User Guide
Viega Non-Programmable Heat/Cool Thermostat

Installation Tips

Applications Guide
The Programmable Heat/Cool Thermostat can be used for the following applications:
- Gas or Oil Heat
- Electric Furnace
- Heat Pump (No Aux. or Emergency Heat)
- Heat Only Systems
- Cool Only Systems

The following applications are not recommended:
- Heat Pump (with Aux. or Emergency Heat)
- Multi-stage Systems

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.

Wall Locations

- Do not install thermostat in locations:
  - Close to heating/cooling emitters
  - 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

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

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

For horizontal mount put one screw left and one screw right. The thermostat can be mounted directly to the wall or it can be mounted to a wall box. Use the vertical mounting screw location to attach to a wall box.

Attaching the Thermostat to the Subbase

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

To insure a solid fit between the thermostat and the subbase:
- Mount subbase to a flat wall or electrical box.
- Use screws provided.
- Drywall anchors should be flush with the wall.
- Wires should be pushed into the wall.

A trained, experienced technician must install this product. Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.
Battery Installation
Battery installation is recommended even if thermostat is hardwired (C terminal connected). When thermostat is hardwired and batteries are installed, the thermostat will activate a compressor delay of 5 minutes when the thermostat detects a power outage from the hardwired power supply.

Insert 2 AA Alkaline batteries (included). High quality alkaline batteries are recommended.

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

Thermostat Settings

Gas or Electric Setup
Gas
For systems that control the fan during a call for heat, put the fan operation switch to the GAS position.

Electric
With the fan operation switch in the ELEC position, and the fan relay connected to the G terminal - the thermostat will control the fan during a call for heat.
Thermostat Wiring

- If you are replacing a thermostat, make note of the terminal connections on the thermostat that is being replaced. In some cases the wiring connections will not be color coded. For example, the green wire may not be connected to the G terminal.
- Loosen the terminal block screws. Insert wires then retighten terminal block screws.

Viega Thermostat Terminal Conversion

<table>
<thead>
<tr>
<th>Thermostat</th>
<th>Thermostats</th>
<th>Zone Controls</th>
<th>Zone Control</th>
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<tbody>
<tr>
<td>15118</td>
<td>15116</td>
<td>18060</td>
<td>18032</td>
</tr>
<tr>
<td></td>
<td>15117</td>
<td>18062</td>
<td>18029</td>
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</table>

Digital Thermostat

18050

<table>
<thead>
<tr>
<th>RH</th>
<th>RC</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>W</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>W/E</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>L</td>
</tr>
<tr>
<td>W</td>
<td>N</td>
</tr>
</tbody>
</table>

Power Type

- 3 wire
- 3 wire with battery backup
- 2 wire with battery

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

WARNING!
All components of the control system and the thermostat installation must conform to Class II circuits per the NEC Code.

Wiring Tips

RH & RC terminals
For single transformer systems, leave the jumper wire in place between RH and RC. Remove jumper wire for two transformer systems.

Heat Pump Systems with No Auxiliary or Emergency Heat
If wiring to a heat pump, use a small piece of wire (not supplied) to connect terminals W and Y.

C Terminal
The C (common wire) terminal does not have to be connected when the thermostat is powered by batteries.

Wire Specifications
Use shielded or non-shielded 18-22 gauge thermostat wire.

Terminal Designations

- W Heat relay
- Y Compressor relay
- G Fan relay
- O Heat pump changeover valve energized in cooling
- RC Transformer power for cooling
- RH Transformer power for heating
- B Heat pump changeover valve energized in heating
- C Common wire from secondary side of cooling system transformer
Typical Industry Wiring Diagrams

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

**Typical 1H/1C System: 1 Transformer**

**Typical Heat-Only System**

**Typical 1H/1C System: 2 Transformer**

**Typical Heat Only System With Fan**

**Typical 1H/1C Heat Pump System**

**Typical Cool-Only System**
**Connecting Viega Thermostats and Zone Valves to the Viega Zone Control**

**Part Numbers: 15116, 15117, and 15118**

- Connect the RC terminal from the thermostat to R terminal on the zone control.
- Connect the W terminal from the thermostat to W terminal on the zone control, for part number 15118 connect W/E terminal from the thermostat to W terminal on the zone control.
- Connect the C terminal from the thermostat to the C terminal on the zone control.

**Legend: Thermostat**

- Low Voltage
- Line Voltage

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**Viega Wiring Diagrams**

**Thermostat 15116**

**Thermostat 15117**

**Thermostat 15118**

**Thermostat 18050**

**Zone Control (18060, 18062) with Optional Priority**
Connecting Viega Thermostats to the Viega Zone Control

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Connecting Viega Thermostats to 2-Wire Powerheads

4 powerheads may be connected to each thermostat

Connecting Viega Thermostats to 4-Wire Powerheads

4 powerheads may be connected to each thermostat

Legend: Thermostat

- - Low Voltage
--- Line Voltage
**System Operation**

**Indicators:**
- The COOL ON, HEAT ON or icon will display when the COOL, HEAT or (fan) is on.

**Low Battery Indicator:**
Replace batteries when this indicator is shown.

### 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 set points will change to 55°F (Heating) and 85°F (Cooling). If the user adjusts these setpoints away from 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 battery is changed.

### Thermostat Display

1. **LCD Display**
   - Push the glow in the dark button and screen will illuminate.

2. **Glow in the dark light button**
   - Push the glow in the dark button and screen will illuminate.

3. **Fan switch**
   - Set to AUTO to run the fan anytime heating or cooling is running.
   - Set to ON to run the fan at all times.

4. **System switch**
   - Set to heating / cooling or off.

5. **Easy change battery door**
   - 2 AA batteries included

6. **Temperature setpoint buttons**
   - Use the + or - buttons to adjust the room temperature.

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**Indicates the current room temperature.**

**Displays the user selectable setpoint temperature.**

**System Operation Indicators:**
The COOL ON, HEAT ON or icon will display when the COOL, HEAT or (fan) is on.

The compressor delay feature is active if these icons are flashing. The compressor will not turn on until the 5 minute delay has elapsed.
# Programming the Thermostat

**Tech Settings**

1. Select OFF with the System Switch.
2. Hold down the + and - buttons together for 3 seconds.
3. Use the + and - to change setting for that step, and the glow in the dark light button to move from one step to another.

4. To exit Tech settings, slide System Switch to different position or wait approximately 20 seconds.

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<tr>
<th>Tech Settings</th>
<th>LCD will Show</th>
<th>Adjustment Options</th>
<th>Factory Default Settings</th>
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</thead>
<tbody>
<tr>
<td>Room Temperature Calibration</td>
<td></td>
<td>You can adjust the room temperature display to read -4°F to +4°F above or below the factory calibrated reading.</td>
<td>0°F</td>
</tr>
<tr>
<td>Compressor Short Cycle Delay</td>
<td></td>
<td>Selecting ON will not allow the compressor to be turned on for 5 minutes after the last time the compressor was on. Select OFF to remove this delay.</td>
<td>On</td>
</tr>
<tr>
<td>°F or °C</td>
<td></td>
<td>°F for Fahrenheit</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>°C for Celsius</td>
<td></td>
</tr>
</tbody>
</table>

Room Temperature Calibration: This feature allows the installer to change the calibration of the room temperature display. For example, if the thermostat reads 70° and you would like it to read 72° then select +2.

Compressor Short Cycle Delay: The compressor short cycle delay protects the compressor from “short cycling”. This feature will not allow the compressor to be turned on for 5 minutes after it was last turned off.

°F or °C: Select F for Fahrenheit temperature read out or select C for Celsius read out.
Swing Settings

1. Select COOL or HEAT with the System Switch. They are set separately.
2. Hold down the + and - buttons together for 3 seconds.
3. To exit Swing settings, slide System Switch to a different position or wait approximately 20 seconds.

<table>
<thead>
<tr>
<th>Swing Settings</th>
<th>LCD will Show</th>
<th>Adjustment Options</th>
<th>Factory Default Settings</th>
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<tr>
<td><strong>Cooling Swing</strong>&lt;br&gt;The swing setting often called “cycle rate,” “differential,” or “anticipation” is adjustable. A smaller swing setting will cause more frequent cycles and a larger swing setting will cause fewer cycles.</td>
<td><img src="image" alt="0.5°C swing setting" /></td>
<td>The cooling swing setting is adjustable from ±0.2°F to ±2°F. For example: A swing setting of 0.5°F will turn the cooling on at approximately 0.5°F above the setpoint and turn the cooling off at approximately 0.5°F below the setpoint.</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Heating Swing</strong>&lt;br&gt;The swing setting often called “cycle rate,” “differential,” or “anticipation” is adjustable. A smaller swing setting will cause more frequent cycles and a larger swing setting will cause fewer cycles.</td>
<td><img src="image" alt="0.4°F swing setting" /></td>
<td>The heating swing setting is adjustable from ±0.2°F to ±2°F. For example: A swing setting of 0.5°F will turn the heating on at approximately 0.5°F below the setpoint and turn the heating off at approximately 0.5°F above the setpoint.</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Swing Setting Tip
Temperature swing, sometimes called differential or cycle rate can be customized for this individual application. For most applications choose a swing setting that is as long as possible without making the occupants uncomfortable.
Adjusting the Room Temperature

The current room temperature is displayed in large text in the center of the thermostat under the “room temperature” heading. The set point or desired room temperature is in the upper right corner of the display under “set at”. To raise or lower the desired “set at” temperature use the red and blue + and - buttons on the top right of the thermostat.