

COMMERCIAL model **D2270C** 

# Premium Mini Digital Thermostat with Wi-Fi and Local API





Owner's Manual
<a href="Maintenance">Nanual</a>
<a href="Maintenance">& Installation Instructions</a>



Follow the <u>Installation Instructions</u> 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.

The FCC responsible party is Goodman Manufacturing Company, L.P., and may be contacted by calling (713)-861-2500, or at 19001 Kermier Rd., Waller, TX 77484. www.GoodmanMFG.com

This Premium Mini 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.





Innovation, Science and Economic Development Canada ICES-003 Compliance Label: CAN ICES-3 (B)/NM8-3(B) IC: 12547A-SKYPORT8



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# **IMPORTANT**

Follow Installation Instructions carefully. Disconnect Power to the Heater/Air Conditioner before removing the old thermostat and installing the new thermostat.

# **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, Program On).
- **Non-Programmable Thermostat:** A thermostat that does not have the capability of running Time Period Programming.
- Programmable Thermostat: A thermostat that has the capability of running Time Period Programming.
- Pre-Occupancy Purge: Fan operation prior to Occupied 1.
- 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.

#### 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.

 Installation tools: Small flat blade screwdriver, Phillips 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 or switch 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.

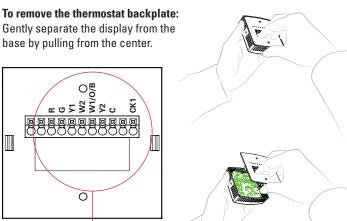
#### Wire Connections

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<br>old thermostat<br>terminal marked | Function           | Install on the<br>new thermostat<br>connector marked |
|--|--------------------|--|
| G or F   | Fan                | G  |
| Y1,Y   | Cooling            | Y1   |
| W1, W  | Heating            | W1/O/B   |
| Rh, R, M, Vr, A                                    | Power              | R  |
| С  | Common             | С  |
| O/B  | Rev. Valve         | W1/O/B*  |
| W2   | 2nd Stage Heat     | W2   |
| Ck1  | Dry Contact Switch | CK   |
| CKGND  | Dry Contact Switch | R  |
|  |                    |  |

<sup>\*</sup> O/B is used if your system is a Heat Pump.

# The Premium Mini Thermostat Backplate



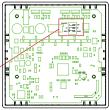
| R      | 24 VAC return              | Y2  | 2nd stage compressor relay |
|--------|----------------------------|-----|----------------------------|
| G      | Fan relay                  | С   | 24 VAC common              |
| W1/O/B | 1st stage heat circuit     | CK1 | Dry Contact                |
| W2     | 2nd stage heat circuit     |     |                            |
| Y1     | 1st stage compressor relay |     |                            |

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

#### **Check Dip Switch**

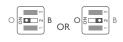
Ensure which switch is correct for your system. Dip switches are located on the back of the thermostat.







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.



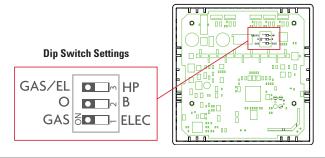
#### For Heat Pump Only

When the GAS/EL or HP dip switch is configured for HP, this dip switch (0 or B) must be set to control the appropriate reversing valve. If 0 is chosen, the W1/0/B terminal will energize in cooling. If B is chosen, the W1/0/B terminal will energize in heating.

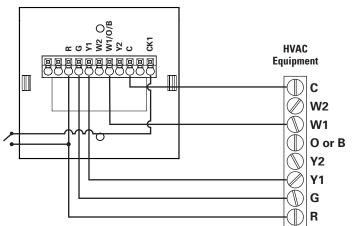


This dip switch configures the thermostat to control a conventional gas/electric system or a heat pump. If your system is anything other than a heat pump, leave this switch set for **GAS/EL**.

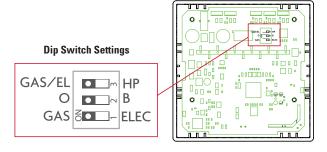
#### 1 Stage Heat, 1 stage Cool



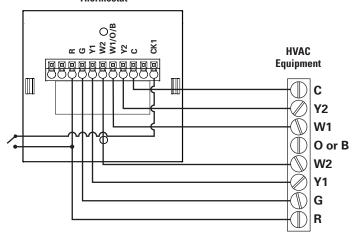
#### Thermostat



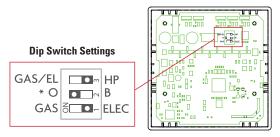
#### 2 Stage Heat, 2 Stage Cool



#### **Thermostat**



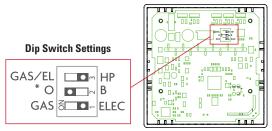
#### Single Stage Heat Pump with AUX Heat



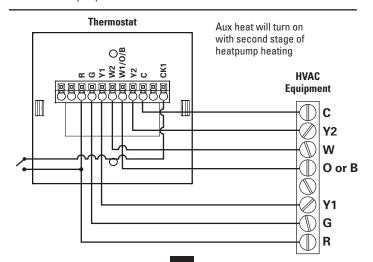
\*Reversing valve choice, 0 or B, is dependant on the type of valve installed in the heat pump.

# Thermostat Thermostat Thermostat Thermostat Thermostat HVAC Equipment C W O or B Y2 Y1 G R

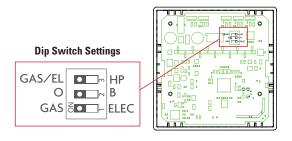
#### **Dual Stage Heat Pump with AUX Heat**

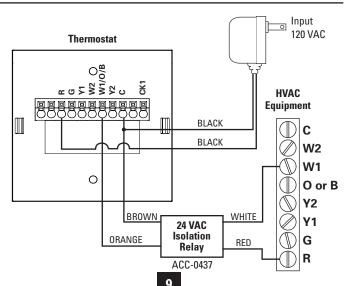


\*Reversing valve choice, 0 or B, is dependant on the type of valve installed in the heat pump.



#### Heat Only - with Daikin 2-Wire Kit - ACC0436





# **Connect to Wi-Fi Overview**

At minimumm the first 3 tasks below must be completed to access your thermostat remotely from a browser. The 4th step is optional (highly recommended) and only is needed to access your thermostat(s) from a mobile device

#### These steps are:

- Successful connection to a local Wi-Fi Access Point with internet access.
- Confirm receipt of a Skyport generated verification email (this only occurs once during the Skyport account setup).
- A 6-digit code obtained from the thermostat is successfully entered into a Skyport account.
- Successfully download and install the Daikin Skyport app on your mobile device(s).

Your thermostat operates on the 2.4 Ghz, Wi-Fi b/g/n band.

#### Wi-Fi Symbol Legend



When the only the 'dot' of the Wi-Fi symbol appears = not connected to an access point.



When the full Wi-Fi symbol appears = connected to an access point.



When the full Wi-Fi symbol appears and the 'dot' of the symbol is flashing = connected to Skyport.

# **Connect to Wi-Fi Overview**

#### Wi-Fi Setup

The Daikin Configurator App is needed to configure the Wi-Fi Settings of this thermostat

 Download the Daikin Configurator App from your mobile device's App Store.



#### Open the Daikin Configurator App

- Choose the Premium Mini thermostat by sliding the thermostat pictures at the top of the apps' display to the left until you see a picture of the Premium Mini.
- Press and hold the OVERRIDE button of the thermostat for approximately 5 seconds to enter Wi-Fi setup screens.
- Press the cooler button to setup Wi-Fi.
- Follow the instructions that appear on the Daikin Configurator App.

#### Connect to Skyport

Although there is more than one way to create a Skyport account, the steps below illustrate account creation from a browser. To create a Skyport account a thermostat must be joined to the account.

If the thermostat is connected to the local Wi-Fi Access Point, but you do not have a Skyport account, you may create an account and join the thermostat to the account by doing the following:

- 1. Open your browser to: http://Daikin.skyportcloud.com
- Select "Create account now"



Follow on screen instructions to create an account and add a thermostat to the Skyport account.

# **Connect to Wi-Fi Overview**

#### Join a Thermostat to Skyport

If the thermostat is connected to the local Wi-Fi access point but not yet joined to an existing Skyport account, you may join the thermostat to the account by doing the following:

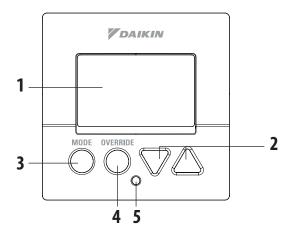
- 1. Log in to your Skyport account.
- 2. Select the "Location" you want to add a thermostat into.
- 3. Select the "Thermostat tab".
- Select "+ Add thermostat". A screen will 'pop-up' asking for a six digit code.
- Press the OVERRIDE button on the thermostat for 5 seconds.
- 6. Press the Warmer button on the thermostat.
- 7. A six digit code will appear on the thermostat's display.
- 8. Enter the six digit code into your Skyport account.

#### Wi-Fi Status Screens

Press and hold the OVERRIDE button on the thermostat for 5 seconds. When "Wi-Fi Setup" appears on the display, press the MODE button. Pressing the up or down button will sequence through the following information:

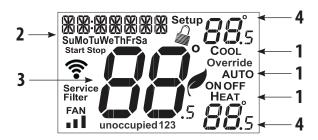
- AP Name
- AP Signal Strength
- IP Address
- · Skyport Status
- API Status

# **Front Panel**



- 1 Backlit Display
- 2 Up/Warmer, Down/Cooler Buttons
- 3 Mode Button
- 4 Override Button
- **5** Heat or Cool Indicator Heat = Red, Cool = Green

# **Display**



#### 1 Mode Indicators

Selects the operational mode of the equipment.

**HEAT** - Indicates the heating mode.

**COOL** - Indicates the cooling mode.

**AUTO** - Indicates the system will automatically changeover between heat and cool modes as the temperature varies.

OFF - Indicates heating and cooling are turned off.

#### 2 Clock with Day of the Week

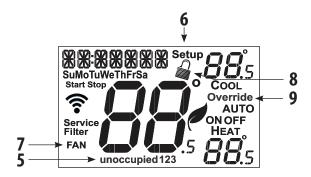
Indicates the current time and day. This clock is also used to program the time period schedules.

# 3 Room Temperature Display Indicates <u>current</u> room temperature.

#### 4 Desired Set Temperature

Indicates desired room temperature(s).

# **Display**



#### 5 Occupied and Unoccupied icons

Indicates the part of the time period program.

#### 6 Setup icon

Indicates the thermostat is in the setup mode.

#### 7 Fan icon

When only the FAN icon is displayed, the fan is always on. If the FAN is not on the display, then the FAN is in Auto mode and will run only when necessary to heat or cool.

#### 8 Locked icon

Indicates the thermostat's control buttons have been locked.

#### 9 Override icon

Indicates OVERRIDE is enabled.

# **Basic Operation**

#### Selecting Your Desired Temperature (adjusting the setpoints)

#### **Auto-Changeover Mode**

Pressing the WARMER or COOLER buttons in Auto mode will adjust both the heat and cool setpoints simultaneously. To adjust the 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.



Adjust the desired set temperature with these buttons

OVERRIDE

#### Heat or Cool Mode

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



NOTE: OVERRIDE may only

be used when the thermo-

stat is set to PROGRAM ON.

# 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 up to the amount specified in Setup Step 23. 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. 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.

# **User Setup**

Table for button presses that are required for entering various menus

#### TO ENTER MENUS BUTTON PRESS

Setup Steps MODE & OVERRIDE for 5 seconds
Time Schedule MODE & UP for 2 seconds
Emergency Heat Lockout Buttons MODE, UP & DOWN for 2 seconds
Calibration MODE & DOWN for 2 seconds, then MODE

Wireless Setup OVERRIDE for 5 Seconds

# How to Change Settings in the Setup Screens

To enter the setup screens, press the MODE button, and simultaneously press OVERRIDE button for 5 seconds. Release the buttons when you see "Setup" on the display. Use the WARMER or COOLER buttons to adjust the value of your selection. Press MODE to advance to the next setup step. Press MODE and OVERRIDE together again to leave the setup screens.



# **User Setup**

# Setting the Clock and Day (Setup step 1 & 2)

When your thermostat is connected to Skyport Cloud Services, the time and day of the week are controlled by Skyport. There is no local adjustment, Skyport also adjusts the time for Daylight Savings Time as well

To set the time and day when not connected to Skyport; enter the setup screens by pressing the Mode button and simultaneously pressing the OVERBIDE button for 5 seconds.

**Setup step 1** adjusts the clock. Use the Warmer/Up or Cooler/Down buttons to adjust the time.

Press the Mode button to advance to step 2.

Select the day of the week using the Warmer/Up or Cooler/Down buttons.

Leave the setup screens by again pressing the Mode button and simultaneously pressing the OVERRIDE button for 5 seconds.





# **User Setup: Backlight Operation**

# Backlight (Setup steps 3-6)

Backlight (setup step 3)

**OFF** - Backlight turns on only with a button press and turns off after 8 seconds.

ON - Backlight is on continuously.

Night Dimmer (setup step 4) - Selecting ON allows for turning off the backlight of the display during specific times of the day, usually at night.

#### Night Dimmer Start Time

(setup step 5) - 12:00 am to 12:00 am

#### **Night Dimmer Stop Time**

(setup step 6) - 12:00 am to 12:00 am









#### Fan On or Fan Auto (Setup step 7)

**FAN ON** - indicates constant fan operation. Fan On is not allowed when the thermostat is in the Off Mode or unoccupied.

If **FAN AUTO** is selected, the fan will only operate during a heat or cool demand.

The Fan is forced into **FAN AUTO** when running a program and the thermostat shows "unoccupied".



# **User Setup: Setpoint Limits**

#### Setpoint Limits (Setup steps 8-10)

When this feature is set to ON, the Heat and Cool Setpoints may be restricted to preset levels in Setup Steps 13 and 14.



Maximum Heat Setpoint (Setup step 9)



Minimum Cool Setpoint (Setup step 10)



#### **Lock OVERRIDE and MODE Buttons**

This feature is available when the thermostat is connected to Skyport Cloud Services and may <u>only</u> be accessed through Skyport.

This security feature is not accessible locally at the thermostat.

When this setting is enabled; pressing the OVERRIDE or MODE buttons on the thermostat will have no effect.

This feature is often used in conjunction with setpoint limits.

# **User Setup: Service Filter**

These setup steps allow the user to monitor FAN runtimes and program service alerts. Service alerts appear on the display. If the thermostat is joined to a Skyport account, then the user may be alerted by Skyport Cloud Services when to change the filter.

Runtime hours or days appear in the clock display.

# Service Filter

#### OVERRIDE



Press and hold OVERRIDE to clear reset runtime.

Service Filter Runtime (Setup steps 11-14)

Current Service Filter Runtime Hours (Setup step 11) - 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 OVERRIDE to reset.

Current Service Filter Calendar Days (Setup step 12) -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 OVERRIDE 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 OFF 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 OFF is displayed to disable this feature.

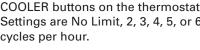








Cycles Per Hour (Setup step 15) The Cycles Per Hour setting may limit the number of times per hour your HVAC unit may energize. For example, at a setting of 6 cycles per hour the HVAC unit will only be allowed to energize once every 10 minutes. The Cycles Per Hour limit may be overridden and reset by pressing the WARMER or COOLER buttons on the thermostat. Settings are No Limit, 2, 3, 4, 5, or 6 cycles per hour.



**Compressor Minimum** Off Minutes (Setup step 16) This feature allows the user to set a

minimum off time for the compressor. Settings are 0 to 5 mins.

Minimum Heat/Cool **Setpoint Difference** (Setup step 17) This feature allows the user to set the minimum gap between Heat and Cool setpoints in AUTO mode. Select from 0

to 6 degrees.







#### Deadband Settings (Setup steps 18-21)

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 18)

Specifies the 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.



Specifies the additional temperature difference after the first stage turns on before the second stage is activated. (0° - 10°)

# Minutes Between 1st and 2nd Stage (Setup step 20)

Specifies the minimum time (in minutes) after the first stage turns on before the second stage can turn on.  $(0^{\circ} - 60^{\circ})$ 

Second Stage Turnoff Point (Setup step 21) 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.









#### Fan Off Delay in Seconds (Setup step 22)

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.



**Maximum Override Time** (Setup step 23) This feature limits the maximum override time when using the **OVERRIDE** button 1 - 4 hours.

**Fahrenheit or Celsius** (Setup step 24) This feature allows the thermostat to display temperature in Fahrenheit or Celsius.





#### Comfort Recovery (Setup step 25)

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 1 from the UNOCCUPIED. For example, if OCCUPIED 1 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, how early to turn on, 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.

#### Pre-Occupancy Fan Purge (Setup step 26)

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 (0) means this feature is turned off.



# Dry Contact Operation Dry Contact Polarity (Setup step 27)

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





'Active'

POLARTY Setup 27

Closed (Normally Closed) - The dry contact is closed until the connected device opens the circuit.





Dry Contact Use (Setup step 28)

Condensate Pan - If selected when the Dry Contact is active, the thermostat will lockout compressor terminal(s) and "CONDENSATE PAN" will appear on the display.



**Holiday** - If Holiday is selected when the dry contact is active, the thermostat will be forced into HOLIDAY/ Unoccupied settings.

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

**Occupied** - If Occupied is selected when the dry contact is active, the thermostat will be forced into occupied settings.

# Skyport Cloud Services (Setup step 29)

If set to ON, the thermostat may communicate and receive data from the Skyport Cloud Services.

#### Local API (Setup step 30)

Turning on the local API allows 3rd party software to interface with the thermostat such as a home automation system.





NOTE: It is permissable to enable both Skyport and the local API at the same time.

# Available Modes (Setup step 31)

This setup step may restrict the use of this thermostat to: Heat only or, Cool only, or Heat and Cool, or Auto changeover operation.

#### Show Clock (Setup step 32)

This setup step will allow for removal of the clock and day of the week from the display. OFF removes the time and day from the display.

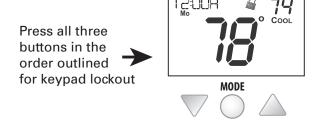




#### Locking/Unlocking the Keypad

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, for two seconds.

The icon 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 WARMER and COOLER buttons together, for two seconds.

The icon will disappear from the display, then release the buttons.

# **Programming a Daily Schedule**

Programming a Daily Schedule
To enter Time Period Programming screens,
Press and hold MODE and UP until
the scrolling prompt appears.



**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.

**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.

Continued

# **Programming a Daily Schedule**

#### Continued

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

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

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

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

**Adjust the Stop Time for Occupied 1** – Press the Warmer or Cooler button 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 MODE and WARMER 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 MODE and then press the WARMER/COOLER button to select the day to program. Repeat the above steps for each day you would like to program.

Press and hold the MODE/WARMER Buttons to exit Time Period Programming at any time.

#### **Deadband Operation**

Controls up to two Heat and two Cool stages.

The 1st Stage of heat or cool is turned on when:

(A) The temperature spread from the setpoint is equal to or greater than: the setpoint plus the 1st stage deadband. This 1st stage deadband is adjustable from 1-6 degrees and the default is two degrees.

The 2nd Stage of heat or cool is turned on when:

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

#### AND

(B) The temperature spread from the setpoint is equal to or greater than: the setpoint plus the 1st stage deadband, plus the 2nd stage deadband. This 2nd stage deadband is adjustable from 0 - 10 degrees.

#### **Turning on the Time Period Program**

Pressing the **MODE** button should cycle through **OFF**, then the available modes (setup step #31) then Program **ON**. Note that this sequence may be restricted due to settings on the Skyport website. The thermostat can be configured to be non-programmable which will keep Program **ON** from appearing in the **MODE** sequence. The thermostat can also be configured to force the program to always be running so the **MODE** button will have no effect. This last setting is desirable in many commercial installations to keep users from changing to manual control and negating the energy savings possible when running the program.

#### **Emergency Heat**

Only available if you have a Heat Pump installed. To initiate the **Emergency Heat** feature, press the **OVERRIDE** button. While holding the **OVERRIDE** button press the **UP** button, for two seconds. The display will read 'EM HEAT'

(Emergency Heat).



During Emergency Heat operation the thermostat will turn on the fan and the Aux strip heat when there is a demand for heat. Also during Emergency Heat, heatpump operation will be unavailable.

#### **Exit Emergency Heat**

Follow the same steps as entering **Emergency Heat** by pressing the **OVERRIDE** and **UP** buttons, for two seconds. During Emergency Heat, only OFF and HEAT modes are available by pressing the **MODE** button.

#### Calibration

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

1 MODE

Place the thermostat in the OFF mode.

Su OFF

2 MODE

Press and hold the MODE button. While holding the MODE button, press and hold the DOWN button for 5 seconds.

All icons will appear on the display.



3

MODE



Press the **MODE** button once. The thermostat temperature will be displayed and may be calibrated using the **UP** or **DOWN** buttons. The calibrated offset from the "raw" temperature reading is displayed in the lower right corner.



Additionally, on this screen you may view the Software Version in the upper left corner.

4 MODE

After calibration is complete, press the MODE button **once** to save your changes and return to normal operation.



#### **Factory Defaults**

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 will be permanently lost.

MODE

Place the thermostat in the OFF mode

2 MODE

1

Press and hold the MODE button. While holding the MODE button, press and hold the DOWN button for 5 seconds.



All icons will appear on the display.





3 OVERRIDE **A.** After all of the icons appear, release the MODE and DOWN buttons.

**B.** Press and hold the OVERRIDE button for 2 seconds. Fd (Factory default settings) and ALL will appear on the display.



(Continued)

(Continued)

You now have the option of restoring the factory settings to just Wi-Fi (Wi-Fi), or just the thermostat (STAT), or both the thermostat and Wi-Fi (ALL).

- **C.** Select one of the above options using the Up or Down buttons.
- **D.** Press OVERRIDE for 2 seconds to restore the factory settings.









After factory settings are restored, the thermostat display will return to the "all icon" screen.



4 MODE

To return to normal operation; Press the **MODE** button twice.

# **Advanced Setup Table**

FD = Factory Default Setting

| Step# | Description                          | Pg# | Range                                     | FD       |
|-------|--------------------------------------|-----|---|----------|
| 1     | Set Clock                            | 18  | 12A - 12A                                 |          |
| 2     | Set Day of the Week                  | 18  | Monday - Sunday                           |          |
| 3     | Backlight                            | 19  | On, Off, 6pm-6am                          | Off      |
| 4     | Night Dimmer                         | 19  | On/Off                                    | Off      |
| 5     | Night Dimmer StartTime               | 19  | 12A - 12A                                 | 8:00PM   |
| 6     | Night Dimmer StopTime                | 19  | 12A - 12A                                 | 6:00AM   |
| 7     | Fan On or Fan Auto                   | 19  | Fan, Fan Auto                             | Fan Auto |
| 8     | Setpoint Limits                      | 20  | On, Off                                   | Off      |
| 9     | Maximum Heat Setpoint Limit          | 20  | 35 - 99 Degrees                           | 74       |
| 10    | Minimum Cool Setpoint Limit          | 20  | 35 - 99 Degrees                           | 70       |
| 11    | Current Service Filter Runtime Hours | 21  | 0 - 1999 Hours                            | 0        |
| 12    | Current Service Filter Calendar Days | 21  | 0 - 720 Days                              | 0        |
| 13    | Set Service Filter Runtime Hours     | 21  | 0-1999 Hours                              | 0        |
| 14    | Set Service Filter Calendar Days     | 21  | 0 - 720 Days                              | 0        |
| 15    | Cycles Per Hour                      | 22  | No Limit, 2, 3, 4, 5, 6                   | 6        |
| 16    | Compressor Minimum Off Minutes       | 22  | 0, 3, 5 Minutes                           | 5        |
| 17    | Min. Heat/Cool Setpoint Difference   | 22  | 0 - 6                                     | 2        |
| 18    | 1st Stage Deadband                   | 23  | 1 - 6 Degrees                             | 2        |
| 19    | Second Stage Deadband                | 23  | 0 - 10 Degrees                            | 2        |
| 20    | Minutes Between 1st and 2nd Stage    | 23  | 0 - 60 Minutes                            | 2        |
| 21    | 2nd StageTurnoff Point               | 23  | Deadband, Setpoint                        | Deadban  |
| 22    | Fan Off Delay                        | 24  | 0, 120 Seconds                            | 0        |
| 23    | Maximum Override Time                | 24  | 1, 2, 3 or 4 hours                        | 4        |
| 24    | F/C                                  | 24  | Fahrenheit (F), or Celsius C              | F        |
| 25    | Comfort Recovery                     | 25  | On, Off                                   | Off      |
| 26    | Pre-Occupancy Fan Purge              | 25  | 0 - 3 Hours in 15 minute                  |          |
|       |                                      |     | increments, 0 + Off                       | 0        |
| 27    | Dry Contact Polarity                 | 26  | Open, Closed                              | Open     |
| 28    | Dry Contact Use                      | 26  | Condensate Pan, Holiday,<br>FDD, Occupied | Holiday  |
| 29    | Skyport                              | 27  | On, Off                                   | On       |
| 30    | Local API                            | 27  | On, Off                                   | Off      |
| 31    | Available Modes                      | 27  | Heat, Cool, Heat or Cool, Auto            | Auto     |
| 32    | Show Clock                           | 27  | On, Off                                   | On       |

#### TO ENTER MENUS ..... BUTTON PRESS

| Setup Steps    | MODE & OVERRIDE for 5 sec.  |
|----------------|-----------------------------|
| Time Schedule  | MODE & UP for 2 seconds     |
| Emergency Heat | UP & OVERRIDE for 2 seconds |

#### TO ENTER MENUS ..... BUTTON PRESS

| Lockout Buttons | MODE, UP & DOWN for 2 sec.        |
|-----------------|-----------------------------------|
| Calibration     | MODE & DOWN for 2 sec., then MODE |
| Wireless Setup  | OVERRIDE for 5 Seconds            |

# **Limited Warranty**

Thermostat Models: D1100, D1152, D2100, D2152, D2270, D2270C, D2111, D4272, D4273, D4271C. D4272C. D4272RT. D4273RT. D4272CT. D4273CT

#### Who Is Providing The Warranty?

This warranty is provided to you by Goodman Manufacturing Company, L.P. ("Goodman"), which warrants all parts of this thermostat ("control"), as described below.

#### To What Type Of Installations Does This Warranty Apply?

This warranty applies to controls installed in owner-occupied residences.

#### What Units Does This Warranty Not Cover?

This warranty does not apply to:

- Controls that are ordered over the Internet, by telephone, or by other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies, and licensing requirements.
- · Controls that are installed outside the United States, its territories, or Canada.
- Controls that are installed in buildings other than owner-occupied residences, such as non-residential buildings or residences not
  occupied by the owner.

#### What Problems Does This Warranty Cover?

This warranty covers defects in materials and workmanship that appear under normal use and maintenance.

#### Other Warranties

This warranty is in lieu of all other express warranties. ANY IMPLIED WARRANTIES BY GOODMAN, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTRALITY AND FITNESS FOR PARTICULAR PURPOES, ARE LIMITED TO THE UDURATION OF THAN RARRANTY. NO AFFILIATE OF GOODMAN GIVES ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND ETITNESS FOR PARTICULAR PURPOES, ON THIS UNIT. Some states and provinces do not allow the exclusion of express warranties and/or limitations on you long an implied warranty lasts, so the above exclusion and/or limitation may not apply to you.

For further information about this warranty contact Consumer Affairs at (877) 254-4729 or by mail to 19001 Kermier Rd, Waller, Texas 77484

#### What Problems Does This Warranty Not Cover?

Goodman is not responsible for:

- Damage or repairs required as a consequence of faulty installation or application. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere, or other conditions beyond Goodman's control.
- Damage or the need for repairs arising from the use of components or accessories not compatible with this control.
- · Normal maintenance as described in the installation and operating manual.
- · Parts or accessories not supplied or designated by the manufacturer.
- · Damage or the need for repairs resulting from any improper use, maintenance, operation, or servicing.
- Damage or failure of the control due to interruption in electrical service or inadequate electrical service.
- · Any damage caused by frozen or broken water pipes in the event of equipment failure.
- · Changes in the appearance of the control that do not affect its performance.
- Replacement of fuses and replacement or resetting of circuit breakers.

#### When Does Warranty Coverage Begin?

Warranty coverage begins on the "installation date." The installation date is one of two dates depending on the circumstances of purchase:

- (1) For controls installed in a newly constructed residence, the installation date is the date the owner purchases the residence from the
- (2) For controls installed in existing residences, the installation date is the date that the control is originally installed.
- (3) For products on which a manufacture date is indicated, if the date the owner purchases the residence from the builder or the date the product is originally installed cannot be verified, the installation date is three months after the manufacture date.

(4) For products on which a manufacture date is not indicated, if the date the owner purchases the residence from the builder or the date the product is originally installed cannot be verified, the installation date is the date the condensing unit to which the product is paired was originally installed.

#### **How Long Does Warranty Coverage Last?**

The warranty lasts for a period up to 1 YEAR.

The warranty period does not continue after the control is removed from the location where it was originally installed. The replacement of a part under this warranty does not extend the warranty period. In other words, Goodman warrants a replacement control only for the period remaining in the apolicable warranty that commenced on the installation date.

#### What Will Goodman Do To Correct Problems?

Goodman will furnish a replacement control, without charge for the control only, to replace any control that is found to be defective due to workmanship or materials under normal use and maintenance. Furnishing of the replacement control is Goodman's only responsibility under this warranty and the furnishing of the replacement control is the owner's only remedy.

THE OWNER AGREES THAT THESE REMEDIES ARE THE OWNER'S EXCLUSIVE REMEDIES FOR BREACH OF ALL WARRANTIES, EXPRESS OR IMPLIED.

#### What Won't Goodman Do To Correct Problems?

Goodman will not pay for:

- · Labor, freight, or any other cost associated with the service, repair, or operation of the control.
- Electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric
  heat.
- Lodging or transportation charges.

WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, NEITHER GOODMAN NOR ANY OF ITS AFFILIATES SHALL IN ANY EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A CONTROL, EXTRA UTILITY EXPENSES, OR DAMAGES TO PROPERTY.

Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

#### How Can The Owner Receive Warranty Service?

If there is a problem with the control, contact a licensed contractor,

To receive a replacement control, a licensed contractor must bring the defective control to a Goodman heating and air conditioning products distributor

For more information about the warranty, contact Consumer Affairs at 877-254-4729 or write to Consumer Affairs, 19001 Kermier Rd, Waller, TX 77484.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or province to province.

#### **Quebec Residents**

The arbitration provisions of this warranty shall not apply to residents of Quebec.

#### Non-Owner Occupied Warranty

Products installed in non-residential buildings or in residences not occupied by the owner are warranted for a period of 1 YEAR. THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, WHETHER BY GOODMAN OR ANY OF ITS AFFILIATES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Subject to the additional limitations set forth in this paragraph, all other provisions of the Limited Warranty apply to products installed in non-residential buildings or in residences not occupied by the owner.

#### Where Can Any Legal Remedies Be Pursued?

ARBITRATION CLAUSE, IMPORTANT, PLEASE REVIEW THIS ARBITRATION CLAUSE, IT AFFECTS YOUR LEGAL RIGHTS.

- Parties: This arbitration clause affects your rights against Goodman and any of its affiliates or employees or agents, successors, or assigns, all of whom together are referred to below as "we" or "us" for ease of reference.
- 2. ABRITATION REQUIREMENT: EXCEPT AS STATED BELOW, ANY DISPUTE BETWEEN YOU AND ANY OF US SHALL BE DECIDED BY NEUTRAL, BINDING ABRITRATION RATHER THAIN IN COURT OR BY JURY TRIAL. "Dispute" will be given the broadest possible meaning allowable by law. It includes any dispute, claim, or controversy arising from or relating to your purchase of this control, any warranty upon the unit, or the unit's condition. It also includes determination of the scope or applicability of this Arbitration Clause. The arbitration requirement applies to claims in contract and orbit, pursuant to statute, or otherwise.
- 3. CLASS-ARBITRATION WAIVER: ARBITRATION IS HANDLED ON AN INDIVIDUAL BASIS. IF A DISPUTE IS ARBITRATED, YOU AND WE EXPRESSLY WAIVE ANY RIGHT TO PARTICIPATE AS A CLASS REPRESENTATIVE OR CLASS MEMBER ON ANY CLASS CLAIM YOU MAY HAVE AGAINST US OR WE AGAINST YOU, OR AS A PRIVATE ATTORNEY GENERAL OR IN ANY OTHER REPRESENTATIVE CAPACITY. YOU AND WE ALSO WAIVE ANY RIGHT TO CLASS ARBITRATION OR ANY CONSOLIDATION OF INDIVIDUAL ARBITRATIONS.

- 4. Discovery and Other Rights: Discovery and rights to appeal in arbitration are generally more limited than in a lawsuit. This applies to both you and us. Other rights that you or we would have in court may not be available in arbitration. Please read this Arbitration Clause and consult the rules of the arbitration organizations listed below for more information.
- 5. SMALL CLAIMS COURT OPTION: YOU MAY CHOOSE TO LITIGATE ANY DISPUTE BETWEEN YOU AND ANY OF US IN SMALL CLAIMS COURT, RATHER THAN IN ARBITRATION. IF THE DISPUTE MEETS ALL REQUIREMENTS TO BE HEARD IN SMALL CLAIMS COURT.
- 6. Governing Law: For residents of the United States, the procedures and effect of the arbitration will be governed by the Federal Arbitration Act (9 U.S.C. § 1 et seq.) rather than by state law concerning arbitration. For residents of Canada, the procedures and effect of the arbitration will be governed by the applicable arbitration law of the province in which you purchased your control. The law governing your substantive warranty rights and other claims will be the law of the state or province in which you purchased your control. Any court having jurisdiction may enter judgment on the arbitration award.
- 7. Rules of the Arbitration: If the amount in controversy is less than \$250,000, the arbitration will be decided by a single arbitrator. If the amount in controversy is greater than or equal to \$250,000, the arbitration will be decided by a panel of three arbitrators. The arbitrator is will be chosen pursuant to the rules of the administering arbitration organization. United States residents may choose the American Arbitration Association (1633 Broadway, 10th Floor, New York, NY 10019, www.adr.org), JAMS (1920 Main Street, Ste. 300, Irvine, CA 92614, www.jamsadr. com), or, subject to our approval, any other arbitration organization. In addition, Canadian residents may choose the ADR Institute of Canada (234 Eglinton Ave. East, Suite 405, Toronto, Ontario, MAP 1KS, www.amic.org). These organizations' rules can be obtained by contacting the organization or visiting its website. If the chosen arbitration organization's rules conflict with this Arbitration Clause. the organization arbitration organization and binding on all and all an
- 8. Location of the Arbitration Hearing: Unless applicable law provides otherwise, the arbitration hearing for United States residents will be conducted in the federal judicial district in which you reside or, for Canadian residents, in the province in which you reside.
- 9. Costs of the Arbitration: Each party is responsible for its own attorney, expert, and other fees unless applicable law requires otherwise. Goodman will pay your share of the fees charged by the arbitration organization and arbitrator(s) beyond the first \$200. Where permissible by law, you may be required to reimburse Goodman for the fees of the arbitration organization and arbitrator(s) in whole or in part by decision of the arbitrator(s) at the discretion of the arbitrator(s).
- 10. Survival and Enforceability of this Arbitration Clause: This Arbitration Clause shall survive the expiration or termination, or any transfer, of the warranty on your control. If any part of this Arbitration Clause, except waivers of class-action rights, is found to be unenforceable for any reason, the remainder of this clause and the warranty shall remain enforceable. If, in a case in which class-action allegations have been made, the waiver of class-action rights under this warranty is found to be unenforceable with respect to any part of the dispute, the parts of the dispute as to which the waiver of class-action rights have been found unenforceable will be severed and will proceed in court without reference or application of this Arbitation Clause. Any remaining parts will proceed in arbitration.



