1 For All™
Programmable Digital Thermostat

- 7 Day Programmable
- 4 Time Periods per Day
- Auto Changeover
- Large, Backlit Display
- Thermoglow™ Backlight
- Very Easy to Program
- Programmable Fan
- No Batteries Required
- Outdoor Temperature Sensor Available

Meets Residential California Title 24

Use with most Air Conditioning & Heating Systems including: 1 or 2 Stage Electric Cooling & Gas Heating, Heat Pump, Electric or Hydronic Heat.

International Comfort Products ©2003
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CAUTION

Follow Installation Instructions before proceeding.

SET THERMOSTAT TO MODE “OFF” PRIOR TO CHANGING SETTINGS IN SETUP OR RESTORING FACTORY DEFAULTS.

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P/N TSTAT0710
Front Panel

- **Backlit LCD Display**
- **Warmer or + Button**
- **Cooler or - Button**
- **Mode Button**
- **Heat or Cool Indicator**
  - Red = Heat, Green = Cool

- **Vacation**
- **Fan**
- **Program**
- **Set Clock**
- **Outside**
Mode Indicators
Selects the operation mode of the equipment.
- **HEAT** - indicates the heat mode.
- **COOL** - indicates the air conditioning mode.
- **AUTO** - indicates the system will automatically changeover between heat and cool modes as the temperature varies.
- **OFF** - indicates the entire system is turned off.
- **PROGRAM ON** - indicates the stored program is enabled to run. *Page 8.*

Clock with Day of the Week
Indicates the current time and day. This clock is also used to program the timer periods. *Page 5.*

Room Temperature Display
Indicates the current room temperature.

Desired Set Temperature
Indicates desired room temperature(s). *Page 7.*
Display

5 Outside Indication
   Indicates the temperature displayed is from the optional outside sensor.  Page 21.

6 Morning, Day, Evening & Night Indication
   Indicates the program time period. Page 8-11.

7 Setup Indication
   Indicates the thermostat is in the programming mode.  Page 12.

8 Fan Operation Indication
   Fan On - indicates constant, continuous fan operation.
   When Fan On is not lit - indicates the fan will only operate when necessary to heat or to cool. Page 7.

9 Service Filter Indication
   Service Filter indicates when the filter should be serviced under normal conditions.

10 Locked Indication
   Locked appears after the right combination of buttons are pressed, rendering the buttons inoperative. Page 22.

11 Start Indication
   Start appears when programming timer functions.  Page 8.
Quick Start  Set the Clock and Go

During Setup & Programming:

Pressing the Up and Down buttons will modify the flashing selection.

(Represented in dark black)

Pressing the SET CLOCK button will modify the flashing selection.

Press the SET CLOCK button as above to return to normal operation.

This thermostat is preprogrammed from the factory to operate 1 or 2 Stage equipment without the need for further programming. To optimize the installation of this thermostat follow the instructions in the Advanced Setup section.
The \textbf{HEAT} setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.

The \textbf{COOL} setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.

\textbf{AUTO} will automatically select heat or cool based on room temperature demand.

\textbf{Program On} will activate the stored timer operation. (Morning, Day, Evening & Night Periods)

\textbf{OFF} indicates both heating and air conditioning systems are turned off.
**Select Desired Temperature**

In any mode, adjust the desired Set Temperature with buttons.

Pressing the Up or Down buttons in Auto mode will adjust both the heat and cool set temperatures simultaneously.
Pressing the Up or Down buttons in Heat or Cool modes will adjust only the heat or cool set temperature.

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**Fan Operation**

Fan On indicates constant fan operation. This feature is active even if the thermostat is set to Off.
Press the PROGRAM button to enter time period programming.

Use the back cover Programming Worksheet to help with this section.

- **Select the day of week (M - S)**

- **Adjust the start time for Morning.**
  - **7:30 AM**
  - **Start**

- **Adjust the cooling setpoint for Morning.**
  - **7 - 99°F**
  - **Morning**

- **Adjust the heating setpoint for Morning.**
  - **7 - 99°F**
  - **Morning**
Adjust the start time for Day.

Adjust the cooling setpoint for Day. (35 - 99°)

Adjust the heating setpoint for Day. (35 - 99°)

Adjust the start time for Evening.

Adjust the cooling setpoint for Evening. (35 - 99°)

10:30 AM Start

Day

10:30 AM 85° COOL

Day

85° COOL

Day

85° HEAT

Day

5:30 PM Start

Evening

5:30 PM 78° COOL

Evening

78° COOL

Evening

Continued
Adjust the heating setpoint for Evening.
(35 - 99°F)

Adjust the start time for Night.

Adjust the cooling setpoint for Night.
(35 - 99°F)

Adjust the heating setpoint for Night
(35 - 99°F)
The copy command becomes available after programming the entire previous day.

Select Yes or No to copy the previous day’s program to this day.

If Yes is selected:
Selecting Yes, then pressing mode will copy the previous day’s program and then will ask the same copy question again. If yes is selected each time, this routine will repeat.

If No is selected:
Press MODE

If No is selected, as in previous steps, flashing prompts for input will appear for the 4 time periods for the next day.
Press the Mode button. While holding the Mode, press the Program button to enter Setup screens.

NOTE: Each step # is located at the top right corner of the display for easy reference.

Adjust the time of day clock.

Tip: To change hours quickly, press and hold the override button in and press the up or down buttons.

Select the day of the week.

Select residential Heat Pump, On or Off.

Select the reversing valve polarity for Heat Pump, O or B. (Step 4 only appears if heat pump is on in step 3)

Continued
Advanced Setup

1. Select Electric Heat On or Off. (Step 5 only appears if heat pump is off in step 3)

2. Adjust the deadband from 1 - 6 degrees.

3. Adjust the minimum difference between cooling & heating setpoints. (0 - 6)

4. Select the cycles per hour limit. (d, d1, d, d1) defeated 5 min. Compressor lockout.

5. Adjust the programmable fan timer. 0 - 60 minutes. 0:00 = off
Adjust the programmable fan start time. (step 10 appears only if step 9 is not 0:00)

Adjust the programmable fan stop time. (step 11 appears only if step 9 is not 0:00)

Select the display backlight always On, or Off after 8 seconds.

Press FAN to reset the Energy Watch Heat hour counter. (0 - 1999)

Press FAN to reset the Energy Watch Cool hour counter. (0 - 1999)
Press the Mode button. While holding the Mode, press the Fan button for 2 seconds to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Select thermostat operation in degrees Fahrenheit or Centigrade.

Adjust the number of hours the blower will run before the Service Filter icon appears on the display. 0 = off. (0 - 1950)

Press the Mode button. This will also remove the Service Filter icon from the display.

Reset the Service Filter counter. This will also remove the Service Filter icon from the display.
# Advanced Setup

## Advanced Setup Table

<table>
<thead>
<tr>
<th>Step #</th>
<th>Description</th>
<th>Range</th>
<th>Factory Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Time of day clock set</td>
<td>24 hour</td>
<td>12:00 Am</td>
</tr>
<tr>
<td>2</td>
<td>Day of the week</td>
<td>Sun - Sat</td>
<td>Monday</td>
</tr>
<tr>
<td>3</td>
<td>Heat Pump</td>
<td>Off / On</td>
<td>Off</td>
</tr>
<tr>
<td>4</td>
<td>Reversing Valve polarity</td>
<td>O / B</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>Electric Heat</td>
<td>Off / On</td>
<td>Off</td>
</tr>
<tr>
<td>6</td>
<td>Deadband or Temperature swing</td>
<td>1 - 6</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Forced minimum difference heat/cool</td>
<td>0 - 6</td>
<td>2</td>
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<tr>
<td>8</td>
<td>Cycles per hour</td>
<td>d, d1, 2 - 6</td>
<td>6</td>
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<tr>
<td>9</td>
<td>Programmable Fan</td>
<td>0:00 - 0:60</td>
<td>0:00</td>
</tr>
<tr>
<td>10</td>
<td>Programmable Fan Start Time</td>
<td>24 hour</td>
<td>7:00 Am</td>
</tr>
<tr>
<td>11</td>
<td>Programmable Fan Stop Time</td>
<td>24 hour</td>
<td>9:00 Pm</td>
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<td>12</td>
<td>Thermoglow backlight</td>
<td>Off / On</td>
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<td>13</td>
<td>Energy Watch - Heat timer</td>
<td>0 - 1999</td>
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<td>14</td>
<td>Energy Watch - Cool timer</td>
<td>0 - 1999</td>
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<td>15</td>
<td>Reset Service Filter icon</td>
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<td>- -</td>
</tr>
<tr>
<td>16</td>
<td>Service Filter run time set</td>
<td>0 - 1995</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>Fahrenheit or Centigrade</td>
<td>F / C</td>
<td>F</td>
</tr>
</tbody>
</table>
**MEMORY BACKUP** - In the event of a power loss, the thermostat will retain the stored program settings without external power or batteries.

**2 STAGE OPERATION** - The 2nd Stage of heat or cool is turned on when (1) the 1st Stage has been on for a minimum of two minutes, and (2) the temperature spread from the setpoint is equal to or greater than: the setpoint plus the deadband, plus 2 degrees.

```
Heating
  2nd Stage
    turn on

  1st Stage
    turn on

  Heat Setpoint

Cooling
  1st Stage
    turn on

  2nd Stage
    turn on

  Cool Setpoint
```

**MINIMUM HEAT/COOL SETPOINT DIFFERENCE** - The Heat and Cool setpoints will not be allowed to come any closer to each other than the value set in Advanced Setup step # 7, on page 13. This minimum difference is enforced during Auto changeover and Program On operation.

**PROGRAMMABLE FAN** - If the Programmable Fan timer is set to a value other than 0:00, the fan will run for the preprogrammed amount of time, page 13, step# 9. The Programmable Fan timer will start the fan at the top of each hour. The Programmable Fan may be active even if the thermostat mode is Off. Steps 10 & 11 restrict the hours in which Programmable Fan may operate. Step# 10, page 14 is the start time and step# 11 is the stop time. Setting the times to the same setting in both steps 10 & 11 will allow Programmable Fan to operate 24 hours a day.
About Advanced Features & Operation

🌟 EMERGENCY HEAT - Is a feature available to Heat Pump installations. To turn on Emergency Heat press in the Fan button. While holding the Fan button press the Up button for 2 seconds. The Cool setpoint display will read ‘EH’.

During Emergency Heat the thermostat will turn on the fan and the 2nd stage of heat, when there is a demand for heat, locking out the 1st stage compressor. Exiting Emergency Heat is the same as entering. During Emergency Heat only OFF and HEAT are available.

🌟 ELECTRIC HEAT - Selecting Electric Heat on, page 13, step 5, will cause the thermostat to turn on the fan immediately any time there is a heat demand. Since all gas furnaces control the fan, this feature should be off unless the heater is only electric.
KEYPAD LOCK - To prevent unauthorized use of the thermostat, the front panel buttons may be disabled. To disable, or 'lock' the keypad, press and hold in the Mode button. While holding the Mode button in, press the Up and Down buttons in together. The Locked icon will appear on the display.

To unlock the buttons, again press and hold the Mode button. While holding the Mode button in, press the Up and Down buttons in together. The Locked icon will disappear from the display.
**DUAL SETPOINT BEHAVIOR** - The adjustable setpoint range is: 35 - 99 degrees in Fahrenheit and 7 - 35 degrees in Centigrade. When in the modes Heat or Cool, this adjustable range is unhampered.

When adjusting any Auto mode, including programming 4 Time periods, the thermostat will not allow the Heat setpoint to get closer to the Cool setpoint than the value programmed as the minimum difference in *step 7, page 13*.

When entering the Auto mode from Cool, the Heat and Cool setpoints will remain spread apart by the amount that they were adjusted, prior to entering Auto.

For example: If the Cool setpoint was set to 80 while in the Cool mode and the Heat setpoint was adjusted to 70 while in the Heat mode, upon entering the Auto mode the Heat and Cool setpoints would be 80 and 70. **Both** setpoints would then move up and down together, (in this example spread by 10 degrees), by pressing the up or down buttons.

To move the Heat and Cool setpoints closer together, enter the Cool or Heat mode by pressing the Mode button, then adjust the setpoint(s) closer together. **Heat** is limited to how close it can come to Cool by *step 7, page 13*. 
FACTORY DEFAULTS - If, for any reason it is desirable to return all stored settings back to the factory default settings, press the Mode button. While holding the Mode button in, press the Fan button for 5 sec. All icons will appear. Press and hold in the Fan button until Fd appears. This resets all factory settings. To calibrate room temperature, press the Up and Down arrow buttons simultaneously, twice. At this point use the Up and Down buttons to calibrate room temperature, if needed. Press the Mode button to return to normal operation. NOTE CAUTION ON PAGE 1.

OUTSIDE SENSOR (Optional Accessory) - When connected to terminals RS+5, RS, & GND on the back of the thermostat, the thermostat will read the temperature from the Outside Sensor when asked to. This thermostat will not control to this sensor, it is only to read outside temperature.

To read the temperature from the Outside Sensor, press the Outside button of the thermostat. The display will then only show Outside temperature. Pressing the Outside button will then return the display to normal operation.

The Outside Sensor is available in a wired or wireless version. The wired sensor can be connected to the thermostat with up to 500’ of 20 ga. or 300’ of 18 ga. Unshielded, thermostat wire.

See the Outside Sensor instructions for further details.
Warranty

5-Year Warranty - This Product is warranted to be free from defects in material and workmanship. If it appears within 5 years from the date of original installation, whether or not actual use begins on that date, that the product does not meet this warranty, a new or remanufactured part, at the manufacturer's sole option, to replace any defective part will be provided without charge for the part itself. PROVIDED the defective part is returned to the distributor through a qualified servicing dealer.

THIS WARRANTY DOES NOT INCLUDE LABOR OR OTHER COSTS incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts. Such costs may be covered by a separate warranty provided by the installer.

THIS WARRANTY APPLIES ONLY TO PRODUCTS IN THEIR ORIGINAL INSTALLATION LOCATION AND BECOMES VOID UPON REINSTALLATION.

LIMITATIONS OF WARRANTIES – ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or owners manual including filter cleaning and/or replacement and lubrication.
2. Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of the Manufacturer.
5. Parts not supplied or designated by the Manufacturer, or damages resulting from their use.
7. Electricity or fuel costs or increases in electricity or fuel costs from any reason whatsoever including additional or unusual use of supplemental electric heat.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.
<table>
<thead>
<tr>
<th>DAY</th>
<th>PERIOD</th>
<th>START TIME</th>
<th>COOL</th>
<th>HEAT</th>
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<tr>
<td>MONDAY</td>
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