

# **TP-P-705**

#### **VIVE Comfort**

1111 S. Glenstone Ave., Suite 2-100 Springfield, MO 65804

Toll-Free: 1-800-776-1635 Web: www.vivecomfort.com

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



## Thermostat Applications 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)	No
Multi-stage Systems	No
Heat Only Systems	Yes
Heat Only Systems - Floor or Wall Furnaces	Yes
Cool Only Systems	Yes
Millivolt	Yes

# **Power Type**

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

#### **Table of Contents Page Installation Tips** 2 Thermostat Quick Reference 3 Subbase Installation 4 5 Wiring Wiring Diagrams 6 **Technician Setup** 7 Technician Setup Menu 8 9 Mounting and Battery Installation Programming The Thermostat 10 Programming The Thermostat (cont) 11 Features & Specifications 12

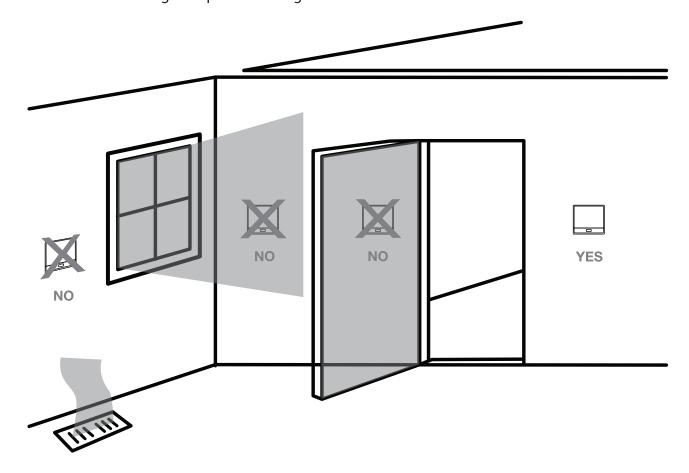
# A trained, experienced technician must install this product.

Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.

Una versión en español de este manual se puede descargar en la página web de la compañía.

#### **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
- Where appliances could radiate heat

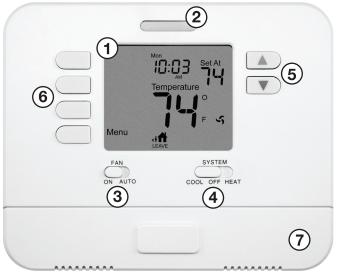
#### **Installation Tip**

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

# THERMOSTAT QUICK REFERENCE

Displays the user

#### **Getting to know your thermostat**



- selectable setpoint  $(\mathbf{1})$ **LCD** temperature. Days of the week and time Tech Set Next Step Button options COOL Set Time Run Sched Temperature Set Sched Hold Prev Step Indicates the current room temperature.
  - **Hold** is displayed when thermostat program is permanently overridden.
  - \*\* 4 5 5 COOL HEAT FAN
  - 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.
  - Low Battery Indicator: Replace batteries when indicator is shown.

- 1 LCD Display (pictured to the right)
- (2) Glow in the Dark Light Button
- (3) Fan Switch
- 4 System Switch
- (5) Setpoint Buttons
- 6 User Buttons
- (7) Easy Change Battery Door



#### **Important**

time periods per day.

**Programmable Time Period Icons:** 

This thermostat has 4 programmable

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 42 the batteries must be replaced immediately to avoid freezing or overheating because the thermostat will shut the unit off until the battery is changed.

### Removing the Private label badge



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.

**About the Badge** 

All our thermostats use the same universal magnetic badge. Visit our website to learn more about our dealer imprinting programs.



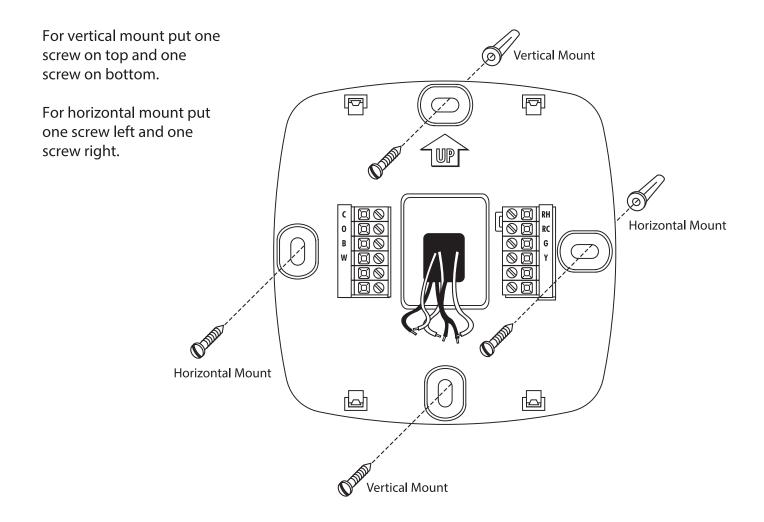
# Caution: Electrical Hazard

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



#### **Mercury Notice:**

All of our thermostats 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.



#### **NOTE:**

To insure a solid fit between the thermostat and the subbase, mount the subbase on a flat wall with the drywall anchors flush to the wall. Using the screws and drywall anchors that were provided with the new thermostat.



#### **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 the Class II circuits per the NEC Code.

#### 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 until they are snug. Do not overtighten.
- 3. Place non-flammable insulation into wall opening to prevent drafts.

# **Terminal Designations:**

- W Heat relay
- Y Compressor relay
- G Fan relay
- Heat pump changeover valve energized 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.

# 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

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.

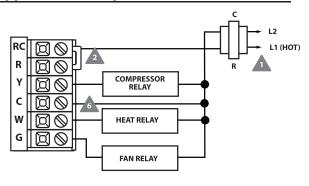
#### Wire specifications

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

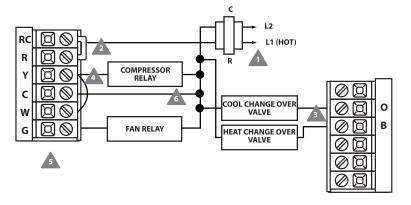
# **WIRING DIAGRAMS**

- Power supply
- Factory-installed jumper..Remove only when installing on 2-transformer systems
- Use either O or B terminals for changeover valve
- 4 Use a small piece of wire (not supplied) to connect W and Y terminals
- Set fan operation switch to electric
- Optional 24 VAC common connection when thermostat is hardwired with battery backup mode.

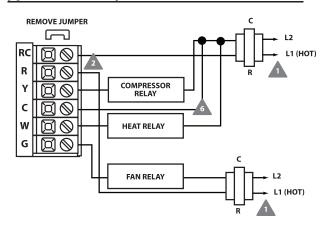
## Typical 1H/1C system: 1 transformer



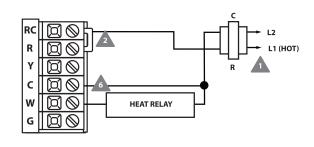
# Typical 1H/1C heat pump system 🛕



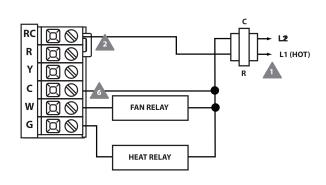
## Typical 1H/1C system: 2 transformer



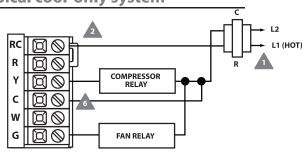
## **Typical heat-only system**

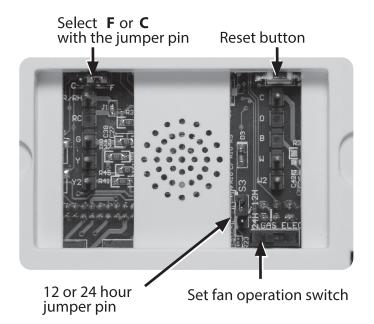


# Typical heat-only system with fan



### Typical cool-only system







### **Important:**

The **RESET** button must be pressed after changing any switch or jumper pin setting. Batteries must be installed for this operation.

# **Filter Change Reminder**

If your installing contractor has configured the thermostat to remind you when the air filter needs changed, you will see **FILT** in the display when your air filter needs changed. **FILT** will be shown in the display after your system has run long enough to require an air filter change.

Resetting the filter change reminder: When **FILT** reminder is displayed, you should change your air filter and reset the reminder by holding down the second button from the top left side of the thermostat for 3 seconds.

### **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 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.

## Fahrenheit/Celsius Display

Select **F** or **C** with the jumper pin on the back of the thermostat. **F** is for Fahrenheit and **C** is for Celsius.

#### 12 or 24 Hour Time

12 or 24 hour (military time) can be selected with the jumper pin.

Hold down for 3 seconds, to reset filter reminder.



# **TECHNICIAN SETUP MENU**

#### **Technician Setup Menu**

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

- 1. Press **MENU** button
- 2. Press and hold **TECH SET** 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 PREV STEP key to move from one step to another. Note: Only press DONE key when you want to exit the Technician Setup options.

Feature	Filter Change Reminder	Room Temperature Calibration	Minimum Compressor On Time	Compressor Short Cycle Delay	Cooling Swing	Heating Swing
Feature Description	This feature will flash "FILT" in the display after the elapsed run time to remind the user to change the filter. A setting of "off" will disable this feature.	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.	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.	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.	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.	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.
LCD Will Show	Next Step 100 55	Next Step [ ] L	Next Step DF F	Next Step IIII	Next Step #F []	Next Step JF HE
Adjustment Options	You can adjust the filter change reminder from "off" to 2000 hours of runtime in 50 hour increments.	You can adjust the room temperature display to read -4°F to +4°F above or below the factory calibrated reading.	You can select the minimum compressor run time from "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.	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.	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.	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.
Factory Default Settings	Off	0 °F	Off	On	0.5 °F	0.4 °F

## **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.

# **MOUNT THERMOSTAT & BATTERY INSTALLATION**

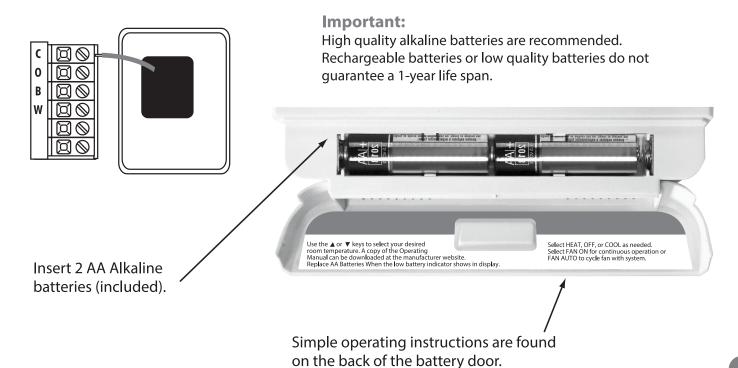
#### **Mount Thermostat**

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



### **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.



# PROGRAMMING THE THERMOSTAT

#### **Set Time**

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

- 1. Press MENU
- 2. Press **SET TIME**
- 3. Day of the week will be flashing. Use the ▲ or ▼ key to select the current day of the week.
- 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.
- 6. Press **NEXT STEP**
- 7. Minutes are now flashing. Use the ▲ or ▼ key to select current minutes.
- 8. Press **DONE** when completed

# Programming

All our programmable thermostats are shipped with an energy saving pre-program. You can customize this default program by following the steps below.

Your thermostat can be programmed to have all the weekdays the same, a separate program for Saturday, and a separate program for Sunday. There are four time periods for each program (WAKE, LEAVE, RETURN, SLEEP).

Factory Default Program				
Day of the Week	Events	Time	Setpoint Temperature (Heat)	Setpoint Temperature (Cool)
Weekday	Wake 🕌	6 a.m.	70° F (21° C)	75° F (24° C)
	Leave 👬	8 a.m.	62° F (17° C)	83° F (28° C)
	Return +	6 p.m.	70° F (21° C)	75° F (24° C)
	Sleep 👚	10 p.m.	62° F (17° C)	78° F (26° C)
Saturday	Wake	8 a.m.	70° F (21° C)	75° F (24° C)
	Leave 👬	10 a.m.	62° F (17° C)	83° F (28° C)
	Return i	6 p.m.	70° F (21° C)	75° F (24° C)
	Sleep 👚	11 p.m.	62° F (17° C)	78° F (26° C)
Sunday	Wake 🕌	8 a.m.	70° F (21° C)	75° F (24° C)
	Leave 👬	10 a.m.	62° F (17° C)	83° F (28° C)
	Return in	6 p.m.	70° F (21° C)	75° F (24° C)
	Sleep 👚	11 p.m.	62° F (17° C)	78° F (26° C)

# PROGRAMMING THE THERMOSTAT

You can use the table below to plan your customized program schedule.

Programming Table				
Day of the Week	Events	Time	Setpoint Temperature (Heat)	Setpoint Temperature (Cool)
Weekday	Wake 🔏			
	Leave (if			
	Return in			
	Sleep 👚			
Saturday	Wake 🔏			
	Leave (if			
	Return in			
	Sleep 👚			
Sunday	Wake 🕌			
	Leave (if			
	Return in			
	Sleep 👚			

### **Set Program Schedule**

# To customize your program schedule, follow these steps Weekday:

- Select **HEAT** or **COOL** from the system switch. **Note:** You have to program heat and cool each separately.
- 2. Press MENU
- 3. Press **SET SCHED**.Note: Monday-Friday is displayed and the **WAKE** icon is shown. You are now programming the wake time period for the weekday setting.
- 4. Time is flashing. Use the ▲ or ▼ key to make your time selection for the weekday **WAKE** time period.
- 5. Press **NEXT STEP**
- 6. The setpoint temperature is flashing. Use the ▲ or key to make your setpoint selection for the weekday wake period.
- 7. Press **NEXT STEP**
- Repeat steps 4 through 7 for weekday LEAVE time period, for weekday RETURN time period, and for weekday SLEEP time period.

#### Saturday:

 Repeat steps 4 through 7 for Saturday WAKE time period, for Saturday LEAVE time period, for Saturday RETURN time period, and for Saturday SLEEP time period.

#### **Sunday:**

10. Repeat steps 4 through 7 for Sunday **WAKE** time period, for Sunday **LEAVE** time period, for Sunday **RETURN** time period, and for Sunday **SLEEP** time period.

## **Temporary and Permanent Hold Feature**

Temporary hold: The thermostat will display HOLD and RUN SCHED on the bottom of your screen when you press the + or - key. If you do nothing, the temperature will remain at this setpoint temporarily for 4 hours. Your program setpoint will then replace your temporary setpoint.

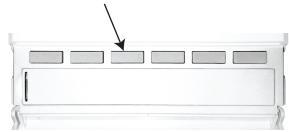
Permanent hold: If you press HOLD key at the bottom of your screen, you will see HOLD appear below the setpoint temperature in the display. The thermostat will now permanently stay at this setpoint and can be adjusted using the + or - keys.

**To return to program:** Press the **RUN SCHED** key at the bottom of your screen to exit either temporary or permanent hold.

### **Filter Change Reminder**

If your installing contractor has configured the thermostat to remind you when the air filter needs changed, you will see **FILT** in the display when your air filter needs changed. **FILT** will be shown in the display after your system has run long enough to require an air filter change.

Resetting the filter change reminder: When **FILT** reminder is displayed, you should change your air filter and reset the reminder by holding down the 3rd button from the left side of the thermostat for 3 seconds.



# **Specifications**

The display range of temperature The control range of temperature	
Load rating	1 amp per terminal, 1.5 amp maximum all terminals combined
Display accuracy	± 1ºF
Swing (cycle rate or differential)	Heating is adjustable from 0.2°F to 2.0°F
	Cooling is adjustable from 0.2°F to 2.0°F
Power source	18 to 30 VAC, NEC Class II, 50/60 Hz for hardwire (common wire)
	Battery power from 2 AA Alkaline batteries
Operating ambient	32°F to +105°F (0° to +41°C)
Operating humidity	90% non-condensing maximum
Dimensions of thermostat	4.7" W x 4.4" H x 0.8" D