





Follow the <u>Installation Instructions</u> before proceeding. Set the thermostat mode to "OFF" prior to changing settings in setup or restoring Factory Defaults.

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.



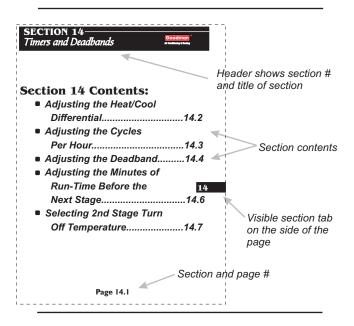


How to Use This Manual



The Table of Contents divides the thermostat features into sections making it easier to quickly find information.

The first page of each section contains a more detailed Table of Contents for each section, such as the example page shown below.



In addition, this manual also has an Index to help you find any information regarding this thermostat quickly.

Page ii

Glossary of Terms



Auto-Changeover: A mode in which the thermostat will turn on the heating or cooling based on room temperature demand. Cool Setpoint: The warmest temperature that the space should rise to before cooling is turned on (without regards to deadband).

Deadband: The number of degrees the thermostat will wait, once setpoint has been reached, before energizing heating or cooling. **Differential:** The forced temperature difference between the heat setpoint and the cool setpoint.

Heat Setpoint: The coolest temperature that the space should drop to before heating is turned on (without regards to deadband).

Icon: The word or symbol that appears on the thermostat display.

Mode: The current operating condition of the thermostat (i.e. Off, Heat, Cool, *Auto*, Program On).

Non-Programmable Thermostat: A thermostat that does not have the capability of running the *Time Period Programming*. Programmable Thermostat: A thermostat that has the capability of running the *Time Period Programming*.

Temperature Swing: Same as Deadband.

Time Period Programming: A program that allows the thermostat to automatically adjust the *heat setpoint* and/or the *cool setpoint* based on the time of day.

Table of Contents

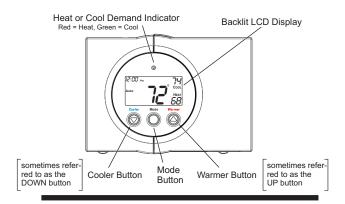


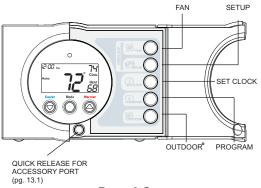
Getting to Know Your Thermostat	1
Quick Start	2
Setting Clock	3
Basic Operation	4
Viewing the Outdoor Temperature	5
Programming the Daily Schedule	6
Programming the Fan Operation	7
Thermostat Display Options	8
Programming Run- Time Alerts	9
Electric Heat and Heat Pump Operation	10
Timers and Deadbands	11
Factory Defaults and Calibration	12
Accessories	13
Advanced Setup Table	14

SECTION 1— Getting to Know Your Thermostat Goodman According t Harris 1

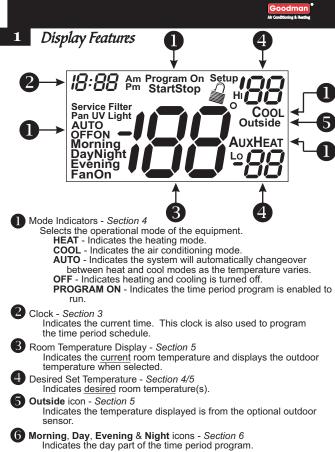
Section 1 Contents:	
Front Panel Buttons	1.2
Display Features	1.3

Front Panel

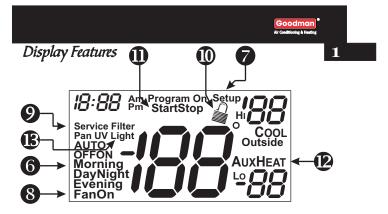




Page 1.2



Page 1.3



- Setup icon Sections 6-11 Indicates the thermostat is in the setup mode.
- 8 Fan On icon Section 7 Indicates constant, continuous fan operation.

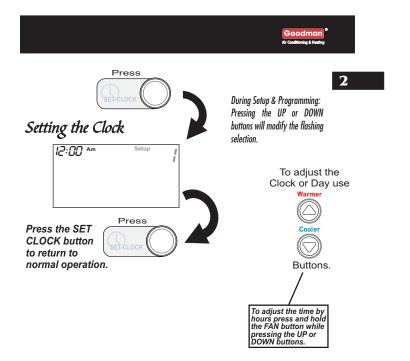
 When Fan On is not lit - indicates the fan will only operate when necessary to heat or to cool.
- Service Filter icon Section 9 Appears when the filter should be serviced under normal conditions. Adjustable from 0 1950 hours of blower operation.
- icon Section 8 Indicates the keypad has been locked.
- StartStop icon Section 6 Appears when programming timer functions.
- AuxHeat icon Page 11.4 Indicates the Heat Pump is currently using 2nd stage electric strip heat.
- UV Light icon Section 9
 Appears when the UV bulb should be serviced under normal conditions. Adjustable from 0 1990 days of operation.

 Page 1.4

2

Section 2 Contents:	
Setting the Clock	2.2
Selecting the Heat or CMode	
Selecting Your DesiredTemperature	2.4
 Using the Fan Button 	

Note: Following the instructions in this section will allow you to operate your thermostat using the factory default settings. These settings are depicted in the illustrations throughout this manual.

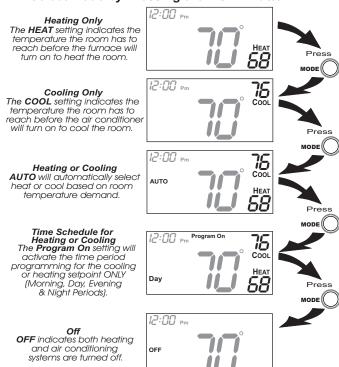


Page 2.2

Selecting the Heat or Cool Mode

2

Select Mode by Pressing the MODE Button



Page 2.3



Selecting Your Desired Temperature (adjusting the setpoints)

AUTO OR PROGRAM MODE

Pressing the UP or DOWN buttons in Auto **or** <u>Program</u> mode will adjust <u>both</u> the heat and cool set temperatures simultaneously.

Adjust the desired



Adjust the desired set temperature with the Warmer



HEAT OR COOL MODE

Pressing the UP or DOWN buttons in Heat \underline{or} Cool mode will adjust only the heat \underline{or} cool set temperature.



Adjust the desired set temperature with the



Using the Fan Button



A FAN

Fan On indicates constant fan operation. You may turn the fan on even if the thermostat is in the Off mode. Pressing the FAN button toggles this feature on or off.

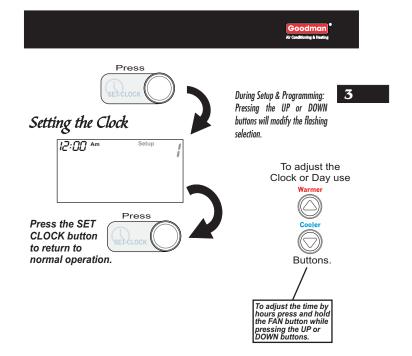
Page 2.4



3

Section	3	Contents:	
Settir	าต	the Clock3	.2

Note: During setup & programming pressing the UP or DOWN buttons will modify the flashing selection.



Page 3.2

SECTION 4— Basic Operation



4

Section 4 Contents:

Programmable or Non-	
Programmable Thermostat	.4.2
Manual or Auto-Changeover	
Thermostat	. 4 .3
Selecting the Operating Mode	.4.4
Selecting Your Desired	
Temperature	.4.8

Note: During setup & programming pressing the UP or DOWN buttons will modify the flashing selection.

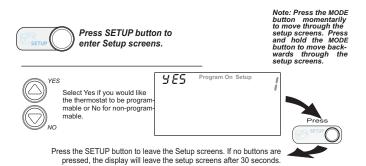
Programmable or Non-Programmable Thermostat

When the <u>very simplest</u> operation is desired, this thermostat may be configured to be non-programmable, with or without Auto-Changeover. Follow the step below.



If 'NO' is selected, the thermostat will lockout the Program On screen; only the Off, Heat, Cool, and Auto screens may be accessed by pressing the MODE button.

Select 'YES' if you would like your thermostat to be **programmable**, then the Program mode will be accessible through the use of the MODE button.



Page 4.2

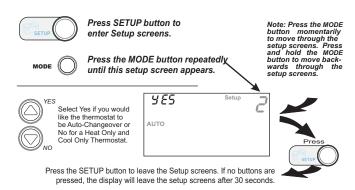
Goodman
Air Conditioning & Heating

Manual or Auto-Changeover Thermostat

4

When the <u>very simplest</u> operation is desired, this thermostat may be configured to be a manual heat and cool thermostat, with or without time period programmability. Follow the step below.

The thermostat may be programmed to function as a Heat Only or Cool Only thermostat by selecting 'NO' in the setup screen below. This will lockout the Auto-Changeover screen and only allow the Off, Heat, Cool, and Program On screens to be accessed.



Page 4.3



NON-PROGRAMMABLE WITH MANUAL CHANGEOVER - If the thermostat is configured to be a non-programmable thermostat with Manual Changeover, the following screens will be available by pressing the MODE button.

4

Select the Mode by Pressing the MODE Button

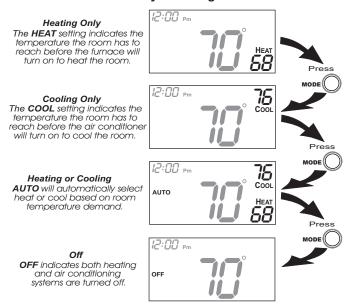
Heating Only The HEAT setting indicates the temperature the room has to reach before the furnace will turn on to heat the room. Cooling Only The COOL setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room. Off OFF indicates both heating and air conditioning systems are turned off.

Page 4.4



NON-PROGRAMMABLE WITH AUTO-CHANGEOVER - If the thermostat is configured to be a non-programmable thermostat with Auto-Changeover, the following screens will be available by pressing the MODE button

Select the Mode by Pressing the MODE Button



Page 4.5



PROGRAMMABLE WITH MANUAL CHANGEOVER - If the thermostat is configured to be a programmable thermostat with Manual Changeover, the following screens will be available by pressing the MODE button.

Select the Mode by Pressing the MODE Button

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

Cooling Only
The COOL setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.

Time Schedule for Heating Only
The HEAT Program On setting will activate the time period program for the heating setpoint ONLY (Morning, Day, Evening & Nicht Periods) Evening & Night Periods).

Time Schedule for Cooling Only
The COOL Program On setting will activate the time period program for the cooling setpoint ONLY (Morning, Day, Evening & Night Periods).

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



Page 4.6

PROGRAMMABLE WITH Auto-Changeover - If the thermostat is configured to be a programmable thermostat with Auto-Changeover, the following screens will be available by pressing the MODE button.

Select the Mode by Pressing the MODE Button

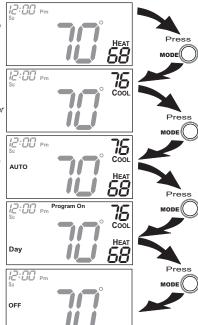
Heating Only
The HEAT setting Indicates the temperature the room has to reach before the furnace will turn on to heat the room.

Cooling Only
The COOL setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.

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

Time Schedule for Heating or Cooling
The Program On setting will activate the time period programming for the cooling or heating setpoint ONLY (Morning, Day, Evening & Night Periods).

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



Page 4.7



Selecting Your Desired Temperature (adjusting setpoints)

AUTO OR PROGRAM MODEPressing the UP or DOWN buttons in Auto **or** Program modes will adjust **both** the heat and cool set temperatures simultaneously. For more information on this see page 11.2.





Adjust the desired set temperature with the



HEAT OR COOL MODE

Pressing the UP or DOWN buttons in Heat $\underline{\mathbf{or}}$ Cool modes will adjust only the heat **or** cool set temperature.



Adjust the desired set temperature with the



Page 4.8

SECTION 5— Viewing the Outdoor Temperature Goodman According 1 lines

5

Section 5 Contents:

■ Viewing the Outdoor

Temperature......5.2

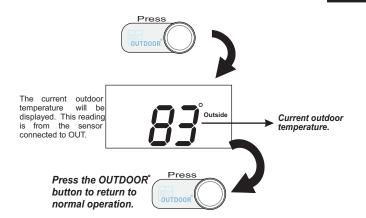


Viewing the Outdoor Temperature

This requires an outdoor sensor (optional accessory) to be installed (see page 4.6 of the Installation Instructions). To read the temperature from the Outdoor Sensor, press the OUTDOOR button.

The display will then show the current outdoor temperature

The display will then show the current outdoor temperature.



Note: If no sensors are connected 2 dashes [- -] will appear on the display.

Page 5.2

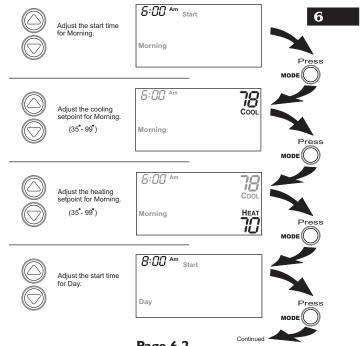
SECTION 6— Programming the Daily Schedule **Goodman** **Continuity**



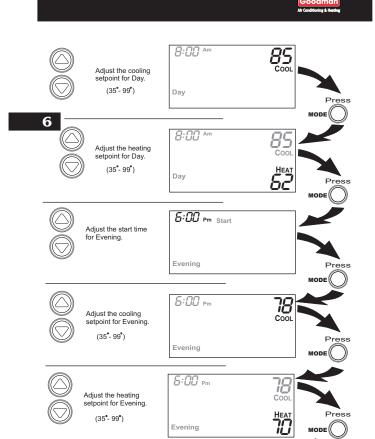
Programming a Daily Schedule



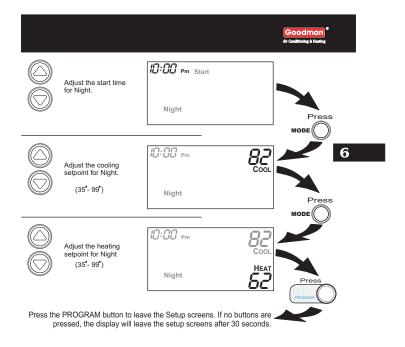
Press the PROGRAM button to enter time period programming.



Page 6.2



Page 6.3



Page 6.4

SECTION 7— Programming the Fan Operation Goodman According their

Section 7 Contents:		
7	■ Using the Fan Button7.2	
	Setting the Fan-Off Time	
	■ Delav7.3	



Using the Fan Button

When the fan is set for automatic operation it will energize any time there is a call for heating or cooling, otherwise the fan will remain off. Pressing the FAN button will energize the fan and display the **FanOn** icon on the thermostat display. To operate the fan in the automatic mode, press the FAN button again and the FanOn icon will disappear.





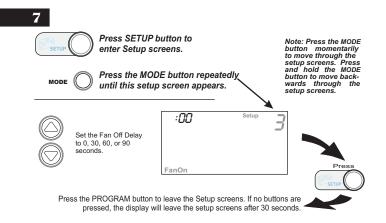
7

Fan On indicates constant fan operation. You may turn the fan on even if the thermostat is in the Off mode. Pressing the FAN button toggles this feature on or off.



Setting the Fan-Off Time Delay

To increase the cooling efficiency of your unit, the thermostat may be programmed to continue running the fan after a call for cooling has been satisfied. This delay may be set for 30, 60, or 90 seconds. If the Fan Off Delay is set for zero seconds, the fan will not energize after a call for cooling has been satisfied.



Page 7.3

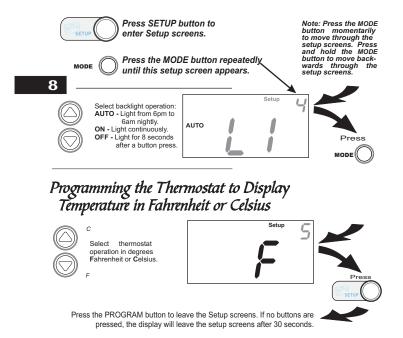
SECTION 8— Thermostat Display Options Goodman **Conditional A Harder **Con

Section 8 Contents:

Turning On/Off the	
Backlight	.8.2
Programming the Thermostat	8
to Display Temperature in	
Fahrenheit or Celsius	8.2
Locking/Unlocking the	
Keypad	.8.3



Turning On/Off the Backlight

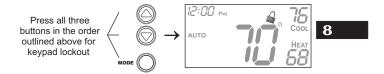


Page 8.2



Locking/Unlocking the Keypad

To prevent unauthorized use of the thermostat, the front panel buttons may be disabled. To disable, or 'lock' the keypad, press and hold the MODE button. While holding the MODE button, press the UP and DOWN buttons together. The picon will appear on the display, then release the buttons.



To *unlock* the keypad, press and hold the MODE button. While holding the MODE button, press the UP and DOWN buttons together. The $\widehat{\omega}$ icon will disappear from the display, then release the buttons.

SECTION 9 Programming Run-Time Alerts Goodman At continuing 1 linds

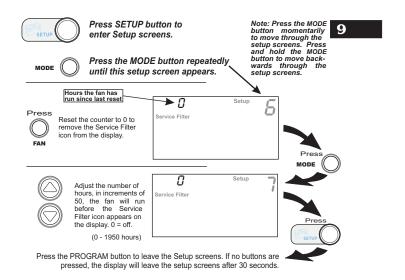
Section 9 Contents:

	Setting and Resetting the	
	Service Filter (Fan Run-Time	•)
9	Alert	.9.2
	Setting and Resetting the UV	,
	Light Run-Time Alert	9.3

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How to Set and Reset the Service Filter (Fan Run-Time) Alert

This counter keeps track of the number of hours of fan run-time whether the fan is energized in the Heating or Cooling modes, or in stand alone fan operation. The Service Filter icon will appear after the preset number of hours of fan run-time in step #7 (below) has been achieved. Setting this counter to zero in step #7 will prevent the Service Filter icon from ever appearing.

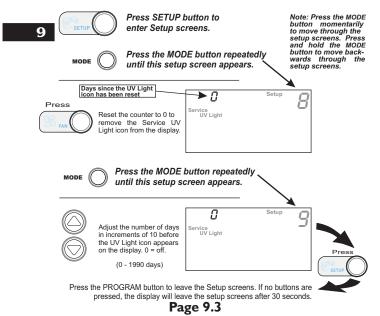


Page 9.2



How to Set and Reset the UV Light Run-Time Alert

This counter keeps track of the number of days since the UV Light counter has been reset. The UV Light icon will appear after the number of days has been achieved, as shown in step #9 (below). Setting the counter to zero in Step #9 will prevent the Service UV Light icon from ever appearing.



SECTION 10 Electric Heat and Heat Pump Operation



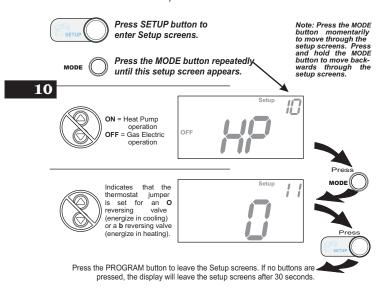
Section 10 Contents:

Viewing the Heat Pump and	
Reversing Valve Jumper	10
Setting	10.2
Viewing the Electric Heat	
Jumper Setting	10.3
Using Emergency Heat	10.4



Viewing the Heat Pump and Reversing Valve Jumper Settings

Steps 10 and 11 are 'Read Only' and may only be set with the jumpers on the circuit board of the thermostat (see page 4.4 of the Installation Instructions).



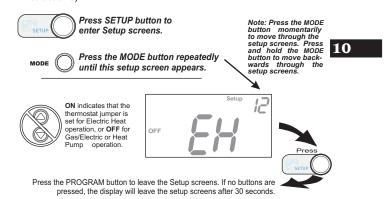
Page 10.2



Viewing the Electric Heat Jumper Setting

Placing the jumper on ELEC will cause the thermostat to turn on the fan immediately any time there is a heat demand. Since most gas furnaces control the fan, this feature should be off unless it is necessary for the thermostat to energize the fan with first stage heat.

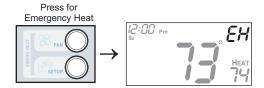
Step 12 is 'Read Only' and may only be set with the jumpers on the circuit board of the thermostat (see page 4.3 of the Installation Instructions).



Page 10.3

Using Emergency Heat

ENTER EMERGENCY HEAT: Only available if you have a Heat Pump installed. To initiate the Emergency Heat feature, press the FAN button. While holding the FAN button press the SETUP button. The Cool setpoint display will read 'EH' (emergency heat).



10

OPERATION: During Emergency Heat operation the thermostat will turn on the fan and the 2nd stage of heat when there is a demand for heat. Also during Emergency Heat the 1st stage of heating or cooling will be unavailable.

EXIT EMERGENCY HEAT: Follow the same steps as entering Emergency Heat by pressing the FAN and SETUP buttons. During Emergency Heat, only OFF and HEAT modes are available by pressing the MODE button.

SECTION 11— Timers and Deadbands Goodman No Conditioning & Hinting

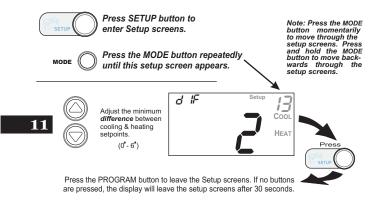
Section 11 Contents:

 Adjusting the Heat/Cool 	
Differential	11.2
Adjusting the Cycles	
Per Hour	11.3
Adjusting the Deadband	11.4
	11



Adjusting the Heat/Cool Differential

The Heat and Cool setpoints will not be allowed to come any closer to each other than the value in this step. This minimum difference is enforced during Auto-Changeover operation.



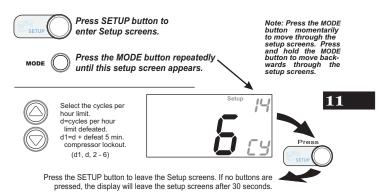
Note: To increase the spread between the heating and cooling setpoints, press the MODE button until only the heat setpoint is displayed. Adjust the desired setpoint. Wait two seconds after adjusting the set point so the thermostat can accept the change. Press the MODE button until only the cool setpoint is displayed. Adjust the desired setpoint. Wait two seconds after adjusting the set point so the thermostat can accept the change. Press the MODE button again to enter the Auto-Changeover mode where both the heat and cool setpoints are displayed.

Page 11.2



Adjusting the Cycles Per Hour

The Cycles Per Hour setting may limit the number of times per hour your HVAC unit may energize. For example, at a setting of 6 cycles per hour the HVAC unit will only be allowed to energize once every 10 minutes. The Cycles Per Hour limit may be overridden and reset by pressing the UP or DOWN buttons on the thermostat.



Page 11.3



Adjusting the Deadband

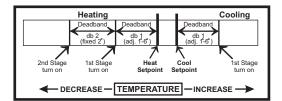
MULTI-STAGE OPERATION - Controls up to two Heat and one Cool stages.

- The **2nd Stage** of heat is turned on when:

 (A) The 1st Stage has been on for a minimum of two minutes.

 And

 (B) The first fi
- - (B) The temperature spread from the setpoint is equal to or greater than: the setpoint plus the 1st stage deadband (step #15, next page), plus two degrees.

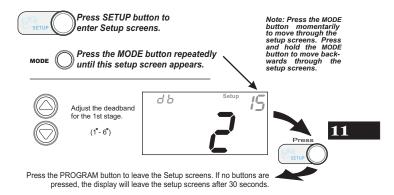


11



Adjusting the Deadband

For more detailed information, please see the explanation on the previous page.



Page 11.5

SECTION 12 — Goodman Goodman Calibration Goodman Continue Limits

Section 12 Contents:

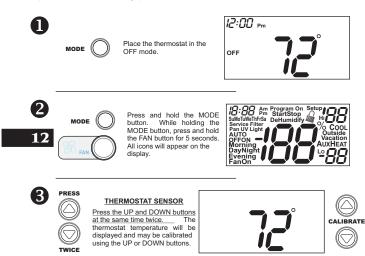
Resetting the Thermostat to	the
Factory Default Settings	12.2
Calibrating the Temperature	
Concor	422

12



Calibrating the Temperature and Humidity Sensors

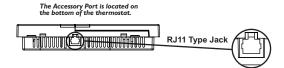
Under normal circumstances it will not be necessary to adjust the calibration of the temperature and humidity sensors. If calibration is required, please contact a trained HVAC technician to correctly perform the following procedure.



After calibration is complete, press the MODE button ${\bf once}$ to return to normal operation.



ACCESSORY PORT - The RJ11 Jack is used to connect the TSTATG2111 to the IR Receiver (TSTATGAC0431) for wireless communication or the EZ Programmer (TSTATGAC0432) for easy downloading or uploading of thermostat information.



IR RECEIVER / REMOTE CONTROL (optional accessory) - When the IR Receiver is connected, the thermostat can be controlled using an IR Remote Control. The thermostat may also interface with other wireless systems in your home. For more information see the manual for the IR Receiver (TSTATGAC0431).

EZ PROGRAMMER (optional accessory) - When the EZ Programme is connected, the thermostat Time Period Programming and Advanced Setup Programming can be stored into the EZ Programmer's memory. This information can then be uploaded to other TSTATG2111 thermostats. For more information see the manual for the (TSTATGAC0432).

COMFORT CALL (optional accessory) - When Comfort call is connected, the thermostat's Heating and cooling functionality may be accessed and controlled through the phone. For more information see the manual for Comfort Call (TSTATGAC0433).

SECTION 14 Advanced Setup Table Goodman N Conditional & Number of Number											
Ste	ер#	Description	Pg#	Range	Df*	Ste	p# Description	Pg#	Range	Df *	
1		grammable rmostat	4.2	Yes/No	Yes	8	Reset UV Light Icon UV Light Run-Time	9.3 9.3	read only 0 - 1990	0	
2		o-Changeover ermostat	4.3	Yes/No	Yes	10	Set Heatpump Jumper	10.2	read only		
3	Fan	Off Delay	7.3	0, 30, 60, 90	0	11	Setting Reversing Valve	10.2	read only		
4		rmoglow ckliaht	8.2	Auto/On/ Off	Auto	12	Jumper Setting Electric Heat	10.3	read only		
5	For	·C	8.2	F/C	F	13	Minimum Heat/Cool		0-6	2°	
6	Ico		9.2	read only		14		11.3			
7		vice Filter Run ne Set	9.2	0 - 1950	0	15	Deadband/Temp. Swing	11.5	1°-6°	2°	

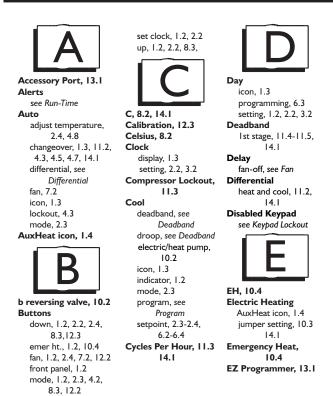
14

*Df = Factory Default Setting

Page 14.1

Goodman SECTION 15

outdoor, 1.2, 5.2 program, 1.2, 4.2, 6.2



Index

Page 15.1

Goodman SECTION 15



F, 8.2, 14.1 Factory Defaults

caution, ii resetting, 12.2 settings, 12.2

Fahrenheit, 8.2

Fan

button function, see
Buttons
off time delay, 7.3,
14.1
on during heat, see

Electric Heat on icon, 1.4, 2.4, 7.2 run-time, 9.2

run-time, 9.2 2nd stage heat, see Emergency Heat

Fd, 12.2 Flashing Selection,



Gas Furnace control the fan, 10.3

jumper, 10.2

Green Indicator, 1.2



Index

Heat

Ist stage
deadband, see
Deadband
emergency heat,
10.4
2nd stage

emergency heat,

electric strip heat,

AuxHeat icon, 1.4 deadband, see Deadband droop, see Deadban

droop, see *Deadband* electric/heat pump, 10.2

icon, 1.3-1.4 indicator, 1.2 mode, 2.3 program, see

Program setpoint, 2.3-2.4, 6.2-6.4

Heat Pump AuxHeat, 1.4

emergency heat, 10.4 jumper setting, 10.2



IR Receiver, 13.1



Jumpers

electric heat, 10.3 gas electric, 10.2 heat pump, 10.2, 14.1

reversing valve, 10.2,



Keypad Lockout, 1.4, 8.3



LCD, 1.2 Locked Indication see Keypad Lockout

Page 15.2

Goodman SECTION 15

Index



changeover, 4.3-4.4, cool, 4.3

heat, 4.3 Multi-stage Operation, 11.4



Non-Programmable Thermostat, 4.2,

4.4-4.5



O Reversing Valve, 10.2

Off Mode, 1.3, 2.3 Outdoor

button, see Buttons icon, 1.3 sensor, 1.3, 5.2, viewing temperature, 1.3, 5.2



Program

daily schedule, 6.2-6.4 mode, I.4, 4.6-4.7

On icon, 2.3 Programmable Thermostat,



Red Indicator, 1.2 Reset

thermostat settings, see Factory Defaults run-time fan/filter, 9.2, 14.1 UV light, 9.3, 14.1 **OUT,** see Outdoor

Sensor Run-Time

 $resetting,\,see\,\textit{Reset}$ setting, service filter, 9.2 14.1



Schedule

daily, see Program

Sensor

outdoor, see Outdoor thermostat, see Thermostat Sensor

Service

filter icon, see Reset UV light, see Reset Set Clock, see Clock Setpoint cool, see Cool

heat, see Heat Setup Icon, 1.4

Simplest Operation, 4.2-4.3



Thermostat Sensor calibrate, 12.3 Time, see Clock

Time Delay, compressor lockout, 11.3

Page 15.3

Goodman SECTION 15—

Index

cycles per hour,
11.3, 14.1
Time Schedule,
see Program

UV Light
icon, 1.4
resetting, see Reset
run-time, see RunTime
setting, see Run-Time



Warranty, 16.1



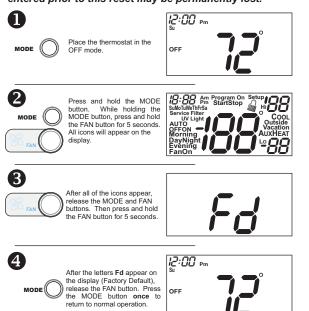


12

Resetting the Thermostat to the Factory Default Settings (for default values see page 14.1)

If, for any reason, you desire to return all the stored settings back to the factory default settings, follow the instructions below.

WARNING: This will reset all Time Period and Advanced Programming to the default settings. Any information entered prior to this reset may be permanently lost.



Page 16.2