

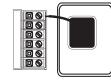
Installation Tips

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.

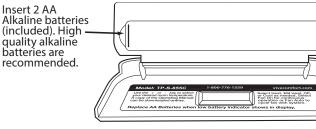
Battery Installation

Battery installation is 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.



Important:

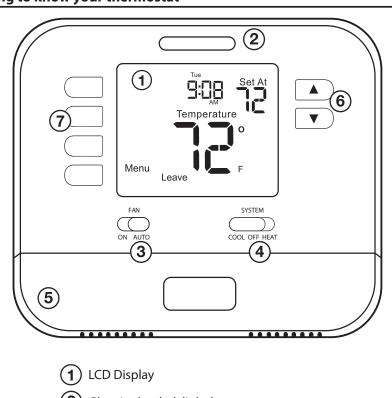
High quality alkaline batteries are recommended. Rechargeable batteries or low quality batteries do not guarantee a 1-year life span.



Simple operating instructions are found on the back of the battery door.

Thermostat Quick Reference

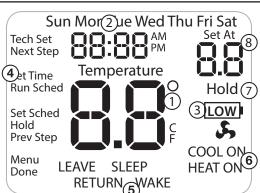
Getting to know your thermostat



- **2**) Glow in the dark light button
- **3** Fan Switch
- **4** System Switch
- 5 Easy change battery door
- (6) Temperature Setpoint Buttons
- (7) User Buttons

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) Button Options
- (5) **Program Time Periods:** This thermostat has 4 programmable time periods per day.

6 System Operation Indicators: The COOL ON, HEAT ON or S, icon will display when the COOL, HEAT, or S, (fan) is on. Note: The Compressor delay feature is active if these are flashing.

- (7) Hold is displayed when the thermostat program is permanently overridden.
- (8) **Setpoint:** Displays the user selectable setpoint temperature.

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.

Features

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Temporary and Permanent Hold Feature (If using programming)

When cool or heat is turned on, the thermostat will display HOLD and **RUN SCHED** on the left of your screen when you press the or 🔻 button.

Temporary Hold: At this time if you do nothing, the temperature will remain at this setpoint temporarily until next time period.

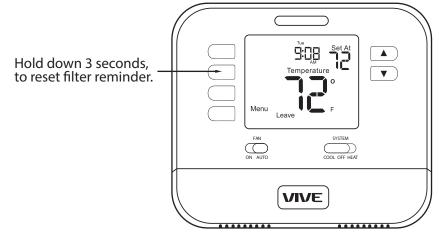
Permanent Hold: If you press the **HOLD** key on the left of your screen, you will see **HOLD** appear below the setpoint temperature in the display. The thermostat will now permanently stay at this setpoint and can be adjusted using the keys. ▲ or ▼

To Return to Running Schedule: Press the RUN SCHED button on the left 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 to be changed, you will see FILT in the display when your air filter needs to be changed.

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.



Wiring

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

Terminal Designations

- Common wire from secondary side of С cooling system transformer
- O Heat pump changeover valve energized in cooling
- Heat pump changeover valve R energized in heating
- W Heat relay

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 AUX or Emergency Heat)

If wiring to a heat pump, use a small piece of wire (not supplied) to connect terminals W and Y.

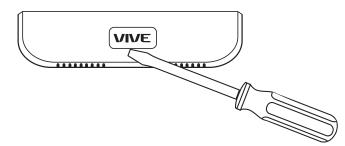


Installation Tip: Do not overtighten terminal block screws, as this can damage the terminal block. A damaged terminal block can keep the thermostat from fitting on the subbase correctly or cause system operation issues. **Max Torque = 6in-lbs.**

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.



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.

C Terminal

G Fan relay

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

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

Wire Specifications





Failure to disconnect the power

before beginning to install this

Warning:

system and the thermostat

installation must conform to

All components of the control

Class II circuits per the NEC Code.

RH Transformer power for heating

RC Transformer power for cooling

or equipment damage.

product can cause electrical shock

Wiring Diagrams

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

Use a small piece of wire (not supplied) to connect W and Y terminals

Set fan operation setting to Electric

∕6∖ Optional 24 VAC common connection when thermostat is used in battery power mode

Typical 1H/1C System: 1 Transformer

RC 🛛 🛇 RH ØØ **R** 🛆 COMPRESSOR RELAY Y C Typical 1H/1C System: 2 Transformer W ØØ HEAT RELAY **REMOVE JUMPER** G 100 C FAN RELAY RC 🖾 🛇 ØØ RH R Λ COMPRESSOR RELAY Y C W HEAT RELAY G ØØ FAN RELAY L2 ► L1(нот) Typical 1H/1C Heat Pump System ∕₅∖ **R** 🛆 -L2 <u>00</u> L1(HOT) Λ R COMPRESSOR RELAY ØØ ØØ C COOL CHANGE OVER VALVE W FAN RELAY HEAT CHANGE OVER VALVE B O 🔏

Tech Settings

Technician Setup Menu

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

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

▲ or ▼ keys to change settings and the **NEXT STEP** or Use the PREV STEP key to move from one step to another. Note: Only press the **DONE** key when you want to exit the Technician Setup options.

Tech Setting	gs	LCD Will Show	Adjustment Options	Default
Filter Change Reminder	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.	Next Step Prev Step	You can adjust the filter change reminder from OFF to 2000 hours of runtime in 50 hour increments.Tap the second button from the top left side of the thermostat to display the current filter elapsed runtime.	0FF
Room Temperature Calibration	This feature allows the installer to change the calibration of the room temperature display. For example, if the thermostat reads 70° degrees and you would like it to read 72° then select +2.	Next Step Prev Step	You can adjust the room temperature display to read 4° above or below the factory calibrated reading.	0
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.	Next Step Prev Step	Selecting "ON" will not allow the compressor to be turned on for 5 minutes after the last time the compressor was switched off. Select "OFF" to remove this delay.	ON

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.

Wiring Diagrams

1 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

-12

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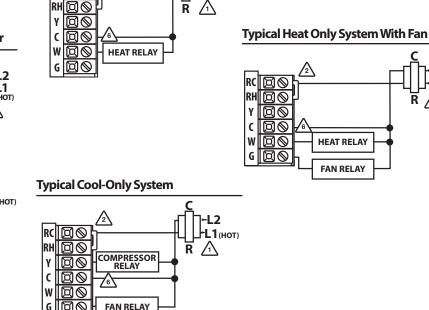
- **/5** Set fan operation setting to Electric
- 6 Optional 24 VAC common connection when thermostat is used in battery power mode

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HEAT RELAY

FAN RELAY

Typical Heat-Only System



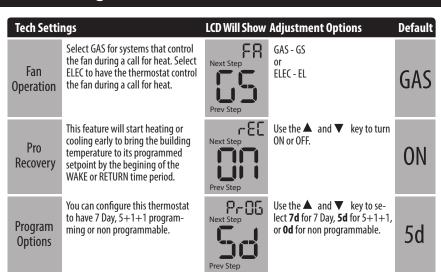
Fech So	ettings					
Tech Settiı	ech Settings LCD Will Show Adjustment Options Default					
Cooling Swing	The swing setting often called "cycle rate", "differential" or " anticipation" is adjustable. A smaller swing setting will cause more frequent cycles and a larger swing setting will cause fewer cycles.	dFCO Next Step Prev Step	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.	Next Step Prev Step	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 approximately 0.5° above the setpoint.	0.4		
Heating Setpoint Limit	This feature allows you to set a maximum heat setpoint value. The setpoint temperature cannot be raised above this value.	HE L Next Step Prev Step	Use the ▲ and ▼ key to select the maximum heat setpoint.	90		
Cooling Setpoint Limit	This feature allows you to set a minimum cool setpoint value. The setpoint temperature cannot be lowered below this value.	Next Step Prev Step	Use the ▲ and ▼ key to select the minimum cool setpoint.	44		
F or C	Select F for Fahenheit temperature read out or select C for Celsius read out.	Next Step FC	F for Fahrenheit C for Celsius	F		
12 or 24 Iour Clock	You can select either a 12 or 24 hour clock setting.	Next Step Prev Step	Use the ▲ and ▼ to select 12 or 24 hour clock.	12		

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R /

Tech Settings



Set Time (If using programming)

- 1. With system switch set to OFF, press the MENU button
- 2. Press SET TIME
- **3.** Day of the week will be flashing. Use the **A** or **V** key to select the current day of the week.
- 4. Press NEXT STEP
- 5. The current hour is flashing. Use the for the current hour. When using 12-hour time, make sure the correct a.m. or p.m. choice is selected.
- 6. Press NEXT STEP

Programming

B

- 7. Minutes are now flashing. Use the **A** or **V** key to select current minutes.
- 8. Press DONE when completed.

Set Program Schedule 5+1+1 or 7 Day

Programming

Programming

All of our programmable thermostats are shipped with an energy saving pre-program. You can customize this default program by following the steps on page 15.

Your thermostat can be programmed to have all the weekdays the same, a seperate program for Saturday, and a seperate program for Sunday or 7 days individually. 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)				
	Wake	6 AM	70°F (21°C)	75°F (24°C)				
Weekday	Leave	8 AM	62°F (17°C)	83°F (28°C)				
Weekday	Return	6 PM	70°F (21°C)	75°F (24°C)				
	Sleep	10 PM	62°F (17°C)	78°F (26°C)				
	Wake	6 AM	70°F (21°C)	75°F (24°C)				
Saturday	Leave	8 AM	62°F (17°C)	83°F (28°C)				
Saturday	Return	6 PM	70°F (21°C)	75°F (24°C)				
	Sleep	10 PM	62°F (17°C)	78°F (26°C)				
	Wake	6 AM	70°F (21°C)	75°F (24°C)				
Sunday	Leave	8 AM	62°F (17°C)	83°F (28°C)				
	Return	6 PM	70°F (21°C)	75°F (24°C)				
	Sleep	10 PM	62°F (17°C)	78°F (26°C)				

Programming

Set Program Schedule 5+1+1 or 7 Day (Continue..)

To customize your program schedule, follow these steps:

- 1. Select **HEAT** or **COOL** with the system switch. **Note:** You have to program heat and cool each seperately.
- 2. Press the MENU button (If menu does not appear first press RUN SCHED)
- 3. Press SET SCHED. Note: Monday-Friday or (Monday if in 7 Day) is displayed and the WAKE icon is shown. You are now programming the wake time period for that day.
- **4.** Time is flashing. Use the **A** or **V** key to make your time selection for that day's **WAKE** time period.

5. Press NEXT STEP

- 6. The setpoint temperature is flashing. Use the or key to make your setpoint selection for that day's WAKE time period.
- 7. Press NEXT STEP
- 8. Repeat steps 4 thru 7 for that day's LEAVE time period, RETURN time period, and SLEEP time period.

Saturday:

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

Sunday:

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



If using 7-Day Programming use previous steps for every individual day.

You can also use these time saving functions. You must be in **Set Sched** Programming Mode (**Press Menu** >> **Press Set Sched**) for the following functions to work:

1) To copy ALL time periods and temperatures of current system and day to ALL days, Press and Hold 2nd button down on left until the Days and Time flash.

2) To copy ALL time periods (only times) for ALL days to the opposite system (Heat to Cool / Cool to Heat), Press and hold the Glow in the Dark Light button down until Set Time and Time flash.

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