

7 - Day Timer Operation Instructions

Overview:

The 7 day timer allows you to preset the start of the heater up to 7 days in advance. It is possible to program 2 or more different starting times per day. When the heater is ON, the timer displays current time and day of a week. When the heater is OFF, the display and buttons are illuminated and display current time, day of a week and temperature. In the event of power supply interruption the heater will return to preset settings after the power is turned back on.




Operation Buttons and Display Icons:







Programming Keys:

- 1、 On / Off
- 2、 Program
- 3、 Time
- 4、 Down
- 5、 Up




Display Icons:

- 6、 Fault
- 7、 Heating Mode
- 8、 Single Programmed Start
- 9、 Multiple Programmed Starts
- 10、**MON TUE WED THU FRI SAT SUN** “Week”







On / Off Control:

<p>Press  to start heater</p>	<p> displays and heater will begin start-up</p> <p></p> <p>Set Desired Temperature displays for 5 sec. Ambient Temperature displays after 5 sec.</p>
<p>Press  to stop heater</p>	<p> display disappears and heater begins shut-down</p> <p>Note: If the Multiple Start Program is activated, the  will be displayed.</p>












Temperature Setting (Air Heaters)

<p>During heater operation, Press  or  to set the desired temperature.</p>	<p>Desired temperature setting is displayed in °C or °F</p> <p></p> <p>After 10 seconds without activity, current setting is saved</p>
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Setting Time & Day

<p>Press  three times</p>	<p> Flashes</p>
<p>Press  to enter setting mode</p>	<p>Displays Day, Hour, and Minutes</p>
<p>Press  to alternate between day, hour, minute settings.</p>	<p>Active Selection Flashes</p>
<p>Press  or  to adjust settings.</p>	<p>After 10 seconds without activity, current setting is saved</p>

Establishing Single Programmed Start

Press  once	 and P Flashes
Press  to enter setting mode	 Flashes
Press  to alternate between hour & minute settings.	Active Selection Flashes
Press  or  to adjust settings	After 10 seconds without activity, current setting is saved.  Remains displayed to indicate that program is activated and will operate the heater at the desired start time, once for 120 Minute run time.
To Deactivate Press  then 	 Will disappear







Establishing Multiple Programmed Start Times

1. Press  two times	  Flashes
2. Press  once	 Flashes and shows Day, Hours, Mins, and d00 (d00 is the first program Selection, followed by d01, d02, etc).
3. Press  to alternate between day, hour, minute and run time settings.	Active Selection Flashes
4. Press  or  to adjust settings	Active Selection Flashes
5. Press  to activate the current setting	 Will remain illuminated This will confirm that d00 has been activated
6. Press  to establish additional startup settings.	d00, d01, d02, etc settings displayed
7. Press  or  to toggle through different startup Selections.	Settings for each selection d01, d02, d03 Are displayed.
8. Repeat steps 2 through 5 to establish and activate additional startup Selections	 Will remain illuminated for each Selection that has been activated.
9. Once desired starts are activated, wait 10 seconds for program to exit set mode.	 Will remain illuminated along with the current day and time setting, to confirm that the timer has been activated.

Notes:











1. The timer's default setting is set for 14 startup times. This setting can be changed. (See "Setting System Parameters")
2. Once the timer switches the heater on through a programmed start time, it can only be switched off manually after one minute of run time.

To Deactivate All Programmed Start Times:






Press  four times	 and CLd flashing
Press  once	CLd stops flashing
Press  once	ALL / OFF flashing
Press  once to exit	 Will no longer be illuminated on home screen.

To Establish Delayed Shutdown:


Note: Heater must be running to set delayed shutdown.

Press  once to start heater	 displays and heater will begin start-up 
Press  to enter setting mode	 Flashes
Press  to alternate between hour & minute settings.	Active Selection Flashes
Press  or  to adjust settings	Active Selection Flashes
Press  to confirm setting. Do not press any key for 10 seconds to allow program to exit.	After 10 seconds without activity, current setting is saved.  Remains displayed to indicate that program is activated and will operate the heater until the set time.

To Cancel Delayed Shutdown:

Press  once	 
Press  once to cancel delayed shutdown and stop heater	 disappears












Self Diagnostics:

If the heater's controller detects a fault during operation,  will flash and an error code will be displayed on the timer. If multiple faults are detected, they will circulate on the screen display.

Fault Code Table

Item	Fault Code	Indication
1	E01	The power supply voltage too high
2	E02	The power supply voltage too low
3	E03	Burner temperature sensor malfunction
4	E04	Inlet air/water temperature sensor malfunction
5	E05	Outlet air/water temperature sensor malfunction
6	E06	Glow pin malfunction
7	E07	Fuel pump malfunction
8	E08	Blower malfunction
9	E09	Water pump malfunction (Does not apply to air heater)
10	E10	Flame extinguish protection
11	E11	Burner overheating protection
12	E12	Outlet air/water temperature overheating protection
13	E13	Forbid the system operation







Checking Sensor Parameters

Press  to start heater	 and  are displayed
Press and hold  for 5-10 seconds	Display enters Sensor Display Mode
Press  or  to toggle through sensor readings.	Displays various sensor readings as illustrated in “Sensor Table”
Press  to exit or wait 10 seconds	Display returns to operation mode  and  are displayed
Press  to stop heater	 Time and Day are displayed and heater begins shut-down

Sensor Table

Item	Sensor Symbol	Sensor Meaning
1	In	Air / water inlet temperature
2	Out	Air / water outlet temperature
3	Burn	Combustion chamber temperature
4	PL	Fuel pump speed
5	FJ	Fan / water pump speed
6	Uo	Controller input voltage

Setting System Parameters:

Press and hold both  and  for 10-15 seconds	Displays Parameter Number and current value
Press  to toggle through the parameter settings	Displays Parameter Number and current value
Press  or  to adjust current settings	Displays Parameter Number and changed value
Press  to save parameter setting changes and exit	Returns to previous display mode

System Parameter Table:

Item	Parameter	Description	Default Value	Limits / Notes
1	F01	Setting the temperature initial value	20°C	F02 ~ F03
2	F02	Setting the temperature lower limit value	10°C	0°C ~ F03 - 1
3	F03	Setting the temperature upper limit value	40°C	F02 ~ 60°C
4	F04	Quantity of time settings per week	14	7 ~ 30
5	F05	Whether to use wire control temperature as the environment temperature	0~1	The temperature detected by wire control device can be used as ambient temperature of the machine 0- Disabled , 1- Enabled
6	F06	Initialize the timer parameters	0~1	Initialize the timer parameters, 0-don't Initialize; 1- Initialize
7	F07	Display Fahrenheit or Celsius	0~1	0-show Celsius; 1-show Fahrenheit
8	F08			