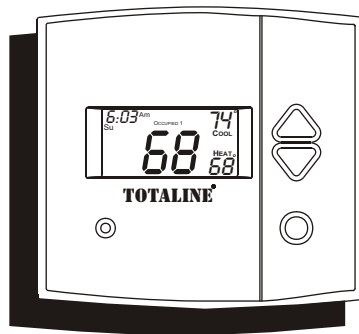# 1 For All™
Programmable
Digital Thermostat

- 7 Day programmable
- Pre-Programmed
- Occupied Comfort
- Unoccupied Energy Savings
- Auto Changeover
- Easy To Read Display
- Thermoglow™ Backlight
- *Multi-Stage, **One for All**™
- 3 Security Levels

Meets 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.

TOTALINE

Commercial Systems & Services © Carrier Corporation 05/02
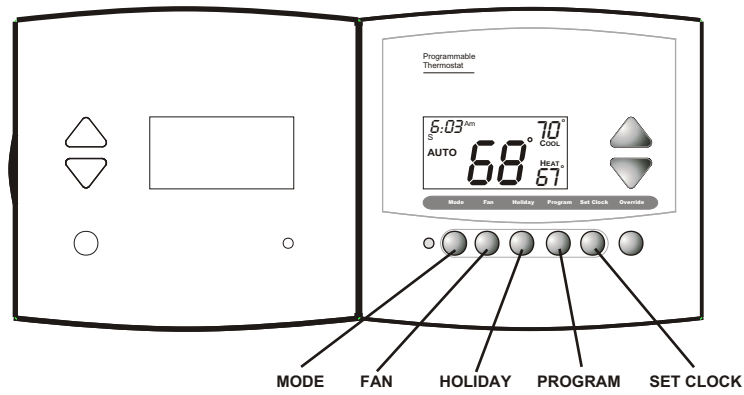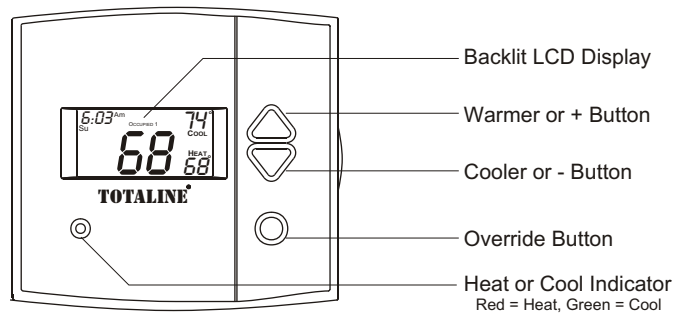
Table Of Contents

⚠ **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 P374-2200

Front Panel

Backlit LCD Display

Warmer or + Button

Cooler or - Button

Override Button

Heat or Cool Indicator
Red = Heat, Green = Cool

6:03 Am
Su
Occupied 1
74
COOL
68
HEAT
68
TOTALINE

Programmable
Thermostat

6:03 Am
S
AUTO
68°
70°
COOL
HEAT
67

Mode   Fan   Holiday   Program   Set Clock   Override

MODE   FAN   HOLIDAY   PROGRAM   SET CLOCK

6 | 10 | 1 | 9 | 7

12:00 Am Pm ProgramOn Setup
StopStart Locked
SuMTuWThFSa unoccupied123
Service Filter

88°

AUTO
OFF

88

COOL
Override

HEAT °
88

Fan On

3

☐1☐ 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 6.*

☐2☐ Clock with Day of the Week

Indicates the current time and day. This clock is also used to program the timer periods. *Page 5.*

☐3☐ Room Temperature Display

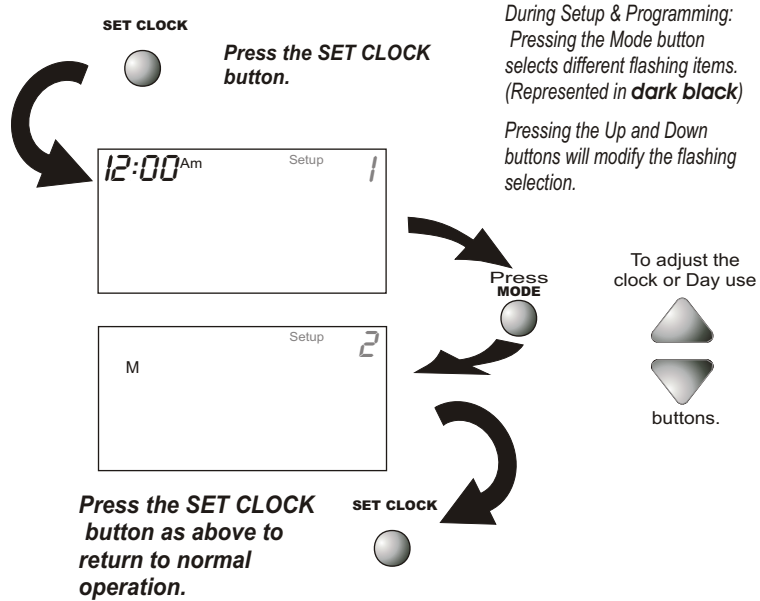Indicates the <u>current</u> room temperature.

☐4☐ Desired Set Temperature

Indicates <u>desired</u> room temperature(s). *Page 7.*

Display

[5] Override Indication
   Indicates the current program is currently being overridden for up to 4 hours. *Page 7,16.*

[6] Occupied or Unoccupied Indication
   Indicates the program number: Occupied 1,2,3, or Unoccupied. *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 12.*

[9] Locked Indication
   Locked appears after the right combination of buttons are pressed, rendering the buttons inoperative. *Page 18.*

[10] **Start** / **Stop** Indication
   Start or Stop appears when programming timer functions. *Page 9.*

SET CLOCK

Press the SET CLOCK button.

*During Setup & Programming: Pressing the Mode button selects different flashing items. (Represented in **dark black**)*

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

12:00 Am   Setup   *1*

Press
MODE

To adjust the clock or Day use

Setup   *2*

M

buttons.

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

SET CLOCK

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 thermostat is not preprogrammed from the factory to operate electric heat or heat pump systems. To control these systems, follow the steps in the Advanced Setup section, pages 12 & 13.

Basic Operation

Select Mode

The **HEAT** setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.

```
12:00 Pm
M          70°
              HEAT °
              69
```

Press
MODE
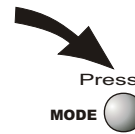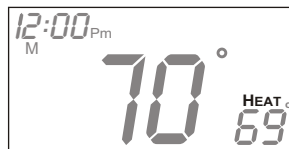
The **COOL** setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.

```
12:00 Pm        72°
M                COOL
          70°
```

Press
MODE

AUTO will automatically select heat or cool based on room temperature demand.

```
12:00 Pm        72°
M                COOL
AUTO      70°
              HEAT °
              69
```

Press
MODE

Program On will activate the stored timer operation. (Occupied or Unoccupied Periods)

```
12:00 Pm  Program On    73°
M         Occupied 1     COOL
          70°
              HEAT °
              70
```

Press
MODE

OFF indicates both heating and air conditioning systems are turned off.

```
12:00 Pm
M
OFF       70°
```

Basic Operation

Select Desired Temperature

```
12:00 Pm          72°
  M              COOL
AUTO    70°
                HEAT°
                69
```
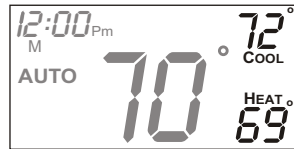
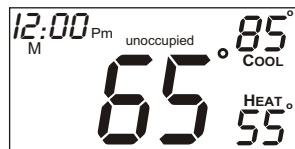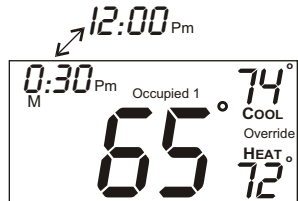In any mode, adjust the desired Set Temperature with

▲

▼

buttons.

Pressing the up/down buttons in <u>Auto</u> mode will adjust **both** the heat and cool set temperatures simultaneously.
Pressing the up/down buttons in Heat **or** Cool modes will adjust only the heat **or** cool set temperature.

Override

OVERRIDE Press ⚪

```
12:00 Pm   unoccupied   85°
  M                    COOL
       65               HEAT°
                        55
```

During programmed, unoccupied periods a press of the Override button will force the thermostat into Occupied 1 comfort settings, temporarily, for 30 minutes. Pressing the override button when the countdown timer is less than 30, will reset the timer to 30 minutes. If the timer displays 30 minutes, the next press will zero out the override timer, returning to unoccupied.

```
↗ 12:00 Pm

0:30 Pm  Occupied 1    74°
  M                   COOL
       65             Override
                      HEAT°
                      72
```

When in Override, the Override icon and the Occupied 1 icon appear on the display.

The time of day clock alternates with the time remaining in override.

During Override, the setpoints are adjustable, provided the keypad is not locked.
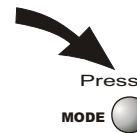
Press
PROGRAM

Press the PROGRAM button to enter time period programming.

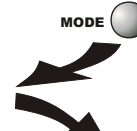Select the <u>maximum #</u> of occupied periods to be used on any one day. Typically 1.

(1,2 or 3)

occupied 1

Press

MODE

Adjust the cooling setpoint for occupied 1.

(35 - 99°)

occupied 1 **74** **COOL**

Press

MODE

Adjust the heating setpoint for occupied 1.
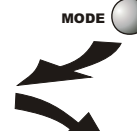
(35 - 99°)

occupied 1 **74** **COOL**

HEAT **72**

Press

MODE

Adjust the cooling setpoint for unoccupied periods.

(35 - 99°)

unoccupied **85** **COOL**

Press

MODE

Continued

Adjust the heating set-point for unoccupied periods.

(35 - 99)

unoccupied

HEAT
65

Press

MODE

Select the day for Occupied 1.
(M - Su)

M   occupied 1

Press

MODE

Adjust the start time for occupied 1.

7:00 Am   Start
M   occupied 1

Press

MODE

Adjust the stop time for occupied 1.

6:00 Pm Stop
M   occupied 1

Press

MODE

On

Select Occupied 1 to run on this day (On), or not to run this day (Off).

Off

M   occupied 1

ON

Press

MODE

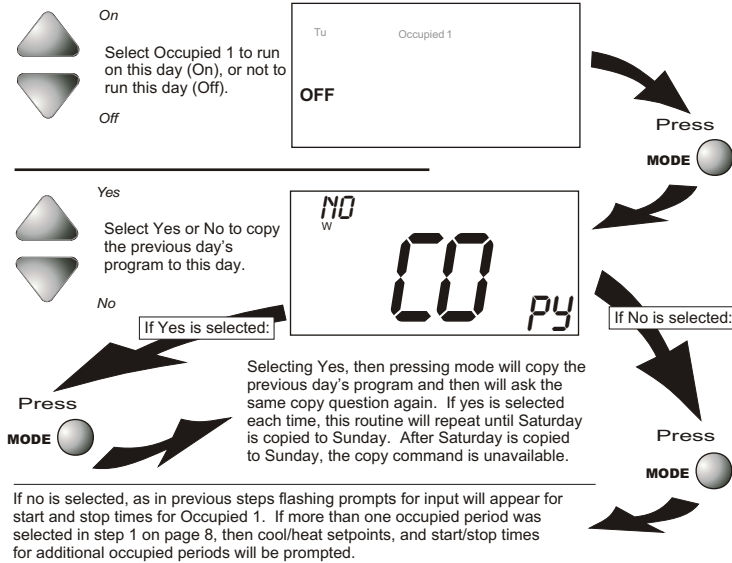Continued
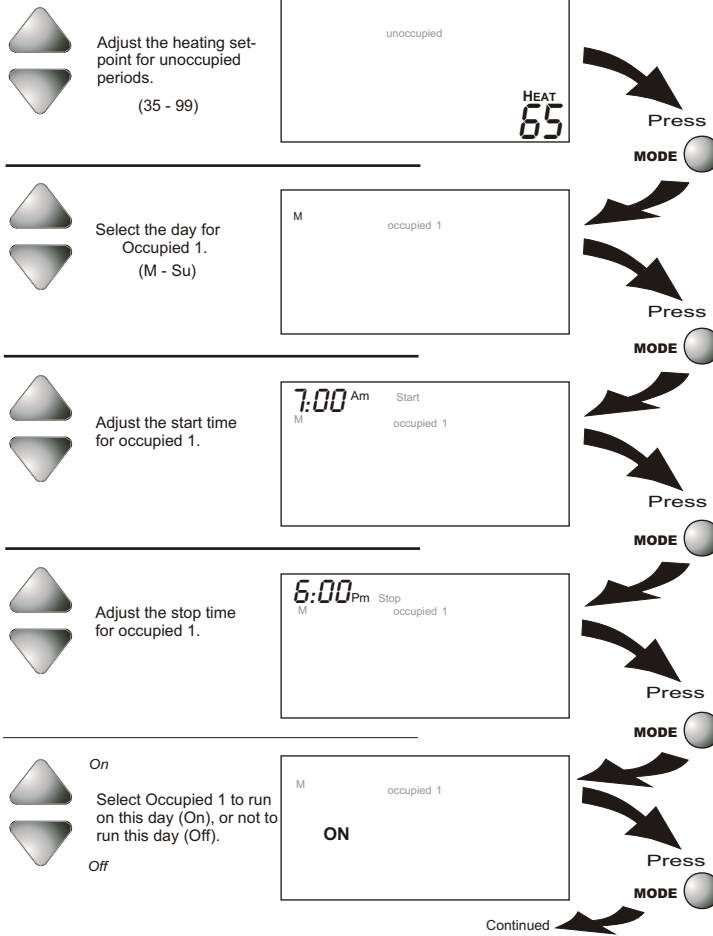
The copy command becomes available after the maximum # of occupied periods are programed in a day. This example uses 1 as the maximum occupied periods ever programed in one day.

Yes

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

No

NO
Tu

CO

PY

If No is selected:

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 until Saturday is copied to Sunday. After Saturday is copied to Sunday, the copy command is unavailable.

Press

MODE

Press

MODE

Select the day for occupied 1.

(Tu - M)

Tu   occupied 1

Press

MODE

Adjust the start time for occupied 1.

9:00 Am Start
Tu   Occupied 1

Press

MODE

Adjust the stop time for occupied 1.

5:00 Pm Stop
Tu   Occupied 1

Press

MODE

Continued

On

Select Occupied 1 to run on this day (On), or not to run this day (Off).

Off

Tu   Occupied 1

OFF

Press

MODE

Yes

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

No

NO
w

CO py

If Yes is selected:

If No is selected:

Press

MODE

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 until Saturday is copied to Sunday. After Saturday is copied to Sunday, the copy command is unavailable.

Press

MODE

If no is selected, as in previous steps flashing prompts for input will appear for start and stop times for Occupied 1. If more than one occupied period was selected in step 1 on page 8, then cool/heat setpoints, and start/stop times for additional occupied periods will be prompted.

PROGRAMMING NOTES

❋ If only 1 Occupied period is selected in step 1 on page 8, Occupied 2 & 3 programming steps are skipped. Further, if only 2 occupieds are selected, Occupied 3 programming steps are skipped.

❋ Heat & Cool setpoints for Occupied 1 are the same for every day of the week. Heat & Cool setpoints for Occupied 2 & 3 can be adjusted differently for each day of the week, if desired.

❋ **If the start time is set later in the day than the stop time**, the program will run from the start time to midnight and from midnight to the stop time on the same day. *For example: 9:00pm start, 8:00am stop, on Monday. In this example the program will run from 12:00am Monday to 8:00am Monday and again from 9:00pm Monday to 12:00pm Monday.*

❋ The Unoccupied settings take effect at all times when: (**1**) the program is on **and** (**2**) the current time is outside a preset occupied period. For this reason start and stop times aren't necessary for unoccupied.

❋ If the **same** start and stop times are programmed in for an occupied period, then it will run 24 hours.

❋ If one occupied period starts and stops within another occupied period the lower occupied # has priority. *For example: If Occupied 3 is programmed to be "on" 24 hours, and Occupied 2 is programmed to run that day, then Occupied 2 settings will take over from occupied 3 between Occupied 2 start and stop times.*

Advanced Setup

Press the Mode button. While holding the Mode, press the Program button to enter Setup screens.

MODE

PROGRAM

NOTE: *Each step # is located at the top right corner of the display for easy reference. Steps 1 & 2 are accessed by pressing Set Clock.*

Select Heat Pump operation (ON) or, Gas/Electric operation (OFF)

Setup 3

OFF **HP**

Press

MODE

B

Select reversing valve type, O or B. Step 4 only appears if step 3 is ON.

O

Setup 4

0

Press

MODE

ON

Select Electric Heat ON or OFF. Step 5 only appears if step 3 is OFF.

OFF

Setup 5

OFF **EH**

Press

MODE

Adjust the deadband from 1 - 6 degrees.

db Setup 6

2

Press

MODE

Continued

Advanced Setup

dIF Setup 7
COOL
2
HEAT

Adjust the minimum *difference* between cooling & heating setpoints.

(0 - 6°)

Press
MODE

Setup 8
6 CY

Select the cycles per hour limit.
d=cycles per hour limit defeated.
d1=d + defeat 5 min.
Compressor lockout.

(d, d1, 2 - 6)

Press
MODE

On

Setup 9
ON L1

Select the display back-light always **On**, or **Off** after 8 seconds.

Off

Press
MODE

Press

OVERRIDE

0 Setup 10
Service Filter

Reset the Service Filter counter to 0, to remove the icon from the display.

Press
MODE

---

500 Setup 11
Service Filter

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

(0 - 1950)

Press
MODE

Continued

Advanced Setup

C

Select thermostat operation in degrees **F**ahrenheit or **C**entigrade.

F

Setup

12

F
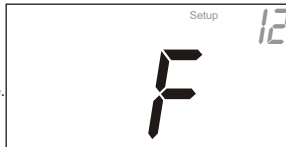
Press

MODE

Select the security level:
0=no security in effect
1=setpoint range limited
2=1+ program on all times
3=2 + prohibits setpoint changes

SEC

Setup Locked

13

0

Press

MODE

Adjust the maximum allowable heat setpoint when security is in effect. *(Step 14 only appears if step 13 is not 0).*

(35 - 99)

HI

Setup Locked

14

80

HEAT

Press

MODE

Adjust the minimum allowable cool setpoint when security is in effect. *(Step 15 only appears if step 13 is not 0).*

(35 - 99)

LO

Setup Locked

15

COOL

65

Press

MODE

PROGRAM

Press the Mode button. While holding the Mode, press the Program button to enter Setup screens. If no buttons are press -ed, the display will leave the setup screens after 60 seconds.
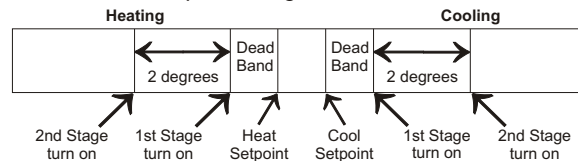
Advanced Setup

Advanced Setup Table

| Step #	Description	Range	Factory Default
1	Time of day clock set	24 hour	12:00 Am
2	Day of the week	Sun - Sat	Monday
3	Heat Pump	Off / On	Off
4	Reversing Valve Polarity	O / B	O
5	Electric Heat	Off / On	Off
6	Deadband or Temperature swing	1 - 6	2
7	Forced minimum difference heat/cool	0 - 6	2
8	Cycles per hour	d, d1, 2 - 6	6
9	Thermoglow backlight	Off / On	On
10	Reset Service Filter Icon	- -	- -
11	Service Filter run time set	0 - 1950	0
12	Fahrenheit or Centigrade	F / C	F
13	Security Levels	0 - 4	4
14	Maximum allowable Heat setpoint	35 - 99	80
15	Minimum allowable Cool setpoint	35 - 99	65

About Advanced Features & Operation

❋ CLOCK BACKUP - In the event of a power loss, the thermostat internal clock will continue to keep proper time for a minimum of 48 hours 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   Cooling

2 degrees   Dead Band   Dead Band   2 degrees

2nd Stage turn on   1st Stage turn on   Heat Setpoint   Cool Setpoint   1st Stage turn on   2nd Stage turn on

❋ 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.

❋ OVERRIDE - As explained on *page 7*, pressing the Override button during a programmed, Unoccupied period will force the thermostat into Occupied 1, temporarily, for 30 minutes. If the Override button is pressed during an Occupied period, the thermostat will be forced into Unoccupied and the occupied # *(1,2 or 3)*, it was forced out of will be turned off, only for that day.
During Override periods the setpoints may be adjusted, but they will not be remembered after Override ends.
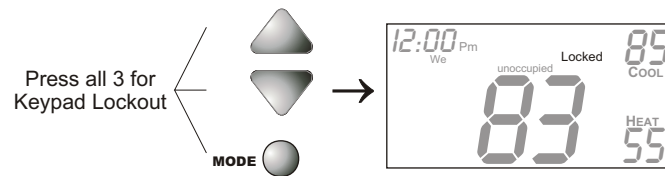
About Advanced Features & Operation

❊ ENERGY SAVING SMART FAN - If Fan On is selected,
    the fan will run continuously at all times,except in Off,
    and will only run if there is a heating or cooling demand
    in Unoccupied periods.

❊   EMERGENCY HEAT - To turn on Emergency Heat press in the
        Fan button. While holding the Fan button press the Up
        button. The Cool setpoint display will read 'EH'.

Press for
Emergency Heat

FAN

12:00 Am
Mo

73°

EH
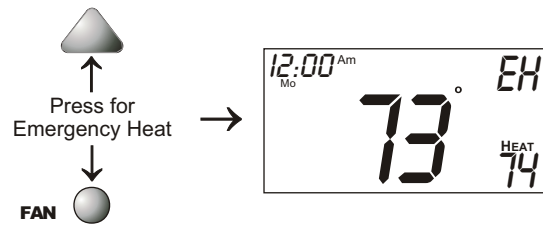
HEAT
74

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.
  Note: Emergency Heat is only available when the
   thermostat is controlling a heat pump.

About Advanced Features & Operation

❋ ELECTRIC HEAT - Selecting Electric Heat <u>on</u>, *page 13, step 6*, 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.

Press all 3 for
Keypad Lockout

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.

Page 18

About Advanced Features & Operation

❋ 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
    Occupied and Unoccupied 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*.
    The above applies if the Security level does not equal 4.

❋ 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 return to
    normal operation, press the Mode button twice more.

Warranty

One-Year Warranty - This Product is warranted to be free from defects in material and workmanship. If it appears within one year 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 TOT 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 MANY 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. AL 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.
6. Manufacturer products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
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 form state to state.