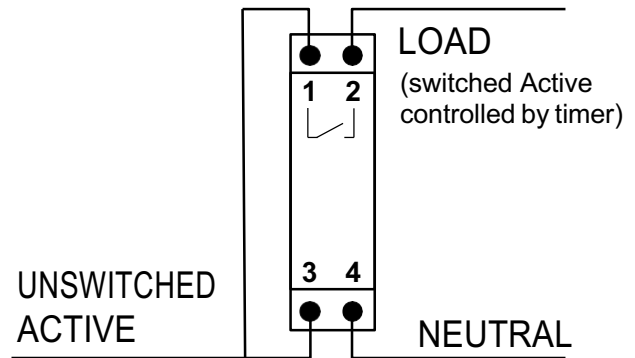
## DISPLAY



- 1 Current time indication
- 2 Year, month, day indication (displayed in advanced programming)
- 3 ON/OFF indication blocks
- 4 Relay status
- 5 Relay Lock
- 6 Programming Menu is Active
- 7 Advanced Programming Menu is Active
- 8 Day of the week



## TYPICAL CONNECTIONS



## INSTALLATION

The device comes with the backup battery inserted. Therefore, if required, the timer can be switched on and programmed without a mains connection. To turn the timer on without a mains connection, press the **PRG** button.

Note that when programming without a mains connection, the LED backlight display and relay will not operate. The backlight display will turn on when the device is mains powered and remains on while mains is connected.

## MANUAL RELAY SWITCHING

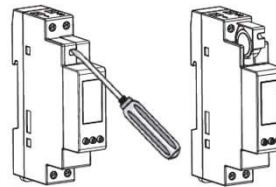
To change the state of the relay output (from ON to OFF or vice versa) press the **▼** button. The state is maintained until the **▼** button is pressed again or until the next programmed switching.

### Locking the relay output

To lock the current relay output state and prevent it switching, press the **▼** button for 3 seconds. In this condition the symbol is lit. To unlock, press the **▼** button for 3 seconds.

## BATTERY REPLACEMENT

When the backup battery is low the device displays '**bAtt CHG**' and the battery should be replaced as soon as possible.



### NOTE

- Before you access the battery compartment, disconnect mains.
- So that the date and time is not lost, replace the battery within one minute of removing it.
- Only use a CR-1632 type battery

## DEFAULT PARAMETERS

The default parameters are:

- Geographical Zone: 1 (Australia)
- Automatic Summertime / Wintertime change: OFF

### To reset to factory defaults

To reset the timer to factory defaults

- From the main screen, press all three buttons (**▼PRG** ) simultaneously with a pen or similar for at least 3 seconds.
- '**dEF**' (flashing) will appear on the screen,
- When **dEF** is seen flashing, press the **PRG** button to confirm the reset
- If the **PRG** is not pressed within 5 seconds, the timer returns to the main screen without performing a reset.



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## ADJUSTING THE DATE, TIME AND OPERATING MODES

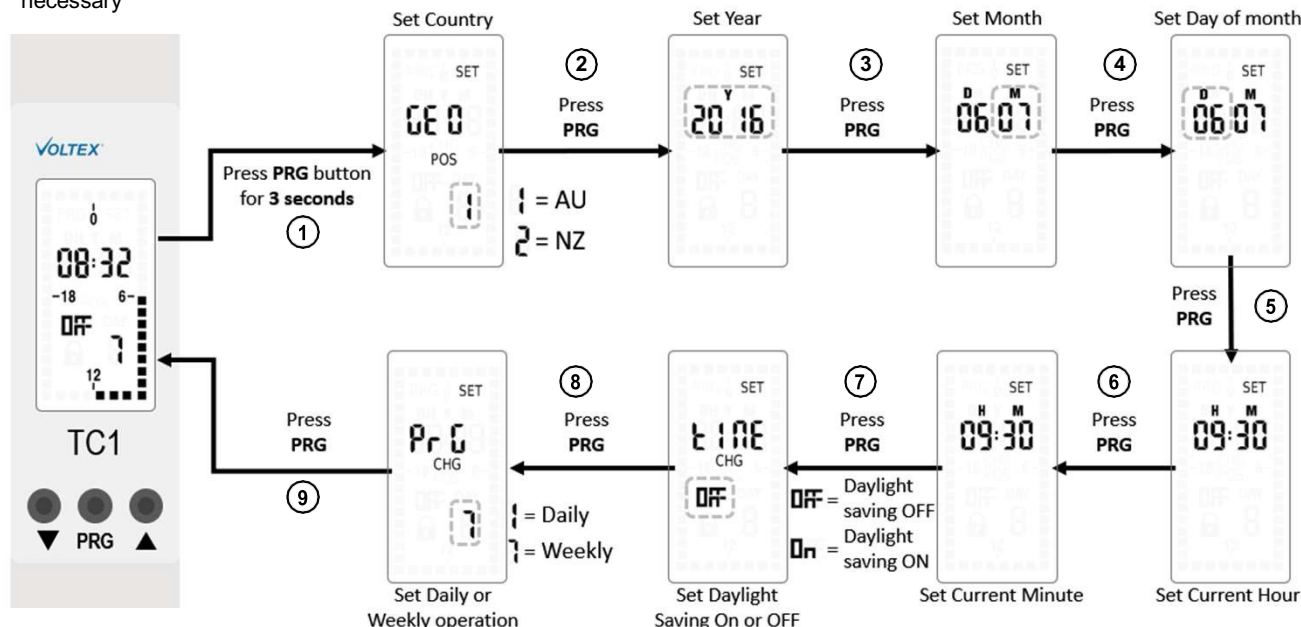
The following can be adjusted

- the geographical zone of the installation (Australia by default)
- the current date and time
- automatic summer-time/winter-time changing (OFF by default)
- weekly or daily operating mode (Weekly by default)

Follow the sequence below and use the ▼ and □ buttons on each screen to make adjustments as necessary

If set to ON, Daylight-saving time changes occur as follows

Zone	Start Daylight saving time (+1h)	End Daylight saving time (-1h)
1 (Australia)	2am, first Sunday in October	3am, first Sunday in April
2 (New Zealand)	2am, last Sunday in September	3am first Sunday in April



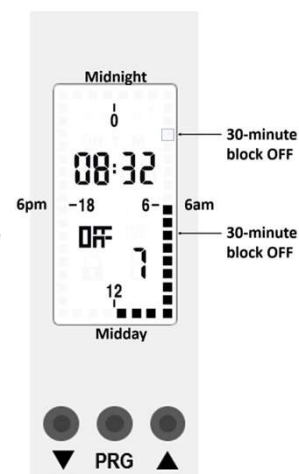
## PROGRAMMING ON/OFF TIMES

Programming consists of 7 different programs, one for each day of the week.

The timer splits a 24-hour day up into 48 time-blocks, with each block 30 minutes long. When a block is ON, the relay output is ON. Before programming, all 48 blocks are OFF. The timer can be set to turn any combination of the 30-minute blocks ON.

### Setting 30-minute blocks to ON

1. Use a pen (or similar) to press the programming buttons
2. Press the **PRG** button (short press) to enter programming mode. The day indicator will flash
3. Scroll through days by pressing □ (Monday = 1, Tuesday = 2, etc.). Select the day required by pressing **PRG**. The time will indicate 00:00
4. Press the **PRG** button to move through the 30-minute blocks, starting at midnight. The time will increment by 30 minutes each time the **PRG** button is pressed
5. If a 30-minute block is required to be ON, press the □ button and then the **PRG** button. If it needs to be OFF, just press the button **PRG** button again to move to the next block. Blocks set to ON will be shown as black (see diagram)
6. When all required blocks are set to ON, press the **PRG** button for **3 seconds** to return to the day selection screen
7. Program other days as required
8. When programming is finished, press the **PRG** button for 3 seconds to return to the main screen.



### Changing 30-minute Blocks from ON to OFF

1. In programming mode, use the **PRG** button to move to the block required to be changed. The block will flash.
2. When the block is flashing, press the ▼ button. The block will change from ON to OFF.

### Copying Days

To copy an existing program from another day

1. From the main screen, press the **PRG** button (short press) to enter programming mode. The day indicator (1 to 7) will flash.
2. Scroll through the days by pressing □ and select the day required to **Copy TO** by pressing **PRG**. The time will indicate 00:00.
3. Press the ▼ and □ buttons at the same time. 'COPY' appears on the display and the day flashes.
4. Choose the day to **Copy FROM**, by scrolling to the required day using the ▼ or □ buttons.
5. Confirm the Copy process by pressing the **PRG** button for 3 seconds.
6. If required to **Copy TO** another day, use the □ button to choose another day and repeat steps 3 to 5.
7. When copying days in complete, press and hold the **PRG** button for **3 seconds** to exit programming mode

### Displaying programs and dates

- From the main page, use the □ button to scroll through the programs for each day and the current date.
- Programming mode will exit if no buttons are pressed within the time-out period (40 seconds if the device is mains powered, 10 seconds if powered by the backup battery). Any modifications are still saved.

