

## OPERATING INSTRUCTIONS

Your timer can operate in one of two basic modes that are set at installation:

### On Delay Mode

1. Press button once to energise circuit and start timer. The unit will be switched ON for the time prescribed, then automatically switch OFF.
2. Press button a second time if you wish to switch OFF unit before timer expires.
3. Using the Manual Override feature (this feature may be deactivated at installation):
  - You may manually override the timer to switch ON unit indefinitely by pressing and holding the button for two seconds.
  - Press button again to switch OFF unit.

### Off Delay Mode

1. Press button once to energise circuit. The unit will remain switched ON indefinitely.
2. Press button a second time to start timer. From this button press, the unit will remain switched ON for the time prescribed, then automatically switch OFF.
3. Press button a third time if you wish to switch OFF unit before timer expires.

### NOTE:

1. In the event of power loss, upon power resumption the timer will start-up in the initial LOAD OFF state.
2. Timer cannot be operated via a remote switch.

## PRODUCT WARRANTY/12 MONTHS

The PDL 648TM Timer has a 12-month warranty from the date of purchase providing the unit is installed according to these instructions, local wiring regulations and Codes of Practice. This warranty is void on any unit that has been tampered with, or damaged by accident, improper operation or incorrect installation.

This guarantee is in addition to, and does not in any way affect the rights under the Consumer Guarantees Act 1993, if the ACT applies to the supply of this product and you are not acquiring the product for a business use. If the ACT applies and any term is inconsistent with the terms or requirements of the ACT that term shall be invalid without affecting the remaining terms of the warranty.

Note: Under the CGA 1993, Schneider Electric advises that this product does not contain user serviceable components thus spare parts and repair facilities are not available. In the event of a warranty claim, the product must be returned to the point of purchase or direct to Australia/New Zealand distributors together with the proof of purchase.



New Zealand Head Office:  
PO Box 15 355, New Lynn, Auckland, New Zealand  
Telephone +64-9-829 0490, Fax +64-9-829 0491  
www.pdl.co.nz



PDL Industries Australia Pty Ltd  
Locked Bag 5500, Baulkham Hills Business Centre,  
Baulkham Hills NSW 2153, Australia  
Freephone 1300 735 266, Freefax 1300 735 329  
Telephone +61 29851 2666, Fax +61 29851 2695  
www.pdl.com.au



405910

Rev 5 CNXXX



## 648TM PRESET TIMER

### Installation and consumer operating instructions for CAT 648TM Preset Timer.

## FEATURES

Your PDL preset timer is an electronic device which enables your appliances to be powered for a restricted period of time, reducing energy consumption and limiting the danger of leaving appliances on for extended periods of time. The 648TM module is designed for compatibility with 600 series wallplates and features a simple one-button user interface. The time period (from 15s to 120min) and operation mode (on delay, on delay with manual override, or off delay) can be selected at installation. This timer may be used with loads of up to 3A at 240V a.c. (for larger loads use in conjunction with PDL modular relay 600RM - rated to 16A).



## RATINGS

Operating Voltage.....230-240V a.c. @ 50Hz  
Load Capacity ..... 3A  
Operating Temperature..... -10 to 40oC  
Timer Range ..... 15sec to 120min  
Compliance Standards..... AS/NZS3100, CISPR14

## INSTALLATION INSTRUCTIONS

### Determine Mode of Operation

The 648TM timer is designed to operate in **Three unique configurations** which are selected by setting the 'Mode' and 'Delay' dials at the back of the timer during installation. These three configurations are described as follows -

- 1) D1 = **On Timer with Manual Override**

#### On Timer Operation

In this mode the timer is initially in idle state and the load is off (refer Figure 1). Timer starts as soon as Start button is pressed for less than two seconds (point A) and the load is switched on. Timer will stop automatically after the prescribed time (point C). The timer will be deactivated if the Start button is pressed in-between, (point B).

The LED indicator will flash after every half second to show that the timer is active.

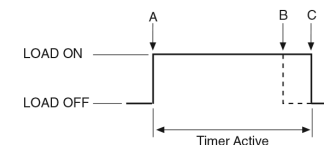


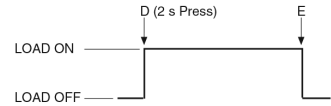
Figure 1: On Timer with manual override

- (A) Start/Reset button is pressed for less than two seconds.
- (B) Start/Reset button is pressed when the timer is active in order to stop the timer.
- (C) Timer has expired.

## Manual Override Operation

The Timing feature of the 648TM can be bypassed to make it work as a normal On/Off switch. Initially the load is in off state. If the Start button is pressed for more than two seconds (point D) the load will be switched On and will remain On until the button is pressed again (point E).

The LED indicator will remain steady **ON** to show that unit is working as switch and load is On. Not Flashing



- (D) Start/Reset button is pressed for two seconds or more to turn load on
- (E) Start/Reset button is pressed in order to turn the load and the LED OFF.

Some quick ref settings for **On Timer with Manual Override** are

- 5 minutes = mode setting 0 and Delay 4
- 20 minutes = Mode setting 0 and Delay 7
- 45 minutes = Mode setting 0 and delay C
- 90 minutes = Mode setting 1 and Delay 9
- 120 minutes = Mode setting 1 and delay F

### 2) D2 = Off Countdown

In this mode the load is initially in Off state (refer Figure 3). Unit is activated as soon as Start button is pressed (point F) and the load comes On and will remain On till further action. Please note that the unit is functioning as a switch and timer is not in action yet. The timer will be activated when the Start button is pressed again (G). The unit will start counting down to the set time and will be deactivated when timer has expired (I). The load will be switched Off if start button is pressed before timer has expired.

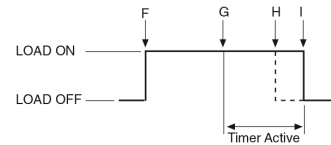


Figure 3: Off count down

- (F) Start/Reset button is pressed for less than two seconds.
- (G) Start/Reset button is pressed when load is ON to activate the timer
- (H) Start/Reset button is pressed when the timer is active in order to stop the timer
- (I) Timer has expired.

### 3) D3 = On Timer with No Manual Override

On Timer Operation

In this mode the timer is initially in idle state and the load is off (refer Figure 1). Timer starts as soon as Start button is pressed (point A) and the load is switched on. Timer will stop automatically after the prescribed time (point C). The timer will be deactivated if the Start button is pressed in-between, (point B).

The LED indicator will flash after every half second to show that the timer is active.

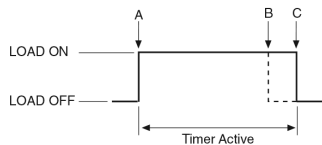


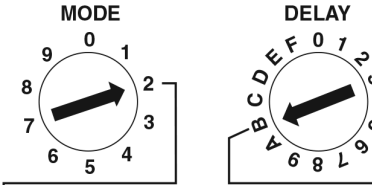
Figure 1: On Timer with no manual override

Some quick ref settings for **On Timer with No Manual Override** are

- 5 minutes = mode setting 4 and Delay 4
- 20 minutes = Mode setting 4 and Delay 7
- 45minutes = Mode setting 4 and delay C
- 90 minutes = Mode setting 5 and Delay 9
- 120 minutes = Mode setting 5 and delay F

## Select Timer Settings

The back of your 648TM timer has two setting dials, labelled 'MODE' and 'DELAY' respectively. Use the Timer Setting Table below to determine the position of these dials, which will configure the timer to suit your needs.



### EXAMPLE

In this example, the timer is set to function in Off Delay mode (D2) with a Timer Active period of 40 minutes (see operation diagram, Figure 3).

Please note, all times in table are in minutes.

- 0.25min = 15sec;
- 0.5min = 30sec.

Timer Setting Table

MODE Setting	MODE	DELAY Settings (displayed in minutes)															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	D1	0.25	0.5	1	2	5	10	15	20	25	30	35	40	45	50	55	60
1	D1	60.25	60.5	61	62	65	70	75	80	85	90	95	100	105	110	115	120
2	D2	0.25	0.5	1	2	5	10	15	20	25	30	35	40	45	50	55	60
3	D2	60.25	60.5	61	62	65	70	75	80	85	90	95	100	105	110	115	120
4	D3	0.25	0.5	1	2	5	10	15	20	25	30	35	40	45	50	55	60
5	D3	60.25	60.5	61	62	65	70	75	80	85	90	95	100	105	110	115	120

D1 = On Timer with Manual Override

D2 = Off Countdown

D3 = On Timer with no manual override

### Complete the Assembly

**WARNING:** Before wiring, ensure the supply is disconnected at the distribution board and study the connection diagram before terminating wires. Be careful not to connect the supply line to any terminal other than indicated in the diagram and on the product. Connect wires to the product as indicated in the wiring diagram.

- Select the appropriately coloured front cover from the enclosed assortment and snap onto the front of the timer as shown in figure 4.

**IMPORTANT:** Front cover must be installed to avoid potential safety hazards.

- Terminate wires as indicated in the wiring diagram (see figure 5)

**NOTE:** The timer module is not surge protected. Protection from power surges may be accommodated by installing an external surge protection device.

- Snap unit into a modular mounting plate as shown in figure 6.

**IMPORTANT:** Mounting in a 4, 5, or 6 aperture grid plate with a PDL 144 flush box requires a minimum wall cladding thickness of 10mm.

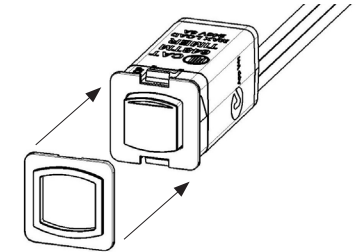


Figure 4: Front Cover Installation

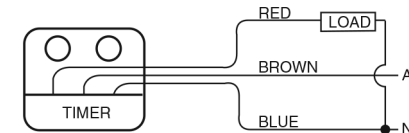


Figure 5: Wiring Diagram

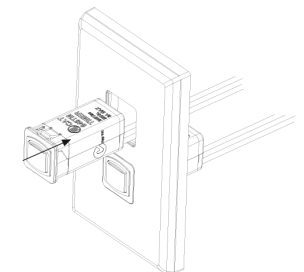


Figure 6: Mounting Timer