VIVE COMFORT™ TP-N-751

Vive Comfort
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Hours of Operation: M-F 9AM - 6PM Eastern

VM-751-IM-2422

Thermostat Application Guide

Description	
Gas or Oil Heat	Yes
Electric Furnace	Yes
Heat Pump (No Aux. or Emergency Heat)	Yes
Heat Pump (With Aux. or Emergency Heat)	Yes
Multi-Stage Systems	Yes
Heat Only Systems	Yes
Cool Only Systems	Yes
Millivolt	Yes

Power Type

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

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.

Una version en español de este manual se puede descargar en la pagina web de la compañia.
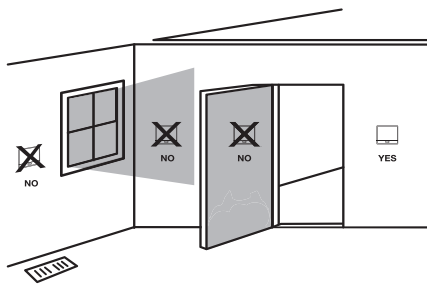
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Rev. 2422

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.

Do not install thermostat in 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)
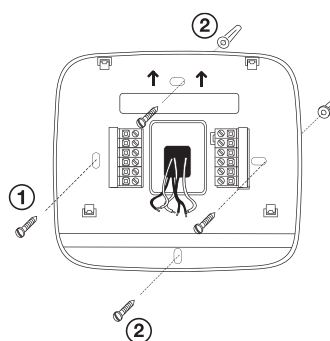- Where there might be concealed chimneys or pipes

💡 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.

Subbase Installation

① Horizontal Mount
② Vertical Mount

💡 Installation Tip: Electrical Hazard
Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.

💡 Mercury Notice
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.

For vertical mount put one screw on the top and one screw on the bottom.
For horizontal mount put one screw on the left and one screw on the right.
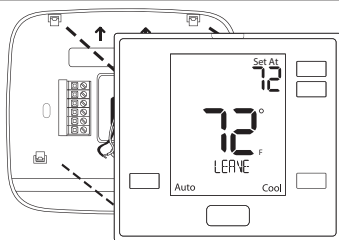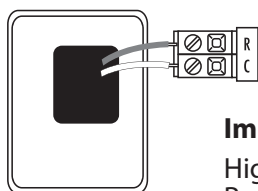
Mount Thermostat

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.

Battery Installation

Battery installation is optional if thermostat is hardwired (R and C terminal connected to 24V power).

Important:

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

Insert 2 AA Alkaline batteries (included). High quality alkaline batteries are recommended.
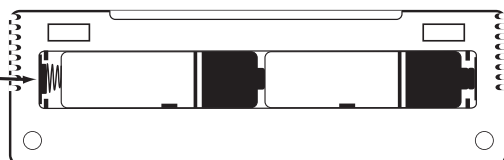
Located on the back of the thermostat.

About The Private Label Badge

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

Use the bevel on lower ridge
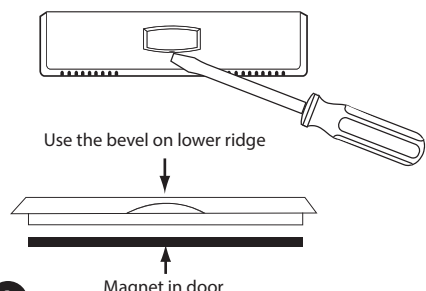
Magnet in door

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.**

Getting to know your thermostat
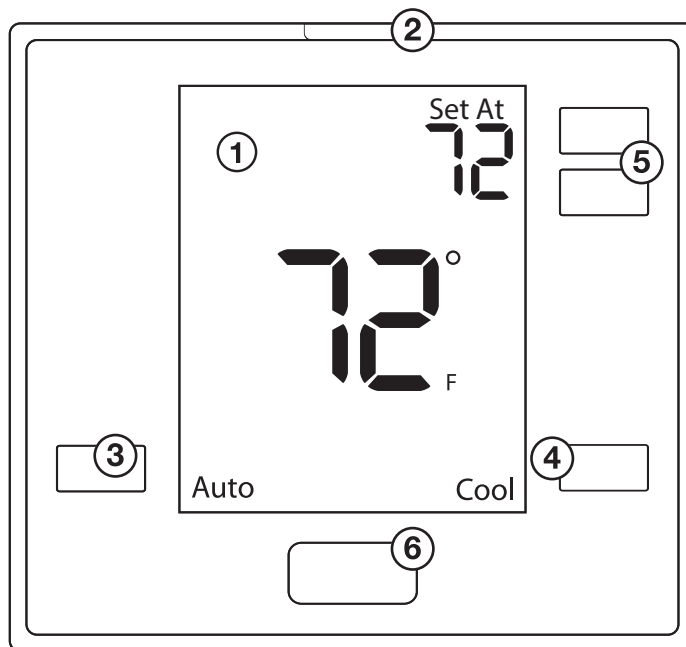
① LCD Display
② Glow in the dark light button
③ Fan Button
④ System Button
⑤ Temperature Setpoint Buttons
⑥ Private Label Badge

Getting to know your thermostat
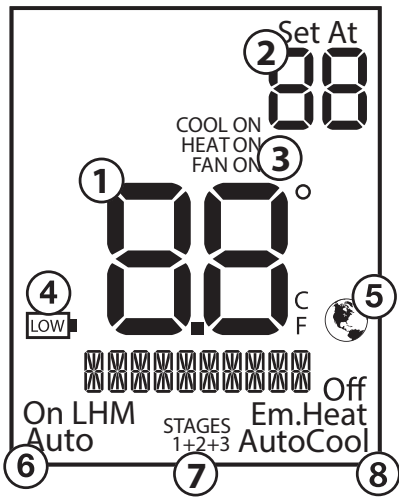
1. **Indicates the current room temperature**

2. **Setpoint:** Displays the selected setpoint temperature.

3. **System Operation Indicators:** The COOL ON, HEAT ON or FAN ON will display when the COOL, HEAT, or FAN is on. **The compressor delay feature is active if these are flashing.**

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

5. **Globe:** Globe is displayed if an energy efficient temperature has been selected.

6. **Fan:** Indicates the current fan setting.

7. **Stages:** +1 will appear in the display when the first stage of heat or cool is on. +2 will appear for the second stage of heat.

8. **System:** Indicates current system mode setting.

💡 **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.

Wiring

1. 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.

2. Loosen the terminal block screws. Insert wires then retighten terminal block screws.

3. Place nonflammable insulation into wall opening to prevent drafts.

⚠️ **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.

Terminal	2 Heat 2 Cool Conventional System	2 Heat 1 Cool Heat Pump System	3 Heat 2 Cool Heat Pump System
RC	Transformer power (cooling)	Transformer power (cooling)	Transformer power (cooling)
RH	Transformer power (heating)	Transformer power (heating)	Transformer power (heating)
C	Transformer common	Transformer common	Transformer common
B	Reverse Valve / Configurable Terminal	Reverse Valve / Configurable Terminal	Reverse Valve / Configurable Terminal
O	Reverse Valve / Configurable Terminal	Reverse Valve / Configurable Terminal	Reverse Valve / Configurable Terminal
G	Fan relay	Fan relay	Fan relay
W/E	First stage of heat	First stage of emergency heat	First stage of emergency heat
W2	Second stage of heat	Auxiliary heat relay, second stage of heat	Auxiliary heat relay, third/fourth stage of heat
Y	First stage of cool	First stage of heat & cool	First stage of heat & cool
Y2	Second stage of cool	N/A	Second stage of cool & second stage of heat

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Wiring Tips

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.

💡 **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.**

1. Power supply

2. Factory - installed jumper. Remove only when installing on a 2 transformer systems.

3. Use either O or B terminals for changeover valve.

4. Optional 24 VAC common connection when thermostat is used in battery power mode.

Typical Cool-Only System With Fan
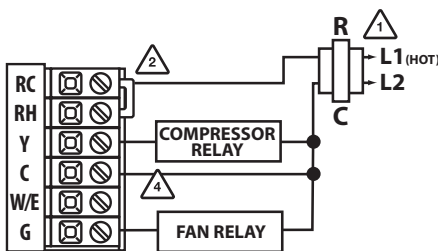
Typical Heat Only System With Fan
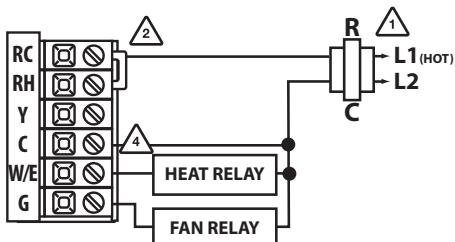
💡 **Note:** This thermostat is hardwire powered when the 24V transformer is connected to the Common and **RC terminals** of the thermostat.

💡 **Note:** In many systems with no emergency heat relay a jumper can be used between E and W2.

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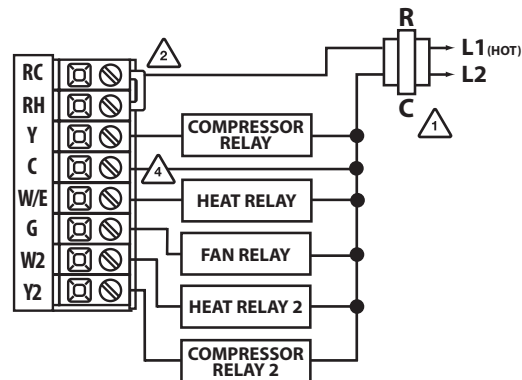
Typical 2H/2C System: 2 Transformer

Wiring Diagrams
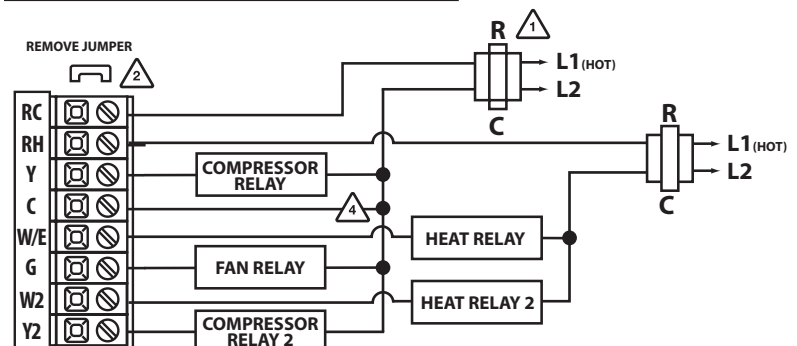
Typical 3H/2C or 2H/1C Heat Pump System
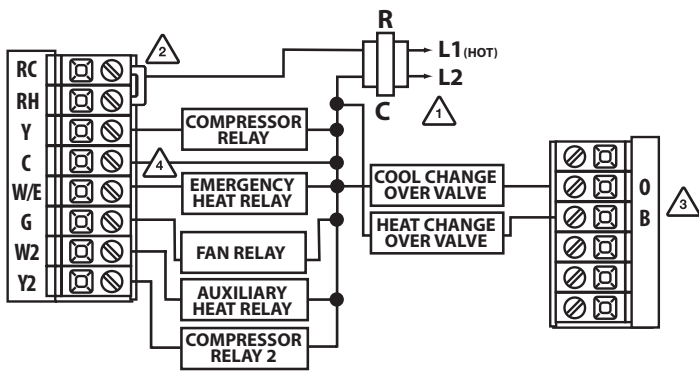
Note:

In many systems with no emergency heat relay a jumper can be installed between W/E and W2.

Tech Settings

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

1. Hold down the + and - buttons together for 3 seconds.
2. Use the + and - buttons to modify a setting. Use the Fan button to go back a step and use the system button to go forward a step.
3. To exit Tech Settings, press and hold the + and - button together for 3 seconds or wait 60 seconds.

| Tech Setup Steps		LCD Will Show	Adjustment Options	Default
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.	0 CALIBRATE	You can adjust the room temperature display to read up to 4° above or below the factory calibrated reading.	0°F
Cooling Swing	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.	0.5 COOL SWING	The cooling swing setting is adjustable from 0.2° to 2°. For example: A swing setting of 0.5° will turn the cooling on at approximately 0.5° above the setpoint and turn the cooling off at approximately 0.5° below the setpoint.	0.5°
Heating Swing	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.	0.4 HEAT SWING	The heating swing setting is adjustable from 0.2° to 2°. For example: A swing setting of 0.5° will turn the heating on at approximately 0.5° below the setpoint and turn the heating off at 0.5° above the setpoint.	0.4°

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.

Tech Settings

Tech Settings		LCD Will Show	Adjustment Options	Default
PTAC Mode	This setting allows the thermostat to operate a PTAC. This will allow for multiple fan speeds selectable in the next two tech settings.	OF PTAC MODE	Use the + and - buttons to select ON/OFF.	OFF
PTAC Fan Speeds (Only displayed if PTAC mode is ON)	This setting allows you to choose the number of fan speeds the thermostat will control. G = Low Speed Fan B/O = Medeium Speed Fan Y2 = High Speed Fan	2 FAN SPEEDS	Use the + and - buttons to select , 2 or 3. 1. Speeds: ON, Auto 2. Speeds: Low, High, Auto 3. Speeds: Low, Med, High, Auto	2
PTAC Medium Fan Speed Terminal (Only displayed if PTAC mode is ON and PTAC fan speeds is set to 3)	This setting will select the terminal for medium fan speed operations. The selected terminal cannot be used for reversing valve operations when heat pump is enabled.	0 MED FAN TERM	Use the + and - buttons to select O/B terminals.	0
Heat Pump	When turned on the thermostat will operate a heat pump. EM. Heat will show as an option in the system switch tech setting. Use the + and - button to adjust.	OF HEAT PUMP	OFF configures the thermostat for conventional systems. ON configures the thermostat for heat pump systems.	OFF

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 69.5°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.

Tech Settings

Tech Settings		LCD Will Show	Adjustment Options	Default
System Stages	This setting allows you to select the number of heat and cool stages.	2H2C SET STAGES	Use the + and - buttons to select 1H/1C, 1H/2C, 2H/1C, 2H/2C, 3H/1C, 3H/2C, 4H/2C. Note: Heat and cool choices are limited based on conventional, heat pump, or PTAC system configuration.	2H
System Set	You can configure the system switch for the particular application. Heat - Off - Cool, Heat - Off, Cool - Off, Heat - Off - Cool – Auto. Note: Emergency Heat is available in heat pump mode only.	SYSTEM SET Off Em.Heat AutoCool	Use the + or - buttons until the desired application is flashing. AUTO = (Auto Changeover)	Heat Off Cool
Dual Fuel Auxiliary For Heat Pump (Only displayed if heat pump is set to ON)	This setting allows the system to run Gas, Oil, Propane or any other types of auxiliary heat. The thermostat will default to electric auxiliary heat in heat pump applications.	OF DUAL FUEL	Use the + and - buttons to select ON/OFF.	OFF
Electric or Gas Fan Operation (Only displayed if heat pump is set to OFF)	Select GAS to have the system control the fan during a call for heat, select Electric to have the thermostat control the fan during a call for heat. Note: If heat pump is set to "ON" this step will not show, and will default to ELECTRIC.	GAS FAN SET	Use + and - buttons to change the setting.	GAS
Satisfy Setpoint Staging (Only displayed if there are more than one stage of heat or cool)	This feature allows the thermostat to keep multiple stages of heat or cool energized until the setpoint is satisfied.	OF SS STAGING	Use the + or - buttons to turn on of off.	OFF

Tech Settings		LCD Will Show	Adjustment Options	Default
Staging Delay (Only displayed if there are more than one stage of heat or cool)	This feature allows a delay to occur if an additional stage is needed. This allows the previous stage extra time to satisfy the setpoint. Note: Will not show if using outdoor sensor with balance point temperature.	OF STAGING DELAY	Use the + or − key to select OFF, 5, 10, 15, 30, 45, 60, or 90 minutes.	OFF
Minimum Compressor On Time	This feature allows the installer to select the minimum run time for the compressor. For example, a setting of 4 will force the compressor to run for at least 4 minutes every time the compressor turns on, regardless of the room temperature.	OF MIN COMP ON	You can set the minimum compressor run time to "OFF", "3", "4", or "5" minutes. If 3, 4 or 5 is selected, the compressor will run for at least the selected time before turning off. Use the + and − buttons to change the setting.	OFF
Compressor Short Cycle Delay	The compressor short cycle delay protects the compressor from "short cycling". This feature will not altlow the compressor to be turned on for 5 minutes after it was last turned off.	ON COMP DELAY	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. Use the + and − buttons to change the setting.	ON
Cooling Fan Delay	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.	OF COOL FAN DL	You can set the cooling fan delay to OFF, 10, 30, 60 or 90 seconds. If 10, 30, 60, or 90 is selected the fan will not turn on for that many seconds when there is a call for cool and will run for that many seconds after satisfying a call for cool.	OFF

Tech Settings		LCD Will Show	Adjustment Options	Default
Heat Setpoint Limit	This feature allows you to set a maximum heating setpoint limit. The setpoint temperature cannot be raised above this value.	HE HEAT LIMIT	Use the + or − key to select the maximum heat setpoint and the minimum cooling setpoint.	90°F
Cool Setpoint Limit	This feature allows you to set a minimum cooling setpoint limit. The setpoint temperature cannot be lowered below this value.	CO COOL LIMIT	Use the + or − key to select the minimum cooling setpoint.	44°F
°F or °C	This feature allows you to display temperatures in either Fahrenheit or Celsius.	OF F OR C SET	°F for Fahrenheit °C for Celsius	°F
Display Light	The display light can be configured to stay on all the time or turn on when any key is pressed. There are LOW and HIGH selections for continuous ON selection. NOTE: The thermostat will need to be hardwired in order for the LOW and HIGH display light functions to work properly. "ALWAYS ON LIT" will alternate in the text field with "HARDWIRE ONLY" when HIGH is selected. These prompts will alternate every three seconds. **If the thermostat is hardwired this feature will default to LOW.**	dL ALWAYS ON LIT / dL HARDWIRE ONLY	Use the + and − buttons to select OFF, LOW, or HIGH. OFF configures the display light to come on when the light key or any button is pressed. LOW configures the display light to stay on at a low intensity constantly. When a button is pressed, the display light will transition to high intensity. HIGH configures the display light to remain on at high intensity all the time.	OFF If Battery Powered / LOW If Hardwired

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 0.9" D

Warranty Information
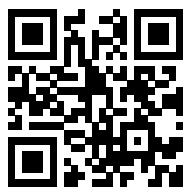
Warranty Registration

Your new thermostat has a 5 year limited warranty. You must register your thermostat within 60 days of installation. Without this registration the warranty period will begin on date of manufacture. For warranty issues please contact the HVAC professional that installed this product. Please register your new thermostat online.

Please Register Your Thermostat Here

www.vivecomfort.com/warranty