

# **TP-S-755**

#### **VIVE Comfort**

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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)	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

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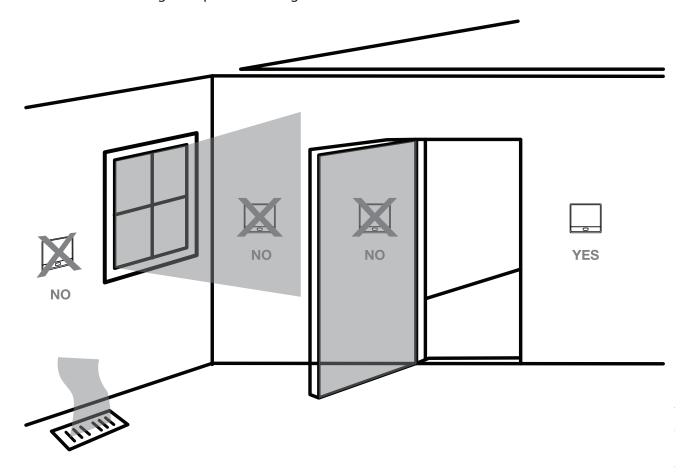
A trained, experienced technician must install this product.

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**

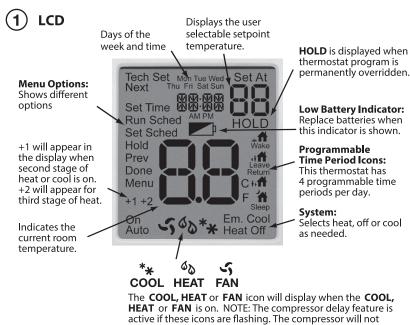
Pick an installation location that is easy for the user to access.

The temperature of the location should be representative of the building.

# THERMOSTAT QUICK REFERENCE

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





- ② Glow in the Dark Light Button
- (3) Fan Button
- 4 System Button
- 5 User Program Buttons
- (6) Temperature Setpoint Buttons
- 7 Battery Door
- 8 Universal Private Label Badge

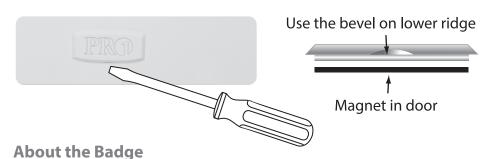


#### **Important:**

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 thermostat display will only show the low battery indicator as a final warning before the thermostat becomes inoperable. The batteries are located on the front of the thermostat.

turn on until the 5 minute delay has elapsed.

## 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. The badge should pry off easily. **Do not use force.** 

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

# SUBBASE INSTALLATION



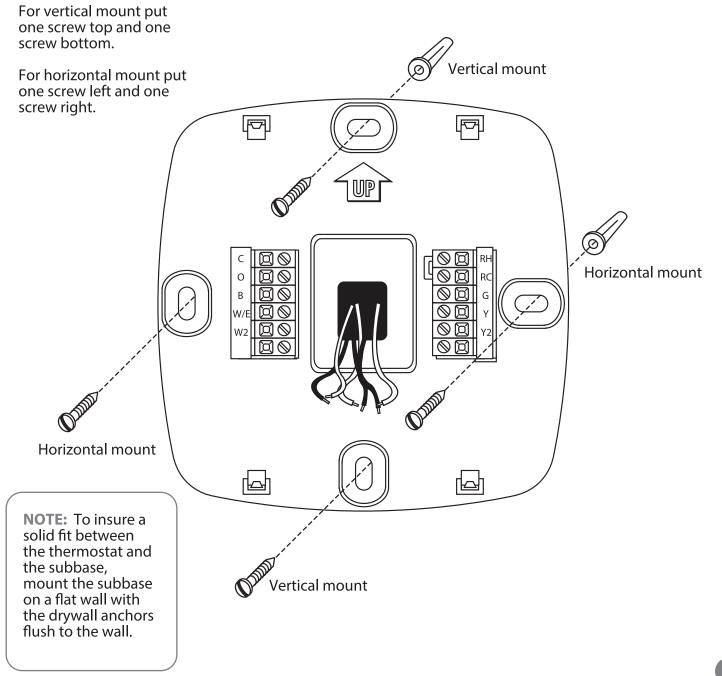
# **Caution: Electrical Hazard**

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



## **Mercury Notice:**

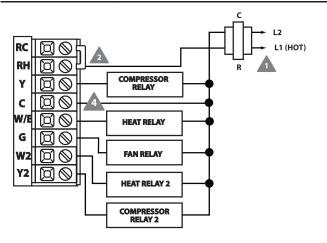
All of our products are mercury free. However, if the product you are replacing contains mercury, dispose of it properly. Your local waste management authority can give you instructions on recycling and proper disposal.

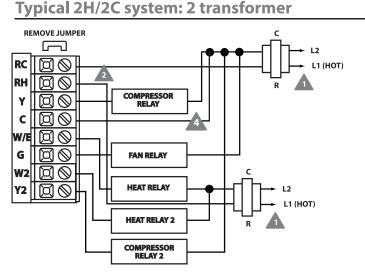


## **New Thermostat Installation Wiring**

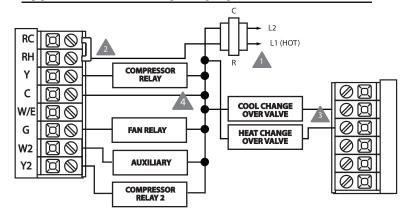
- Power supply.
- Factory -installed jumper. Remove only when installing on 2-transformer systems.
- Use either O or B terminals for changeover valve.
- Optional 24 VAC common connection when thermostat is used in battery power mode.

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

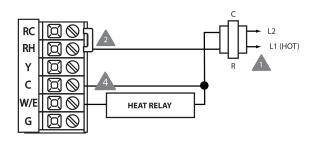




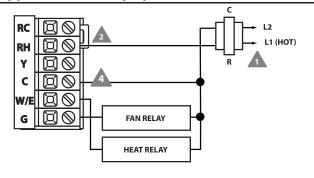
## Typical 3H/2C heat pump system



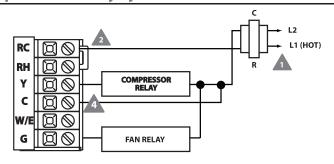
## Typical heat-only system



#### Typical heat-only system with fan



## **Typical cool-only system**



#### 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.
- 4. Push wire into the wall so the thermostat can mount securely to the subbase.



#### Warning:

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

#### **Wire Specifications**

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

#### **Terminal Designations**

This thermostat is shipped from the factory to operate a conventional heating and cooling system. This thermostat will also operate a heat pump system. See the "heat pump" configuration step on page 8 of this manual to configure the thermostat for heat pump applications.

Terminal	2 Heat 2 Cool Conventional System	2 Heat 2 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)
С	Transformer common (For 2 transformer systems, use RH common.)	Transformer common	Transformer common
В	Energized in heating	Heat pump changeover valve energized in heating	Heat pump changeover valve energized in heating
0	Energized in cooling	Heat pump changeover valve energized in cooling	Heat pump changeover valve energized in cooling
G	Fan relay	Fan relay	Fan relay
W/E	First stage of heat	Emergency heat relay	Emergency heat relay
W2	Second stage of heat	Auxiliary heat relay, second stage of heat	Auxiliary heat relay, third stage of heat
Υ	First stage of cool	First stage of heat & cool	First stage of heat & cool
Y2	Second stage of cool	Second stage of cool	Second stage of cool & second stage of heat

## **Wiring Tips:**

#### C terminal

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

#### Note:

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

#### **Technician Setup Menu**

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

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

Tech Setup Steps					
Filter Change Reminder	Room Temperature Calibration	Minimum Compressor On Time	Compressor Short Cycle Delay	Cooling Swing	Heating Swing
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	Next	Next	Next	Next
Prev Propose	Prev Done	Prev Done	Prev Done	Prev Done	Prev Done
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 ready -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

# TECHNICIAN SETUP MENU

Tech Setup Steps (Continued from the previous page)					
Heating Temperature Setpoint Limit	Cooling Temperature Setpoint Limit	Morning Recovery	°F or °C	12 or 24 Hour Clock	Fan Operation
This feature allows you to set a maximum heat setpoint value. The setpoint temperature cannot be raised above this value.	This feature allows you to set a minimum cool setpoint value. The setpoint temperature cannot be lowered below this value.	This feature turns your system on before the WAKE programming time to ensure the environment is at the WAKE setpoint when the WAKE time period begins. This recovery changes over time based on the previous day's experience.	Select F for Fahrenheit temperature read out or select C for Celsius read out.	You can select either a 12 or 24 hour clock setting.	Select GAS for systems that control the fan during a call for heat.  Select ELEC to have the thermostat control the fan during a call for heat.
LCD Will Show					
HELM <b>90</b>	COLM <b>-{-{</b>	Prev Done	Prev Done	Prev Done	Prev Done
Adjustment Options					
Use the + or - key to select the maximum	Use the + or - key to select the minmum	Use the + or - key to turn on or off.	°F for Fahrenheit	Use the + or - key to select 12 or 24	GA
heat setpoint.	cool setpoint.		°C for Celsius	hour clock.	or
					ELEC
Factory Default Settings					
90 °F	44 °F	ON	٥F	12 Hour Clock	GAS



## **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 .8 degrees for heating and the thermostat is set at 70°F, the first stage will turn on at approximately 69.2°F. The second stage will turn on at 68.4°F. The second stage will turn off at 69.2°F and the first will turn off at 70.8°F. If third stage is used, it will turn on at 3x the swing and turn off at approximately 2x the swing.

# TECHNICIAN SETUP MENU

Program Options  Heat Pump Options  When turned on the themostat to have 5-14-13 program or non-programmable.  1. EM. Heat will show as an option in the system switch for the particular applications. The first are disable to the most at will show as an option in the system switch.  2. Y will be first stage of heat of Col. Will be auxiliary heat relay.  1. EM. Heat will show as an option in the system switch.  2. Y will be first stage of heat of Col. Will be auxiliary heat relay.  1. EM. Heat will show as an option in the system switch for the auxiliary heat relay.  1. EM. Heat will show as an option in the system switch for the auxiliary heat relay.  2. Y will be first stage of heat of Col. Will be auxiliary to the heat bump of the themost at the first stage should be auxiliarly stage turns on.  1. EM. Heat will show as an option in the system switch for the auxiliary stage turns on.  1. EM. Heat will show as an option in the system switch for the auxiliary heat relay.  2. Y will be auxiliary to the themostating of the auxiliary stage turns on.  1. EM. Heat will show as an option in the system switch for the auxiliary stage turns on.  1. EM. Heat will show as an option in the system switch for the auxiliary stage turns on.  2. Y will be first stage of the auxiliary stage turns on.  1. EM. Heat will show as an option in the stage of the auxiliary stage turns on.  2. Y will be first stage in the first stage of the auxiliary stage turns on.  2. Y will be first stage of the auxiliary stage turns on.  2. Y will be auxiliary to the themostating stage turns on.  2. Y will be first stage of the auxiliary stage turns on.  2. Y will be first stage in the satisfied of the auxiliary stage turns on.  2. Y will be first stage of the auxiliary stage turns on.  3. Extended the first stage of the auxiliary stage turns on.  3. Extended the first stage of the auxiliary stage turns on.  4. Extended the first stage of the auxiliary stage turns on.  4. Extended the first stage of the auxiliary stage turns on.  5. Staging deads the t	Tech Setup Steps (Continued from the previous page)							
thermostat will operate a heat pump, for the particular applications, the first age of heat & cool, WE an option in the systems switch.  2. Y will be first stage of heat & cool, WE will be emergency heat relay & W2 will be emergency heat relay.  **Will be auxiliary heat relay will be auxiliary stage turns on.  **To 7 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 7 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 7 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 7 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 7 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 7 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 7 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 7 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 8 beat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on.  **To 8 beat applications for the beat purns on.  **To 8 beat applications for the beat purns on.  **To 8 beat applications for the beat purns on.  **To 9 beat applications for the beat purns on.  **To 1 beat applications for the beat purns on.  **To 1 beat applications for the beat purns on.  **To 1 beat applications for the beat purns on.  **To 1 beat applications for the beat purns on.  **To 1 beat applications for the beat purns on.  **To 1 beat applications for the beat purns on.  **To 2 beat applications for the beat purns on.  **To 2 beat applications for the beat purns on.  **To 2 beat applications for the beat purns on.  **To 2 beat applications for the beat purns on.  **To 2 beat applications for the beat purns on.  **To 4 beat applications for the beat purns on.  **To 4 beat ap		Heat Pump					, , , , , , , , , , , , , , , , , , ,	
Adjustment Options  Use the + or - key 5d for 5+1+1, or od of for non-programmable.  ON configures the thermostat for neat pump systems.  ON configures the thermostat for heat pump systems.  Display to the provide for the provided pump systems that are "dual for a uxiliary stage of heat many stage of heating has been called for.  Factory Default Settings  Next SSUST  Provided P	thermostat to have 5+1+1 program or	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 & cool, W/E will be emergency heat relay & W2 will be auxiliary	system switch for the particular application:  Heat - Off - Cool, Heat - Off, Cool - Off, Note: EM. Heat will show if in heat pump	the heat pump off 45 seconds after the auxiliary heat relay turns on. For 2 heat applications, the first stage will turn off 45 seconds after the auxiliary stage turns on. For 3 heat applications, the first and second stage will turn off 45 seconds after the auxiliary	the thermostat to operate a 3 stage heat pump system.  2H 2C = 2 heat, 2 cool 3H 2C = 3 heat, 2 cool  This feature only shows if Technician Setup Step for HEAT	setting will delay the fan from coming on in cool mode and keep running after the compressor shuts off for a short time to save energy in some	the thermostat to keep multiple stages of heat or cool energized until	delay to occur when a second and third stage is needed. This allows the previous stage extra time to
Adjustment Options  Use the + or - key 5d for 5+1+1, or Od for non heat pump systems.  ON configures the thermostat for heat pump systems.  ON configures the thermostat for heat pump systems.  Prov. Brow.  Display a pair of the deal pump systems.  ON configures the thermostat for heat pump systems that are "dual fuel" (use a gas furnace for auxiliary stage heatly you can turn this feature on to turn off the heat pump when the auxiliary stage of heating has been called for.  Seconds stage and W2 as auxiliary.  3 heat will use Y1 as first stage, Y2 as second stage and W2 as auxiliary.  3 heat will use Y1 as first stage, Y2 as seconds after satisfying a call for cool and will run for that many seconds after satisfying a call for cool.  Factory Default Settings	LCD Will Show							
Use the + or - key d for 5+1+1, or od for non heat pump systems.  ON configures the thermostat for heat pump systems.  ON configures the thermostat for heat pump systems.  Factory Default Settings  OFF configures the thermostat for non heat pump systems.  Use the + or - key until the desired application is flashing.  Use the + or - key to turn on or off.  Vou can select the Cooling Fan Delay from "OFF", "15", "30", "60" or "90" seconds. If 15, 30, 60 or 90 is selected the fan will use Y1 as first stage and w22 as auxiliary.  3 heat will use Y1 as first stage, Y2 as second stage and w23 as eacond stage and w24 as auxiliary.  Factory Default Settings	PR86 <b>'5d</b>	HP LIM LIFT	SYST Prev Done	68U× <b>(_)}-</b>	HEST <b>C</b>	FNdL Lift	Prev	5d UF
key 5d for 5+1+1, or 0d for non heat for non heat pump systems.  ON configures the thermostat for heat pump systems.  ON configures the thermostat for heat pump systems.  ON configures the thermostat for heat pump systems.  Wey until the desired application is flashing.  key to change between 2 heat and 3 heat.  2 heat will use Y1 as first stage and W2 as auxiliary.  3 heat will use Y1 as first stage, Y2 as seconds when there is a call for cool and will run for that many seconds after satisfying a call for cool.  Factory Default Settings	Adjustment Options							
	key 5d for 5+1+1, or Od for non-programmable.	the thermostat for non heat pump systems. ON configures the thermostat for heat pump systems.	key until the desired application is	systems that are "dual fuel" (use a gas furnace for auxiliary stage heat) you can turn this feature on to turn off the heat pump when the auxiliary stage of heating has been	key to change between 2 heat and 3 heat. 2 heat will use Y1 as first stage and W2 as auxiliary. 3 heat will use Y1 as first stage, Y2 as second stage and	Cooling Fan Delay from "OFF", "15", "30", "60" or "90" seconds. If 15, 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	key to turn on or off.	key to select OFF 5, 10, 15, 30,45,60,
2 June 2	5d	OFF	Heat - Off - Cool	OFF	2 Stages	OFF	OFF	OFF

# **MOUNT THERMOSTAT & BATTERY INSTALLATION**

#### **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.

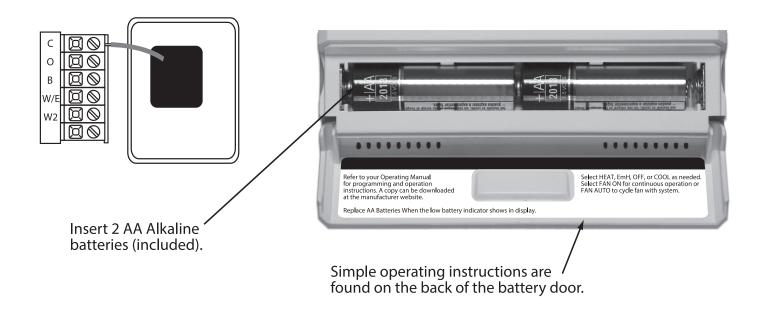
Note: To insure a solid fit between the thermostat and the subbase:

- 1. mount subbase to 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**

Battery installation is optional if thermostat is hardwired (C terminal connected).



# 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 Set Program Schedule.

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 ••	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 +	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 if using 5+1+1.

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

<b>Set Program</b>	Schedule
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To customize your 5+1+1 program schedule, follow these steps Weekday:

- 1. Select **HEAT** or **COOL** using the **SYSTEM** key. **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. **Note:** If you want the fan to run continuously during this time period, select **ON** with the **FAN** key.
- 5. Press **NEXT STEP.**
- 6. The setpoint temperature is flashing. Use the \_\_\_\_ key to make your setpoint selection for the weekday **WAKE** period.
- 7. Press **NEXT STEP.**
- 8. Repeat steps 4 through 7 for weekday **LEAVE** time period, for weekday **NEXT STEP**. 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:

 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.

#### 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 & 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
Display accuracy	±1°F
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	
	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 1.1"D