

## **RESET**

If you have successfully installed the thermostat, but the LCD screen does not display or the display seems abnormal, remove the faceplate and press the RESET button. (The reset button must be gently pressed in with a small blunt object.)

### **RESET ALL SETTINGS**

To delete all settings:

- ➊ Remove the thermostat faceplate to reveal the RESET button.
- ➋ Press and hold down the HOLD/DAY button while you press and release the RESET button.

Note: This is a total reset, which clear settings for custom programs, clock time, and option settings. The unit will be restored to factory default settings.

LCD Display

CURRENT TEMPERATURE

22.5 °C  
°F

TEMPERATURE SCALE  
CELSIUS OR FAHRENHEIT



POWER OUTPUT LEVEL

OVERRIDE  
HOLD  
COPY

23.0 P1  
P2  
P3  
P4

HEAT "ON" ICON

OVERRIDE 'ON' ICON  
HOLD FUNCTION  
COPY FUNCTION

PROGRAM PERIODS

SET TEMPERATURE

USAGE MO TU WE TH FR SA SU  
PM SET

USAGE MONITOR

12:38

SET CLOCK

## **USAGE/TIME**

To set the current and program time or to display the total heater usage time per day or week.

## **OPTION/COPY**

To set the user options or copying program settings from one weekday to another.

## **HOLD/DAY**

To override temperature programs or to set the program the day of the week.

## **PROG**

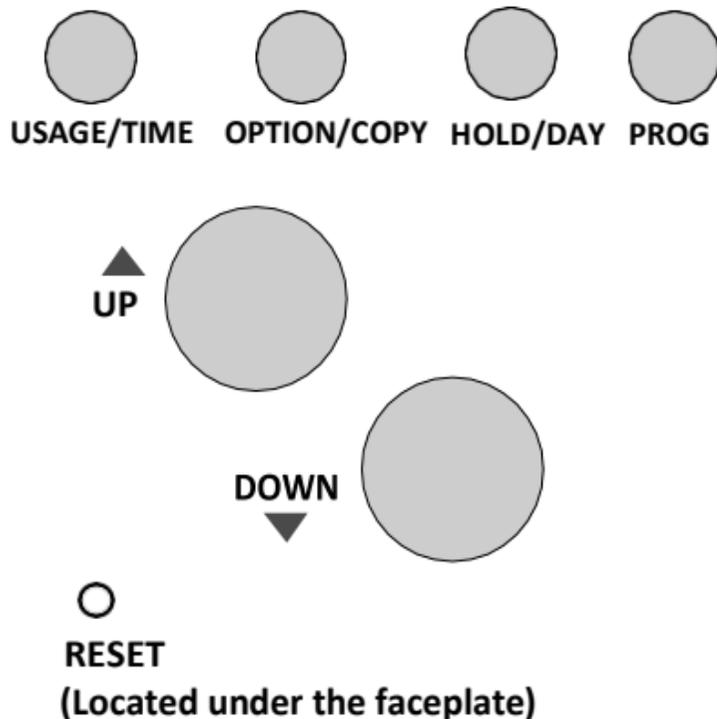
To enter PROGRAM mode and scroll settings.

## **UP/DOWN**

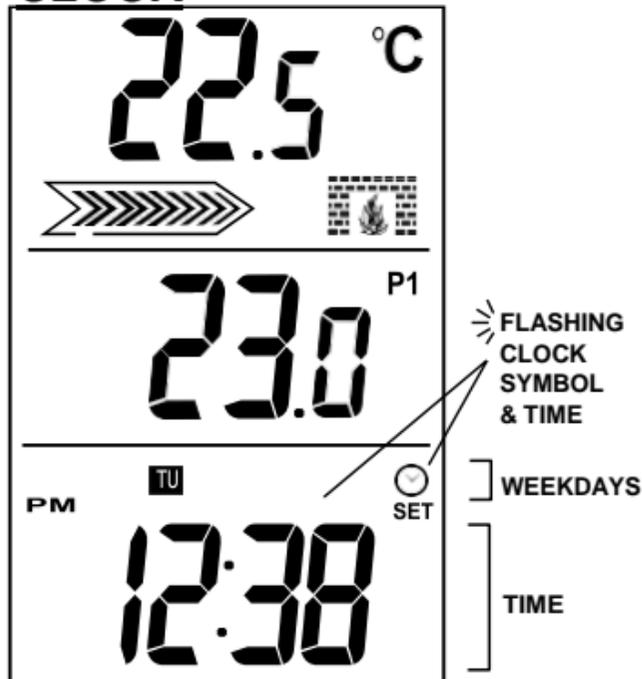
To manually adjust the temperature or to make selections in program mode or option mode.

## **RESET**

Resets program /clock to factory defaults.



## SET CLOCK



## Choose 12 or 24 hour clock

**Note: 12 hour mode is the default.**

- 1 Press OPTION/COPY for 3 seconds to enter the option setting mode. (12Hr or 24Hr will flash on the bottom pane of the LCD screen)
- 2 Press UP or DOWN to toggle between 12 or 24 hour display.
- 3 Wait 15 seconds for normal display to return.

## Set Clock / Weekday

- 1 Press and hold the USAGE/TIME button for 3 seconds to enter the clock setting mode. (SET will display and the clock symbol/time flashes)
- 2 Press the UP or DOWN button to scroll to the correct time of day, hold the button to accelerate.
- 3 Press HOLD/DAY repeatedly to change the day of the week. (Weekday symbols will flash)

**CELSIUS DEFAULT:** Since Celsius (°C) is the default mode no action is required to use the thermostat in this mode.

(°C or °F) It is **VERY IMPORTANT** that you choose Fahrenheit (°F) before you begin using the thermostat. If you proceed to program the thermostat with the default Celsius(°C)and **THEN** change to the Fahrenheit (°F) setting; all programs set by the user will be deleted.

### **Select °C or °F (Celsius or Fahrenheit)**

- ① Press OPTION/COPY for 3 seconds to enter the option setting mode.
- ② Press OPTION/COPY 3 times (until °F / °C begins flashing)
- ③ Press UP or DOWN to toggle between the °F or °C setting.
- ④ Wait 15 seconds for normal display to return.  
(See Option section for more details)

## Program Heating

This thermostat is equipped with 7 DAY PROGRAMMING. Monday + Tuesday + Wednesday + Thursday + Friday + Saturday + Sunday programming with 4 settings per day. This thermostat is pre-programmed for your convenience or you can set your own programs as desired. The program periods (P1, P2, P3, P4) allow you to set the temperature settings and start times throughout the day.

- P1: MORNING** This is typically the morning period, when you may prefer to wake up to a warmer temperature.
- P2: DAY** This is usually an energy-savings period, for the time when you are away from home. The temperature setting can be reduced to minimize energy consumption. If you are not away from home on a particular day you may override this setting by manually adjusting the temperature buttons.
- P3: EVENING** This is the period when you typically return home, and would like the house at a comfortable temperature. Generally, the temperature is set warmer settings during the winter and cooler settings during the summer. If you do not often leave the house during the day, period 1, 2 or 3 can be set at the same temperature for comfort.
- P4: NIGHT** This is the period when you would typically be asleep. You may choose to set the temperature for energy savings or comfort as desired.

## Set Program

The program periods (P1,P2, P3, P4) allow you to set the temperature settings and start times throughout the day. These are examples of possible temperature settings, the first being the factory default setting and second a custom setting.

### 1) DEFAULT / PRE-PROGRAMMED TIME AND TEMPERATURE SETTINGS

P1 

P2 

P3 

P4 

<i>PERIOD</i>	<i>P</i>	<i>TIME</i>	<i>HEAT SET POINT</i>
<i>MORNING</i>	<i>P1</i>	<i>6:00am</i>	<i>20.5°C (69.0°F)</i>
<i>DAY</i>	<i>P2</i>	<i>8:00am</i>	<i>17.5°C (63.5°F)</i>
<i>EVENING</i>	<i>P3</i>	<i>5:00pm</i>	<i>21.0°C (70.0°F)</i>
<i>NIGHT</i>	<i>P4</i>	<i>10:00pm</i>	<i>17.5°C (62.5°F)</i>

### Example 1

This setting is a default and will activate automatically. Convenient for people who are away from home during the day with wish to maximize energy savings.

### 2) CUSTOM / PRE-PROGRAMMED TIME AND TEMPERATURE SETTINGS

P1 

P2 

P3 

P4 

<i>PERIOD</i>	<i>P</i>	<i>TIME</i>	<i>HEAT SET POINT</i>
<i>MORNING</i>	<i>P1</i>	<i>7:00am</i>	<i>20.5°C (69.0°F)</i>
<i>DAY</i>	<i>P2</i>	<i>8:00am</i>	<i>20.5°C (69.0°F)</i>
<i>EVENING</i>	<i>P3</i>	<i>5:00pm</i>	<i>20.5°C (69.0°F)</i>
<i>NIGHT</i>	<i>P4</i>	<i>11:00pm</i>	<i>17.5°C (62.5°F)</i>

### Example 2

This is custom program set by the user. Convenient for people who are at home during the day, and want the home warm all day, but want a cooler temperature at night.

## Set Program

First select the weekday you wish to program, then select the start times and temperature settings for all four program periods. Scroll through the daily Program Periods in this order P1, P2, P3, P4.

You may select any weekday to begin programming:



- 1 Press PROG to enter program setting mode.
- 2 Press HOLD/DAY to change weekday being programmed. (Period 1 (P1) will appear.)
- 3 Press UP or DOWN to set the temperature for P1. (The temperature digits will flash)
- 4 Press USAGE / TIME to switch to the start time mode. (start time will flash)  
Press UP or DOWN to set the start time for P1. (The time will flash)  
Note: USAGE/TIME will toggle between the temperature and start time modes.
- 6 Press PROG again to adjust the next Program Periods P2, P3, P4. Repeat the above steps above until all four programs are adjusted to your needs. Then program the rest of the week, either by programming each day individually or by using the COPY function.

**COPY FUNCTION - After one day is programmed, you may copy all 4 of that day's program settings to any other weekday using the COPY program function. (see next section)**

## **Copy Program Function**

This thermostat can copy program period settings from one weekday to another using the COPY function. All four period settings (P1, P2, P3,P4) will be copied. This is faster than programming each day one at a time.

If you are not already in program mode, press PROG to enter program setting mode.

- ➊ Press HOLD/DAY to select the weekday you wish to COPY FROM.
- ➋ Press OPTION/COPY. (the COPY symbol will display, and the next weekday will flash, indicating the weekday being COPIED TO)
- ➌ Press HOLD/DAY to skip the next weekday(s)
- ➍ Press OPTION/COPY again, to copy all four program settings to the flashing day. (The COPY symbol will disappear to indicate the COPY function is complete)

Note: To copy the program to another day press copy again, and repeat.

For example: If you press COPY 12 times consecutively, the selected program will be copied to the entire week).

## **High-Limit Function**

The high-limit function is a security feature which allows you to select the maximum temperature limit which the thermostat will not go over. For more details see the High-Limit setting section.

## **RESET**

If you have difficulties programming your thermostat you may wish to reset the unit to begin again.

### **RESET PROGRAMS**

To delete all custom programs:

- ① Press USAGE/TIME for 3 seconds to enter the Options mode.
- ② Press PROG for 3 seconds to clear all custom programs.

Note: This reset will clear custom programs only, but will not affect the clock time or option settings.

### **RESET ALL SETTINGS**

To delete all settings:

- ① Remove the thermostat faceplate to reveal the RESET button.
- ② Press the HOLD/DAY and the RESET buttons at the same time to clear all settings.

Note: This is a total reset, which clear settings for custom programs, clock time, and option settings.

The unit will be restored to factory default settings.

## **Temporary Override**

This function will allow you to change the temperature setting, until the start time of next program period.

- ① Press the UP or DOWN button to manually adjust to the desired temperature setting.

NOTE:

- The temperature can be set in increments of 0.5°C or 0.5°F.
- The temperature setting range is from 5°C to 35°C (41°F to 95°F).
- Press and hold the UP or DOWN button down to accelerate the setting.
- The thermostat will automatically return to the regular program at the next scheduled program period.

## **HOLD Function**

This function maintains a constant temperature and disables temperature program periods.

- ① Press the HOLD/DAY button once to enter the HOLD mode. (HOLD symbol will appear)  
(\*When HOLD is activated, you may manually adjust the temperature by pressing UP or DOWN. However all programs will be disabled. If no temperature changes are manually selected, the current temperature setting will remain the same indefinitely)
- ② To CANCEL the HOLD function, press the HOLD/DAY button again. (HOLD symbol will disappear)

# OPERATION

## Current Temperature Display

The current (room) temperature is displayed on the LCD screen.

## Power Bar Arrows

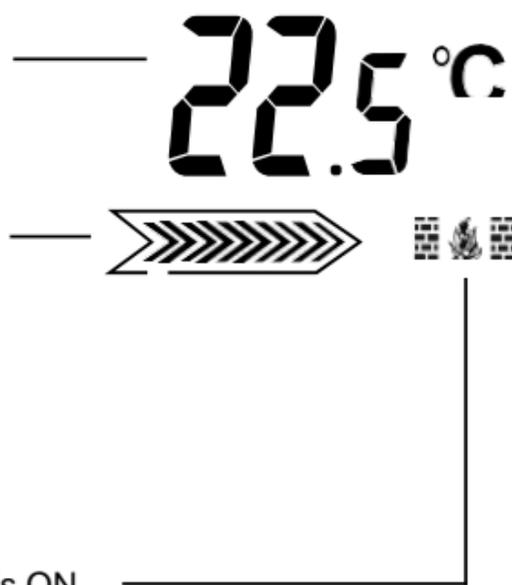
This thermostat is equipped with an proportional regulation system, to determine the precise amount of power required by the electric heater to maintain the temperature setting.

The "Power Bar Arrows" indicate the current output power level.  
1 ARROW = 10%, 10 ARROWS = 100%

When the heating system is activated at partial power, a proportional number of arrows bars will appear (e.g. 60% - 6 arrows). When the heating system is activated at maximum power all 10 arrows will display.

## Fireplace Symbol

The flashing fireplace symbol will display WHEN the heating system is ON.



## OPTION SETTINGS

This thermostat has 4 OPTION settings which the user can change.  
The OPTION data will appear in the lower pane of the LCD screen.

### OPTION 1 - 12 or 24 Hour Clock Format

- 1 Press and hold OPTION/COPY for 3 seconds to enter the Option Setting mode.  
The first option is 12 or 24 hour clock format. (**12:Hr** will be flashing)
- 2 Press UP or DOWN to toggle between 12 or 24 hour format.

### OPTION 2 - Heat Cycle Rate

- 1 Press OPTION/COPY again to advance to the second option (Cycle rate. **Cr:1** will flash)
- 2 Press UP or DOWN button to adjust setting (see cycle rate definition on following pages)  
Cr0 = Full Power, No Cycle (for fan assisted baseboards and electric heating devices)

Cr1 = 20 Sec. Proportional Power (for non-fan assisted baseboards and electric heating devices)

Cr2 = 240 Sec. Proportional Power (for fan assisted heaters and radiant floor/ceiling)

### OPTION 3 - Pre-Comfort Recovery

- 1 Press OPTION/COPY again to select pre-comfort recovery. (**rE:0** will flash on screen)
- 2 Press UP or DOWN to adjust setting (see pre-comfort recovery definition on following pages)  
rE:0 means pre-comfort recovery feature is disabled

#### **OPTION 4 - °C or °F Display**

- ① Press OPTION/COPY again to select Celsius or Fahrenheit scale (the current temperature will flash)
- ② Press UP or DOWN to toggle between the °C or °F temperature scales.

**Note: (°C or °F) It is VERY IMPORTANT that you choose Fahrenheit (°F) before you begin using the thermostat. If you proceed to program the thermostat with the default Celsius(°C)and THEN change to the Fahrenheit (°F)setting; all programs set by the user will be deleted.**

## Heat Cycle Rate

Cycle rate determines the heating on/off time cycles and the level of proportional power required to operate the heater. (To have the heater operate at full power all the time, select Cr 0 to disable heat cycling.) The cycle rate is based on the type of heating system and the power load required to operate the device. The higher the load (size of baseboard or radiant heater) the greater the heat generated.

**Cr 0** is continuous operation (no cycling), with a variance of +/- 0.3°C (+/- 0.6°F). The heating unit will operate at full power and the arrow bar icon will appear full. This function is for users who do not want their electric heating devices to turn on and off frequently.

**Cr 1** is a 20 second cycle rate with proportional heating. This means the heating will be turned on and off once every 20 seconds to provide a stable room temperature. This cycle rate allows a proportion level of power to the heating device. This is indicated on the thermostat display by the arrow bar icon which will be partially filled, indicating the amount of power going to the heater. This setting is recommended for standard electric heating devices, without fans, and will provide the most energy efficient heating and a stable temperature.

**Cr 2** is a 240 second span. This means the heating will be turned on and off once every 240 seconds. This is the recommended setting for fan assisted heaters and radiant floors and ceilings.

## **High-Limit Function**

The high-limit function is a security feature which allows you to select the maximum temperature limit of the thermostat. When this function is ON the thermostat will not allow heating settings to exceed this temperature limit.

### **To enable the high-limit setting feature:**

- ① Press "UP" or "DOWN" to scroll to the desired high limit temperature (this temperature will display in the program temperature pane on the LCD screen)
- ② Press the USAGE/TIME button and OPTION/COPY button for 3 seconds (both at the same time) (the LOCK symbol will appear to confirm that the high-limit feature is ON)

### **To disable the high-limit setting feature:**

- ① Press and hold the (R) RESET button (located under faceplate / press with a narrow blunt object) (The lock symbol will begin flashing)
- ② Press the USAGE/TIME button and OPTION/COPY button for 3 seconds (both at the same time) (When the LOCK symbol disappears this indicates that the high-limit feature is OFF)

Note: When the high-limit function is ON all existing programs will be changed. If any temperature settings are above the high-limit they will be reduced to the high-limit setting. The temporary override maximum temperature setting will also be limited.

## Specifications:

Number of programs: 7 Day with 4 settings per day  
Temperature display range: 0 – 55°C (34 – 99.5°F)  
Temperature setting range: 5 – 35°C (41 – 95°F)

## TROUBLESHOOTING GUIDE

### SPECIFICATIONS

Rating: 120V/240V AC, 60Hz  
**MAXIMUM LOAD: 3000W  
(12.5A)**  
3000W @ 240V or  
1500W @ 120V  
**MINIMUM LOAD: 500W**

### **PROBLEM**

### **SOLUTION**

LCD screen is blank.	<ul style="list-style-type: none"><li>- Check if the circuit breaker is open.</li><li>- Check if there has been a power failure.</li><li>- Check that the thermostat is wired to a 500W or greater circuit</li><li>- Check the wiring installation with a certified electrician.</li><li>- Press the RESET button under the faceplate</li></ul>
Programming Issues: Heating is not being activated at the programmed times.	<ul style="list-style-type: none"><li>- Review the programming guide to ensure the programs have been entered correctly</li><li>- Check that the clock has been set to the correct time. (e.g. AM/PM reversed)</li><li>- Check if there has been a power failure.</li><li>- PROGRAM RESET: Press OPTION/COPY for 3 seconds to enter the option mode, then press PROG for 3 seconds to clear programs settings only.</li><li>- RESET ALL: Press and hold the HOLD/DAY and the RESET button at the same time to restore all setting to factory default.</li></ul>

**PROBLEM****SOLUTION**

<p>The heating system will not activate.</p>	<ul style="list-style-type: none"><li>- Check the thermostat LCD display to see if there has been a power failure.</li><li>- Check if the circuit breaker is open.</li><li>- Check heating device to see if it is disabled.</li><li>- Check the wiring installation with a certified electrician.</li></ul>
<p>The heating system is running constantly.</p>	<ul style="list-style-type: none"><li>- Check the temperature is not set too high.</li><li>- Check the wiring installation with a certified electrician.</li></ul>
<p>The temperature display is incorrect.</p>	<ul style="list-style-type: none"><li>- Ensure thermostat is not installed near a draft, in direct sunlight or near any devices such as air conditioners or heaters.</li></ul>
<p>Heating system seems to cycle too often.</p>	<p>Check and ensure that you have selected a Cycle Rate that matches your particular heating system.</p>
<p>The thermostat feels HOT to the touch.</p>	<p>- In normal operation the thermostat may range in temperature from 45°C to 55°C (113°F to 131°F) This is perfectly normal, as this thermostat is rated to operate safely at these temperatures. However is recommended that the thermostat not be installed near heat sensitive / flammable material such as exposed wood, wallpaper or other fire hazards.</p>

