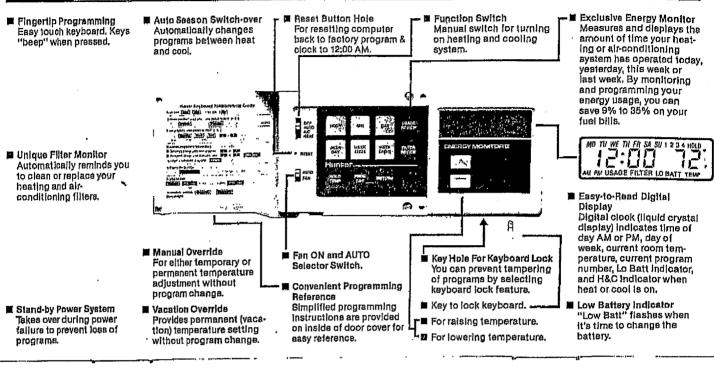


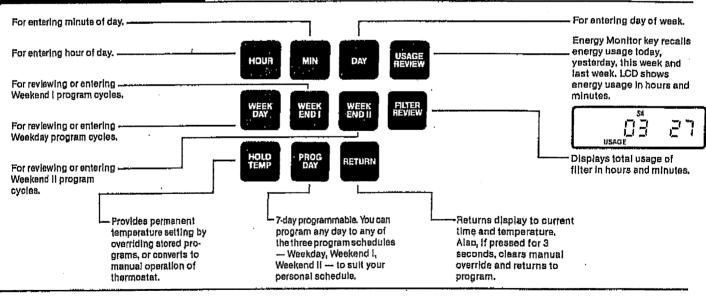
Operation Manual

Model 44402 002

#### **Features**



#### Keyboard Quick Reference



Programmable for winter and summer settings. Stand-by power monitor takes over during power failure to prevent loss of programs. Fingertip programming, easy touch keyboard for entering programs, displaying time, temperature setting and energy usage.

#### Start-Up



### Don't Worry — Programming Is Easy!

This may seem to be a highly comprehensive and lengthy presentation of our product's features — don't be intimidated.

We have a lot to say because our product does have a lot of features. And we want to make sure you have complete information. You may find you'll want to use only a simple program...or all the features we have to offer.

Just follow this manual one step at a time and you should quickly begin to feel comfortable with your new thermostat.

Besides, we've installed preset programs at 78° for air conditioning and 68° for heating. These programs are up and running immediately at installation, in case you don't have time to enter your own programs right away.

If you have questions or problems, just call our Customer Service Hotline at 901/745-9222.

### **How To Save On Energy Costs**

You can generate significant savings with a programmable thermostat. The idea is to reduce usage when you don't need it — when you're not home or at night while everyone's asleep. For example, during the heating season you can program lower temperatures during the day while you're at work. Then program a comfortable temperature just before you get home, so you walk into a warm house.

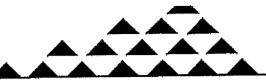
Studies conducted by the Department of Energy estimate that setting your thermostat back 10°F for two 8-hour periods on winter days can reduce your fuel bill as much as 30%. During the summer, setting your thermostat up 6°F for two periods can reduce fuel bills as much as 25%.

And the digital display on your thermostat gives you precise temperature control for convenience as well as maximum savings and comfort.

The thermostat holds separate programs for winter and summer. It is capable of holding 4 programs for weekdays and 4 programs for each weekend setting.

Suggested winter and summer weekday and weekend programs are shown at the right.

Suggested Winter & Summer Programs						
Weekdays	Time	Winter Temperature Settings	Summer Temperature Settings			
Program 1	6:00 AM	68°	78°			
Program 2	8:30 AM	60°	84°			
Program 3	5:00 PM	68°	78°			
Program 4	11:00 PM	58°	80°			
Weekend I						
Program 1	7:00 AM	68°	78°			
Program 2	10:00 AM	60°	84°			
Program 3	4:00 PM	68°	78°			
Program 4	11:00 PM	58°	80°			
Weekend II						
Program 1	7:00 AM	68°	78°			
Program 2	10:00 AM	60°	84°			
Program 3	4:00 PM	68°	78°			
Program 4	11:00 PM	58.9	80°			



#### **Before You Start**

Your thermostat program will NOT take effect immediately after programming of your Thermostat, but at the next programmed time/temperature change.

The Thermostat is pre-set to 68°F for heat and 78°F for air conditioning. So, if you want a temperature other than 68°F or 78°F right away, use the manual override feature (described on page 27) to enter your desired temperature setting.

Your thermostat is pre-set so that Weekdays are Monday through Friday, Weekend I is Saturday and Weekend II is Sunday. You can program your thermostat to select days of your choice for Weekday, Weekend I and Weekend II.

Assigning different days is explained on page 22.

#### Keyboard Lock Feature

Your thermostat is provided with an optional electronic keyboard lock. You may use this feature to prevent tampering with the programs. The keyboard can be made active by using the key provided with your thermostat.

If you elect to use this feature, remove the cover from the thermostat (by taking out the two screws on the front) and look for the switch shown below on the printed circuit board near the key hole. Be careful not to disconnect any wires. Then slide the keyboard switch to "lock" mode.

Keyboard Look Switch



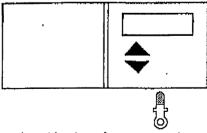
Lock

Unlock

Fig. 1

Once the switch is moved to "lock" mode, no entry is possible by the thermostat keys. Even the manual override is not possible. To activate the keyboard (open lock) for changing programs or setting new time, insert the key in the key hole. After programming is completed, remove the key to lock the keyboard again.

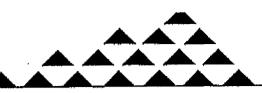
If the keyboard selector switch is in "unlock" mode, there is no need to use key. Programs can be changed any time without using the key.



Insert key here for programming.

Fig. 2

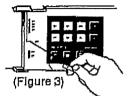
### Start-Up



#### Reset

When you first install the two AA size batteries, as directed in the installation instructions, the thermostat automatically sets the day and time to Monday, 12:00 AM, shows the current room temperature and is programmed for 68° in heat mode and 78° in cool mode.

Press the reset button to reset and start the clock. Use a thin probe such as a straightened paper clip to gently push the reset button through the hole in the front panel. (See Figure 3.) The LCD display should read 12:00 AM, indicate the day of week as Monday (MO), the current room temperature of your house, and the word "FILTER!" If it shows random numbers or partial digits, press the reset button once again.



- initial read-out after pressing reset button.
- Current room temperature is 72°.
- Day of week is Monday (MO).
- Time is 12:00 AM.
- Filter Indicator is on.

#### Clear Filter Indication

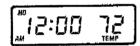
"Filter" indication on the display tells you when you need to clean or change your filter. In order to set your filter usage counter to zero.

Press "Filter Review" And Hold





Hold until the Beep sounds and the counter is reset



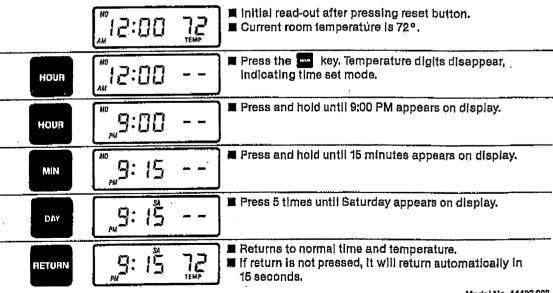
Thermostat display will return to current time and temp but no filter indication.

### Setting the Time and Day of Week

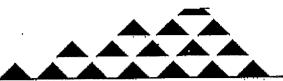
The first data you should enter is the current time and day of the week.

#### **EXAMPLE:**

If the unit is being installed at 9:15 PM, Saturday, to set the thermostat, you would press the keys in the shown sequence:



### Start-Up



### Personal Program Schedule

Your thermostat is pre-programmed so that MO to FR are assigned as Weekday, SAT as Weekend I and SUN as Weekend II. However, you can change the program and assign days of the week into any of the three schedules to meet the needs of your personal schedule.

For example, if you work full-time Monday, Wednesday and Saturday, you might want to group these days when you set your "Weekday" program schedule. If you work part-time, Tuesday and Thursday, these days could be grouped with a "Weekend I" schedule. Then you would set Friday - Sunday, your days off, on a different schedule as "Weekend I!."

Day selection will be discussed in detail under "Programming Days!" (See page 22.)

· · · · · · · · · · · · · · · · · · ·				DAY	SELECTI	on table	
		W	EEKD	AY		WEEKEND I	WEEKEND II
Factory Set	МО	TU	WE	TH	FR .	SA .	su
Personal Setting Example		МО	WE	FR		TU TH	SA SU
Your Setting						•	,

Use this Personal Program Schedule to determine which times and temperatures will best satisfy both your comfort

and energy saving requirements. This will also be a helpful guide as you start programming your thermostat.

#### **PROGRAM SELECTION TABLE**

WEEKDAYS	TIME	WINTER TEMPERATURE	SUMMER TEMPERATURE
PROGRAM 1		·	
PROGRAM 2			
PROGRAM 3			
PROGRAM 4			
WEEKEND I			Attack
PROGRAM 1			
PROGRAM 2			
PROGRAM 3	,		(FIR) W.
PROGRAM 4	•		
WEEKEND II			<u> </u>
PROGRAM 1			
PROGRAM 2	,		
PROGRAM 3			
PROGRAM 4		}	



#### **Before Programming**

- To program for winter, the function switch (OFF-AUTO-A/C-HEAT) must be in the heat position.
- Similarly, to program for summer, the function switch must be in cool position.
- Your thermostat is designed to provide automatic changeover between summer and winter programs.
- Because of built-in safety for auto-change feature (automatically changes heat to cool and cool to heat modes), you cannot program heat temperature setting higher than cool temperature setting for that particular program.

For example, if you program 78°F for summer, the maximum temperature possible to program for heat for that program cannot be greater than 78°F. This will prevent cycling of heating and cooling systems frequently.

If winter and summer program temperatures are the same, the program digits will flash, indicating the limit of temperature setting.

- Your thermostat requires 3 volts to power the thermostat during power fallures to prevent memory loss and avoid reprogramming. Replace batteries as soon as low battery indicator appears on the display.
- Any time you want to start the programming process again, just press reset.

#### Programming

Familiarize yourself with programming. In this example, your thermostat will be programmed for winter as per suggested program on page 7.

To Program For Winter, Slide Function Switch To HEAT

-

PM TEM

Normal display of time, temperature and day of week.

Weekday Programs WEEK DAY

O O G H

■ Program Indicator (1) is displayed.
 ■ 68°F is displayed.

■ 0;00 space for time is displayed.

■ MO-FR is displayed.

HOUR

 ■ Press and hold until 6:00 AM is displayed.■ Weekday Program 1 is complete.

WEEK

HOUR

TU WE THEM SEED TO BE HE

58,

Program indicator (2) is displayed.

■ 0:00 space for time of second program is displayed.

don't make an entry within 15 seconds, the display will automatically return to current time and temperature. If this happens, just press the "Weekday" key to return

to the program number you were entering.

Note: During the pro-

gramming steps, if you

MO TV WE TH FR 2

Press and hold until 8:00 AM is displayed.

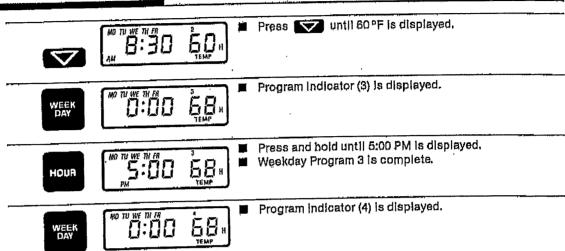
...

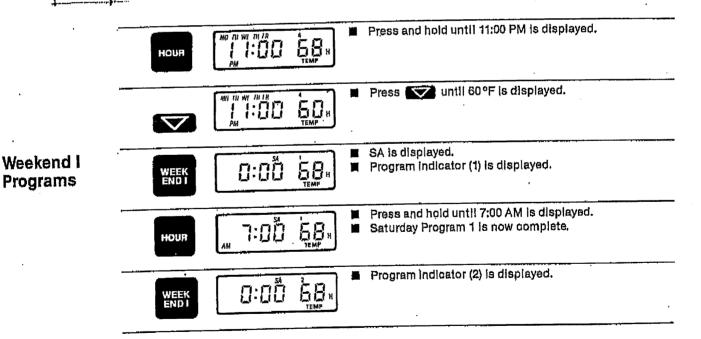
Clock advances in increments of 1 minute.
Press and hold until 30 minutes is displayed.

16-17



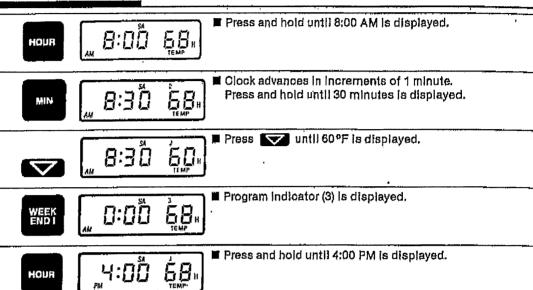
# Programming Your Thermostat (Cont.)





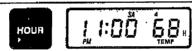


### Programming Your Thermostat (Cont.)

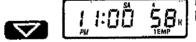


WEEK D: DD

■ Program indicator (4) is displayed.



Press and hold until 11:00 PM is displayed.



■ Press each time to decrease one degree.
■ When you reach 58°F, Program 4 is complete.



0:00 68,

<u>68</u>,

■ Program indicator (1) is displayed.

Continue Weekend II Winter Programs

Just as you did for Weekday and Weekend I, continue programming Weekend II as per table on page 7.



9: 15 72 \*\*\* Press to return to display current time, temperature and day of week. If it is not pressed, thermostat will automatically return to current time and temperature in 15 seconds.

#### Programming Your Thermostat (Cont.)

To program for summer, slide function switch OFF-AUTO-A/C-HEAT to A/C. The programming procedure is the same as you did for winter.

Any change of time will be effective for both summer and winter. If your summer schedule is different, however, just revise the program.

First, display the weekday program by pressing Weekday. change the temperature to the desired summer temperatures.

If program time is left at 0:00, that particular program will not be effective; e.g., if Program #2 has time 0:00, the thermostat will jump from Program #1 to Program #3.

The pre-programmed temperature (68°F for heat and 78°F for cool) are in effect until your next program change. Just use the manual override (see page 26) if you need to adjust the temperature right away.

#### Displaying Programs

To review programs for winter, slide function switch to HEAT. Normal display of time, temperature and day of week. I ist Weekday Winter program is displayed. 58. ■ Program indicator (1) Is displayed. Monday through Friday Indicator is displayed. H appears indicating heat program for Winter. 2nd Weekday program is displayed. Program indicator (2) is displayed, 3rd Weekday program is displayed. 58 Program indicator (3) is displayed. 4th Weekday program is displayed. Program indicator (4) is displayed. Press to return current time, temperature and day of week. If it is not pressed, thermostat will automatically return to display of current time, temperature and day of week in about 15 seconds.

Use same procedure to review weekend programs.

To review programs for summer, slide function switch to A/C.



#### **Programming Days**

Your thermostat is pre-set so that Weekdays are Monday through Friday, Weekend I is Saturday and Weekend II is Sunday. You can program your thermostat to select days of your choice for Weekday, Weekend I and Weekend II.

In the example shown, the thermostat will be programmed such that Weekday programs are effective for MO, WE and FR, Weekend I for TU and TH, and Weekend II for SA and SU:

When you enter the program day mode, each day will flash for 5 seconds in sequence. To select that day, press the "PROG DAY" key while that day is flashing. If you don't want to select that day, let it flash for 5 seconds and advance to the day you wish to select.

It is possible to program days from one appointed day up to all days for either Weekday/Weekend I/Weekend II.

Overlapping of the days is not possible. If overlapped, the latest entry will cancel the previous assigned day.

G: 15 72

Current time, temperature and day of week.

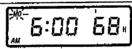
#### To Select Weekdays





■ 1st Weekday program is displayed.





Press for 3-4 seconds to enter into program day mode for Weekday selection.

MO will flash.

NOTE: If you do not perform next step within 5 seconds, TU will flash. After next 5 seconds, WE will flash, and so on.

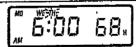
Since MO is our first Weekday to be selected, perform next step immediately when MO is flashing. If you miss the flashing of MO, repeat above steps again to enter program day mode for Weekday.





- Press when MO is flashing. It will select MO for Weekday.
- TU will flash. Since TU is not our choice for weekday, let TU flash for 5 seconds and wait until it advances to next day.





- Press while WE is flashing. It will select WE, second day for Weekday.
- TH will flash. Since TH is not our choice for weekday, let TH flash for 5 seconds and wait until it advances to next day.

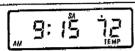


### Programming Days (Cont.)



- Press while FR is flashing. It will select FR for weekday,
- This completes selection of weekdays.





Returns to current time and room temperature.

To check the Weekday pattern you just programmed, press:





- Program 1 of Weekday is displayed.
- MO, WE and FR are displayed.

If you miss the sequence or make an error in selection, repeat the procedure for selecting days.

To Select Weekend I and Weekend II

Procedure for selection of days for Weekend I and Weekend Il is similar to the procedure just performed for Weekdays.







keys instead of



Note: In case you overlap Weekday and Weekend days, the latest entry will cancel the previous assigned day. Or, If any of the days are not selected either for Weekday or Weekends, the effective program for that day will be the last program of the previous day.

### **Operations**



26-27

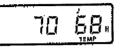
### To Review the Current Temperature Setting

9: 15 5g

■ Current time and room temperature.

Press For 2 Seconds Or Less





- 70°F indicates the current setting of the thermostat.
- 68°F indicates current room temperature,
- If pressed for more than 2 seconds, you will manually override your present temperature to a new setting as explained below.

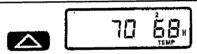
### Manual Override of Program

Sometimes you will want to "override" set programs for a particular occasion, and then return to your normal schedule later, without having to re-enter all your programs. Here are two ways to do this: "temporary" and "permanent."

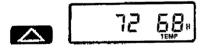
#### Temporary Manual Override

(OVERRIDE UNTIL NEXT PROGRAM)

In the following example, we are raising the temperature from a program setting of 70°F to a temporary setting of 72°F until the time of the next program change. You might use this, for example, on a holiday when you don't want the daytime set-back to take effect.



- Press arrow to display current temperature setting.
- 68°F is the current room temperature.
- 70°F is the present program (#2) setting.



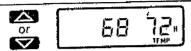
- Continue pressing arrow. After 3 seconds, the set temperature will begin to increase. Release the button at 72°F.
- Program number will disappear, indicating your thermostat program has been overriden.
- Press return or after 15 seconds it will return to current time and temperature.
- To display temporary manual override setting you just entered, press either arrow for less than 2 seconds.

28-29

### Permanent Manual Override

(OVERRIDE UNTIL MANUALLY RETURNED TO PROGRAM)

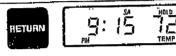
In the event that you want to set one temperature for an extended period, such as vacation, use the permanent manual override.



- Set the function switch to either "A/C" or "HEAT", depending on the season.
- Press either arrow and hold for 3 seconds or more to achieve desired temperature setting.
- Program number disappears.



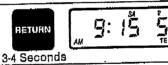
- Press HOLD TEMP to maintain override setting Indefinitely, HOLD will appear on LCD.
- Program number will disappear.



- Press to return to display time, temperature, day of week. If it is not pressed, thermostat will automatically return to display of time, temperature and day of week in about 10 seconds.
- Note: If you perform manual override in the auto mode, and if the last run system was heat, the manual override temperature just entered will be effective for heat only. Similarly, if the last run system was A/C, the override temperature will be effective only for air conditioning.
- To display permanent manual override setting you just entered, press either arrow for less than 2 seconds.

# To Return To Program From Manual Override

Press and Hold

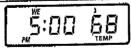


■ Press RETURN for 3 seconds. Program number will appear. HOLD will disappear if you were in permanent manual override.

# Using the Energy Monitor Usage Review

The Energy Monitor Feature measures and stores the amount of time the heating and air conditioning system operates. Usage can be displayed for the present day (as of 12:01 AM), the previous day (12:01 AM through midnight), for the entire week (as of Monday) and last week (Monday

through Sunday). By monitoring your energy usage, you see how much the set-back periods are saving for you and you can test program adjustments which could save you even more. Use the table on page 33.



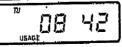
■ Normal display of time and temperature.

**Press For 2** Seconds Or Less



Press USAGE REVIEW to display the amount of time the system has run today (Wednesday, since 12:01 AM), For example, 3 hours and 21 minutes.





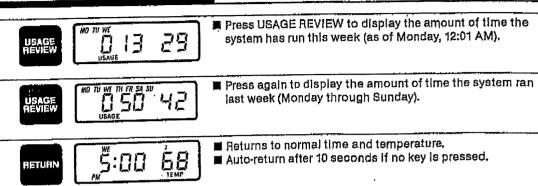
■ Press again to display the amount of time the system ran yesterday (Tuesday, 12:01 AM through midnight).

### **Operations**



30-31

# Using the Energy Monitor Usage Review (Cont.)

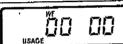


To reset the Energy Monitor's usage counter back to zero,

#### Press and Hold



3.4 seconds



- Resets all usage digits to zero.
- When released, returns to current time and temperature.

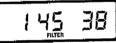
### Using the Filter Review Feature

Your thermostat also keeps a record of the number of hours your filter has been in use. To maximize energy efficiency, change or clean your filter regularly.

To help you remember, at 350 hours, the word "FILTER" will appear on the display, reminding you to change the filter

Press For 2 Seconds Or Less





and reset the counter back to zero. The "FILTER" will continue to display if the counter is not set back to zero.

Filter review will display up to 999 hours and 59 minutes of usage. Counter will start from zero after 999 hours and 59 minutes of usage.

FILTER SA

- Indicates the usage of filter or total usage in hours and minutes. For example, 145 hours and 38 minutes. (if held for more than 2 seconds, the counter will reset to zero.)
- Back to normal display of time and temperature.

  Auto-return after 15 seconds if no key is pressed.

To reset the Energy Monitor's filter counter back to zero,

Press and . Hold





Indicates the usage of filter or total usage in hours.

3-4 seconds



- A beep will sound after 3 seconds. The counter will reset to zero.
- When released, returns to current time and temperature,

### **Operations**



### **Using Automatic Control Mode**

If you are using the Thermostat in auto mode (OFF-AUTO-A/C-HEAT switch in auto position), your heating and cooling systems will automatically change over between the heat and cooling systems, depending upon your program.

It is recommended to keep summer and corresponding winter program temperatures at least 4° apart to assure the systems do not overlap. However, there is a built-in program to prevent unnecessary switching of heating and cooling systems.

#### **Temperature Span**

Your thermostat is preprogrammed at the factory to cycle when the temperature Yises 2° above or 1° below the temperature setting.

For example, if your air-conditioner is programmed to maintain a 75° setting, the unit will cycle on when the room

temperature reaches 77° (2° above the set point of 75°) and stay on until the temperature reads 74° (1° below set point of 75°).

Conversely, to maintain a 75° setting in winter, the furnace would come on at 74° and go off at 77°

### **Energy Usage Chart**

The Hunter Thermostat measures, stores and displays the amount of time your heating or air conditioning system has operated the present day, previous day, this week and last week.

This Energy Usage Chart will help you discover your most efficient energy saving comfort zone by recording your energy usage on a daily or weekly basis.

Simply enter the hours displayed when you press the crange Energy Monitor Review key.

Date Begin: Month		<u></u>	Day			Year		
Date 2 sg	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTAL
WEEK 1				·				<u></u>
WEEK 2							<del> </del>	<del> </del>
WEEK 3								
WEEK 4				<u> </u>			-	
WEEK 5					.,,			1
WEEK 6								<del> </del>
WEEK 7					<del></del>			
WEEK 8							<u> </u>	<del></del>
WEEK 9							<u>.</u>	<u> </u>
WEEK 10					<u> </u>			
WEEK 11								
WEEK 12	····							

# **Trouble Shooting**

Problem	Solution					
	Check wiring, connections and battery, check competibility.					
No Display Healing or Cooling Does Not Go On or Off Immediately	There may be as much as 8 seconds delay in the computer turning the system on. Walt and check.					
Indicates Incorrect or No Program Number	Walt until next program time, it will be automatically corrected. You may set the desired temperature now by using manual override.					
Display is Erratic or No Display	Press reset button once with a small pin. Reset button hole is located between FAN-AUTO and OFF-AUTO-A/C-HEAT switches.					
Temperature Display Incorrect	Adjust temperature calibration potentiameter marked "Temp" on Printed Circuit Board.					
Heating and Cooling Will Not Come On	Check that the slide switch is in the proper position.  Check that the power to the Heating-Cooling system is on.  For a new installation, check to be sure the wires are properly connected.  To check the thermostat operation during winter, manually set the temperature to 5 degrees greater than the room temperature, set the slide switch to "Heat!" Within 10 seconds, the heating system will be turned on.  During summer, set the temperature to 5 degrees lower than the room temperature and set the slide switch to "Cool."					
,	Also remember there is a four minute delay built into the cool mode to prevent compressor damage due to frequent cycling.					
Keyboard Does Not Operate	Check whether keyboard lock switch is at lock position. To operate, use key provided with your thermostat or slide switch to unlock position. (See page t					

### Specifications -

Op. watter and an arrangement of				
T. J. J. Dungerom S	8 Weekdays (4 Summer, 4 Winter)	Compressor Safety	4 Minute Compressor Delay	
Total Programs	8 Weekend I (4 Summer, 4 Winter) 8 Weekend II (4 Summer, 4 Winter)	Program Time Increment	1 Minute	
Temperature Span	2 Degrees Above Set Point	Program Temp, Increment	1°F	
	1 Degree Below Set Point	Battery	2 x 1.5V	
Room Temp. Range	32°F · 99°F	Battery Life	Approximatelý 1 Year	
Program Temp. Range	40°F.90°F	Key Board Lock	Operates With Key	
Manual Override	Temporary Permanent	Auto Change	Automatically Changes Heat to Cool or Cool to Heat Modes	
Usage Review	Today, Yesterday, This Week and Last Week	Programmable Days	Select Days to 3 Different Schedules	
Filter Reminder	"FILTER" At 350 Hours	Operating Volts	20 - 30 VAC .	
Lo-Bat Indicator	"LO-BAT"	Max. Current	1.5 A	
System On Indicator	"COOL" (C) and "HEAT" (H)	Min. Current	0.2 A	

#### **Specifications**

**Total Programs** 

8 Weekdays (4 Summer, 4 Winter)

8 Weekend I (4 Summer, 4 Winter)

8 Weekend II (4 Summer, 4 Winter)

Temperature Span

2 Degrees Above Set Point

1 Degree Below Set Point

Room Temp. Range

32°F - 99°F

Program Temp. Range

40°F - 90°F

Manuai Override

Temporary Permanent

Today, Yesterday,

This Week and Last Week

Filter Reminder

**Usage Review** 

"FILTER" At 350 Hours

Lo-Bat Indicator

"LO-BAT"

System On Indicator

"COOL" (C) and "HEAT" (H)

Compressor Safety

4 Minute Compressor Delay

Program Time Increment

19F Program Temp, Increment

Battery

2 x 1.5V

**Battery Life** 

Approximately 1 Year

Key Board Lock

Operates With Key

Auto Change

Automatically Changes Heat to Cool

Select Days to 3 Different Schedules

or Cool to Heat Modes

Programmable Days

**Operating Volts** 

Max. Current

Min. Current

20 - 30 VAC

1 Minute

1.5 A

0.2 A

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