

5.2.2 Actual temperature display



In the mixed water menu, press the menu key once to get to the actual temperature menu.

The current actual temperature in the upper section of the DHW tank is shown. This largely corresponds to the outlet temperature.

5.2.3 Set temperature 1



Note

For reasons of legionella prevention, never set the DHW temperature lower than 124 °F (50 °C).

Set temperature 1 is the default DHW temperature the appliance heats to. Set temperature 1 is set to 131 °F (55 °C) at the factory. Set temperature 1 is active if no external signal transmitter is connected and active (See 5.2.5, "Set temperature 2", pg. 13)



In the actual temperature menu, press the menu key once to get to the menu for set temperature 1.

The set temperature 1 symbol appears.

Adjust set temperature 1 from 69–149 °F (20.5–65 °C) using the plus and minus keys.



Note

Another way to adjust set temperature 1 is to press the plus or minus key when in standard display (amount of mixed water).

5.2.4 Freeze protection

If the water temperature in the tank is below 59 °F, the heat pump and the electric element activate as a freeze protection measure. This mode deactivates once the water temperature reaches 65 °F.



If the set temperature is set to less than 69 °F (20.5 °C), only freeze protection remains active. The water heater will not run.

5.2.5 Set temperature 2



Note

For reasons of legionella prevention, never set the DHW temperature lower than 124 °F (50 °C).

Set temperature 2 is the DHW temperature to which the appliance heats if an external signal transmitter is connected and active.



In the set temperature 1 menu, press the menu key once to get to the menu for set temperature 2.

The set temperature 2 symbol appears.

Adjust set temperature 2, from 69–149 °F (20.5–65 °C) using the plus and minus keys.



Operation with external signal transmitter (240 V input)

The connection of the heat pump to an external signal offers the possibility of heating water to a raised temperature set point during periods when electric rates are favorable, for example during times when PV power is available or low tariff utility rates are in effect.

The external signal may be offered by a PV system or off-peak electricity rates of a utility.

If an external signal is received, set temperature 2 becomes active, overriding set temperature 1, the standard set DHW temperature.

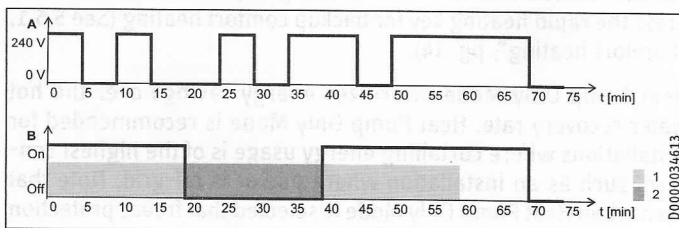
If set temperature 2 has been activated by the external signal transmitter, this set temperature will then be active for at least 20 minutes. If the signal remains active after those 20 minutes passed, the compressor will run until the external signal. If not, the selected set temperature 1 is activated again.

If the relevant set DHW temperature is accomplished, the compressor switches off and remains off for a minimum idle time of 20 minutes.

The following diagram illustrates the connections by means of a sample signal sequence of an external signal transmitter.

Example:

- DHW temperature = 131 °F (55 °C)
- Set temperature 1 = 124 °F (50 °C)
- Set temperature 2 = 149 °F (65 °C)



A LF signal

B Compressor

- 1 20 min. minimum runtime, set temperature 2
- 2 20 min. minimum compressor idle time

GENERAL INFORMATION

PROGRAMMING THE TIMER#1

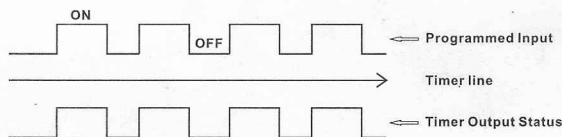
This Panel-Mount Digital Timer series can be operated in 4 separate power supplies, ranges from 240Vac to 12Vdc. Output format can be produced to be Volt-free or voltaic-output.

Batteries of Lithium 1V2/40Mah or rechargeable V60D available for option which is for retaining the programming during Timer's operating power disconnected.

GENERAL INFORMATION

This Digital Timer is accurate to the minute, designed with either 17 or 18

ON/OFF(event) per day Graphic description, as below:



Also, it provides 15-combination of Daily-Programs which can lead great convenience to users upon choosing the required days in a week for operation the timer.

1.	MO	TU	WE	TH	FR	SA	SU
2.	MO	TU	WE	TH	FR	SA	
3.	MO	TU	WE	TH	FR		
4.						SA	SU
5.	MO		WE		FR		
6.		TU		TH		SA	
7.	MO	TU	WE				
8.				TH	FR	SA	
9.	MO						
10.		TU					
11.			WE				
12.				TH			
13.					FR		
14.						SA	
15.							SU

BASIC FEATURES:

- Panel mounted
- Advanced pre-setting one week before
- Digital electronic timer switch with daily & weekly programs
- Repeat programs with 16 on/off setting and manual override
- Lithium battery power reserve when electric supply cut off

TECHNICAL DATA:

- Voltage rating: 12VDC/AC, 24VDC/AC, 48VDC/AC, 110VAC, 220VAC
- Error Correction: 1 sec/day(25°C)
- ON/OFF operation : 16 ON/OFF
- Power consumption: ≤2W
- Service life: Mechanical 10⁷, Electrical 10⁷
- Display: LCD
- Minimum interval: 1 minute
- Weight: approx 66g
- Power reserve: 60 day
- Ambient temperature: -10~+40°C
- Ambient humidity: 35~85%RH
- Battery life: 3 years (Lithium battery)

NB: When display is OFF but red light is ON battery is charging and time should be allowed till display comes back ON.



PROGRAMMING THE TIMER

A. Functional description to buttons on panel

- Ⓟ : programs review & setting programs
- MANUAL: To select "ON, AUTO or OFF"
- ⌚ : To adjust current DAY and TIME
- D+ : To adjust day or week
- H+ : To adjust hour
- M+ : To adjust minute
- C : Reset Timer's setting
- LED: To indicate ON/OFF status

Press C button to reset Timer before programming

B. Unlock instructions

Press the "C/R" button for the four time, and the "Ⓜ" character disappears in the lower left corner of the display screen. At this time, the control switch is to unlock the state. All keys are valid, can be set or other operation. If not operated in 15 seconds, the time controlled switch is automatically locked. Such as finish setting up, you can also press the "C/R" button for four times, after manual lock button is invalid.

C. Adjusting CLOCK

Press and hold ⌚ and the press D+ key, H+ key, M+ key respectively to adjust clock of Timer to accurate DATE, HOUR, MINUTE. 24-Hour-Format LCD screen shall indicate 0:00~23:59

D. Start to programming the Ⓟ

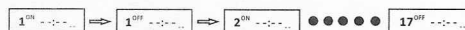
- Press Ⓟ key. LCD screen shall show 1^{ON} ---:--:..
- Press D+ key to select any of 15-combination of Daily-Programs to your application demand. Continuing to press D+ key, LCD shall alternating indicate among 15-combinations.
- Press H+ , M+ respectively to set desired Hour and Minute for 1^{ON}
- After finished setting of 1^{ON}, press Ⓟ key again, 1^{OFF} ---:--:.. shall appear on LCD screen.
- Press D+ key to select any of 15-combination of Daily-Programs to your application demand continuing to press D+ key, LCD shall alternating indicate among 15-combinations.

Day-combination chosen in each of ON/OFF program-period must be consistent.

- Repeat Programming procedure "3" to set desired Hour & Minute for 1^{OFF}

- When finished setting 1^{ON} & 1^{OFF}, press Ⓟ , 2^{ON} ---:--:.. shall appear on LCD screen.

- Repeat programming procedure above to complete rest of ON/OFF program-period(event).



- When finished program-setting (event), press ⌚ , Timer shall start to execute programs.

DIMENSIONS

