INSTALLATION MANUAL

TopTech
comfort | excellence

This manual covers TopTech models:
TT-S-955WH and T955WH

TRUE COMFORT ||||

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
Dual Fuel Systems	Yes
Millivolt	No
Humidity	Yes

Power Type

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

* If using remote sensors the thermostat
  must be hardwired.

Table of Contents

**A trained, experienced technician
must install this product.**

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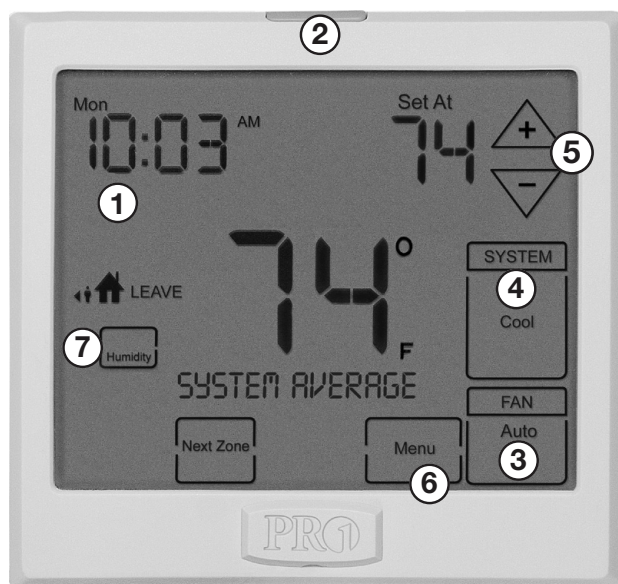hazardous condition if you fail to follow
these instructions.

Need Help?

For assistance with this product please
visit http://www.pro1iaq.com or call Pro1
Customer Care toll-free at 888-Pro1iaq
(776-1427) during normal business hours
(Mon-Fri 9 AM - 6 PM Eastern)

Una versión española de este
manual puede ser descargada
en www.pro1iaq.com

Rev. 1011

THERMOSTAT QUICK REFERENCE

Getting to know your thermostat

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 back of the thermostat.

① **LCD**

Days of the week and time. Flashes ambient humidity level. May also flash outside temperature when used with R250W. **OUTDOOR** will show.

② *****Glow in the Dark Light Button**

③ **Fan Button**

④ **System Button**

⑤ **Temperature Setpoint Buttons**

⑥ **Menu Button**

⑦ **Humidity Button**

***** **NOTE ABOUT THE LIGHT BUTTON:**
This button is used to light up the display, but it is also used to set up communication with the base module. **DO NOT** hold the light button down for more then 10 seconds, unless you are performing the initial communication setup steps.

Programmable Time Period Icons:
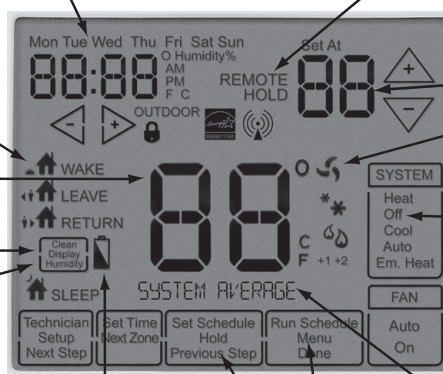This thermostat has 4 programmable time periods per day.

Temperature:
Indicates the current system temperature.

Humidity:
Shows the humidity target setpoint settings and keys.

Clean Display:
Pressing **CLEAN DISPLAY** will allow 30 seconds to clean the display. The keys will be inoperable during this time. **CLEAN** will appear if your contractor has programmed a filter change reminder. Press **CLEAN** when filter has been replaced to reset the filter change reminder timer.

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

Program Menu Options:
Shows different options during programming.

((•)) **Wireless Icon**

REMOTE indicates a remote has control of the system.

HOLD is displayed when thermostat program is permanently overridden.

Displays the user selectable setpoint temperature.

System operation indicators:
***** **COOL** **HEAT** **FAN**

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.

System Information:
Shows which zone or zones are controlling your system. Shown only when one or more indoor sensors **R251W** are connected.

Removing the private label badge

Use the bevel on lower ridge
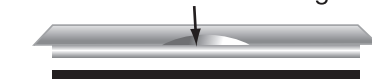
Magnet in door

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. The badge should pry off easily. **Do not use force.**
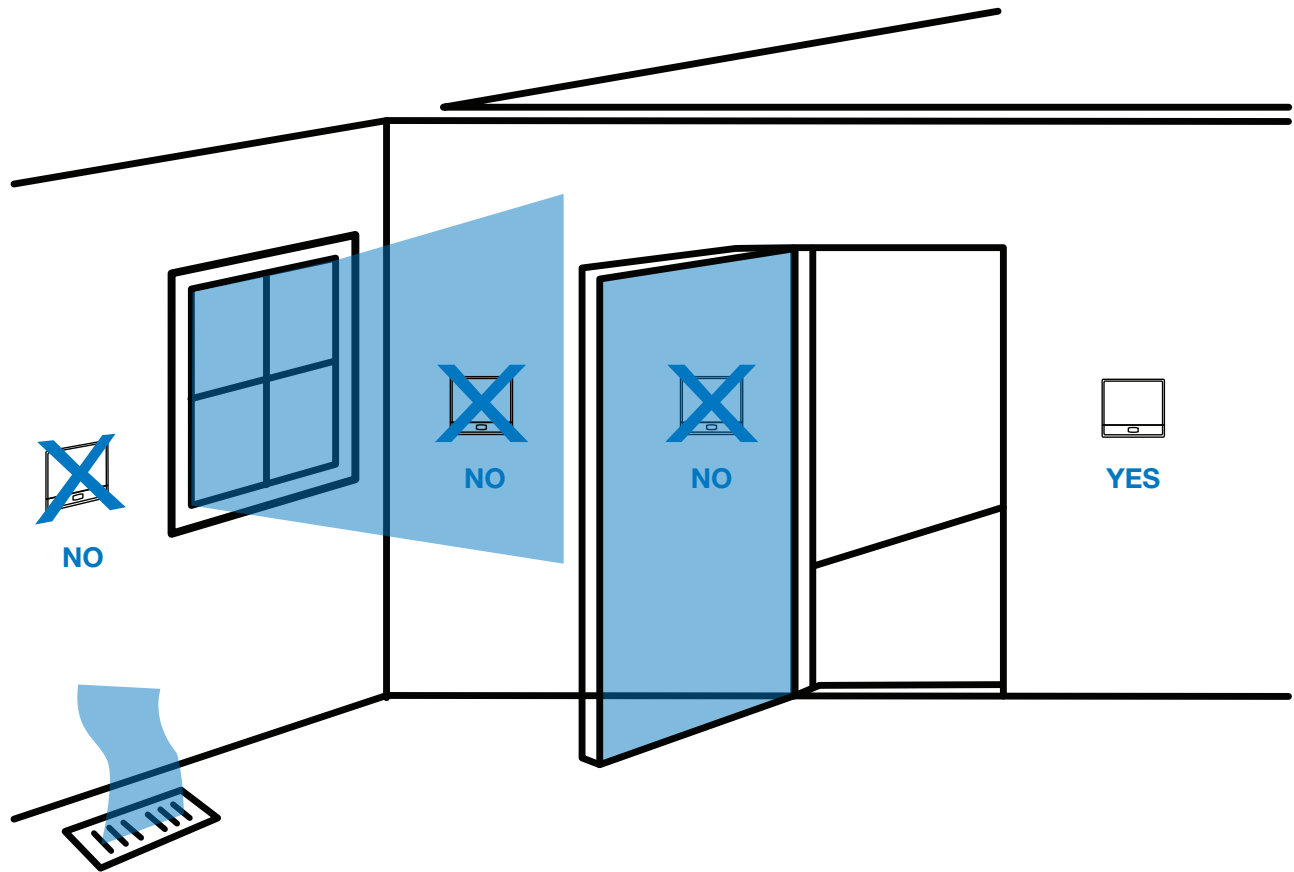
PRO1 Tip

All Pro1 thermostats use the same universal magnetic badge.
Visit our website at www.pro1iaq.com to learn more about our free private label program.

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

PRO1 Tip

Pick an installation location that is easy for the user to access. The temperature of the location should be representative of the building.
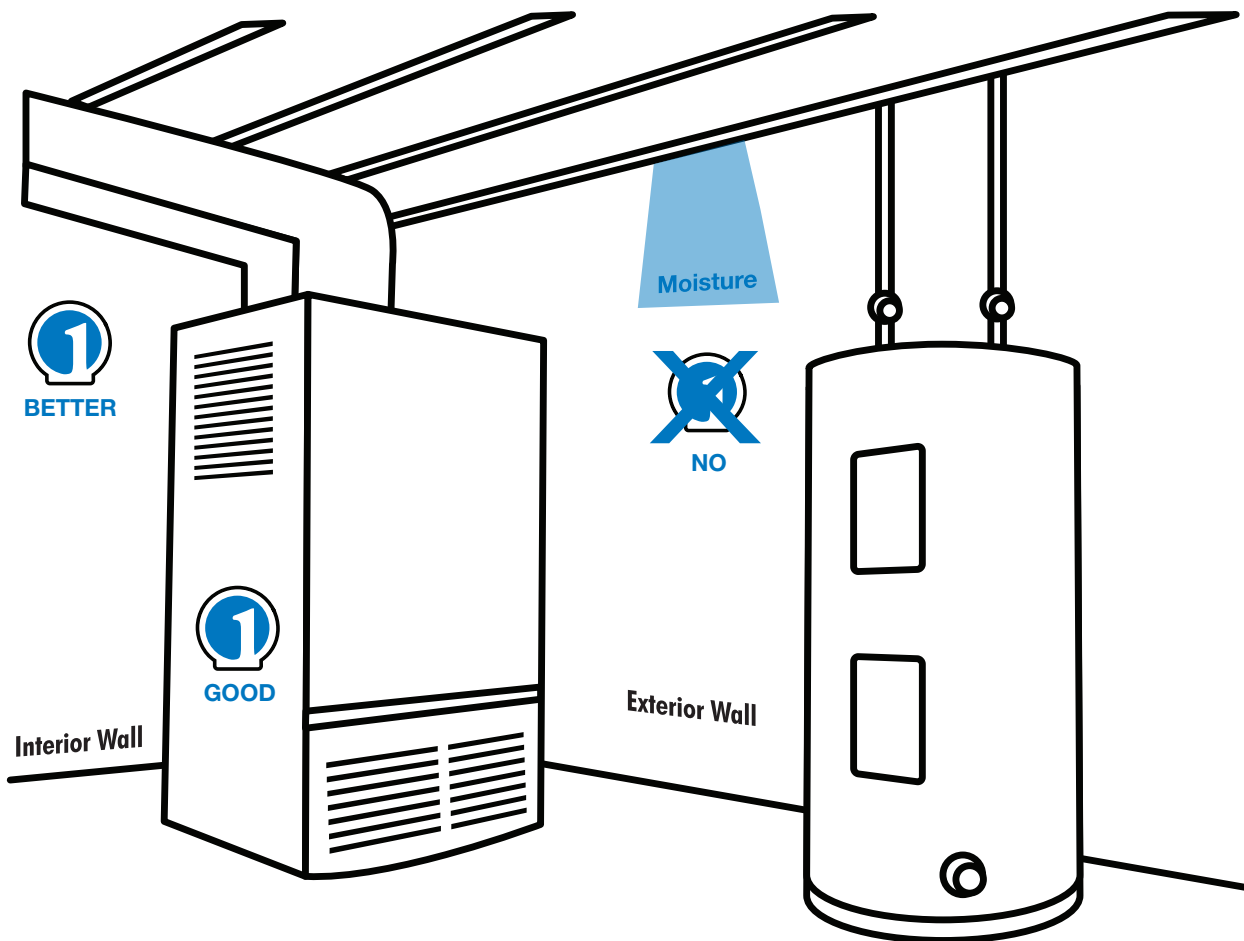
Base Module - Basement Installation
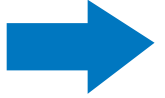
Wireless Range

Range between the T955WH and the base module is up to 100 feet with no obstructions and up to 50 feet in standard residential metal, brick, and concrete construction. To extend the range try placing the base unit higher if in a basement or further away from large metal objects.

Moisture

BETTER

NO

GOOD

Exterior Wall

Interior Wall

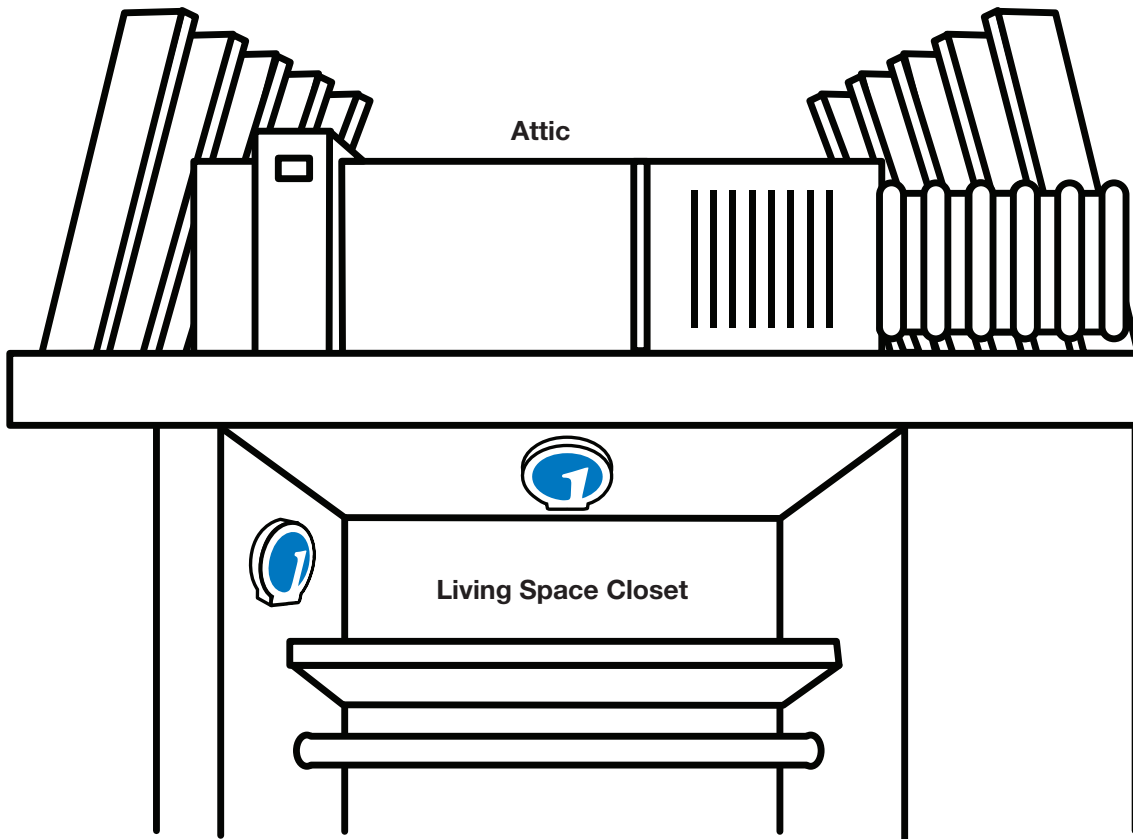## PRO1 Tip

Do not install the base module in locations:
• That are behind a chimney
• Where temperature could exceed 150°F
• Where rain or snow or extreme hot or cold is possible

NOTE: The base module is NOT weatherproof.

4

Base Module - Attic Installation

When performing an attic installation, instead of placing the base module in the attic, locate the closet nearest to the air conditioning unit. Then mount the base module high on the wall inside the closet or on the ceiling of the closet. This location will insure the base module is below the 150ºF maximum ambient temperature specification.

PRO1 Tip

Do not install the base module in locations:
• That are behind a chimney
• Where temperature could exceed 150ºF
• Where rain or snow or extreme hot or cold is possible

NOTE: The base module is NOT weatherproof.

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 Pro1's 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 top and one screw bottom.

For horizontal mount put one screw left and one screw right.

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 thermostat.

Vertical mount

Horizontal mount

Horizontal mount

Vertical mount

C
R

UP
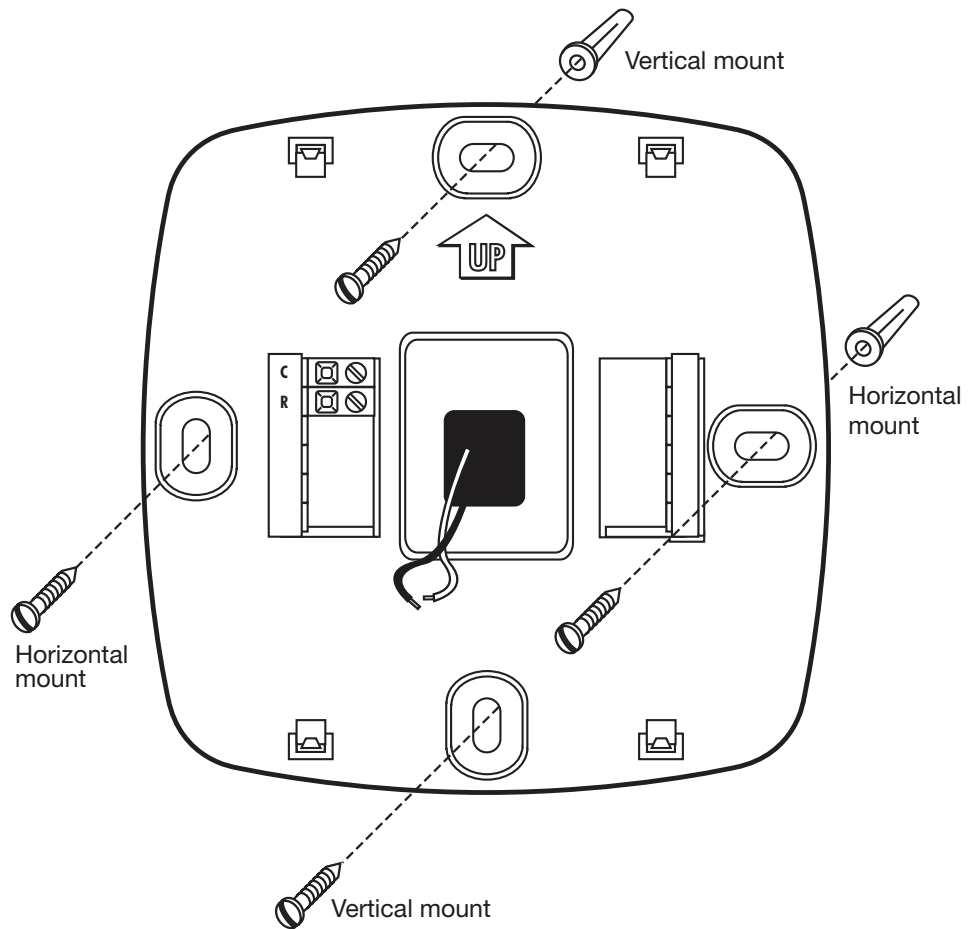
Note:

The T955WH can be battery powered only if used as a stand-alone thermostat solution. The T955WH must be hardwired (C and R terminals connected to 24V power) if remote sensors (R251W or R250W) are used.

Wiring Note:
Wire the base module's subbase the same way you would wire a hardwired thermostat subbase.

Note:
To connect the base module to master thermostat, refer to the directions on page 9 of this manual.

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

For horizontal mount put one screw left and one screw right.

Vertical mount

UP

C
O
B
W1/E
W2
H

Rh
Rc
G
Y1
Y2
D

Horizontal mount

Horizontal mount

Vertical mount
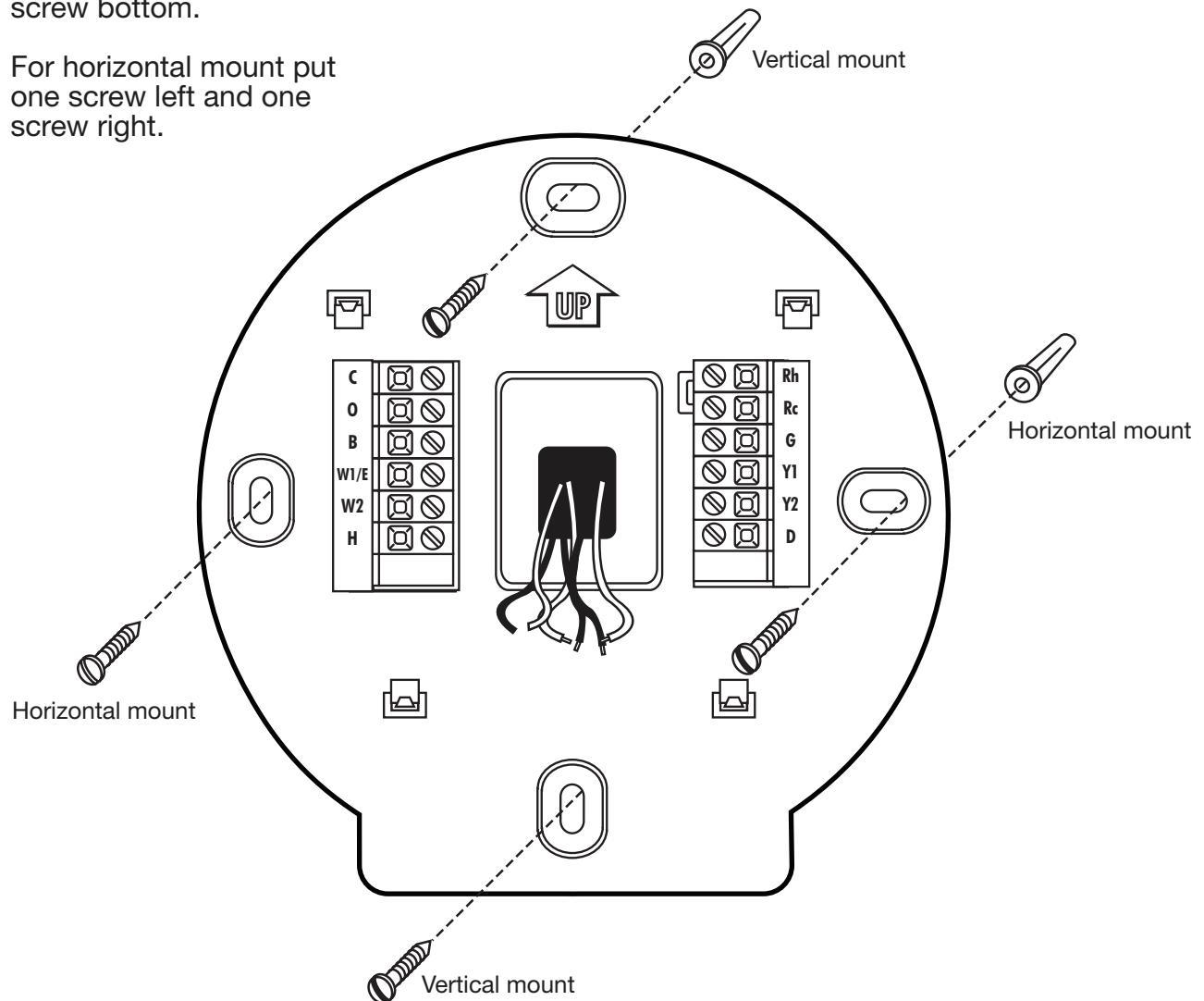
Note:
The base module must be hardwired (C and R terminals connected to 24V power).

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.

⚠️ **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.

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

Terminal Designations on Base Module

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 12 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)
C	Transformer common	Transformer common	Transformer common
B	Energized in heating	Heat pump changeover valve energized in heating	Heat pump changeover valve energized in heating
O	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
Y	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
W2	Second stage of heat	Auxiliary heat relay, second stage of heat	Auxiliary heat relay, third stage of heat
H	Humidify	Humidify	Humidify
D	Dehumidify	Dehumidify	Dehumidify

Terminal Designations on T955WH Master Thermostat

Terminal	2 Heat 2 Cool Conventional System	2 Heat 2 Cool Heat Pump System	3 Heat 2 Cool Heat Pump System
R	24 VAC Transformer power	24 VAC Transformer power	24 VAC Transformer power
C	Transformer common	Transformer common	Transformer common

Powering the T955WH Master Thermostat
If you add remote sensors (R250W or R251W) to this wireless system you must hardwire the T955W master thermostat.

Establishing Communication between T955W Master Thermostat and the Base Module

Easy, Two Step Communication Link

To set up the initial link between the Master Thermostat and the base module please follow the steps below:

1. Press and hold the **base module** button for 3 seconds. The **Blue LED** will flash when ready to receive initial signal from **T955WH**. (Base module must be powered by 24V. **Blue LED** will be continuously on when 24V power is present.)

2. Hold the **Light key** (shown here) of the **T955WH** for 10 seconds, the **Blue LED** on the base module will stop flashing after communication has been established between **base module** and the **T955WH**.

> **Note:**
> The **Blue LED** on the **base module** will be on when power is present. The **Blue LED** will flash 3 times every time it receives a signal from **T955WH**. When a relay is on the corresponding LED relay indicator will be on.

> **Note:**
> If the base module does not receive a signal from the **T955WH** for 15 minutes it will turn off all relays until communication is reestablished. The **Blue LED** on the base module will also turn off to show communication has been lost.

> **Note:**
> If communication has been lost for 1 hour and if freeze protection is enabled, heat and emergency heat relays will be turned on. The heat and emergency heat relays will turn on for 10 minutes every hour if there has been a call for heat in the last 24 hours.

Step 1.
LED Relay Indicators   Blue LED

for use with T955WH

H
D
Y1
Y2
W1/E
W2
G
O
B

Base Module Button

Step 2.
Light key

AM   Set At
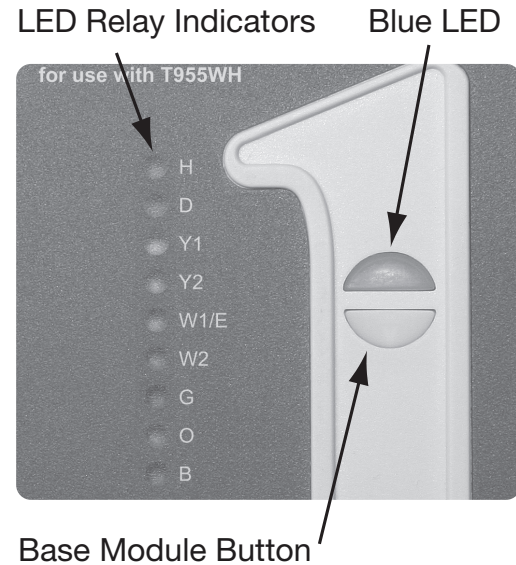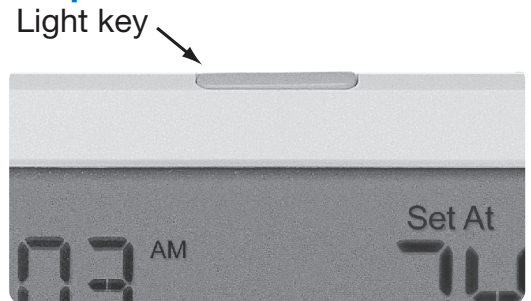
> **Important:**
> DO NOT hold the light button on the **T955WH** for more than 10 seconds after Step 2 above has been completed. Holding the light button down will break the communication link and the base module button will need to be pressed again to reestablish communication.

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	Keypad Lockout
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.	Keypad lockout allows you to configure the thermostat so that none or some of the keys do not function.

LCD Will Show

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.	Pick **PA** or **FU**. **PA** = partial keypad lockout, which locks all the keys except the ⍓ or ⍌ keys. **FU** = Full keypad lockout, which locks out all the keys. Note: Keypad lockout instructions are below.

Factory Default Settings

OFF	0 °F	OFF	ON	0.5 °F	0.4 °F	PA

Note: To lock the keypad hold down the ⍓ and ⍌ keys for 3 seconds. You will see a lock in the display. To unlock the keypad hold down the ⍓ and ⍌ keys for 3 seconds.

Tech Setup Steps (Continued from the previous page)

Heating Temperature Setpoint Limit	Cooling Temperature Setpoint Limit	ºF or ºC	12 or 24 Hour Clock	Morning Recovery	Program Options	Display Light
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.	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.	This feature turns your system on before the **WAKE** programming time to ensure the enviroment is at the **WAKE** setpoint when the **WAKE** time period begins. This recovery changes over time based on the previous day's experience.	You can configure this thermostat to have a 7 day program, a 5+1+1 program or nonprogrammable.	The display light can be configured to come on when any key is pressed or only when the light key is pressed.

LCD Will Show

90 / HE / HEAT LIMIT	44 / CO / COOL LIMIT	ºF / 74º / F OR C SET	12H / CLOCK SET	ON / MORN RECOV	5d / PROGRAM	ON / dL / LIGHT

Adjustment Options

| Use the ◁ or ▷ key to select the maximum heat setpoint. | Use the ◁ or ▷ key to select the minmum cool setpoint. | ºF for Fahrenheit ºC for Celsius | Use the ◁ or ▷ key to select 12 or 24 hour clock. | Use the ◁ or ▷ key to turn on or off. | Use the ◁ or ▷ key to select **7d** for 7 day, **5d** for 5+1+1, or **0d** for nonprogammable. | **OFF** configures display light to come on only with the light key, which will save battery power.

ON configures the display light to come on when any key is pressed. |

Factory Default Settings

90 ºF	44 ºF	ºF	12 Hour Clock	ON	5d	ON

PRO1 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 70ºF, the first stage will turn on at approximately 69.2ºF. The second stage will turn on at 68.4ºF. The second stage will turn off at 69.2ºF and the first will turn off at 70.8ºF. If third stage is used, it will turn on at 3x the swing and turn off at approximately 2x the swing.

Balance Point:
The system operates differently when a balance point is used on a dual fuel system. The balance point outdoor temperature setting will be the outdoor temperature at which the thermostat chooses either the heat pump or gas furnace. *For Example:* A balance point setting of 30ºF will turn on only the heat pump above 30ºF and only the gas furnace below 30ºF. **Y1** will be stage one above 30ºF and **W2** will be stage one below 30ºF.

TECHNICIAN SETUP MENU

Tech Setup Steps (Continued from the previous page)

Contractor Call Number	Beep	Heat Pump	System Switch	Fan Operation	Gas Auxiliary for Heat Pump	Cooling Fan Delay	Outdoor Sensor
Allows you to put your phone number in the display. You can choose **ON** or **OFF**	When any key is pressed an audible beep will sound. You can choose **ON** or **OFF**	When turned on the 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 heat relay.	You can configure the system switch for the particular application: Heat - Off - Cool, Heat - Off, Cool - Off, Heat - Off - Cool-Auto **Note: EM. Heat** will show if in heat pump mode.	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.	This option will turn 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 stage turns on.	The cooling fan delay 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 systems.	Enables the use of an outdoor sensor **R250W**. Connecting a **R250W** allows for a balance point setting. Selecting **YES** requires the **T955WH** master thermostat to be powered with 24V on **C** and **R** terminals. See **R250W** user guide for more information.

LCD Will Show

Adjustment Options

If selected **ON**, you will see the input screen after pressing next step. Use the ◁ or ▷ key to select the desired number and the **FAN** or **SYSTEM** key to move from one character to another. See note below on operation.	If **ON** is selected the beep will sound. If **OFF** is selected, there is no sound.	**OFF** configures the thermostat for non heat pump systems. **ON** configures the thermostat for heat pump systems.	Use the ◁ or ▷ key until the desired application is flashing.	**GAS** or **ELEC**	For heat pump 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 called for. This feature is disabled when a **R250W** is connected. See **Balance Point** on page 13.	You 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 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. This feature is disabled when a **R250W** is used. See **Balance Point** on page 13.	When **NO** is selected the thermostat is unable to connect to an outdoor remote sensor **R250W**. When **YES** is selected the thermostat is able to connect to an outdoor remote sensor **R250W**. Press and hold connect button on **R250W** until the **T955WH** says **FOUND OUTDOOR** on display.

Factory Default Settings

OFF	ON	OFF	Heat - Off - Cool	GAS	OFF	OFF	NO

Note:
Connect an optional **R250W** outdoor remote temperature sensor to enable the balance point tech setup option.

Tech Setup Steps (Continued from the previous page)						Requires R250W	
Remote Sensor	**Finding Sensor**	**Local Temp Sensor**	**Freeze Protection**	**Energy Star® Logo**	**Stages of Heat**	**Balance Point**	**Balance Run Time**
Enables the use of up to four indoor sensors **R251W**. Selecting **YES** requires the **T955WH** master thermostat to be powered with 24V on **C** and **R** terminals.	This step connect **R251W** to **T955WH**. The previous step **Remote Sensor** must be set to **YES** in order to connect an **R251W**.	Disable the sensor on the master. At least one **R251W** indoor remote sensor must be connected to disable the local T955WH sensor.	Turns on the heat for 10 minutes each hour if unable to communicate with the **T955WH** master thermostat if there has been a call for heat in the last 24 hours.	Shows the Energy Star logo when the program meets Energy Star guidelines.	You can configure 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 PUMP** is set to **ON**.	Balance point can eliminate the need for a fossil fuel kit. An outdoor temperature above balance point will cause the thermostat to only allow the **Y** terminal(s) to energize. An outdoor temperature below balance point will cause the thermostat to only allow the **W2** to energize.	Balance point run time will allow the **W2** auxiliary terminal to energize even if outdoor temperature is above the selected balance point temperature. If enabled, auxiliary will energize for the current cycle after the balance point run time has expired.
LCD Will Show							
Adjustment Options							
When **NO** is selected the thermostat is unable to connect to an indoor remote sensor **R251W**. When **YES** is selected the thermostat is able to connect to up to four indoor remote sensors **R251W**. Go to the next step **FINDING SENSOR** to connect **R251W**.	The number shown represents the zone. Use ◁ or ▷ to select the zone you wish to connect. The zone setting on the **T955WH** and the **R251W** must be the same to connect. See **R251W** user guide for detailed **R251W** connection information. See note below for more information.	**YES** enables local T955WH sensor **NO** disables local T955WH sensor	**YES** enables freeze protection **NO** disables freeze protection	**YES** enables Energy Star feature **NO** disables Energy Star feature	Use the ◁ or ▷ 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 **W2** as auxiliary.	**YES** 10, 20, 30, 35, 40, 45, 50 outdoor temperature balance point setting. **NO**	**YES** 15, 30, 45, 60, 75, 90 continuous run time minutes. **NO**
Factory Default Settings							
NO	1	YES	NO	NO	2 Stages	NO	NO
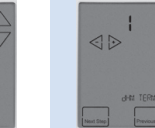
Note:
Up to four **R251W** indoor temperature sensors can be connected to one **T955WH**. This allows for 5 sensing points (zones). *For Example:* The local (**T955WH**) plus four **R251W** sensors enables 5 sensing points. To connect an **R251W** to a **T955WH**, Select **1** on the **T955WH FINDING SENSOR** technician setup step. Then select Zone **1** on the **R251W** technician setup step. Then hold down the light button on the **R251W** until it beeps, while in **ZONE** technician setup step on **R251W**. To connect a second **R251W** change the **T955W** to read **2** and change the **R251W** to zone **2**. The zone setting must match between the **T955WH** and the **R251W** to connect. When the connection is established the **T955WH** will show **FOUND + NAME OF R251W** in the system information area of the display.

13

Tech Setup Steps (Continued from the previous page)

Humidify	Dehumidify	Humidity Calibration	Dehumidify with AC	Over Cool Limit	HUM Terminal	DHM Terminal
This feature adds humidity when **System** key is in **Heat**.	This feature removes humidity when **System** key is in **Cool**.	This feature allows the installer to change the calibration of the ambient humidity displayed.	This feature forces the A/C to run longer to remove humidity when needed. The A/C will "over cool" the room a few degrees until the humidity reaches the desired setpoint.	The amount of over cooling allowed when using A/C to remove humidity. This screen is only shown when **ON** is selected in the "Dehumidify with AC" tech setup step.	Options for how the Hum terminal energizes.	Option for how DHM terminal energizes.

LCD Will Show

OFF HUMIDITY	OFF dE HUMIDITY	0 HUM CALIBRATE	no d HUM WITH AC	3 OVER COOL LIMIT	1 HUM TERMINAL	1 dHM TERMINAL

Adjustment Options

Humidify	Dehumidify	Humidity Calibration	Dehumidify with AC	Over Cool Limit	HUM Terminal	DHM Terminal
Use the ◁ or ▷ key to turn on or off. If ON is selected the humidity will be displayed on the main screen and Hum terminal will energize when humidity setpoint is above ambient humidity in **Heat** mode.	Use the ◁ or ▷ key to turn on or off. If ON is selected the humidity will be displayed on the main screen and DHM terminal will energize when humidity setpoint is below ambient humidity in **Cool** mode.	Use the ◁ or ▷ key to adjust the calibration +/− 3.	Use the ◁ or ▷ key to select **YES** or **NO**. If selected **YES** allows over cooling to be used to control humidity in **Cool** mode. If **NO** is selected the system will not use over cooling.	Use the ◁ or ▷ key to select the maximum number of degrees of over cool. Options are: **2, 3, 4, 5**	Use the ◁ or ▷ key to select one of the four options. View the **HUM Terminal** chart below for an explanation of these options.	Use the ◁ or ▷ key to select one of the four options. View the **DHM Terminal** chart below for an explanation of these options.

Factory Default Settings

Humidify	Dehumidify	Humidity Calibration	Dehumidify with AC	Over Cool Limit	HUM Terminal	DHM Terminal
OFF	OFF	0	NO	3	1	1

HUM Terminal

OPTIONS	HUM terminal energizes when the ambient humidity is...
1	below the humidity setpoint and heat or fan is energized.
2	below the humidity setpoint and heat is energized.
3	below the humidity setpoint. It will also energize the fan during a call for humidity.
4	below the humidity setpoint.

DHM Terminal

OPTIONS	DHM terminal energizes when the ambient humidity is...
1	above the humidity setpoint and cool or fan is energized.
2	above the humidity setpoint. It will also energize the fan during a call for humidity.
3	above the humidity setpoint.
4	above the humidity setpoint and the compressor is not running.

Mount Thermostat and Base Module

Align the 4 tabs on the subbase with corresponding slots on the back of the thermostat or base module. Then push gently until the thermostat or base module snaps in place.

> **Note:** To insure a solid fit between the thermostat and the subbase:
>
> 1. Mount subbase to a flat wall
>
> 2. Use screws provided
>
> 3. Drywall anchors should be flush with the wall
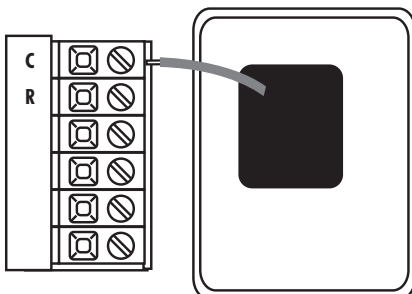>
> 4. Wires should be pushed into the wall
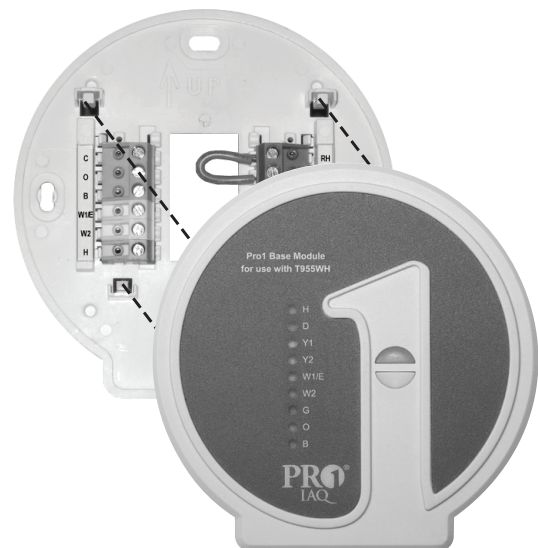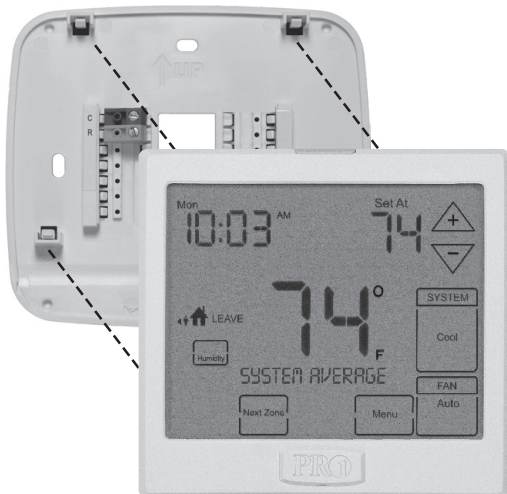
> **Note:**
> The base module can be wired from the back or the bottom.

Battery Installation

Battery installation is optional if there are no remotes connected to the Master Thermostat (**C** terminal connected). If you connect an outdoor remote and/or indoor remote sensors it is required the thermostat be hardwired.

On the back of the thermostat insert 2 AA Alkaline batteries (included).

Setting Target Humidity Setpoint

Follow the steps below to change your target humidity setpoint.

Press the **HUMIDITY** key

Use the ◁-] or [+▷ key to select the target humidity setpoint.

Press **DONE** when completed

> **Note:**
> The target humidity setpoint is not programmable. Unlike temperature, humidity does not change quickly and should not be programmed.

> **Note:**
> Humidity is only energized during heat. Dehumidify is only energized during cool. Heat and Cool each have their own target setpoints.

HUMIDITY KEY
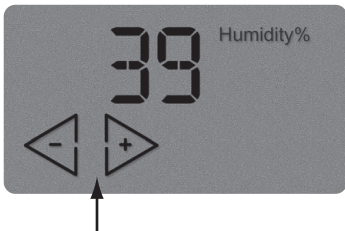
TARGET HUMIDITY SETPOINT KEYS

Ambient Humidity Display

Ambient humidity will flash opposite the day and time, if the optional **R250W** outdoor temperature sensor is installed the ambient outdoor temperature will also cycle in the display.

AMBIENT HUMIDITY

DAY & TIME

OUTDOOR TEMPERATURE

Recommended Heating Settings:

Increasing Humidity

The table on the right shows recommended indoor humidity levels in relation to outdoor temperatures during heating (adding humidity).

Outside Temperature (0°F)	Recommended Relative Humidity
+20° and above	35% to 40%
+10°	30%
0°	25%
-10°	20%
-20°	15%

Recommended Cooling Settings:

Consult your professional HVAC technician for recommended settings for your climate.

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 programmable Pro1 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 each day of the week programmed uniquely (7days), all the weekdays the same with a separate program for Saturday and a separate program for Sunday (5+1+1), or nonprogrammable. There are four time periods for each day (**WAKE**, **LEAVE**, **RETURN**, **SLEEP**). This thermostat has a programmable fan feature, which allows you to run the fan continuously during any time period.

| Factory Default Program					
Day of the Week	Events	Time	Setpoint Temperature (Heat)	Setpoint Temperature (Cool)	Zone (If R251W is connected)
Weekday	Wake 🌤🏠	6 a.m.	70° F (21° C)	75° F (24° C)	System Average
	Leave 🏠	8 a.m.	62° F (17° C)	83° F (28° C)	System Average
	Return 🏠	6 p.m.	70° F (21° C)	75° F (24° C)	System Average
	Sleep 🌙🏠	10 p.m.	62° F (17° C)	78° F (26° C)	System Average
Saturday	Wake 🌤🏠	8 a.m.	70° F (21° C)	75° F (24° C)	System Average
	Leave 🏠	10 a.m.	62° F (17° C)	83° F (28° C)	System Average
	Return 🏠	6 p.m.	70° F (21° C)	75° F (24° C)	System Average
	Sleep 🌙🏠	11 p.m.	62° F (17° C)	78° F (26° C)	System Average
Sunday	Wake 🌤🏠	8 a.m.	70° F (21° C)	75° F (24° C)	System Average
	Leave 🏠	10 a.m.	62° F (17° C)	83° F (28° C)	System Average
	Return 🏠	6 p.m.	70° F (21° C)	75° F (24° C)	System Average
	Sleep 🌙🏠	11 p.m.	62° F (17° C)	78° F (26° C)	System Average

You can use the table below to plan your customized program schedule if using 5+1+1.

			Factory Default Program		
Day of the Week	Events	Time	Setpoint Temperature (Heat)	Setpoint Temperature (Cool)	Zone (If R251W is connected)
Weekday	Wake				
	Leave				
	Return				
	Sleep				
Saturday	Wake				
	Leave				
	Return				
	Sleep				
Sunday	Wake				
	Leave				
	Return				
	Sleep				

Set 5+1+1 Program Schedule

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.

> ### Additional step if R251W indoor remote sensor is connected.
>
> The **T955WH** master thermostat will either average all sensors (system average) or only use one sensor for the system ambient temperature (priority). The default setting is **SYSTEM AVERAGE**, which means all sensors are averaged to create the system average ambient temperature reading. The **NEXT ZONE** key can be pressed to change the priority. The system information area of the display shows the priority.
> *For Example:* There is an **R251W** connected and it is named **REMOTE 1**. If the **NEXT ZONE** key is pressed until **REMOTE 1** is shown, then the **REMOTE 1** ambient temperature reading will be used exclusively for that time period. All other sensors will be ignored.

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 △+ or ▽− 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 **RETURN** time period, and for weekday **SLEEP** time period.

Saturday:

9. 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.

Set 7 Day Program Schedule

**To customize your 7 day program schedule, follow these steps:**

Monday

1. Select **HEAT** or **COOL** using the system key. You have to program heat and cool each separately.

2. Press **MENU**

3. Press **SET SCHED**
   Note: Monday is displayed and the **WAKE** icon is shown. You are now programming the **WAKE** time period for the Monday setting.

> ### Additional step if R251W indoor remote sensor is connected.
>
> The **T955WH** master thermostat will either average all sensors (system average) or only use one sensor for the system ambient temperature (priority). The default setting is **SYSTEM AVERAGE**, which means all sensors are averaged to create the system average ambient temperature reading. The **NEXT ZONE** key can be pressed to change the priority. The system information area of the display shows the priority.
> *For Example:* There is an **R251W** connected and it is named **REMOTE 1**. If the **NEXT ZONE** key is pressed until **REMOTE 1** is shown, then the **REMOTE 1** ambient temperature reading will be used exclusively for that time period. All other sensors will be ignored.

4. Time is flashing. Use the ⟨−⟨ or ⟩+⟩ key to make your time selection for the Monday **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 △+ or ▽− key to make your setpoint selection for the Monday **WAKE** period.

7. Press **NEXT STEP**

8. Repeat steps 4 thru 7 for Monday **LEAVE** time period, for Monday **RETURN** time period, and for Monday **SLEEP** time period.

Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

Repeat steps 4 thru 7 for the remaining days of the week.

> **A Note About Auto Changeover:**
> Auto changeover will switch between heating and cooling as needed. It is very important to make sure the cooling setpoint temperature is at least 3° above the heating setpoint temperature and that the heating setpoint temperature is at least 3° below the cooling setpoint temperature.

> **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 and cold spots in your building.

Specifications

T955WH Thermostat

The display range of temperature	41ºF to 95ºF (5ºC to 35ºC)
The control range of temperature	44ºF to 90ºF (7ºC to 32ºC)
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 0.2ºF to 2.0ºF
	Cooling is adjustable from 0.2ºF to 2.0ºF
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	32ºF to +105ºF (0º to +41ºC)
Operating humidity	90% non-condensing maximum
Dimensions of thermostat	4.7"W x 4.4"H x 1.1"D
Frequency	916 MHz

Base Module

Load rating	1 amp per terminal, 1.5 amp maximum all terminals combined
Power source	18 to 30 VAC, NEC Class II, 50/60 Hz
Operating ambient	32ºF to +150ºF (0º to +65ºC)
Operating humidity	90% non-condensing maximum

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