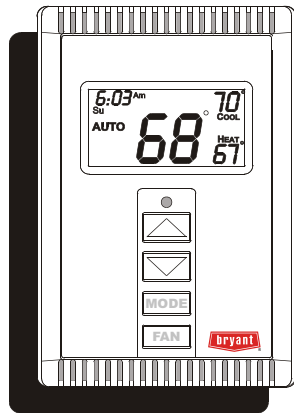# Wireless Programmable Digital Thermostat

- Wireless Operation
- 7-Day Programmable
- 4 Time Periods Per Day
- Programmable Fan
- Easy To Read Display
- Thermoglow™ Backlight
- Auto Changeover
- Dual Setpoint
- 2 Heat, 2 Cool Stages

**bryant**

## Wireless

**2 Stage Heat & Cool or Heat Pump**

© 2000 by Replacement Components Division
Carrier Corporation

## Table Of Contents

**⚠ CAUTION**

Follow P474-1100REC *Installation Instructions*
before proceeding.
**SET THERMOSTAT TO MODE "OFF" PRIOR TO
CHANGING SETTINGS IN SETUP OR RESTORING
FACTORY DEFAULTS.**

**bryant**®     **TSTATBBPRF01-B**     FCC ID MUH-T10013

This device complies with Part 15 of the FCC rules.
Operation is subject to the following two conditions:
(1) this device may not cause harmful interference,
and (2) this device must accept any interference
received, including interference that may cause
undesired operation.

**Important:** *To assure proper operation use only
AA LITHIUM batteries.*

## Front Panel
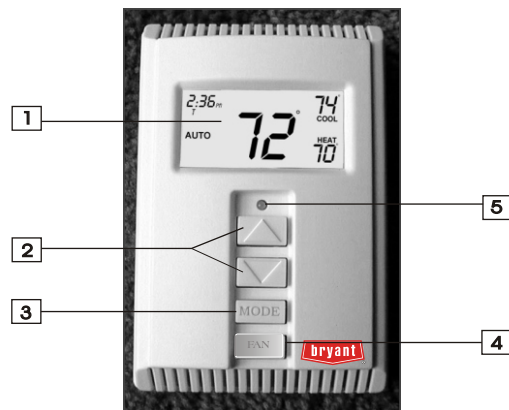


| | |
|---|---|
| **1** | **Liquid Crystal Display**<br>*with Thermoglow™* |
| **2** | **Up/Down Buttons** |
| **3** | **Mode Button** |
| **4** | **Fan Button** |
| **5** | **Transmission Indicator** |

## Display

12:00 Am Pm

SMTWTFS

Program On Setup
Locked

88°

AUTO
OFF Night
Morning Day
Evening
Fan On

88°
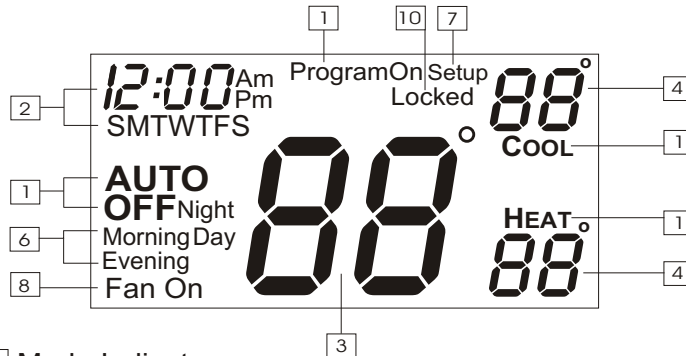
COOL

HEAT °
88

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

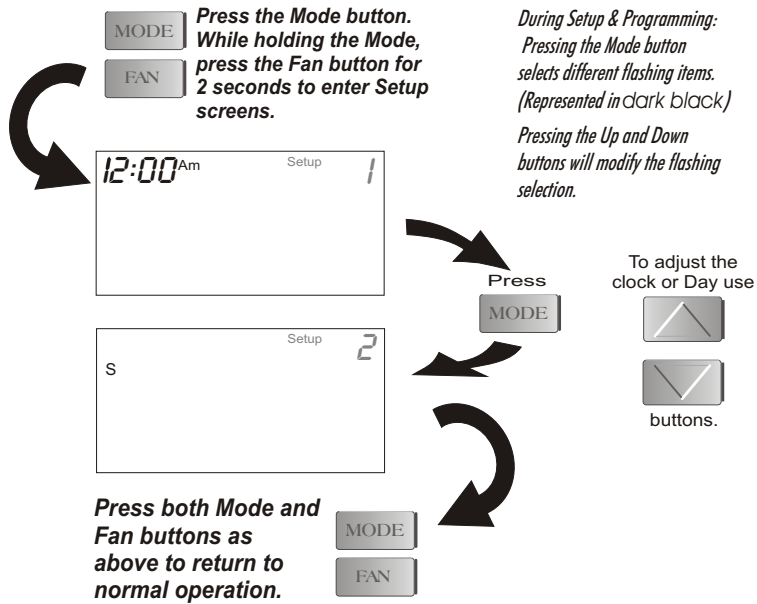Indicates the <u>current</u> room temperature.

4 Desired Set Temperature

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

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.*

10 **Locked** Indication
   **Locked** appears after the right combination of
   buttons are pressed,  rendering the buttons
   inoperative. *Page 17.*

MODE

FAN

***Press the Mode button. While holding the Mode, press the Fan button for 2 seconds to enter Setup screens.***

*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

buttons.

Setup    **2**

S

***Press both Mode and Fan buttons as above to return to normal operation.***

MODE

FAN

The 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 Wireless Receiver Instructions.*

## 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
M
*72*°
**COOL**
**70**°

Press
MODE

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

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

Press
MODE

**Program On** will activate the stored timer operation. (Morning, Day, Evening & Night Periods)

*12:00*Pm
M
ProgramOn
*73*°
**COOL**
Day
**70**°
**HEAT**°
*70*

Press
MODE

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

*12:00*Pm
M
**70**°
**OFF**

### *Select Desired Temperature*

```
12:00 Pm
M                    72°
                    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.

### *Fan Operation*

Press
FAN

```
12:00 Pm
S                    85°
                    COOL
      65°
Fan On              HEAT°
                    55
```

**Fan On** indicates constant fan operation.
This feature is active even if the thermostat
is set to **Off**.

Time period programming is only available on Unit Number 1.

**MODE**

***Press the Mode button. While holding the Mode, press the Up button for 2 seconds to enter time period programming.***

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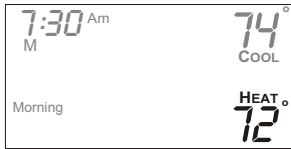
---

Select the day of week

(M - S)

M

**Press**

**MODE**

---

Adjust the start time for Morning.

*7:30* Am    Start
M

Morning

**Press**

**MODE**

---

Adjust the cooling setpoint for Morning.

(35 - 99°)

*7:30* Am           *74*°
M                  **COOL**

Morning

**Press**

**MODE**

---

Adjust the heating setpoint for Morning.

(35 - 99°)

*7:30* Am           *74*°
M                  **COOL**

Morning          **HEAT**°
                  *72*°

**Press**

**MODE**

Continued

Page 8

Adjust the start time for Day.

*10:30* Am
M

Start

Day

Press

MODE

---

Adjust the cooling setpoint for Day.

(35 - 99°)

*10:30* Am
M

*75*°
COOL

Day

Press

MODE

---

Adjust the heating setpoint for Day.

(35 - 99°)

*10:30* Am
M

*75*°
COOL

Day

HEAT °
*73*

Press

MODE

---
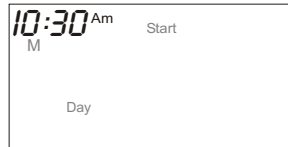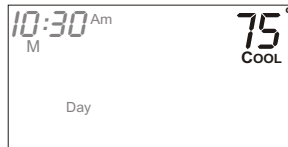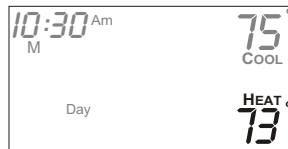
Adjust the start time for Evening.
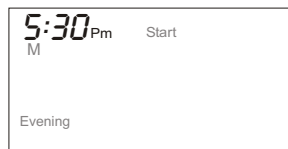
*5:30* Pm
M

Start

Evening

Press

MODE

---

Adjust the cooling setpoint for Evening.

(35 - 99°)

*5:30* Pm
M

*75*°
COOL

Evening

Press

MODE

Page 9

Adjust the heating setpoint for Evening.

(35 - 99°)

5:30 Pm
M
75°
COOL

HEAT °
73

Evening

Press
MODE

---

Adjust the start time for Night.

11:30 Pm
M
Start

Night

Press
MODE

---

Adjust the cooling setpoint for Night.

(35 - 99°)

11:30 Pm
M
78°
COOL

Night

Press
MODE

---

Adjust the heating setpoint for Night

(35 - 99°)

11:30 Am
M
78°
COOL

Night
HEAT °
70

Press
MODE

Continued

Page 10
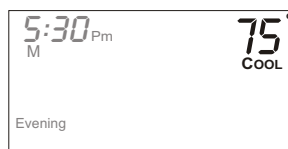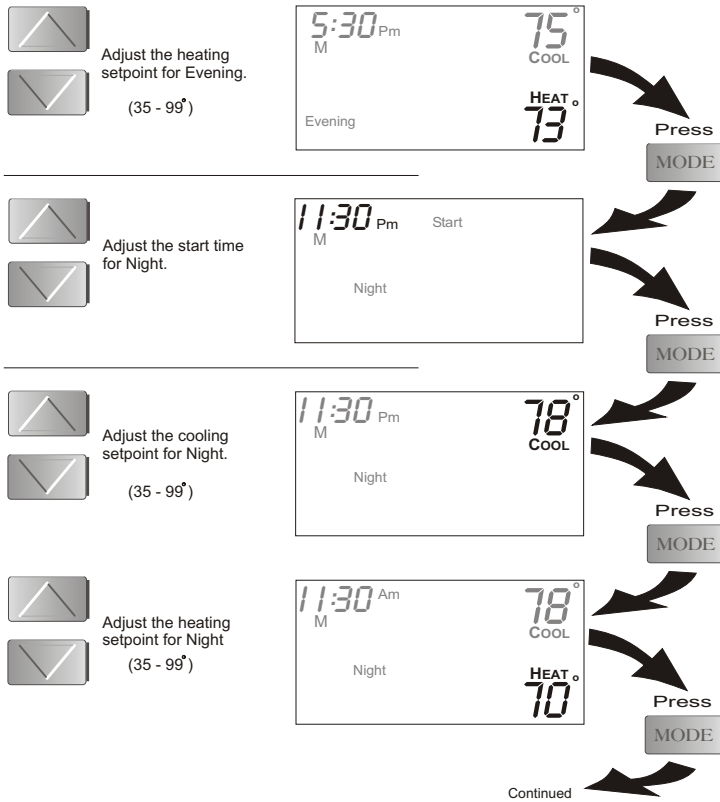
The copy command becomes available after
programming the entire previous day.

*Yes*

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

*No*

NO
T

CO py

If No is selected:

If Yes 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.

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.

## Advanced Setup

**MODE**

**FAN**

*Press the Mode button. While holding the Mode, press the Fan button for <u>5 seconds</u> to enter Setup screens.*

Adjust the time of day clock.

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

12:00 Am          Setup    1

**Press**

**MODE**

Select the day of the week.

M          Setup    2

**Press**

**MODE**

*On*

Select if thermostat is used in a zoning system. On = Yes, Off = No

*Off*

OFF **ZO**          Setup    3

NE

**Press**

**MODE**

Continued

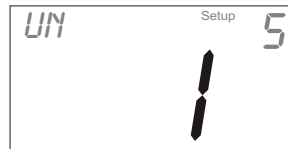Page 12
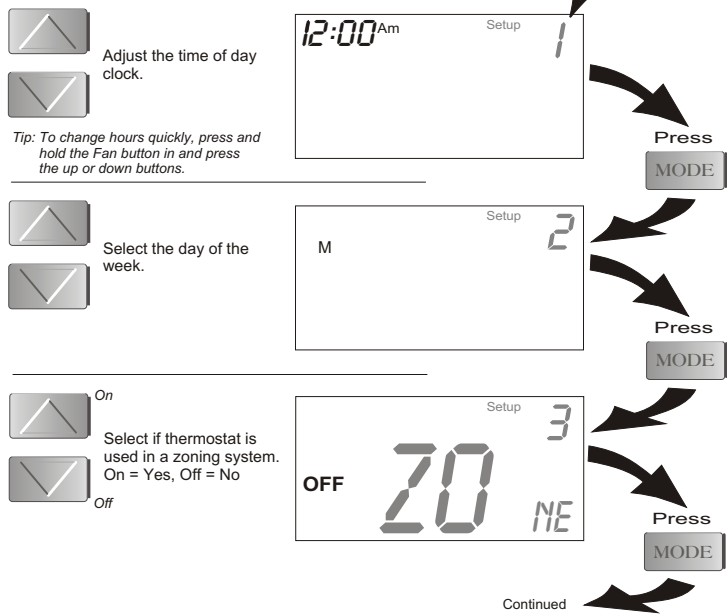
## Advanced Setup

Select the House Code number. *The receiver must also use this same number for proper operation.*

HC — Setup 4
0

Press

MODE

---

Select the Unit ID number. If more than 1 thermostat is used, each will need a different Unit ID number.

UN — Setup 5
1

Press

MODE

---

Adjust the deadband from 1 - 6 degrees.

**Note: Available only on Unit ID #1.**

db — Setup 6
2

Press

MODE

---

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

(0 - 6°)

dIF — Setup 7
COOL
2
HEAT

Press

MODE

---

Select the cycles per hour limit.
d=cycles per hour limit defeated.
d1=d + defeat 5 min. Compressor lockout.
(d, d1, 2 - 6)
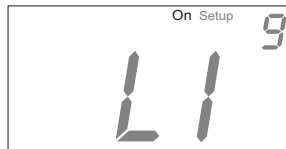
**Note: Available only on Unit ID #1.**

Setup 8
6 CY

Press

MODE

Page 13          Continued

## Advanced Setup

*On*

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

*Off*

On  Setup  9

L 1

Press

MODE

Adjust the programmable fan timer.
0 - 60 minutes.
0:00 = off

**Note: Available only on Unit ID #1.**

0:00   Setup  10

Fan On

Press

MODE

*C*

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

*F*

Setup  11

F°

Press

MODE

FAN

*Press the Mode button. While holding in 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.*
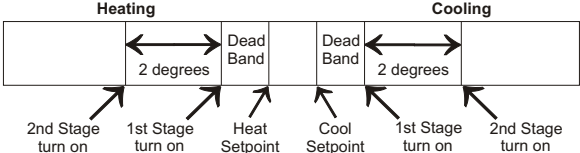
## Advanced Setup Table

| 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 | Zoning Use | Off / On | Off |
| 4 | House Code | 0 - 63 | O |
| 5 | Unit Number | 1 - 4/1 - 16 | 1 |
| 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 | Off |
| 10** | Programmable Fan | 0:00 - 0:60 | 0:00 |
| 11 | Fahrenheit or Centigrade | F / C | F |
| | | | |
| | | | |
| | | | |
| | | | |

**\*\* Available on Unit Number 1, only.**

� 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** | | | | | **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.

✷ PROGRAMMABLE FAN - If the Programmable Fan timer is set to a value other than 0, the fan will run for the preprogrammed amount of time, *page 14, step# 10.* 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.

✽   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

12:00 Pm    ProgramOn    Locked    85°    COOL
W

70°    HEAT°    55
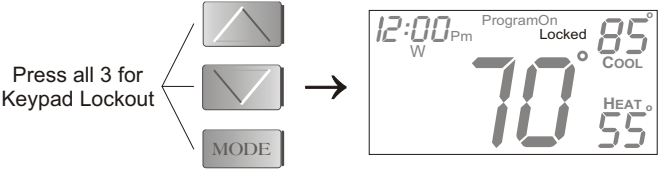
      To *unlock* the buttons, again press and hold the Mode
      button.  While holding the Mode button in, press the Up
      and Down buttons in together.  The **Locked** icon will
      disappear from the display.

✽   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
        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.*

## About Advanced Features & Operation

✽ 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 Down button for 2 sec.  All icons will
appear.  Press and hold in the Fan button until **Fd**
appears.  This resets all factory settings.

✽ <u>**To calibrate room temperature,**</u> press the Mode button.
While holding the Mode button in, press the Down button
for 2 seconds.  All icons will appear.  Press the Mode
button once more.
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.***

✽ LOW BATTERY WARNING - When the AA Lithium batteries
reach a preset low power state, the display will flash the
Low Battery icon.  After this icon appears change the
batteries within a few weeks.  Use only AA Lithium
batteries for proper operation.

✽ Battery Eliminator (optional accessory) - Use only the
Totaline accessory (P474-0800) for proper operation.
3vdc, 50ma output, negative center conductor.

# Warranty

**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 THE 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 COMPANY WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or owners manual including 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. Failures 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 USA, Alaska, Hawaii and Canada.
7. Electrical fuel costs, or increases in electrical or fuel costs for any reason whatsoever including additional or unusual use of supplemental electrical 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 limitation 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.

| DAY | PERIOD | START TIME | COOL | HEAT | |
|---|---|---|---|---|---|
| MONDAY | Morning | | | | |
| | Day | | | | |
| | Evening | | | | |
| | Night | | | | |
| TUESDAY | Morning | | | | *Copy Mon→Tue* |
| | Day | | | | ☐ *No* |
| | Evening | | | | ☐ *Yes* |
| | Night | | | | |
| WEDNESDAY | Morning | | | | *Copy Tue→Wed* |
| | Day | | | | ☐ *No* |
| | Evening | | | | ☐ *Yes* |
| | Night | | | | |
| THURSDAY | Morning | | | | *Copy Wed→Thu* |
| | Day | | | | ☐ *No* |
| | Evening | | | | ☐ *Yes* |
| | Night | | | | |
| FRIDAY | Morning | | | | *Copy Thu→Fri* |
| | Day | | | | ☐ *No* |
| | Evening | | | | ☐ *Yes* |
| | Night | | | | |
| SATURDAY | Morning | | | | *Copy Fri→Sat* |
| | Day | | | | ☐ *No* |
| | Evening | | | | ☐ *Yes* |
| | Night | | | | |
| SUNDAY | Morning | | | | *Copy Sat→Sun* |
| | Day | | | | ☐ *No* |
| | Evening | | | | ☐ *Yes* |
| | Night | | | | |

P/N 88-288