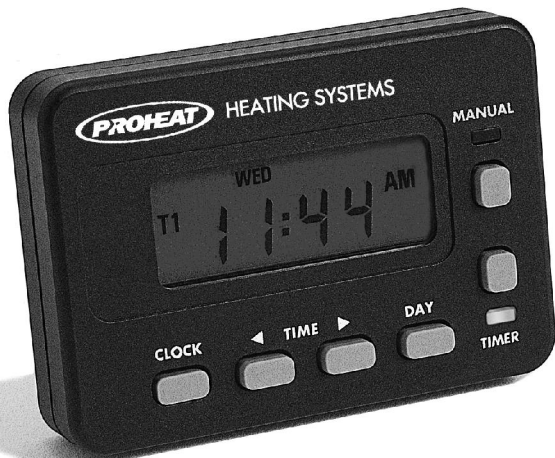
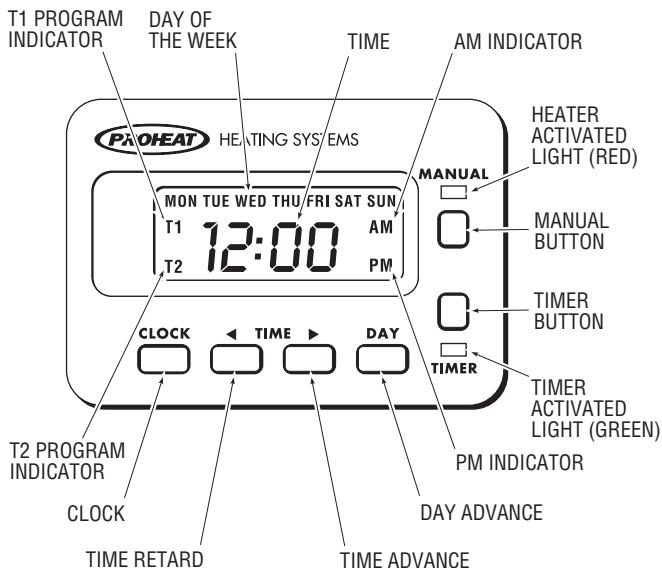


TIMER

INSTALLATION & OPERATING INSTRUCTIONS



General Description

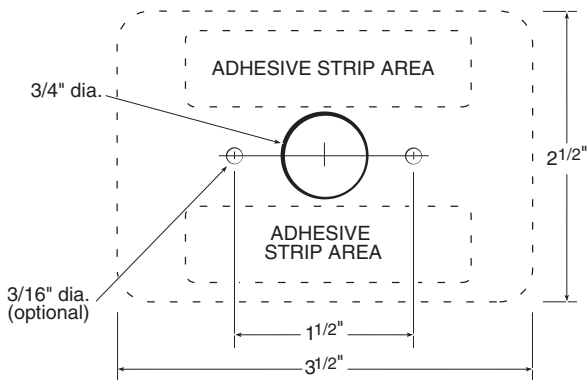


The 7 Day Digital Timer can be preset for a single start time, one day at a time or two programmed start times per day constantly activated for multiple days of the week. The clock can be preset for 12 or 24 hour time display. The heater run time duration can be preset for 1 or 3 hours. The manual button can be used to override the program and run the heater indefinitely until it is switched off.

NOTE: *The time must be set for the vehicle system voltage. (see page 4)*

If power to the Timer is interrupted, the display will flash "12:00 am MON" in 12 hour format or "00:00 MON" in 24 hour format. Stored programmed times will remain set in memory.

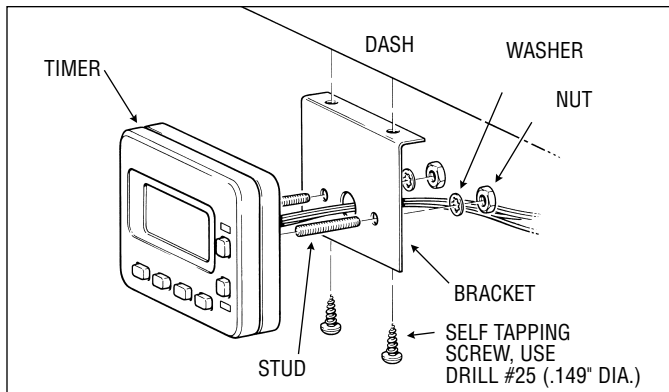
Installation



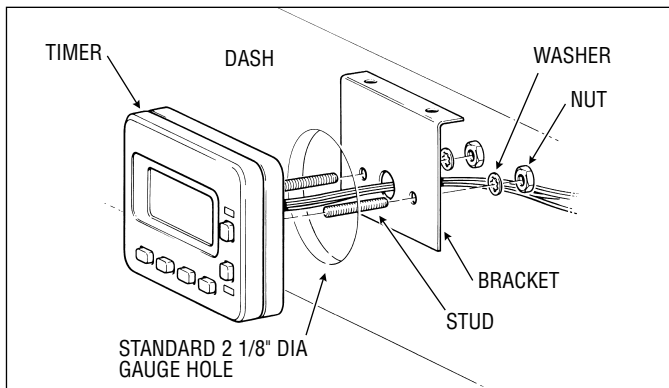
Dash Surface Mount

- STEP 1** Drill $3/4$ " diameter hole in centre of mounting area for connecting wires.
- STEP 2** Use self adhesive strips to attach Timer to surface.
- OR** Drill $3/16$ " diameter holes (optional) according to diagram for mounting with studs and nuts.

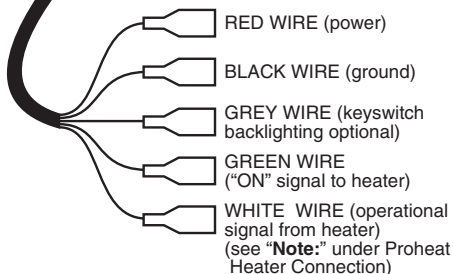
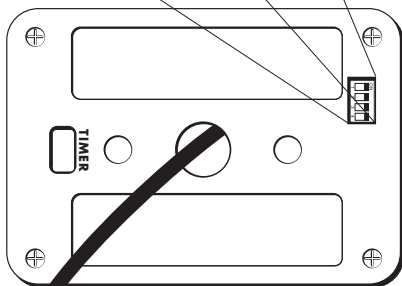
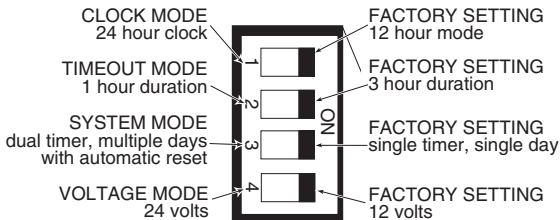
Below Dash



Gauge Hole



Wiring & Dip Switch Settings



NOTE: *Before using Timer, set the Dip Switch settings for your application.*

PROHEAT Heater Connection

CAUTION: Power to the controller must be disconnected before connecting the Timer.

Connect the heater switch harness wires to the Timer as follows:

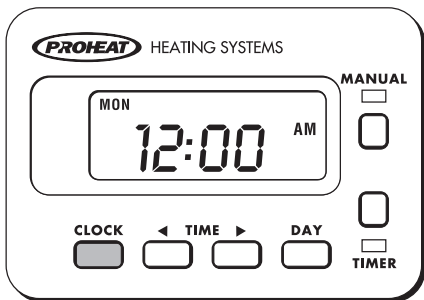
- Black to Black
- Green to Green
- White to White
- Red to Red

CAUTION: Mis-wiring the Timer connections may result in Timer damage

Other heater connections

NOTE: *If the Timer is connected to a heater which does not have an operational signal wire, then the white Timer wire must be jumpered to the green “ON signal” wire in order for the Timer’s red “ON” indicator to light.*

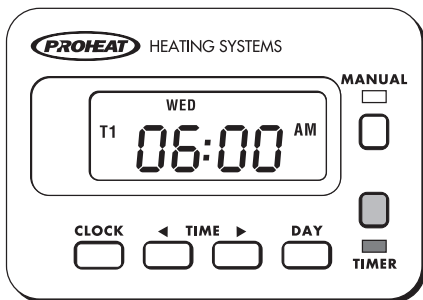
To Set Clock – Time & Day



- STEP 1** Press & Hold **“Clock”**.
- STEP 2** Press **“◀”** or **“▶”** to set time.
- STEP 3** Press **“Day”** to set day.
- STEP 4** Release **“Clock”**.

NOTE: *12 or 24 hour option is set using Dip switch No. 1 on back of Timer.
ON = 12 hour mode
OFF = 24 hour mode
(factory preset: 12 hour mode)*

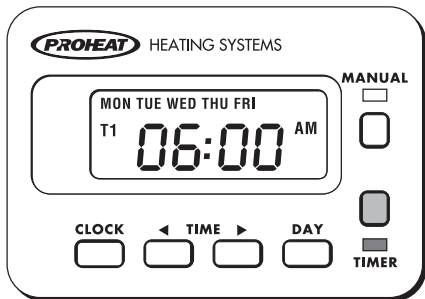
To Set Timer (single timer mode)



- STEP 1** Press & Hold **“Timer”**.
(Green light will go on & “T1” will flash.)
- STEP 2** Press “◀” or “▶” to set “ON” time.
- STEP 3** Press **“Day”** to set day.
- STEP 4** Release **“Timer”**. (Green light and “T1” will remain lit to indicate active Timer.)
- Timer set in the single timer mode only will allow you to set one “ON” time. With the T1 time activated, the Timer will go “ON” at the preset time, and will be de-activated at the end of it’s duration time. To re-activate the Timer press **“Timer”**.

NOTE: *When set time is reached, heater switches on. Red and green lights are on. 1 or 3 hour duration option is set using Dip switch No.2 on back of Timer.
ON = 3 hour duration
OFF = 1 hour duration
(factory preset: 3 hour duration)*

To Set Timer (dual timer mode)



In the dual timer mode setting you can program your Timer to come “ON” daily, Mon thru Fri, Mon thru Sat or Mon thru Sun. It also has a built in repeat function so that you do not have to re-activate the Timer after every duration time.

NOTE: *In dual timer mode you can set T1, T2 or both T1 & T2.*

Timer mode option is set using Dip switch No.3 on back of Timer.

ON = single timer (T1 only)

OFF = dual timer (T1 and T2)

(factory preset: T1 only)

STEP 1 Press & Hold “**Timer**”.
(Green light will go on & “T1” will flash.)

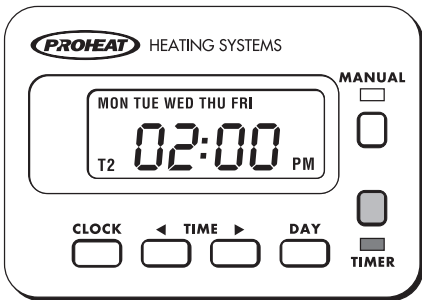
STEP 2 Press “◀” or “▶” to set “ON” time.

STEP 3 Press “**Day**” to set day(s).

STEP 4 Release “**Timer**”. (Green light and “T1” will remain lit to indicate active T1 program.)

T1 program is now activated.

Follow steps 5 thru 8 for T2 program.



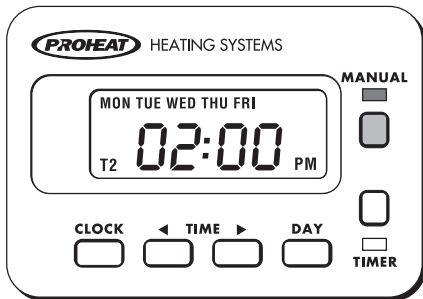
- STEP 5** Press & Hold **“Timer”**.
(Green light will remain on & “T2” will flash.)
- STEP 6** Press **“◀”** or **“▶”** to set **“ON”** time.
- STEP 7** Press **“Day”** to set day(s).
- STEP 8** Release **“Timer”**. (Green light and “T2” will remain lit to indicate active T2 program.)
- STEP 9** Press **“Timer”** once more to activate both **“T1”** & **“T2”**. (“T1” and “T2” will remain lit to indicate active “T1” and “T2” program.)

NOTE: *Timer will repeat each set day until switched off.*

*Example: School bus Timer set T1 at 6:00 a.m. Monday through Friday.
Set T2 at 2:00 p.m. Monday through Friday.*

Timer will repeat each cycle each week until it is switched off.

Manual & Timed Heater Operation



The **“Manual”** button is used to turn the heater on and off when desired.

STEP 1 Press **“Manual”** to activate the heater. (Red light will go on and the heater will operate indefinitely.)

STEP 2 Press **“Manual”** again to de-activate the heater. (Red light will go out and the heater will turn off.)

NOTE: *“Manual” & “Timer” cannot be active at the same time. If “Manual” is active and “Timer” is pressed, the heater will turn off and the red light goes out.*

If “Timer” is active and “Manual” is pressed, “Timer” is de-activated and the green light goes out.

When the heater has been turned on by the “T1 Timer” in single timer mode, the heater can be turned off by pressing either “Manual” or “Timer”. Both red and green lights will go out.

If the heater has been turned on by the “T1 or T2 Timer” in dual timer mode, pressing “Manual” will turn the heater off but leaves the Timer(s) activated. Pressing “Timer” will turn off the heater and de-activate the Timer(s).

Diagnostics

When the Timer is installed on a PROHEAT heater, the Timer's red 'Heater activated light' will be lit constantly while the heater is running normally. In the case of a heater error, the Timer's red light will flash an error code followed by a pause.

Example: Repeatedly flashing five pulses separated by a pause indicates a heater voltage error.

The PROHEAT heater error codes are as follows:

- 1 FlashStart error
- 2 Flashes.....Flame out
- 3 Flashes.....Coolant flow
- 4 Flashes.....Overheat
- 5 Flashes.....Voltage
- 6 Flashes.....Flame sensor
- 7 Flashes.....Temp sensor
- 8 Flashes.....Fuel pump
- 9 Flashes.....Compressor
- 10 Flashes.....Ignition coil
- 11 Flashes.....Coolant pump
- 12 Flashes.....Blower
- 13 Flashes.....Sleeper fan

These errors correspond to those displayed on the PROHEAT Control Module diagnostic panel.

Warranty Policy

SeaStar Solutions warrants the Timer to be free from defects in material and workmanship under normal use and service for two (2) years on parts and one (1) year on labor from the date of first installation. Replacement parts are warranted the remainder of the Timer's warranty or 90 days, whichever is longer. **This warranty applies only to those units which are installed by a registered PROHEAT dealer.** All labor charges will be paid in accordance with SeaStar Solutions' published Standard Repair Time (SRT) guidelines.

THE WARRANTIES SET FORTH HEREIN ARE THE SOLE WARRANTIES MADE BY SEASTAR SOLUTIONS IN REGARD TO THE SEASTAR SOLUTIONS TIMER KIT. SEASTAR SOLUTIONS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OR OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OWNER RESPONSIBILITIES

Before the expiration of the warranty, Owner must give notice to a registered PROHEAT dealer of failures, if any, considered to be warrantable and deliver the defective Timer to such dealer. Owner is responsible for the cost of all repairs made to the engine or equipment in which it is installed, other than the SeaStar Solutions Timer Kit. Owner is responsible for lodging, meals and incidental costs incurred by the Owner as a result of a warrantable failure. Owner is responsible for 'down-time' expenses, and all business costs and losses resulting from a warrantable failure. **SEASTAR SOLUTIONS IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.**



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