



D4271C
COMMERCIAL

Digital Thermostat

**Optional accessories
available, including Wi-Fi**



**Owner's
Manual
and
Installation
Instructions**



CAUTION

Follow the Installation Instructions before proceeding. Set the thermostat mode to “OFF” prior to changing settings in setup or restoring Factory Defaults.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for an intentional radiator, pursuant to Part 15, subpart C of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference in radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that of the receiver.
- Consult the dealer or an experienced radio or TV technician for help.

Notice: Only peripherals complying with FCC limits may be attached to this equipment. Operation with noncompliant peripherals or peripherals not recommended by Daikin, is likely to result in interference to radio and TV reception. Changes or modifications to the product, not expressly approved by Daikin could void the user's authority to operate the equipment.

FCC - INDOOR Mobile Radio Information:

To comply with FCC/IC RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This Device complies with Industry Canada License-exempt RSS standard(s). Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Cet appareil est conforme avec Industrie Canada, exempts de licence standard RSS(s). Son fonctionnement est soumis aux deux conditions suivantes: 1) ce dispositif ne doit pas causer d'interférences, et 2) ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

En vertu des règlements d'Industrie Canada, cet émetteur de radio ne peut fonctionner en utilisant une antenne d'un type et maximale (ou moins) Gain approuvé pour l'émetteur par Industrie Canada. Pour réduire les interférences radio potentielles aux autres utilisateurs, le type d'antenne et son gain doivent être choisis afin que la puissance isotrope rayonnée équivalente (PIRE) ne est pas plus de ce qui est nécessaire pour une communication réussie.

We, Daikin, declare under our sole responsibility that the device to which this declaration relates: 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.

FCC ID: MUH-SKYPOR4

IC: 12547A-SKYPOR4

This Explorer thermostat has the ability to receive updates to its firmware. Periodically firmware updates are released by the manufacturer to add features and/or performance enhancements. This manual was produced reflecting the most current firmware/feature set at the time of publication, firmware rev. 1.0. Firmware releases after rev. 1.0 may not be adequately depicted in this manual. Please refer to the appropriate website or contact your place of purchase to learn about changes to the thermostat after firmware release 1.0.



Industry
Canada

Industrie
Canada

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 regard to deadband).

Deadband: The number of degrees the thermostat will wait, once a 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 regard 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).

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

Override: During programmed unoccupied periods, pressing the Override button will force the thermostat into occupied settings. During programmed occupied periods, pressing the Override button will force the thermostat into unoccupied settings.

Programmable Thermostat: A thermostat that has the capability of running *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 the day.

Table of Contents

GET TO KNOW YOUR THERMOSTAT

Get to Know Your Thermostat.....	1
Quick Start	6

INSTALLATION INSTRUCTIONS

Installation Instructions	9
Sample Wiring Diagrams	13
Test Operation.....	16

USER SETUP

Backlight Operation.....	17
Scrolling Display Options	18
Holiday	19
Emergency Heat	19
Wireless Module	20
Service Filter	22
Runtimes	23
Time Period Programming	24

INSTALLER SETUP

Setpoint Limits.....	26
Timers and Deadbands	27
Programming Fan Operation.....	28
Minutes of Fan Purge	28
Dry Contact Operation.....	29
Skyport.....	29
Local API	29
ADR	30
Locking/Unlocking the Keypad.....	36
Factory Defaults.....	37

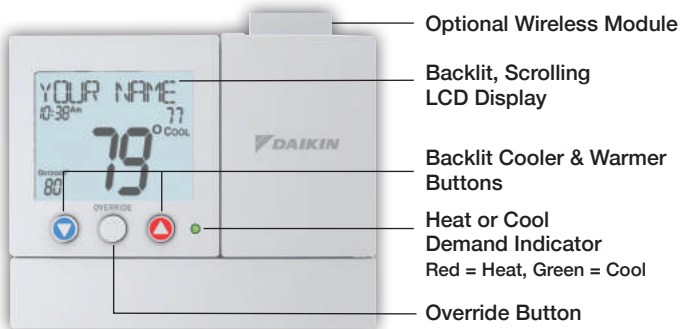
TECHNICIAN SETUP

Equipment Testing	38
Advanced Setup Table.....	39
Troubleshooting	41

INDEX	42
-------------	----

WARRANTY	46
----------------	----

Get To Know Your Thermostat



Setup Buttons Behind Door

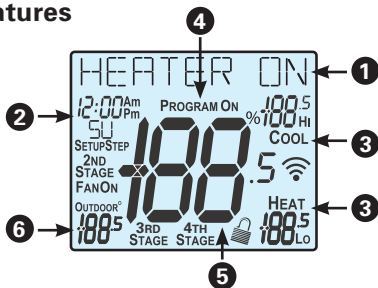
Get To Know Your Thermostat



Setup Buttons

Get To Know Your Thermostat

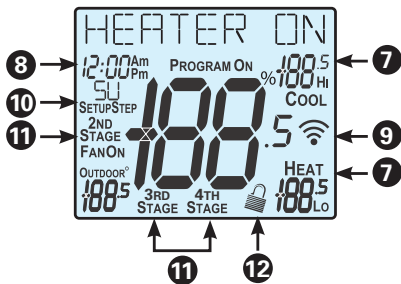
Display Features



- 1 The scrolling display will be used to help you easily navigate the setup screens in the thermostat.
- 2 Clock with Day of the Week
Indicates the current time and day. This clock is also used to program the time period schedules.
- 3 Mode Indicators
Selects the operational mode of the equipment.
HEAT - Indicates the heating mode.
COOL - Indicates the air conditioning mode.
HEAT & COOL - Indicates the system will automatically change-over between heat and cool modes as the temperature varies.
OFF - Indicates heating and cooling is turned off.
- 4 Program icon
Indicates that Time Period Programming is running or is enabled to be set.
- 5 Room Temperature Display
Indicates the current room temperature and displays the outdoor temperature when selected.
- 6 Outdoor icon
Indicates the temperature displayed is from the optional outdoor sensor.

Get To Know Your Thermostat

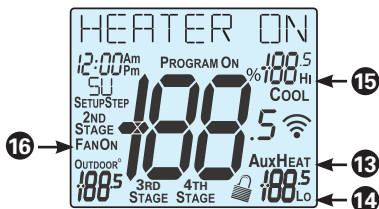
Display Features



- 7** **Desired Set Temperature**
Indicates desired room temperature(s). Also displays the highest and lowest temperatures for the day.
- 8** **Occupied & Unoccupied icons**
Indicates the program number: Occupied 1, 2, 3 or Unoccupied
- 9** **Wi-Fi icons**
One dot indicates the thermostat recognizes the wireless module. The “pull” icon indicates the thermostat is currently connected to the Local access point, via the optional Wi-Fi Module.
- 10** **Setup Step icon**
Indicates the step number when the thermostat is in the setup mode.
- 11** **2nd, 3rd and 4th Stage icons**
Indicates what stage of cooling or heating is currently energized.
- 12**  **icon**
Indicates the keypad has been locked.

Get To Know Your Thermostat

Display Features



13 AuxHeat icon

Indicates 2nd stage electric strip heat is being used when the thermostat is programmed for Heat Pump operation. Only the Aux icon will appear during Cool to Dehumidify to indicate Reheat operation.

14 Lo icon

Indicates the lowest recorded outdoor temperature for the day.*

15 Hi icon

Indicates the highest recorded outdoor temperature for the day.*

16 Fan On icon

Indicates constant, continuous fan operation.
When **Fan On** is not lit - indicates the fan will only operate when necessary to heat or to cool.

* *Hi and Lo Temperatures for the day, reset at midnight.*

Quick Start

During Setup and Programming:

*Press the **WARMER** or **COOLER** buttons to modify the selection.*

*Press the **MODE** button to advance and confirm through the setup steps.*

Setting the Clock and Day

Not available when wi-fi module is present

Press the SET CLOCK button. Adjust the clock using the WARMER or COOLER buttons. Press MODE to advance to the day setting. Adjust the day using the WARMER or COOLER buttons. Press the SET CLOCK button to confirm settings.

TIP: To adjust the time by hours press and hold the FAN button while pressing the WARMER or COOLER buttons.

SET CLOCK



MODE

Selecting the Heat or Cool Mode

Select mode by pressing the **MODE** button.



MODE

Heating Only - Only the heating operation will be controlled by the thermostat in this mode.

Cooling Only - Only the cooling operation will be controlled by the thermostat in this mode.

Heating or Cooling (Auto-Changeover) - AUTO will automatically select heat or cool based on room temperature demand.

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

Quick Start

Selecting your desired temperature

AUTO-CHANGEVER MODE - Pressing the WARMER or COOLER buttons in Auto mode will adjust both the heat and cool setpoints simultaneously. To adjust heat and cool setpoints individually, choose HEAT mode to adjust the heat setpoint and COOL mode to adjust the cool setpoint, then return to AUTO mode.

HEAT OR COOL MODE - Pressing the WARMER or COOLER buttons in Heat or Cool mode will adjust only the heat or cool setpoints individually displayed.

Using the Fan Button

Fan On indicates constant fan operation. Fan On is not allowed when the thermostat is in the OFF mode. Pressing the FAN button toggles this feature. If you don't see "Fan On", the fan is in auto mode and will only turn on during a heat or cool demand. The fan is forced into auto mode when running the program and the thermostat shows "unoccupied".



Using the Override Button

UNOCCUPIED OPERATION -

During programmed, unoccupied periods, pressing the OVERRIDE button will force the thermostat into Occupied 1 settings for 30 minutes. Each press of the OVERRIDE button will add another 30 minutes of time for up to 4 hours. If the maximum time has been set, the next press of the OVERRIDE button will reset the timer and return the thermostat to the correct time period program for the day

OVERRIDE



NOTE: Override may only be used when the thermostat is set to PROGRAM ON.

Occupied Operation - During programmed, occupied periods, pressing the OVERRIDE button will force the thermostat into an unoccupied period for the rest of the day. During this forced unoccupied period the OVERRIDE button will operate as described above.

Current Override Hours (setup step 11)

This counter keeps track of the number of hours that the thermostat is overridden into Occupied settings. Press FAN to reset.

Quick Start

Viewing the Temperature Sensors

OUTDOOR TEMP - Press the OUTDOOR button to view the current outdoor temperature. The high and low temperatures for the day will also be displayed. The high and low temperatures reset at 12:00 am. If connected to a Skyport account, pressing outdoor button will show the temperatures for your location if you don't have a wired sensor connected.

OUTDOOR



Note: *If no outdoor sensor is connected, and there isn't outdoor temperature via Wi-Fi, then 2 dashes [- -] will appear with the first button press.*

REMOTE/SUPPLY TEMP - Press the **Accessory Status** button to view linked wireless and wired sensors and other accessories. Press the **Accessory Status** button to return to the main screen.

ACCESSORY
STATUS



Installation Instructions

Remove and Replace the old thermostat

To install the thermostat properly, please follow these step by step instructions. If you are unsure about any of these steps, call a qualified technician for assistance.

- Assemble tools: Flat blade screwdriver, wire cutters and wire strippers.



- Make sure your Heater/Air Conditioner is working properly before beginning installation of the thermostat.
- Carefully unpack the thermostat. Save the screws, any brackets, and instructions.
- Turn off the power to the Heating/Air Conditioning system at the main fuse panel. Most residential systems have a separate breaker for disconnecting power to the furnace.
- Remove the cover of the old thermostat. If it does not come off easily, check for screws.
- Loosen the screws holding the thermostat base or subbase to the wall and lift away.
- If you have a smart phone handy, take a photo of the wiring for future reference.
- Disconnect the wires from the old thermostat. Tape the ends of the wires as you disconnect them, and mark them with the letter of the terminal for easy reconnection to the new thermostat.
- Keep the old thermostat for reference purposes, until your new thermostat is functioning properly.

Installation Instructions

Wire Connections

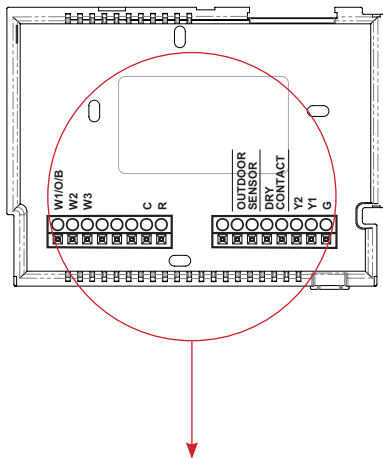
If the terminal designations on your old thermostat do not match those on the new thermostat, **refer to the chart below or the wiring diagrams that follow.**

Wire from the old thermostat terminal marked	Function	Install on the new thermostat connector marked
G or F	Fan	G
Y1, Y	Cooling	Y1
W1, W	Heating	W1/O/B
Rh, R, M, Vr, A	Power	R
C	Common	C
O/B	Rev. Valve	W1/O/B*
W2	2nd Stage Heat	W2
Y2	2nd Stage Cooling	Y2
W3	3rd Stage Heat	W3
Ck1	Dry Contact Switch	DRY CONTACT
CKGND	Dry Contact Switch	DRY CONTACT

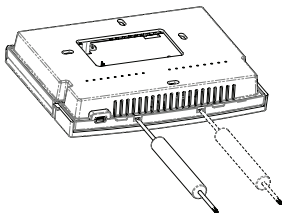
* O/B is used if your system is a Heat Pump.

Installation Instructions

The Thermostat Backplate



To remove the thermostat backplate: Gently separate the display from the base by pulling first from one side, then the other until the two pieces unsnap. A small screwdriver may be used, very carefully, to start separating the two pieces.



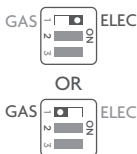
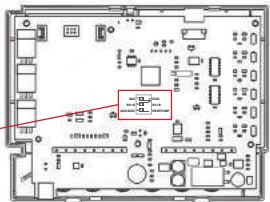
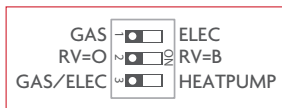
R	24 VAC return	C	24 VAC common
G	Fan relay	OUTDOOR SENSOR	Outdoor sensor connections
W1/O/B	1st stage heat circuit	REMOTE SENSOR	Remote sensor connections
W2	2nd stage heat circuit	DRY CONTACT	Dry Contact connections
Y1	1st stage compressor relay		
Y2	2nd stage compressor relay		
W3	3rd stage heat circuit		

IMPORTANT: This thermostat requires both **R (24 VAC Return)** and **C (24 VAC Common)** be connected to the backplate terminals.

Installation Instructions

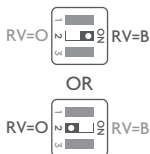
Check Dip Switch

Ensure which switch is correct for your system. Dip switches are located on the back of the thermostat.



1. When GAS/EL or HP is set for GAS/EL:
This switch (GAS or ELEC) controls how the thermostat will control the Fan (G) terminal in heating mode. When GAS is chosen, the thermostat will not energize the Fan (G) terminal in heating. When ELEC is chosen the thermostat will energize the fan in heating.

2. When GAS/EL or HP is set for HP:
This switch (GAS or ELEC) defines the Aux Heat type. When GAS is chosen, the auxiliary heat will not be allowed to run during heat pump operation. When ELEC is chosen, up to two stages of auxiliary strip heat will be allowed to run.



For Heat Pump Only
When the GAS/EL or HP dip switch is configured for HP, this dip switch (O or B) must be set to control the appropriate reversing valve. If O is chosen, the W1/O/B terminal will energize in cooling. If B is chosen, the W1/O/B terminal will energize in heating.



This dip switch configures the thermostat to control a conventional gas/electric system or a heat pump. If your system is anything other than a heat pump, leave this switch set for GAS/EL.

Installation Instructions

Sample Wiring Diagrams

Conventional Heating and Cooling Systems

3 Wire, Heat Only

Residential & Commercial 1 Stage Heating with no Fan.

R 24VAC Power
C 24VAC Common
W1/O/B 1st Stage Heat



4 Wire, Cool Only

Residential & Commercial 1 Stage Cooling.

R 24VAC Power
C 24VAC Common
Y1 1st Stage Cool
G Fan



5 Wire, 1 Stage Cooling, 1 Stage Heat

Residential & Commercial 1 Stage Cooling, with 1 stage Gas Heat.

R 24VAC Power
C 24VAC Common
W1/O/B 1st Stage Heat
Y1 1st Stage Cool
G Fan



5 Wire, 1 Stage Cooling, 1 Stage Heat

Residential & Commercial 1 Stage Cooling, with 1 stage Electric Heat.

R 24VAC Power
C 24VAC Common
W1/O/B 1st Stage Heat
Y1 1st Stage Cool
G Fan



8 Wire, 2 Stage Cooling, 3 Stage Heat

Residential & Commercial 2 Stage Cooling, with 3 stage Gas Heat.

R 24VAC Power
C 24VAC Common
W1/O/B 1st Stage Heat
W2 2nd Stage Heat
W3 3rd Stage Heat
Y1 1st Stage Cool
Y2 2nd Stage Cool
G Fan



Installation Instructions

Sample Wiring Diagrams

Heat Pump Systems

5 Wire, 1 Stage Cooling, 1 Stage Heat

Residential & Commercial Heat Pump with
'O' Reversing Valve

R	24VAC Power
C	24VAC Common
W1/O/B	Reversing Valve
Y1	1st Stage Compressor (Cool or Heat)
G	Fan



6 Wire, 1 Stage Cooling, 2 Stage Heat

Residential & Commercial Heat Pump with
'O' Reversing Valve

R	24VAC Power
C	24VAC Common
W1/O/B	Reversing Valve
Y1	1st Stage Compressor (Cool or Heat)
W2	Aux Heat
G	Fan



7 Wire, 2 Stage Cooling, 3 Stage Heat

Residential & Commercial Heat Pump with
'O' Reversing Valve.

R	24VAC Power
C	24VAC Common
W1/O/B	Reversing Valve
W2	3rd Stage Heat
Y1	1st Stage Compressor (Cool or Heat)
Y2	2nd Stage Compressor (Cool or Heat)
G	Fan

Setup Step 24 is set to 2
(Number of Compressor Stages)



8 Wire, 2 Stage Cooling, 4 Stage Heat

Residential & Commercial Heat Pump with
'O' Reversing Valve.

R	24VAC Power
C	24VAC Common
W1/O/B	Reversing Valve
W2	3rd Stage Heat
W3	4th Stage Heat
Y1	1st Stage Compressor (Cool or Heat)
Y2	2nd Stage Compressor (Cool or Heat)
G	Fan

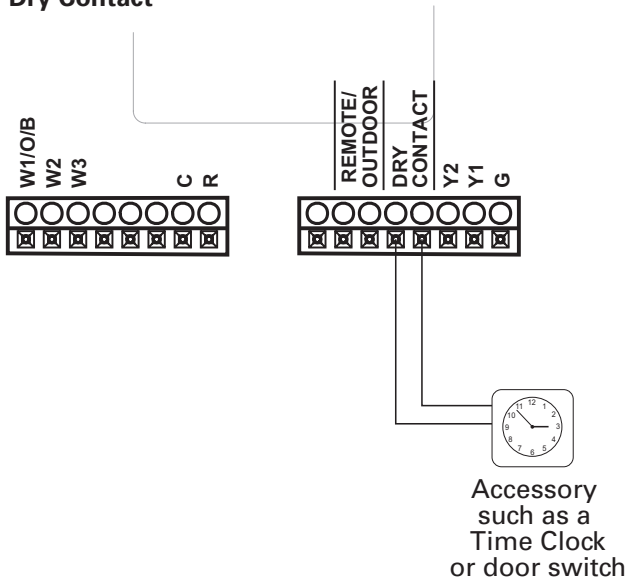
Setup Step 24 is set to 2
(Number of Compressor Stages)



Installation Instructions

Sample Wiring Diagrams

Dry Contact



Installation Instructions: Test Operation

The Daikin thermostat has a diagnostic feature that enables testing of all outputs. This feature is contained in **Technician Setup**.

*To enter Technician Setup, press and hold the **SETUP** button for 10 seconds until all the icons appear. Follow the next steps to view settings and test equipment.*

1. Press **MODE** to view the version numbers of the thermostat.
2. Press **MODE** again to view the jumper settings and current state of the Dry Contact terminal.
3. Press **MODE** again and the scrolling display will read "TURN ON EQUIPMENT?" Press **WARMER** for Yes or **COOLER** for No.

If Yes is chosen, press **WARMER** to turn on heat or **COOLER** to turn on Cooling. The scrolling display will read "NOTHING ON." Next:

Press **WARMER** to turn on and cycle up through the heating stages.
Press **COOLER** to turn the heating stages off. Press **MODE** to exit.

Press **COOLER** to turn on and cycle down through the cooling stages.
Press **WARMER** to turn the cooling stages off. Press **MODE** to exit.

4. Press **MODE** until "CALIBRATE SENSORS?" appears on the scrolling display. Press **WARMER** for Yes or **COOLER** for No. Press **MODE** to select which sensor to calibrate. Use **WARMER** or **COOLER** to modify your selection.

To exit Technician Setup at any time, press the **SETUP** button. Technician Setup will automatically exit after 10 minutes if no buttons are pressed.

User Setup - Backlight Operation

How to Change Settings in the Setup Screens

To enter Advanced Setup, press the **SETUP** button, then press **MODE**. Use the **WARMER** or **COOLER** buttons to adjust the value of your selection. Press **MODE** to advance to the next setup step. Press **SETUP** again to leave the setup screens.



Backlight (setup step 3-8)

Backlight (setup step 3)

Off - Backlight turns on with any button press and turns off after 8 seconds.

On - Backlight is on continuously.

Backlight Intensity Level (setup step 4)

The backlight can be adjusted between Off and seven levels of brightness.

Night Dimmer (setup step 5) - Selecting **On** allows for automatic dimming of the display at night.

Night Dimmer Brightness (setup step 6)

Off through seven levels of brightness

Night Dimmer Start Time (setup step 7) - 12:00 am to 12:00 am

Night Dimmer Stop Time (setup step 8) - 12:00 am to 12:00 am

Language (setup step 16)

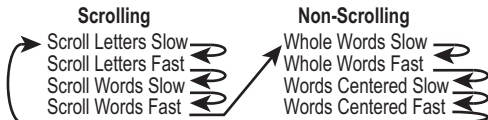
Setup step instructions on the scrolling display can be set for English, Spanish, or French.

Press the **SETUP button, then press **MODE** repeatedly until the Language setup step appears. Use the **WARMER** or **COOLER** buttons to make selection. Press **MODE** to advance to the next step. Press **SETUP** to leave the setup screens.**

User Setup: Scrolling Screen and Display Options

Scrolling Display Method (Setup Step 17)

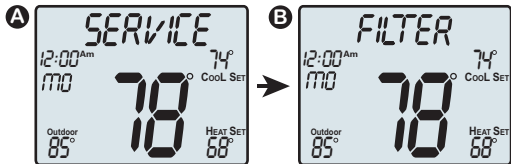
This option allows the user to choose how the scrolling text is displayed. Options are:



Press the **SETUP** button, then press **MODE** repeatedly until the Scrolling Method setup step appears. Use the **WARMER** or **COOLER** buttons to make selection. Press **MODE** to advance to the next step. Press **SETUP** to leave the setup screens.



Example of “Whole Words Centered”:



User Setup

Holiday

The Holiday feature allows the thermostat to use temporary, energy saving settings without having to change regular programming.



HOLIDAY

Holiday setup/programming at the local thermostat is limited to the number of days employing Holiday settings. When the optional Wi-Fi module is detected in the thermostat, local Holiday programming at the thermostat of the Holiday setup is not allowed. In this case Holiday setup and programming is accomplished with the Skyport Web App. Skyport gives the user extensive control over Holiday settings.

Press the HOLIDAY button to enter Holiday programming.
(no Wi-Fi Module detected).

If there is not a Holiday period active:

Use the WARMER and COOLER buttons to choose the number of days desired to run the Holiday feature. To confirm your setting press the HOLIDAY button again.

When the thermostat is programmed for Holiday operation, and the thermostat is in the Program On mode (running an Occupied/Unoccupied time period schedule), Holiday settings will take effect at 12:00AM of the next day. The thermostat will use the unoccupied mode and setpoints (see page 27) during the holidays.

If the Holiday button is pressed during an active Holiday period:

The active Holiday period may be cancelled by pressing the Mode button.

Emergency Heat

The Emergency Heat function is only available if your thermostat is set to control a Heat Pump.

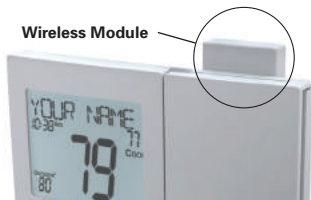
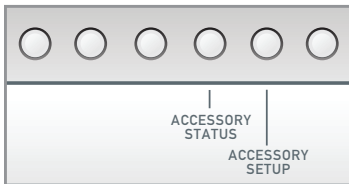
EMERGENCY
HEAT



To initiate the Emergency Heat feature, Press the EMERGENCY button. During Emergency Heat operation the thermostat will turn on the fan and auxiliary stages of heat when there is a demand for heat. The 1st stage of heating and all stages of cooling will be unavailable. To exit Emergency Heat, press the EMERGENCY button.

User Setup

Wireless Module

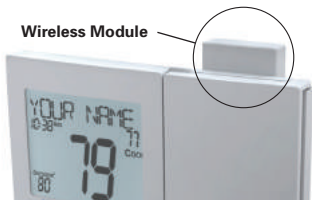
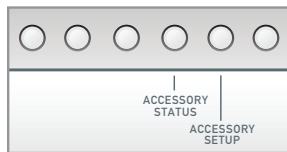


The **Accessory Status** button allows the user to view the status of wired and wireless accessories. For many of the wireless devices this status includes: Battery Level, Signal Strength & LastTime Updated.

If there is an optional wireless module installed, the **Accessory Setup** button allows the user to link or connect wireless devices to the thermostat, or the thermostat to the network.

User Setup

Wi-Fi Module



Please follow the instructions included with the Wi-Fi module to connect to an Access Point or view status. The general instructions are below.

Wi-Fi Module

If the  is present on the display then the thermostat is connected to the Wi-Fi Access Point. If just the “dot” of this icon appears, then just the Wi-Fi module is recognized.

Press the **Accessory Status** button, then press either the Cooler button to view connected Wi-Fi sensors, OR press the Warmer button to view the Wi-Fi status and settings.

Press the Mode button to step through the connected sensors or the Wi-Fi status screens listed below.

- Wi-Fi status (connecting, connected, etc.)
- Signal strength
- Access point name
- IP address
- MAC address
- Skyport status (connecting, connected, etc.)
- Local API status (Enabled, Disabled)
- Module version

• At any time press the **Accessory Status** button to leave the status screens.

Press the Accessory Setup button to enter Wi-Fi or Skyport setup:

Press the Cooler button to configure Wi-Fi settings.

Press the Warmer button to join this thermostat to a Skyport account. If the thermostat is connected to Wi-Fi and the Internet, a Device ID will appear on the scrolling display of the thermostat. You will enter this code to add this thermostat to your Skyport account via a browser or the Skyport mobile app.

Note: To connect to Skyport Cloud Services, Setup Step #44 must be set to on.

User Setup - Service Filter

These setup steps allow the user to monitor equipment runtimes and program service alerts. Service alerts are displayed in the scrolling marquee.

FAN
ON | AUTO



Runtime hours or days
appear in the clock display.



Press and hold FAN to clear
service alert messages from
the scrolling marquee.

Service Filter Runtime (setup steps 9-10, 13-14)

Current Service Filter Runtime Hours (Setup Step 9) - This counter keeps track of the number of hours of fan runtime in the Heating mode, Cooling mode, and in stand alone Fan operation. Press FAN to reset.

Current Service Filter Calendar Days (Setup Step 10) - This counter displays the total number of calendar days that have elapsed since the counter was reset to help the user track Fan runtime. Press FAN to reset.

Set Service Filter Runtime Hours (Setup Step 13) - This timer allows the user to specify the number of hours the fan will run before the "Replace Filter" alert will be displayed. Press COOLER continuously until **0** is displayed to disable this alert.

Set Service Filter Calendar Days (Setup Step 14) - This timer allows the user to specify the number of calendar days that will elapse before the "Replace Filter" alert will be displayed. Press COOLER continuously until **0** is displayed to disable this feature.

Press the **SETUP** button, then press **MODE** repeatedly until the desired setup step appears. Use the **WARMER** or **COOLER** buttons to make selection. Press **MODE** to advance to the next step. Press **SETUP** to leave the setup screens.

SETUP



MODE



User Setup - System Runtimes

*To view, set, or reset System Runtimes, press the **SETUP** button, then press **MODE**. Press **MODE** to advance to the desired setup step. Use the **WARMER** or **COOLER** buttons to adjust the value of your selection. Press **SETUP** again to leave the setup screens.*

UV Lamp Runtime (setup steps 12, 15)

Current UV Lamp Calendar Days (setup step 12) - This counter displays the total number of calendar days that have elapsed since last reset to help the user track UV lamp runtime. Press **FAN** to reset.

Set UV Lamp Calendar Days (setup step 15) - This timer allows the user to specify the number of calendar days the UV Lamp will operate before the "Replace UV Lamp" alert will be displayed. Press **COOLER** continuously until **0** appears to disable this alert.

User Setup - Time Period Programming

Selecting Your Time Period Schedule (setup step 1)

This thermostat may be configured to be programmable or non programmable.

7 Day Program - Allows all seven days to be programmed independently.

Non Program - No advanced time period programming available.

1 Day Program - Allows one 24 hour day to be programmed. This same schedule will be repeated every day the program is set to run.

5/1/1 Day Program - Allows weekdays, Saturday, and Sunday to be programmed independently.

Selecting Your Available Modes (setup step 2)

Auto-Changeover - Allows the thermostat to turn on heating or cooling based on room temperature demand. Also allows the manual selection of HEAT only or COOL only and OFF.

Heat and Cool - Allows the thermostat to turn on heating or cooling depending on which one has been manually selected. Auto-Changeover is not available when this is selected.

Heat Only - Allows the thermostat to only turn on HEAT or OFF modes.

Cool Only - Allows the thermostat to only turn on COOL or OFF modes.

Programming a Daily Time Period Schedule*

***not available when wi-fi module is present**

To enable (RUN) or turn ON the Time Period Schedule press the Program button momentarily.

To turn Off the Time Period Schedule stored program press this button again.

To alter the Time Period Schedule settings; press & hold this button for 5 seconds until the "Set Program" prompt appears. Modify the settings with the Warmer and Cooler buttons. Use the Mode button to advance through the steps. Press the Program button again to leave the setup screens.

Program Button



(continued next page)

User Setup - Time Period Programming

Programming a Daily Schedule (continued)

Once the Set Program prompt appears the Mode button will step you through the settings as follows:

Set the Unoccupied Mode – Press the Warmer or Cooler buttons to choose the mode for the Unoccupied period. The thermostat is in Unoccupied when the Time Period Schedule is running and there is not an active Occupied period. The choices are: Off, Heat only, Cool only and AUTO changeover.

Adjust the Unoccupied Cool Setpoint – Press the Warmer or Cooler buttons to adjust the Cooling setpoint for times when the thermostat is in Unoccupied.

Adjust the Unoccupied Heat Setpoint – Press the Warmer or Cooler buttons to adjust the Heating setpoint for times when the thermostat is in Unoccupied.

Select the number of Occupied time periods – Press the Warmer or Cooler buttons to choose the maximum number (up to 3 maximum) of Occupied time periods in a day.

Select the Mode for the Occupied period – Press the Warmer or Cooler buttons to choose the mode for the occupied period. The choices are: Off, Heat only, Cool only and AUTO changeover.

Adjust the Occupied Cool Setpoint – Press the Warmer or Cooler buttons to adjust the Cooling setpoint for comfort.

Adjust the Occupied Heat Setpoint – Press the Warmer or Cooler buttons to adjust the Heating setpoint for comfort.

The following steps determine when the Occupied period(s) will be active.

Enable Occupied 1 – Press the Warmer or Cooler buttons to enable (On) or to disable (Off) Occupied 1 on Monday.

Adjust the Start Time for Occupied 1 – Press the Warmer or Cooler buttons to adjust the start time for Occupied 1 on Monday.

Adjust the Stop Time for Occupied 1 – Press the Warmer or Cooler buttons to adjust the stop time for Occupied 1 on Monday.

Upon pressing Mode after the above step; you will be prompted to Save and Exit or Copy this Occupied schedule to another day.

To save and exit – Press the Program button.

To Copy Monday's settings/schedule to Tuesday – Press Up and then Mode. Press Mode again to copy the Monday Settings/schedule to subsequent days.

To Program Another Day – Press Down and then press the Mode button to select the day to program. Repeat the above steps for each day you would like to program.

Installer Setup - Setpoint Limits

Setpoint Limits (setup step 18) When this feature is at any setting other than no setpoint limits, the heat and cool setpoints can be restricted to preset levels, set in steps 19 and 20.

This feature allows the user to set 3 different levels of security: (0 - 3).

No Setpoint Limits (0) - When this level is selected, no restrictions are activated.

Use Setpoint Limits (1) - When this level is selected, the heat and cool setpoints can be restricted to preset levels, set in setup steps 19 and 20.

Maximum Heat Setpoint (setup step 19) - (35° - 99°).

Minimum Cool Setpoint (setup step 20) - (35° - 99°).

Force Program Mode (2) - When this level is selected, the heat and cool setpoints can be restricted to preset levels, set in setup steps 19 and 20 and the thermostat is locked into the current mode and time period program setting and the FAN button is locked out.

Setpoints Frozen (3) - When this level is selected, the heat and cool setpoints, the current mode, the FAN button and time period program settings are locked.

Cycles Per Hour (setup step 21) 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 WARMER or COOLER buttons on the thermostat. Settings are No Limit, 2, 3, 4, 5, or 6.

Compressor Minimum Off Minutes (setup step 22) This feature allows the user to set a minimum off time for the compressor. Settings are 5 mins., 3 mins., or 0 mins.

Minimum Heat/Cool Setpoint Difference (setup step 23)

This feature allows the user to set the minimum gap between Heat and Cool setpoints in **AUTO** mode. Select from 0 to 6. If setup step 2 is not set for **AUTO-CHANGEVER**, this step will not appear.

Number of Heat Stages (setup step 24) This setting assures proper stage callouts on the thermostat display for non-heat pump applications.

Number of Cool Stages (setup step 25) This setting assures proper stage callouts on the thermostat display for non-heat pump applications.

Number of Compressor Stages (setup step 26) ***This feature is for heat pump application only.*** This feature allows the thermostat to control 1 or 2 compressor stages when configured for heat pump.

Number of Aux Stages (setup step 27) ***This feature is for heat pump application only.*** This feature allows for proper Aux Heat Staging. (0-2 stages)

Installer Setup - Timers and Deadbands

Deadband Settings (setup steps 28 - 37)

The Deadband is the number of degrees or minutes that the thermostat waits before it initiates the stages of heating or cooling.

1st Stage Deadband (setup step 28) - Specifies the minimum temperature difference between the room temperature and the desired setpoint before the first stage of heating or cooling is allowed to turn on. (1 - 6 degrees) For example, if the heat setpoint is 68° and the 1st Stage deadband is set to 2 degrees, the room temperature will need to reach 66° before the heat turns on.

2nd Stage Deadband (setup step 29) - Specifies the additional minimum temperature difference after the first stage turns on before the second stage is activated. (0° - 10°)

3rd Stage Deadband (setup step 30) - Specifies the additional minimum temperature difference after the second stage turns on before the third stage is activated. (0° - 10°)

4th Stage Deadband (setup step 31) - (*Two Stage heat pump only*) - Specifies the additional minimum temperature difference after the third stage turns on before the final stage of strip heat is activated. (0° - 10°)

Minutes Between 1st and 2nd Stage (setup step 32) - Specifies the *minimum* time (in minutes) after the first stage turns on before the second stage can turn on. (0 - 60)

Minutes Between 2nd and 3rd Stage (setup step 33) - Specifies the *minimum* time (in minutes) after the second stage turns on before the third stage can turn on. (0 - 60)

Minutes Between 3rd and 4th Stage (setup step 34) - Specifies the *minimum* time (in minutes) after the third stage turns on before the final stage can turn on. (0 - 60)

Second Stage Turnoff Point (setup step 35) - Specifies whether second stage will turn off at first stage deadband or remain on until the room temperature demand is satisfied. Choose between Deadband or Setpoint.

Third Stage Turnoff Point (Setup Step 36) - Specifies whether third stage will turn off at second stage deadband or remain on until the room temperature demand is satisfied. Choose between Deadband or Setpoint.

Fourth Stage Turnoff Point (Setup Step 37) - Specifies whether fourth stage will turn off at third stage deadband or remain on until the room temperature demand is satisfied. Choose between Deadband or Setpoint.

Installer Setup - Programming Fan Operation

Minutes of Fan Purge (setup step 38)

When this feature is activated, the fan will turn on during an unoccupied period at a preset amount of time prior to Occupied 1. This preoccupancy fan purge timer may be set from zero to three hours, in 15 minute increments. Zero means this feature is turned off.

Fan Off Delay in Seconds (setup step 39)

This feature allows the user to increase the cooling or electric strip heating efficiency of the system. The thermostat may be programmed to continue running the fan after a call for cooling or electric strip heating has been satisfied. This delay can be set for 0, 30, 60, 90, or 120 seconds. If set to 0, the fan will not run after a call for cooling or electric strip heating has been satisfied.

Comfort Recovery (setup step 41)

With Comfort Recovery on, the thermostat will attempt to reach the Occupied 1 setpoint temperature at the exact time programmed into the thermostat. Comfort Recovery, only works when the thermostat enters the Occupied mode from the Unoccupied mode. For example, if the Occupied program is set for 6am at 72°F heating and 75°F cooling, the thermostat will turn the system on before 6am in an effort to bring the temperature to its correct setting at exactly 6am. The thermostat learns from experience, so please allow 4-8 days after a program change or after initial installation to give Comfort Recovery time to adjust. If used with a heat pump, electric strip heat will be disabled while Comfort Recovery is active.

Installer Setup

Dry Contact Operation (setup step 42 - 43)

Dry Contact Polarity (setup step 42)

Open (Normally Open) - The dry contact is open until the connected device closes the circuit.

Dry Contact Use (setup step 43)

CONDENSATE - If CONDENSATE is selected when the dry contact is active, the thermostat will lockout the compressor terminal(s) and "CONDENSATE PAN OVERFLOW" will appear on the display.

OCCUPIED - If OCCUPIED is selected, when the dry contact is active, the thermostat will be forced into the programmed occupied mode / setpoints and the 'occupied' icon will blink. This setting is useful for allowing a twist timer to force occupied settings.

FDD - If FDD is selected when the dry contact is active, "EQUIPMENT FAULT" will appear on the display.

Holiday - If HOLIDAY is selected, when the dry contact is active, the thermostat will be forced into the programmed unoccupied mode / setpoints and the 'unoccupied' icon will blink.

Skyport (setup step 44)

Set to ON to allow access to Skyport services or to OFF to not allow access to Skyport services.

Local API (setup step 45)

Set to ON to allow 3rd party software to interface with your thermostat such as home automation software.

Fahrenheit or Celsius (setup step 40)

This feature allows the thermostat to display temperature in Fahrenheit or Celsius.

Press Fan To Clear All Messages (setup step 54)

This feature allows the user to clear all current error messages from the display.

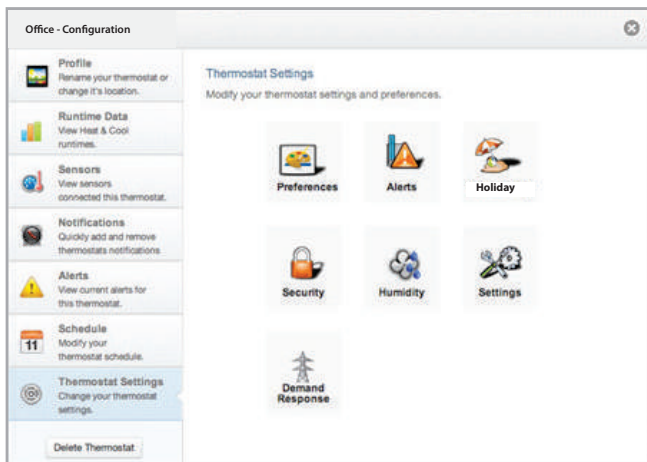
Installer Setup - Automated Demand Response

Overview

Explorer thermostats support the handling of specific signals from the utility provider. The utility generated signals carry pricing information and/or setback actions that alter the comfort settings of the thermostat in order to reduce energy usage on demand. This is known as Automated Demand Response or ADR for short. You must register to participate in a utility sponsored program, if offered by your local utility, to take advantage of this feature.

Skyport Cloud Services

From the web application the user will select Thermostat Settings from the left column. Then the Demand Response button is selected.



Installer Setup - Automated Demand Response

The Demand Response configuration page, shown below, is where the thermostat is configured to respond to the energy provider's signals. It also sets operational parameters for the thermostat.

The left column of the ADR configuration page allows or prevents access by the utility. Here communication with the utility and your thermostat may be turned On or Off.

The selected utility will provide a Program ID.

The Account ID would normally be the occupants utility account number.

The screenshot shows a software interface for configuring a thermostat. On the left is a sidebar menu with options: Profile, Runtime Data, Sensors, Notifications, Alerts, Schedule, and Thermostat Settings. The main area is titled 'Automated Demand Response' and has two tabs: 'Configuration' (selected) and 'Overview'. Under the 'Configuration' tab, there is a 'Demand Response' section with a power line icon and a toggle switch set to 'ON'. Below this is a link 'What is Demand Response?'. Further down are input fields for 'Select Utility' (set to 'LADWP'), 'Program Id.' (set to 'test-program'), and 'Account Id.' (set to '1234'). To the right of these are 'Min & Max Settings' for Event Max Cool Setpoint (65°F) and Event Min Heat Setpoint (65°F), 'Static Settings' for Static Cool Setpoint (78°F) and Static Heat Setpoint (65°F), 'Offset Settings' for Cool Setpoint Offset (+2) and Heat Setpoint Offset (-2), and 'Price Settings' for Price Trigger (45) and Price Dependent Action (Observe Setpoint Offsets). At the bottom are 'Cancel' and 'Save' buttons.

Office - Configuration

Profile
Rename your thermostat or change its location.

Runtime Data
View Heat & Cool runtimes.

Sensors
View sensors connected this thermostat.

Notifications
Quickly add and remove thermostat notifications.

Alerts
View current alerts for this thermostat.

Schedule
Modify your thermostat schedule.

Thermostat Settings
Change your thermostat settings.

Delete Thermostat

Automated Demand Response

Configuration Overview



Demand Response

☒ ON ☐ OFF

[What is Demand Response?](#)

Select Utility
LADWP

Program Id.
test-program

Account Id.
1234

Min & Max Settings

Event Max Cool Setpoint: 65°F

Event Min Heat Setpoint: 65°F

Static Settings

Static Cool Setpoint: 78°F

Static Heat Setpoint: 65°F

Offset Settings

Cool Setpoint Offset: +2

Heat Setpoint Offset: -2

Price Settings

Price Trigger: 45

Price Dependent Action: Observe Setpoint Offsets

Cancel Save

Installer Setup - Automated Demand Response

The right column of the ADR configuration page is where the occupant adjusts the operational parameters for ADR. The utility may send up to 3 types of ADR signals to Skyport. These are:

1) Pricing for the cost of energy, **2) An Offset** to the occupants' comfort setpoints, and **3) a signal** to enforce discrete or Static setpoints.

The Maximum Cooling Setpoint and Minimum Heating Setpoints for ADR events are adjusted here.

The Static Settings are applied when the utility sends a signal to allow the occupant to enforce their own discrete temperature settings during an ADR event.

The Offset Settings allow the utility to modify the Cool or Heat setpoints by the value set here during an ADR event.

A Price Trigger setting allows the occupant to set the maximum cost of energy threshold. When this threshold is exceeded the Price dependent action is enforced. This Price Trigger and Dependent action is enforced independent of an ADR event, as long as the utility sends 'real-time' pricing.

Office - Configuration

Profile
Rename your thermostat or change it's location.

Runtime Data
View Heat & Cool runtimes.

Sensors
View sensors connected to this thermostat.

Notifications
Quickly add and remove thermostat notifications.

Alerts
View current alerts for this thermostat.

Schedule
Modify your thermostat schedule.

Thermostat Settings
Change your thermostat settings.

Delete Thermostat

Automated Demand Response

Configuration Overview

Demand Response
ON OFF
[What is Demand Response?](#)

Select Utility
LADWP

Program Id
test-program

Account Id
1234

Min & Max Settings
Event Max Cool Setpoint: 60°F
Event Min Heat Setpoint: 65°F

Static Settings
Static Cool Setpoint: 78°F
Static Heat Setpoint: 65°F

Offset Settings
Cool Setpoint Offset: +2
Heat Setpoint Offset: -2

Price Settings
Price Trigger: 45
Price Dependent Action: Observe Setpoint Offsets

Cancel Save

Installer Setup - Automated Demand Response

Selecting the Overview tab of the ADR page will cause a summary of ADR events to be displayed.

The screenshot shows a software interface with a sidebar menu on the left and a main content area on the right. The sidebar menu is titled "Office - Configuration" and includes the following items:

- Profile**: Rename your thermostat or change its location.
- Runtime Data**: View Heat & Cool runtimes.
- Sensors**: View sensors connected this thermostat.
- Notifications**: Quickly add and remove thermostat notifications.
- Alerts**: View current alerts for this thermostat.
- Schedule**: Modify your thermostat schedule.
- Thermostat Settings**: Change your thermostat settings.
- Delete Thermostat**

The main content area displays the "Automated Demand Response" window, which has two tabs: "Configuration" and "Overview". The "Overview" tab is selected, showing a table of ADR events.

Event Id	Event Type	Status	Start Time	Stop Time
1233407844	Price	Success	08/10/2014 1:00pm	08/10/2014 2:00pm
1233407844	Price	Success	08/15/2014 4:00pm	08/15/2014 5:00pm

Below the table are "Cancel" and "Save" buttons. The "Save" button is green and has a checkmark icon. At the bottom of the main content area, there are icons for "Security", "Humidity", "Settings", and "Demand Response".

Installer Setup - Automated Demand Response

ADR (setup step 46)

Controls whether you want the thermostat to possibly respond to signals from the utility provider. Select ON to allow this and to have steps 46-52 appear.

Price Dependent Action (setup step 47)

Allows the user to determine what action is taken when the price rises above the set threshold. Note that the threshold price is only adjustable via Skypoint.

None – take no action when the set price threshold is exceeded

Observe Setpoint Offsets – will offset the heat and cool setpoints by the amounts specified in setup steps 52 and 53

Observe Static Setpoints – will set the heat and cool setpoints to the values specified in setup steps 50 and 51

Event Max Cool Setpoint (setup step 48)

Event Min Heat Setpoint (setup step 49)

Specifies the range of allowable setpoint adjustments to be enforced when any ADR signal has been received from the utility. Since you might be paying more for energy while an event is active, you can impose tighter limits on setpoint ranges that are only enforced during the event.

Static Cool Setpoint (setup step 50)

Static Heat Setpoint (setup step 51)

Specifies the setpoints that will come into use during an event when the PRICE DEPENDENT ACTION is set to OBSERVE STATIC SETPOINTS

Installer Setup - Automated Demand Response

Cool Setpoint Offset (setup step 52)

Heat Setpoint Offset (setup step 53)

Specifies how much the current setpoints in effect prior to an event will be altered during an event when the PRICE DEPENDENT ACTION is set to OBSERVE SETPOINT OFFSETS. The heat setpoint can be automatically lowered by 1 to 10 degrees while the cool setpoint can be automatically raised by 1 to 10 degrees

DISPLAY INDICATIONS WHEN AN ADR EVENT IS HAPPENING

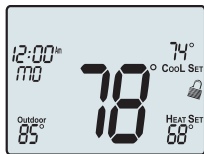
After setting your desired values for use during an ADR event, the scrolling display will give a little information when an event is pending or active. For instance, when an ADR event has been sent to your thermostat, you might see ADR STARTS at 4:15 to notify you of a pending event. Once active, you might see ADR STOPS at 5:30. If you have configured a threshold for cost of energy past which you want to trigger an event, you will see PRICING EVENT on the display. When an event is active, you can press any of COOLER, WARMER or MODE buttons, followed by the WARMER to opt out of the event.

Installer Setup

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 WARMER and COOLER buttons together. The  icon will appear on the display, then release the buttons.

Press all three buttons in the order outlined above for keypad lockout



MODE

To **unlock** the keypad, press and hold the MODE button. While holding the MODE button, press the WARMER and COOLER buttons together. The  icon will disappear from the display, then release the buttons.

Installer Setup

Resetting the Thermostat to the Factory Default Settings

(for default values see page 42-43)

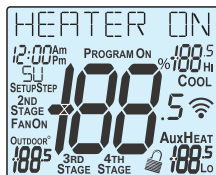
If, for any reason, you desire to return all the stored settings back to the factory default settings, follow the instructions below.

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.

- 1 Press and hold SETUP for 10 seconds. All icons will appear on the display.

Keep pressing the **SETUP** button until you see this screen.

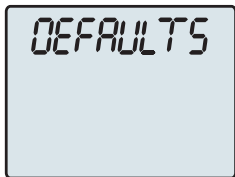
SETUP



- 2 After all the icons appear, release SETUP. Press and hold FAN for 5 seconds. DEFAULTS will appear on the display.

Keep pressing the **FAN** button until you see this screen.

FAN ON
AUTO



- 3 After DEFAULTS appears, release FAN. Press SETUP to return to normal operation.

SETUP



Technician Setup

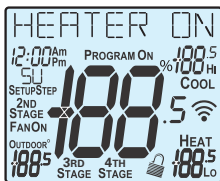
To enter Technician Setup, press and hold the *SETUP* button for 10 seconds. After all the icons appear, press *MODE*. The version number of the thermostat will appear in the scrolling text. Press *MODE* to advance to the next step. Use the *WARMER* or *COOLER* buttons to adjust the value of your selection. To leave Technician Setup, press *SETUP*.

Hold for 5 seconds

All icons appear

Press *MODE* to advance through the setup steps

SETUP



MODE

Press *WARMER* or *COOLER* to adjust the selection



MODE

Technician Setup is for diagnostic and testing purposes and is intended for use by a qualified technician. See page 14 for more detailed instructions.

Technician Setup contains the following options:

- View the version number of the thermostat.
- View the Dip Switch equipment type settings.
- View the state of the Dry Contact.
- Turn on equipment outputs for testing.
- Calibrate thermostat and remote sensors.

Advanced Setup Table

Default = Factory Default Setting

Step#	Description	Pg#	Range	Default
1	Prog Mode	24	Non, 1 Day, 5/1/1 Day, 7 Day	7
2	Available Modes	24	Heat/Cool/Auto/Off, Heat/Cool/Off, Heat/Off, Cool/Off	Heat/Cool/ Auto/Off
3	Backlight	17	On, Off	Off
4	Backlight Level	17	Off thru 7 levels of brightness	Level 5
5	Night Dimmer	17	On/Off	Off
6	Night Dimmer Brightness	17	Off thru 7 levels of brightness	2 (20%)
7	Night Dimmer StartTime	17	12A-12A	8:00P
8	Night Dimmer StopTime	17	12A-12A	6:00A
9	Current Service Filter Runtime Hours	22	0-1999 Hours	0
10	Current Service Filter Calendar Days	22	0-720 Days	0
11	Current Override Hours	7	0-1999 Hours	0
12	Current UV Lamp Calendar Days	23	0-720 Days	0
13	Set Service Filter Runtime Hours	22	0-1950 hours	0
14	Set Service Filter Calendar Days	22	0-720 Days	0
15	Set UV Lamp Calendar Days	23	0-720 Days	0
16	Language	17	English, Espanol, Francais	English
17	Scrolling Method	18	"L-R Slow, L-R Fast, Word L-R Slow, Word L-R Fast, Whole Word L Slow, Whole Word R Slow, Whole Word Ctr. Fast, Whole Word Ctr. Slow"	"Whole Words Center Fast"
18	Setpoint Limits	26	0 - 3	0
19	Max Heat Setpoint	26	35 - 99 Degrees	74
20	Min Cool Setpoint	26	35 - 99 Degrees	70
21	Cycles Per Hour	26	No Limit, 2, 3, 4, 5, 6	6
22	Compressor Minimum Off Minutes	26	0, 3, 5 Minutes	5
23	Min. Heat/Cool Setpoint Difference	26	0 - 6 Degrees	2
24	Number of Heat Stages	26	0 - 3	2
25	Number of Cool Stages	26	0 - 2	1
26	Number Of Compressor Stages	26	1, 2	1
27	Number of Aux Stages	26	0, 1, 2	0
28	1st Stage Deadband	27	1 - 6 Degrees	2
29	2nd Stage Deadband	27	0 - 10 Degrees	2
30	3rd Stage Deadband	27	0 - 10 Degrees	2
31	4th Stage Deadband	27	0 - 10 Degrees	2
32	Minutes Between 1st and 2nd Stage	27	0 - 60 Minutes	2
33	Minutes Between 2nd and 3rd Stage	27	0 - 60 Minutes	2
34	Minutes Between 3rd and 4th Stage	27	0 - 60 Minutes	2

cont. next page

Advanced Setup Table

Default = Factory Default Setting

Step#	Description	Pg#	Range	Default
35	2nd Stage Turnoff Point	27	Deadband, Setpoint	Deadband
36	3rd Stage Turnoff Point	27	Deadband, Setpoint	Deadband
37	4th Stage Turnoff Point	27	Deadband, Setpoint	Deadband
38	Minutes to Fan Purge	28	0 - 3:00, 15 min. increments - 0 = off	0
39	Fan Off Delay	28	0 - 120 Seconds	0
40	F/C	29	Fahrenheit (F), Celsius (C)	F
41	Comfort Recovery	28	On, Off	Off
42	Dry Contact Polarity	29	Open, Closed	Open
43	Dry Contact Use	29	Condensate Pan, Occupied, FDD, Holiday	
44	Skyport	29	On, Off	On
45	Local API	29	On, Off	Off
46	ADR	34	On, Off	Off
47	Price Dependent Action	34	None, Observe Setpoint Offset, Observe Static Setpoints	None
48	Event Max Cool Setpoint	34	65 - 85	85
49	Event Min Heat Setpoint	34	65 - 85	65
50	Static Cool Setpoint	34	65 - 85	78
51	Static Heat Setpoint	34	65 - 85	68
52	Cool Setpoint Offset	35	1 to 10	2
53	Heat Setpoint Offset	35	-1 to -10	-2
54	Press Fan To Clear All Messages	29		

Troubleshooting

- **SYMPTOM:** The air conditioning does not attempt to turn on.
CAUSE: The compressor timer lockout may prevent the air conditioner from turning on for a period of time.
REMEDY: Consult the Owner's Manual in the Installer Setup section to defeat the Cycles Per Hour (*page 28*).
- **SYMPTOM:** The display is blank.
CAUSE: Lack of proper power.
REMEDY: Make sure the power is on to the furnace and that you have 24vac between **R & C**.
- **SYMPTOM:** The air conditioning does not attempt to turn on.
CAUSE: The cooling setpoint is set too high.
REMEDY: Lower the cooling setpoint or lower the cooling set-point limit.
See Setpoint Limits (page 22).
- **SYMPTOM:** The heating does not attempt to turn on.
CAUSE: The heating setpoint is set too low.
REMEDY: Raise the heating setpoint or raise the heating set-point limit.
See Setpoint Limits (page 22).
- **SYMPTOM:** When controlling a residential heat pump, and asking for cooling, the heat comes on.
CAUSE: The thermostat reversing valve jumper is set for **"B"**.
REMEDY: Set the reversing valve jumper for **"O"**.
- **SYMPTOM:** When calling for cooling, both the heat and cool come on.
CAUSE: The thermostat equipment jumper is configured for **"HP"** and the HVAC unit is a Gas/Electric.
REMEDY: Set the equipment jumper for **"Gas"**.
- **SYMPTOM:** When the Program button is pressed, the display reads **"DISABLED"**.
CAUSE: Program mode is set to **"NON PROGRAM"**.
REMEDY: Set Program Mode (Setup 1) to **1, 5/2, or 7 Day**.
See Selecting Your Program Mode (page 26).

Index

A

Alerts

see Runtime

Auto

adjust temperature, 6
changeover, 7
fan, 5, 7
mode, 3, 7

Aux Icon, 5

AuxHeat icon, 5

B

b reversing valve, 10, 11, 12, 14

Backplate, 11

Buttons

accessory, 2, 20, 21, 22, 23
cooler (down) 1, 7
emergency heat, 2, 19
front panel, 1
mode, 1, 6
outdoor, 1, 8
override 1, 7
program 1, 26
set clock, 1, 6
setup, 1, 17
up (warmer), 1, 7

C

C, 27

Calibration, 32

Celsius, 27

Clock

display, 2
setting, 5

Comfort Recovery, 24

Cool

1st stage deadband, *see Deadband*
dehum, 25
minutes of runtime, 23
2nd stage deadband, *see Deadband*
dehum, 25
min. of runtime, 23
turn off temp., 23
droop, *see Deadband*
electric/heat pump, 10
icon, 2
indicator, 1
mode, 2, 5
overcool, *see Overcool*
program, *see Program*
runtime, *see Runtime*
setpoint, 3, 6, 20

Condensate Drain Pan, 26

Copy Function

see Program

Cycles Per Hour, 22

D

Deadband

balance point, 23
1st stage, 23
2nd stage, 23
3rd stage, 23

Delay

fan-off, *see Fan*
time between stages, *see Time Delay*

Differential

heat and cool, 22

Dip Switch, 12

ELEC, 10
electric heat, 10
gas electric, 10
heat pump, 10
reversing valve, 10
viewing, 24

Disabled Keypad

see Keypad Lockout

Drain Pan Overflow Alarm, *see Dry Contact*

Dry Contact

operation, 26
polarity, 26
service pan, 26
holiday, 32

Index

E

EH, 32

Economizer, 28

Electric Heating

AuxHeat icon, 2
jumper setting, 20

Emergency Heat, 17

F

Factory Defaults

caution, i
settings, 34, 35
resetting, 31

Fahrenheit, 27

Fan

mode, 24
off time delay, 24
on during heat, *see*
 Electric Heat
on icon, 4
runtime, 18
2nd stage heat, *see*
 Emergency Heat

FDD, 32

G

Gas/Electric Furnace

dip switch, 12

Green Indicator, 1

H

Heat

1st stage deadband,
 see Deadband
emergency heat, 17
min. of runtime, 23
2nd stage deadband,
 see Deadband
emergency heat, 17
minutes of runtime, 23
3rd stage deadband,
 see Deadband
AuxHeat icon, 2
deadband, *see*
 Deadband
droop, *see Deadband*
electric/heat pump, 10
icon, 4
indicator, 1
mode, 2, 5
program, *see Program*
runtime, *see Runtime*
setpoint, 6, 20

Heat Pump

AuxHeat, 12, 13, 26
Dip Switch Setting, 12
emergency heat, 17
multi-stage, 12, 22

Holiday 19

K

Keypad Lockout, 30

L

LCD, 1

Language, 15

Locked Indication,
 see Keypad Lockout

Lo

icon, 4
temperature, 6

Index

M

Manual

changeover, 21
cool, 21
heat, 21

Maximum Outdoor

Temperature, *see Hi*

Minimum Outdoor

Temperature, *see Lo*

Minutes of Fan Purge, 28

Mode, 2, 5, 21

Multi-stage Operation, 23

N

Non-Programmable Thermostat, 21

Normally Open/Closed, dry contact, 26

O

O Reversing Valve

see Reversing Valve

Occupied 3, 20

Off Mode, 2, 5

Outdoor

button, *see Buttons*
icon, 1
sensor, 6
viewing temperature, 6

Override, 7

P

Pan, Service

see Dry Contact

Polarity, *see Dry Contact*

Program

Copy, 20, 28
daily schedule, 20
mode, 21
worksheet, *back page*

Programmable Thermostat, 21

Programming a Daily Schedule, 20

R

Remote Sensor

calibrate, 32
outdoor temperature,
see Outdoor
viewing, 6

Reset

Alert Messages, 18
thermostat settings,
see Factory Defaults
runtime
fan/filter, 18
UV light, 19

Reversing Valve, 10

Runtime

resetting, *see Reset*
setting,
service filter, 18
UV light, 19
viewing,
cool, 19
heat, 19
UV lamp, 19

Index

S

Schedule

Daily, *see Program*

2nd stage turn off temperature, 23

Sensor

outdoor, *see Outdoor*
remote, *see Remote*
thermostat, *see Thermostat*

Service

filter icon, *see Reset*
pan icon, *see Dry Contact*
UV light, *see Reset*

Set Clock, *see Clock*

Setpoint

cool, *see Cool*
heat, *see Heat*
holiday, 17

Simplest Operation, 5

Stages

number of heat stages, 28
number of cool stages, 28

T

Technician Setup, 14, 33

Thermostat Sensor

calibrate, 14, 33

Three Stage Heat, 11, 12, 13, 23

Time, *see Clock*

Time Delay,

compressor lockout, 22
cycles per hour, 22
1st to 2nd stage, 23
2nd to 3rd stage, 23
3rd to 4th stage, 23

Time Schedule, *see Program*

U

Unoccupied, 3, 6, 20

UV Light

resetting, 19
runtime, *see Runtime*
setting, *see Runtime*

W

Warranty, 44

Wi-Fi, 21

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 TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

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

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or owner's 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 for any reason whatsoever including additional or unusual use of supplemental electric heat.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

Programming Worksheet - see page 23

DAY	PERIOD	START TIME	COOL	HEAT
MONDAY	Unoccupied			
	Occupied 1			
	Occupied 2			
	Occupied 3			
TUESDAY	Unoccupied			
	Occupied 1			
	Occupied 2			
	Occupied 3			
<i>Copy Mon to Tues</i> ☐ No ☐ Yes				
WEDNESDAY	Unoccupied			
	Occupied 1			
	Occupied 2			
	Occupied 3			
<i>Copy Tues to Wed</i> ☐ No ☐ Yes				
THURSDAY	Unoccupied			
	Occupied 1			
	Occupied 2			
	Occupied 3			
<i>Copy Wed to Thurs</i> ☐ No ☐ Yes				
FRIDAY	Unoccupied			
	Occupied 1			
	Occupied 2			
	Occupied 3			
<i>Copy Thurs to Fri</i> ☐ No ☐ Yes				
SATURDAY	Unoccupied			
	Occupied 1			
	Occupied 2			
	Occupied 3			
<i>Copy Fri to Sat</i> ☐ No ☐ Yes				
SUNDAY	Unoccupied			
	Occupied 1			
	Occupied 2			
	Occupied 3			
<i>Copy Sat to Sun</i> ☐ No ☐ Yes				

Patent Pending



Printed on recycled paper.

P/N 88-1209 Rev. 1 07/17

