**Thermostat Application Guide**

**Power Type**

- Battery Power*
- Hardwire (Common Wire) with Battery Backup

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**Installation Tips**

**Wall Locations**

The thermostat should be installed approximately 4 to 5 feet above the floor. Select an area with average temperature and good air circulation.

**Installation Tip**

Pick an installation location that is easy for the user to access. The temperature of the location should be representative of the building.

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**Wireless Type Selection**

The thermostat and base module contain selectable wireless communication options. Each component has a jumper switch label FSK and ASK. Default setting: FSK.

- All components must be set to the same position for wireless communication.
- Both modes utilize a 916 MHz frequency.
- FSK: frequency-shift keying, is the recommended mode.
- ASK: amplitude-shift keying, should be selected when using components that can not communicate with FSK.

The images below illustrate the location of jumper switches for each item that has one. Note only the thermostat and Base Module are included in this package.

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**T955WH Thermostat**

- **FSK/ASK Switch**

**BASE MODULE**

- **FSK/ASK Switch**

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**Table**

<table>
<thead>
<tr>
<th>Component</th>
<th>Mode Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>T955WH Thermostat</td>
<td>FSK or ASK</td>
</tr>
<tr>
<td>T955WH Thermostat Base Module</td>
<td>FSK or ASK</td>
</tr>
<tr>
<td>RZ251W - Indoor Remote*</td>
<td>FSK or ASK</td>
</tr>
<tr>
<td>RZ250W - Outdoor Remote*</td>
<td>ASK</td>
</tr>
<tr>
<td>R251W - Indoor Remote</td>
<td>ASK</td>
</tr>
<tr>
<td>R250W - Outdoor Remote</td>
<td>ASK</td>
</tr>
<tr>
<td>W150W - Wireless Repeater</td>
<td>ASK</td>
</tr>
</tbody>
</table>

*Compatible with Z955W - Wireless Zoning Controller

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**Mercury Notice**

Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.

All of our products are mercury free. However, if the product you are replacing contains mercury, dispose of it properly. Your local waste management authority can give you instructions on recycling and proper disposal.

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**Do not install thermostat in these locations:**

- Close to hot or cold air ducts
- That are in direct sunlight
- With an outside wall behind the thermostat
- In areas that do not require conditioning
- Where there are dead spots or drafts (in corners or behind doors)
- Where there might be concealed chimneys or pipes

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**Back**

For horizontal mount put one screw on the left and one screw on the right.

For vertical mount put one screw on the top and one screw on the bottom.

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**Horizontal Mount**

**Vertical Mount**

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**Installation Tip: Electrical Hazard**

Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.

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Una versión en español de este manual se puede descargar en la pagina web de la compañía.
Installation Tips

Base Module Subbase installation

1. Horizontal Mount
   - For horizontal mount put one screw on the left and one screw on the right.
2. Vertical Mount
   - For vertical mount put one screw on the top and one screw on the bottom.

Wiring Note
Wire the base module's subbase the same way you would wire a hardwired thermostat subbase.

Note:
To connect the base module to the master thermostat, refer to the directions on page 13 of this manual.

Note:
The base module must be hardwired (C and R terminals connected to 24V power.)

Battery Installation
Battery installation is optional if there are no remotes connected to the Master Thermostat (C terminal connected). If you connect an outdoor remote and/or indoor remote sensors it is required the thermostat be hardwired.

Important: High quality alkaline batteries are recommended. Rechargeable batteries or low quality batteries do not guarantee a 1-year life span.

Thermostat Quick Reference

Getting to know your thermostat

1. Indicates the current room temperature
2. Time and day of the week
3. Low Battery Indicator: Replace batteries when this indicator is shown.
4. Program Menu Options: Show different options during programming.
5. Period Icons - This thermostat can have 2 or 4 programmable time periods per day. Icons are displayed for 4 time periods. Occupied and unoccupied will display in the text field for 2 time periods.
6. REMOTE indicates a remote has control of the system.
7. HOLD is displayed when thermostat program is permanently overridden.
8. Setpoint: Displays the user selectable setpoint temperature
9. System Operation Indicators: The COOL, HEAT or FAN icon will display when the COOL, HEAT or FAN is on. NOTE: The compressor delay feature is active if these icons are flashing. The compressor will not turn on until the 5 minute delay has elapsed.
11. Clean Display: Pressing CLEAN DISPLAY will allow 30 seconds to clean the display. The keys will be inoperative during this time. CLEAN will appear if your contractor has programmed a filter change reminder. Press CLEAN when filter has been replaced to reset the filter change reminder timer.
12. Next Zone: This button will appear if optional indoor remotes are present. By selecting NEXT ZONE you can cycle through each of the zones set up during the initial installation.
13. System Information: Shows which zone or zones are controlling your system. Shown only when one or more indoor sensors are connected.

Mount Thermostat and Base Module

Align the 4 tabs on the subbase with corresponding slots on the back of the thermostat/base module, then push gently until it snaps in place.

Note: To ensure a solid fit between the thermostat/base module and the subbase:
1. Mount subbase to a flat wall
2. Use screws provided
3. Drywall anchors should be flush with the wall
4. Wires should be pushed into the wall

Battery Installation
Insert 2 AA Alkaline batteries (included). High quality alkaline batteries are recommended. Rechargeable batteries or low quality batteries do not guarantee a 1-year life span.

Thermostat Quick Reference

Getting to know your thermostat

1. LCD Display
2. Glow in the dark light button
3. Fan key
4. System key
5. Setpoint keys
6. Menu key
7. Scheduled time period icons

Important
The low battery indicator is displayed when the AA battery power is low. If the user fails to replace the battery within 21 days, the screen will only show the low battery indicator but maintain all functionality. If the user fails to replace the batteries after an additional 21 days (days 22-42 since first "low battery" display) the setpoints will change to 55˚F (Heating) and 85˚F (Cooling). If the user adjusts the setpoint away from either of these, it will hold for 4 hours then return to either 55 °F or 85 °F. After day 63 the batteries must be replaced immediately to avoid freezing or overheating because the thermostat will shut the unit off until the batteries are changed.
Gently slide a screwdriver into the bottom edge of the badge. Gently turn the screwdriver counter clockwise. The badge is held on by a magnet in the well of the battery door. The badge should pry off easily. DO NOT USE FORCE.

**Private Label Badge**

About The Badge

All of our thermostats use the same universal magnetic badge. Visit the company website to learn more about our free private label program.

**Installation Tips**

Do not install the base module in locations:
- That are behind a chimney
- Where temperature could exceed 150°F
- Where rain or snow or extreme hot or cold is possible

Note: This base module is NOT weatherproof.

**Wireless Communication Tips**

Follow these steps for a simple wireless communication setup.

1. Locate all components in area near equipment.
2. Wire base module with 8ft pigtail and temporarily mount.
   - If you are not able to establish communication, this will allow you to relocate the module to an area with less obstruction, without having to rewire.
3. Install batteries in all devices you wish to use.
   - Thermostat, indoor/outdoor sensors.
4. A. Press the menu button on thermostat
   - B. Press & hold tech set up button
   - C. Configure the set up for your application
   - D. Establish communication between devices
5. Install thermostat in final location.
   - Note: You must hardwire the thermostat when using remotes.
6. Turn on fan from thermostat to ensure communication.
   - Once communication is established, permanently mount module.

**Troubleshooting**

If there is no communication between the thermostat and base module devices that are less than 50ft. apart, utilize an 8ft. pigtail to relocate and reduce interference. If there is not communication and devices are over 50ft. apart, add a W150W - Wireless Repeater.
Establishing communication between master thermostat and the base module

1. Press and hold the base module button for 3 seconds. The Blue LED will flash when ready to receive initial signal from the thermostat. (Base module must be powered by 24V. Blue LED will be continuously on when 24V power is present.)

2. Hold the light key (shown here) on when 24V power is present.)

Note: The Blue LED on the base module will be on when power is present. The Blue LED will flash 3 times every time it receives a signal from the thermostat. When a relay is on the corresponding LED relay indicator will be on.

Step 1. LED Relay Indicators

- Base Module Button

Step 2. Light key

Important: DO NOT hold the light button on the thermostat for more than 10 seconds after step 2 above has been completed. Holding the light button down will break the communication link and the base module will also turn off to show communication has been lost.

Note: If communication has been lost for 1 hour and if freeze protection is enabled, the heat and emergency heat relays will be turned on. The heat and emergency relays will turn on for 10 minutes every hour if there has been a call for heat in the last 24 hours.

Note: If the base module does not receive a signal from the thermostat for 15 minutes it will turn off all relays until communication is reestablished. The blue LED on the base module will turn off to show communication has been lost.

Note: If communication has been lost for 1 hour and if freeze protection is enabled, the heat and emergency heat relays will be turned on. The heat and emergency relays will turn on for 10 minutes every hour if there has been a call for heat in the last 24 hours.

Wiring

Power supply

- Factory-installed jumper. Remove only when installing on 2-transformer systems
- Use either O or B terminals for changeover valve
- If DEHUM relay requires a normally-energized input, set dehumidity relay to NC in technician setup.

Typical 2H/2C System: 2 Transformer

Typical 2H/2C System with dehum terminal

Typical 2H/2C System with 24VAC Humidifier

Typical 2H/2C System with dry contact humidifier

Installation Tip

Do not overtighten terminal block screws, as this can damage the terminal block. A damaged terminal block can keep the thermostat from fitting on the subbase correctly or cause system operation issues. Max Torque = 6in-lbs.

Warning:

- All components of the control system and the thermostat installation must conform to Class II circuits per the NEC Code.
Terminal Designations on the Base Module

This thermostat is shipped from the factory to operate a conventional heating and cooling system. This thermostat may also be configured for a heat pump system. See the “heat pump” configuration step on page 23 of this manual to configure the thermostat for heat pump applications.

Terminal Designations on the Master Thermostat

If you add indoor or outdoor remote sensors to this wireless system you must hardwire the master thermostat.

Technician Setup

This thermostat has a technician setup menu for easy installer configuration. To set up the thermostat for your particular application:

1. Press the MENU button.
2. Press and hold the technician setup button for 3 seconds. This 3 second delay is designed so that homeowners do not accidentally access the installer settings.
3. Configure the installer options as desired using the table below.

Use the or keys to change settings and the next step or previous step key to move from one step to another. Note: Only press the DONE key when you want to exit the Technician Setup options.
4. Press the DONE key to exit.

Tech Setup Steps

<table>
<thead>
<tr>
<th>Tech Step</th>
<th>LCD Will Show</th>
<th>Adjustment Options</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Change Reminder</td>
<td>OFF</td>
<td></td>
<td>OFF</td>
</tr>
<tr>
<td>Room Temperature Calibration</td>
<td>0°F</td>
<td></td>
<td>0°F</td>
</tr>
<tr>
<td>Minimum Compressor On Time</td>
<td>OFF</td>
<td></td>
<td>OFF</td>
</tr>
</tbody>
</table>

Keypad Lockout Note: The selected keypad lockout functionality must be activated after exiting tech setup. If you do not perform this procedure, all keys will function freely. To lock the keypad hold down the and keys for 3 seconds. You will see a lock in the display. To unlock the display hold down the and keys for 3 seconds.

Wiring

Power supply

Factory-installed jumper. Remove only when installing on 2-transformer systems. Use either O or B terminals for changeover valve.

If DEHUM relay requires a normally-energized input, set dehumidification relay to NC in technician setup.

Typical 2H/2C System: 1 Transformer

Typical 3H/2C or 2H/1C Heat Pump System

Swing Setting Tip

The second stage will turn on at 2x the swing setting. The second stage will turn off when 1x the swing is reached. For example, if the swing setting is .5 degrees for heating and the thermostat is set at 70°F, the first stage will turn on at approximately 69.5°F. The second stage will turn on at 69°F. The second stage will turn off at 68.5°F and the first will turn off at 70.5°F. If the third stage is used, it will turn on at 68.5°F and turn off at approximately 69°F.
### Technician Setup

<table>
<thead>
<tr>
<th>Tech Setup Steps</th>
<th>LCD Will Show</th>
<th>Adjustment Options</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating Temp Setpoint Limit</td>
<td>90°F HE</td>
<td>Use the Δ or β key to select the maximum heat setpoint.</td>
<td>90°F</td>
</tr>
<tr>
<td>Cooling Temp Setpoint Limit</td>
<td>44°F CO</td>
<td>Use the Δ or β key to select the minimum cool setpoint.</td>
<td>44°F</td>
</tr>
<tr>
<td>&quot;F or °C</td>
<td>°F</td>
<td>°F</td>
<td>°F</td>
</tr>
<tr>
<td>12 or 24 Hour Clock</td>
<td>12H</td>
<td>Use the &lt; or &gt; key to select 12 or 24 hour clock setting.</td>
<td>12H</td>
</tr>
<tr>
<td>Morning Recovery</td>
<td>ON</td>
<td>Use the &lt; or &gt; key to turn on or off.</td>
<td>ON</td>
</tr>
<tr>
<td>Program Options</td>
<td>5d</td>
<td>Use the &lt; or &gt; key to select 5d for 5-1+1 program or nonprogrammable.</td>
<td>5d</td>
</tr>
<tr>
<td>Time Periods</td>
<td>4</td>
<td>Use the &lt; or &gt; key to select 4, 2c, or 4c time periods per day.</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Technician Setup Steps

<table>
<thead>
<tr>
<th>Tech Setup Steps</th>
<th>LCD Will Show</th>
<th>Adjustment Options</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Occupancy Fan</td>
<td>OFF</td>
<td>You can select the pre-occupancy fan from OFF, 1, 2, or 3 hours.</td>
<td>OFF</td>
</tr>
<tr>
<td>Display Light</td>
<td>OFF</td>
<td>If 5, 2, or 3 is selected, the fan will turn on for many hours prior to the scheduled occupied time period.</td>
<td>OFF</td>
</tr>
<tr>
<td>Contractor Call Number</td>
<td>OFF</td>
<td>If selected ON, you will see the input screens after pressing NEXT STEP. Use the Δ or β key to select the desired number and the &lt; or &gt; key to move from one character to another. See note below for operation.</td>
<td>OFF</td>
</tr>
<tr>
<td>Beep</td>
<td>ON</td>
<td>If ON is selected the beep will sound. If OFF is selected there is no sound.</td>
<td>ON</td>
</tr>
</tbody>
</table>

### Contractor Call Number Note

If contractor call number is selected ON, the number entered will show in the display if there has been a continuous call for heating or cooling for 24 hours or if the light button is held down for 3 seconds. To remove the phone number from the display, hold the light button down for 3 seconds.

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### Stages of Heat

<table>
<thead>
<tr>
<th>Requires Outdoor Sensor</th>
<th>Balance Point Temp</th>
<th>Requirements</th>
<th>Adjustment Options</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>An outdoor temperature ABOVE this setting will LOCKOUT the auxiliary heat terminal (W2), and ONLY ALLOW the heat pump/ compressor terminals (1%) to energize.</td>
<td>YES SD</td>
<td>2H2C STAGE</td>
<td>Use the &lt; or &gt; key to select YES or NO.</td>
<td>2 STAGES</td>
</tr>
<tr>
<td>An outdoor temperature BELOW this setting can perform 2 different ways, depending on the previous Gas Aux/Dual Fuel setting.</td>
<td>PO IN</td>
<td>Use the &lt; or &gt; key to select Balance point Temperature of 10, 20, 30, 35, 40, 45 or 50 degrees.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance point run time will allow the W2 auxiliary terminal to energize even if outdoor temperature is above the selected balance point temperature.</td>
<td>HUM Terminal</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requires Outdoor Sensor</td>
<td>Over Cool Limit</td>
<td>Balancing Point</td>
<td>Adjustment Options</td>
<td>Default</td>
</tr>
<tr>
<td>Only shows if auxiliary heat terminal energizes.</td>
<td>YES</td>
<td>15, 30, 45, 60, 75, 90 continuous run time minutes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The display light can be configured to stay on all the time or come on when any key is pressed. NOTE: HARDWARE ONLY</td>
<td>PRE OCCUPY FAN</td>
<td>Use the &lt; or &gt; key to turn on or off.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This feature forces the A/C to run continually &quot;ON&quot; will greatly reduce battery life.</td>
<td>ON</td>
<td>If selected ON, you will see the input screen after pressing NEXT STEP. Use the Δ or β key to select the desired number and the &lt; or &gt; key to move from one character to another.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The amount of over cooling allowed when using A/C to remove humidity. This screen is only shown when ON is selected in the &quot;Dehumidify with A/C&quot; tech setup step.</td>
<td>DEHUM 12°F</td>
<td>Use the &lt; or &gt; key to adjust the calibration +/-3. 1°=approx. 5%.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Options are: 2, 3, 4, 5 Deg.</td>
<td>HUM TEMP INRL</td>
<td>Use the &lt; or &gt; key to select the one of the four options. View the HUM terminal chart below for an explanation of these options.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Humidity Calibration

This feature allows the installer to change the calibration of the ambient humidity displayed.

<table>
<thead>
<tr>
<th>Humidity Calibration</th>
<th>Humidity</th>
<th>Adjustment Options</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>This feature adds humidity when SYSTEM key is in heat.</td>
<td>System terminal on following page.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This feature removes humidity when SYSTEM key is in cool.</td>
<td>System terminal on following page.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>Dehumidify with AC</td>
<td>Use the &lt; or &gt; key to select YES or NO.</td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>Over Cool Limit</td>
<td>Use the &lt; or &gt; key to select YES or NO.</td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>Humidity Calibration</td>
<td>Use the &lt; or &gt; key to select YES or NO.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Dehumidify with A/C</td>
<td>Use the &lt; or &gt; key to select YES or NO.</td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>Humidity Calibration</td>
<td>Use the &lt; or &gt; key to select YES or NO.</td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>Dehumidify with A/C</td>
<td>Use the &lt; or &gt; key to select YES or NO.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Over Cool Limit</td>
<td>Use the &lt; or &gt; key to select the one of the four options. View the HUM terminal chart below for an explanation of these options.</td>
<td></td>
</tr>
</tbody>
</table>
## Technician Setup

### Tech Setup Steps

<table>
<thead>
<tr>
<th>Tech Setup Steps</th>
<th>LCD Will Show</th>
<th>Adjustment Options</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heat Pump</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When turned on the thermostat will operate a heat pump. 1. EM. Heat will show as an option in the system switch. 2. Y will be first stage of heat &amp; cool, W/E will be emergency heat relay &amp; W2 will be auxiliary heat relay.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>System Set</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You can configure the system switch for the particular application. Heat - Off, Heat - Cool, Off, Cool (only if Heat Pump is &quot;ON&quot;).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fan Operation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Dual Fuel applications (Gas/ Fossil fuel Auxiliary Heat), turn this setting ON to LOCKOUT the Heat Pump (Y) when Auxiliary Heat (W2) is on. If desired - This can also be used with Electric Auxiliary.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dual Fuel Auxiliary for Heat Pump</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If heat pump systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cooling Fan Delay</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The cooling fan delay setting will delay the fan from coming on in cool mode and keep it running after the compressor shuts off for a short time to save energy in some systems.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Finding Sensor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This step connects the indoor sensor with the master thermostat. The previous step remote sensor must be set to YES in order to connect an indoor sensor.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Remote Sensor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enables the use of up to four indoor sensors. Selecting YES requires the master thermostat to be powered with 24V on C and R terminals. See the outdoor sensor guide for more information.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Local Temp Sensor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disable the sensor on the master. At least one indoor remote sensor must be connected to disable the local sensor.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Freeze Protection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turns on the heat for 10 minutes each hour if unable to communicate with the master thermostat. If there has been a call for heat in the last 24 hours.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Technician Setup

<table>
<thead>
<tr>
<th>Tech Setup Steps</th>
<th>LCD Will Show</th>
<th>Adjustment Options</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DHM Terminal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option for how DHM terminal energizes. Note: Set as option 1 IF DEHUM with AC is set to YES.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dehumidify Relay</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can you configure the DHM terminal as normally-open or normally-closed? NO: Normally Open NC: Normally Closed See Note Below</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Satisfy Setpoint</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This feature allows the thermostat to keep multiple stages of heat or cool energized until setpoint is satisfied.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staging Delay</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This feature allows a delay to occur when both stages are energized.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HUM Terminal

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>HUM terminal energizes when the ambient humidity is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Below the humidity setpoint and heat or fan is energized.</td>
</tr>
<tr>
<td>2</td>
<td>Below the humidity setpoint and heat is energized.</td>
</tr>
<tr>
<td>3</td>
<td>Below the humidity setpoint. It will also energize the fan during a call for humidity.</td>
</tr>
<tr>
<td>4</td>
<td>Below the humidity setpoint.</td>
</tr>
</tbody>
</table>

### DHM Terminal

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>DHM terminal energizes when the ambient humidity is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Above the humidity setpoint and cool or fan is energized.</td>
</tr>
<tr>
<td>2</td>
<td>Above the humidity setpoint. It will also energize the fan during a call for dehumidification.</td>
</tr>
<tr>
<td>3</td>
<td>Above the humidity setpoint.</td>
</tr>
<tr>
<td>4</td>
<td>Above the humidity setpoint and the compressor is not running.</td>
</tr>
</tbody>
</table>

### Note:
Up to four indoor temperature sensors can be connected to one thermostat. This allows for 5 sensing points (zones). For example: the local (thermostat) plus four indoor sensors enables 5 sensing points. To connect an indoor sensor to a thermostat, select 1 on the FINDING SENSOR tech setup step. Then hold down the light button on the indoor sensor until it beeps, while in ZONE technician setup step on the indoor sensor. To connect a second indoor sensor change the thermostat to read 2 and change the indoor sensor to zone 2. The zone setting must match between the thermostat and the indoor sensor to connect. When the connection is established the thermostat will show FOUND + NAME of the indoor sensor in the system information area of display.

### Balance Point
The system operates differently when a balance point is used. On a dual fuel system, the balance point outdoor temperature setting will be the outdoor temperature at which the thermostat chooses either the heat pump or gas furnace. For example: A balance point setting of 30°F will turn on only the heat pump above 30°F and only the gas furnace below 30°F. Y1 will be stage one above 30°F and W2 will be stage one below 30°F. A heat pump with electric auxiliary will energize the light button on the indoor sensor until it beeps, while in ZONE technician setup step on the indoor sensor. To connect a second indoor sensor change the thermostat to read 2 and change the indoor sensor to zone 2. The zone setting must match between the thermostat and the indoor sensor to connect. When the connection is established the thermostat will show FOUND + NAME of the indoor sensor in the system information area of display.

### Reminders
Once a reminder has been turned on and set, the elapsed time can be checked by navigating to its tech setup step. The elapsed time will then appear in the text field. It can also be reset at that time by holding down the set CLEAN button for 3 seconds. Resetting an expired reminder can be done without entering tech setup, by holding down the set CLEAN button for 3 seconds from the home screen.
**Setting The Humidity**

Follow the steps below to change your target humidity setpoint.

1. Press the humidity button. Use the < or > button to select the target humidity setpoint. Press DONE when completed.

**Note:**
- The target humidity setpoint is not programmable. Unlike temperature, humidity does not change quickly and should not be programmed.
- Humidity is only energized during heat. Dehumidification is only energized during cool. Heat and cool each have their own target setpoints.

**Ambient Humidity Display**

Ambient humidity will flash opposite the day and time, if the optional outdoor temperature sensor is installed the ambient outdoor temperature will also cycle in the display.

**Increasing Humidity**

The table on the right shows recommended indoor humidity levels in relation to outdoor temperatures during heating. Consult your professional HVAC technician for recommended settings for your climate.

![Humidity Key](image)

**Target humidity setpoint keys**

**Programming**

**Set Time (If using programming)**

Follow the steps below to set the day of the week and current time:

1. Press the MENU button.
2. Press Set Time.
3. Day of the week is flashing. Use the < or > key to select the correct a.m. or p.m. choice is selected.
4. Press Next Step.
5. The current hour is flashing. Use the < or > key to select the current hour. When using 12-hour time, make sure the correct a.m. or p.m. choice is selected.
7. Minutes are now flashing. Use the < or > key to select current minutes.
8. Press DONE when completed.

**Programmable Fan Feature**

This thermostat has a programmable fan feature, which allows you to run the fan continually during any time period.

**Programming**

All our programmable thermostats are shipped with an energy saving default program. You can customize this default program by following the instructions in the set program schedule section starting on page 34.

Your thermostat can be programmed to have each day of the week programmed uniquely (7 days), all the weekdays the same with a separate program for Saturday and a separate program for Sunday (5+1+1), or non-programmable. For the 7-day and 5+1+1 programming modes, there are three time period options.

1. 4” Residential (WAKE, LEAVE, RETURN, SLEEP)
2. 2C” Commercial (OCCUPIED, UNOCCUPIED)
3. 4C” Commercial (OCCUPIED 1, UNOCCUPIED 1, OCCUPIED 2, UNOCCUPIED 2)

This thermostat has a programmable fan feature, which allows you to run the fan continually during any time period.

**Set Program Schedule For Two Time Periods (OCCUPIED, UNOCCUPIED)**

To customize your 5+1+1 Program schedule, follow these steps:

**Weekday:**

1. Select HEAT or COOL with the SYSTEM key.
2. Press the MENU button (if menu does not appear first, press RUN SCHED).
3. Press SET SCHED. Note: Monday-Friday is displayed and the OCCUPIED text is shown. You are now programming the OCCUPIED time period for the weekday setting.
4. Use the < or > key to make your time selection for the weekday OCCUPIED period. Note: If you want the fan to run continuously during this time period, select ON with the FAN key.
5. Then use the < or > key to make your setpoint selection for the weekday OCCUPIED period.
7. Repeat steps 4 through 6 for the weekday UNOCCUPIED time period.

**Saturday:**

Repeat steps 4 through 6 for the Saturday OCCUPIED time period and for the Saturday UNOCCUPIED time period.

**Sunday:**

Repeat steps 4 through 6 for the Sunday OCCUPIED time period, and for the Sunday UNOCCUPIED time period.
To customize your 7 day program schedule, follow these steps:

Monday:
1. Select HEAT or COOL with the SYSTEM key.  
   Note: You have to program heat and cool each separately.
2. Press the MENU button (if menu does not appear first press RUN SCHD).
3. Press SET SCHED. Note: Monday is displayed and the OCCUPIED text is shown. You are now programming the OCCUPIED time period for that day.
4. Use the < or > key to make your time selection for the OCCUPIED time period. Note: If you want the fan to run continuously during this time period, select ON with the FAN key.
5. Then use the A or B key to make your setpoint selection for that day’s OCCUPIED period.
6. Press NEXT.
7. Repeat steps 4 through 6 for that day’s UNOCCUPIED time period.

Repeat steps 4 through 6 for the remaining days of the week.

A Note About Programmable Fan:
The programmable fan feature will run the fan continuously during any time period it is programmed to be on. This is the best way to keep the air circulated and to eliminate hot and cold spots in your building.
Specifications

The display range of temperature ... 41˚F to 95˚F (5˚C to 35˚C)
The control range of temperature ... 44˚F to 90˚F (7˚C to 32˚C)
Load Rating ............................................... 1 amp per terminal, 1.5 amp maximum all terminals combined
Swing (cycle rate or differential) ...... Heating is adjustable from 0.2˚ to 2.0˚
Cooling is adjustable from 0.2˚ to 2.0˚
Power source ...........................................18 to 30 VAC, NEC Class II, 50/60 Hz for hardwire
Battery power from 2 AA Alkaline batteries
Operating ambient ............................... 32˚F to +105˚F (0˚C to +41˚C)
Operating humidity .............................. 90% non-condensing maximum
Dimensions of thermostat ................. 4.7” W x 4.3” H x 1.1” D
Frequency ................................................ 916 MHz

Base module
Load rating ............................................... 1 amp per terminal, 1.5 amp maximum all terminals combined
Power source ........................................... 18 to 30 VAC, NEC Class II, 50/60 Hz
Operating ambient ............................... 32˚F to +150˚F (0˚ to +65°C)
Operating humidity .............................. 90% non-condensing maximum

Programming

To customize your 7 day Program schedule, follow these steps:

Monday:
1. Select HEAT or COOL with the SYSTEM key.
   Note: You have to program heat and cool each separately.
2. Press the MENU button (if menu does not appear first, press RUN SCHED).
3. Press SET SCHED. Note: Monday is displayed and the WAKE/OCC1 icon is shown. You are now programming the WAKE/OCC1 time period for that day.
4. Use the << or >> key to make your time selection for that day’s WAKE/OCC1 time period.
   Note: If you want the fan to run continuously during this time period, select ON with the FAN key.
5. Then use the ▲ or ▼ key to make your setpoint selection for that day’s WAKE/OCC1 period.
7. Repeat steps 4 through 6 for that day’s LEAVE/UNOCC1 time period, for that day’s RETURN/OCC2 time period, and for that day’s SLEEP/UNOCC2 time period.
Repeat steps 4 through 6 for the remaining days of the week.

A Note About Auto Changeover:
In Auto you have the ability to switch between Auto Heat or Auto Cool by pressing the system key. This can be done once the current mode has reached its setpoint. For example: if in Auto Heat, the heat setpoint must be satisfied before the thermostat will allow you to switch to Auto Cool. You can switch out of Auto by holding down the SYSTEM key. To get back into Auto, you must toggle the system key to Auto.

Features

Temporary & Permanent Hold Feature
Temporary Hold: The thermostat will display HOLD and Run Schedule on the bottom of the screen when you press the ▲ or ▼ key. If you do nothing, the temperature will remain at this setpoint temporarily for 4 hours. The program setpoint will then replace the temporary setpoint.
Permanent Hold: With a temporary hold set, if you press the HOLD key at the bottom of your screen, you will see HOLD appear next to the setpoint temperature in the display. The thermostat will now permanently stay at this setpoint and can be adjusted using the ▲ or ▼ keys.
To Return To Program: Press the Run Schedule key at the bottom of the screen to exit temporary and permanent holds.

Filter Change Reminder
If your installing contractor has configured the thermostat to remind you when the air filter needs changed, you will see a reminder in the display when your system has run long enough to require an air filter change.
Resetting the filter change reminder: When the reminder is displayed, you should change your air filter and reset the reminder by holding down the “Clean” key on the left side of the thermostat for 3 seconds.