

# VIVINT SMART HOME ELEMENT THERMOSTAT USER GUIDE



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# Getting Started

# Vivint Element Installation Guide

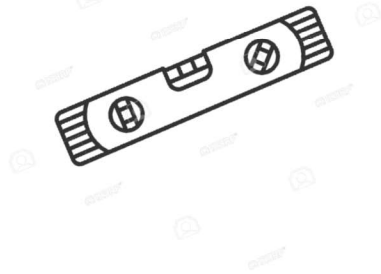
## Getting Started

### Tools Needed

Small Phillips screwdriver



Level



### CAUTION

To avoid electrical shock and to prevent damage to the furnace and thermostat, disconnect the power supply before installing or servicing the thermostat or any part of the HVAC system. This can be done at the circuit breaker labeled either furnace or air handler.

- Do not turn power back on until work is complete.
- Do not short (jumper) across electric terminals at the control on the furnace or air conditioner to test the system. This can damage the thermostat.
- Your thermostat is a precise instrument. Handle it with care.
- All wiring must conform to local codes and ordinances.
- This thermostat is designed for use with 4AA alkaline batteries and/or 24-volt AC C wire (or a 12- 24 AC or DC source) or millivolt gas systems. Each thermostat relay load should be limited to 1.0 amp; higher amperage can cause damage to the thermostat.

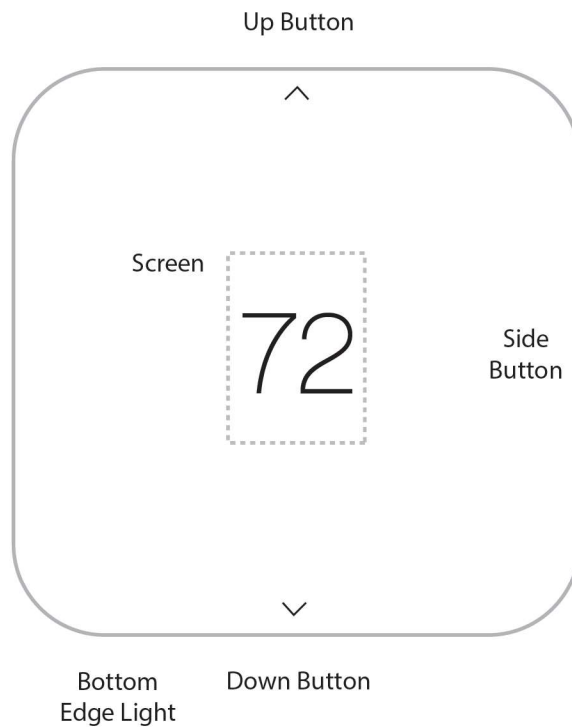
## Interior View

Unit Back and Mounting Plate

Wire terminals

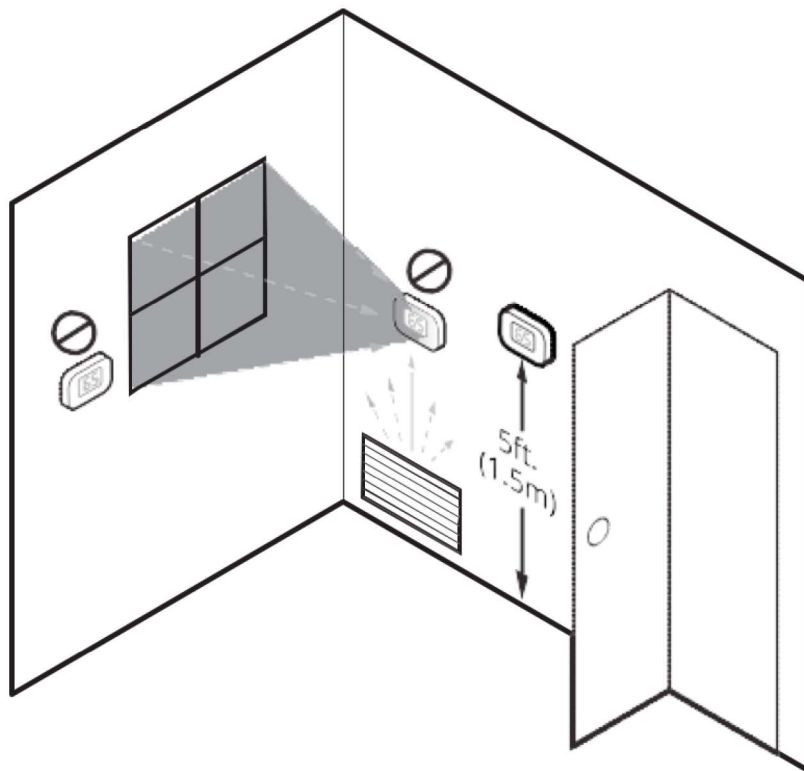


## Unit Front



## Installation Location

To avoid having to move your wiring to a new location, mount the thermostat in place of the old thermostat.



- Install the thermostat on an inside wall of an often-used room, about 5 ft. (1.5m) above the floor.
- Do not install where there are unusual heating conditions, such as: in direct sunlight; near a lamp, radio, television, radiator register, fireplace; near hot water pipes in the wall; or near a stove on the other side of a wall.
- Do not locate in unusual cooling conditions, such as: on a wall separating an unheated room; or in a draft from a stairwell, door, or window .
- Do not locate in a damp area. This can lead to corrosion that will shorten the thermo- stat's life .
- Do not locate where air circulation is poor, such as: a corner, an alcove, or behind an open door.
- Ensure that the thermostat is level on the wall.

# Wiring

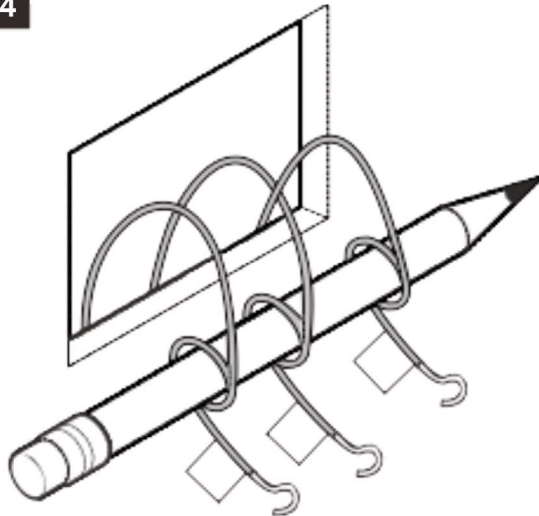


### CAUTION

- Read instructions carefully before removing any wiring from an existing thermostat.
- Label all wires before disconnecting them from the existing thermostat.
- Test existing thermostat before turning off HVAC power to ensure HVAC system is working appropriately

1. Turn off power to the furnace or air handler (i.e. heating and cooling systems). This can be done at the circuit breaker.
2. Remove the cover from the existing thermostat. Check for locking screws on the side or front that must be loosened first.
3. Attach provided labels to each wire for identification. Refer to the lettered terminal where the wires attach; do not use the color of the wires.
4. Disconnect wires from the existing thermostat, and wind them around a pencil to keep them from falling back inside the wall.
5. Loosen all mounting screws on the old thermostat and remove from the wall.

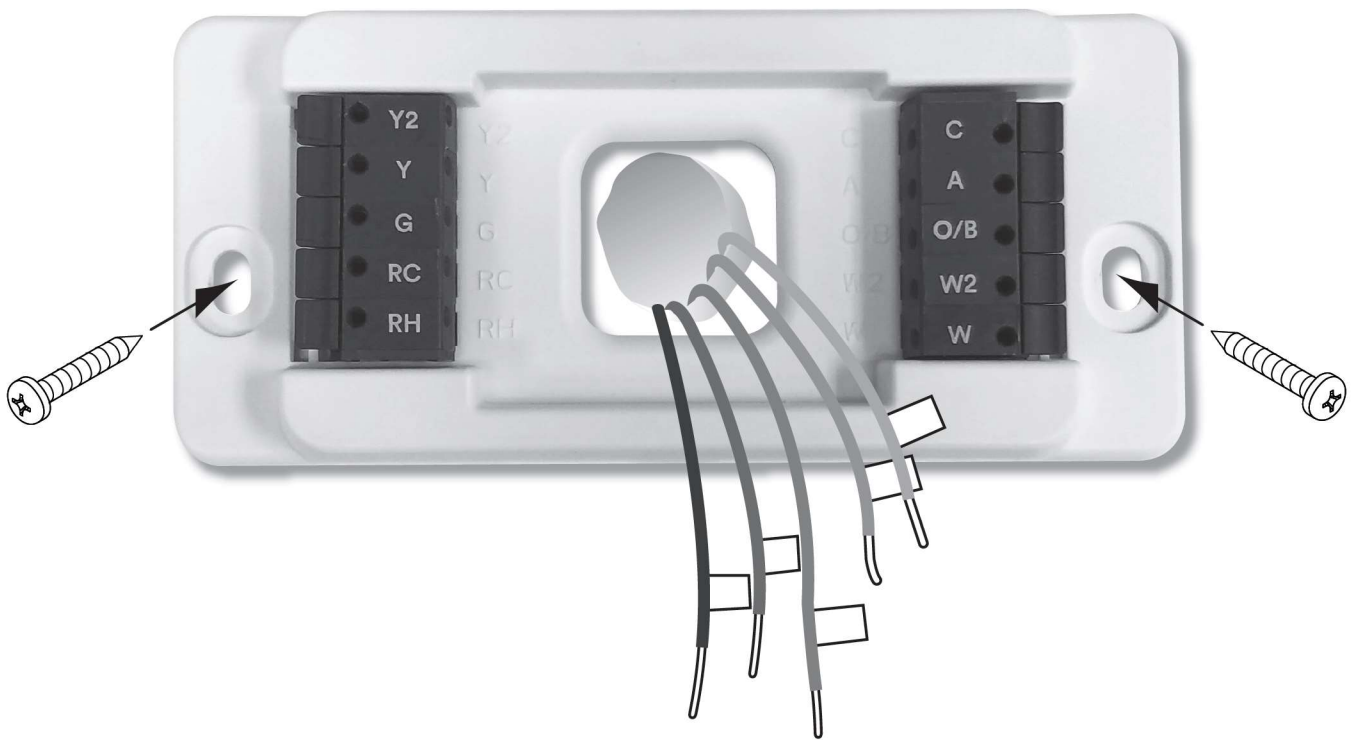
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## Attaching the Mounting Plate to the Wall

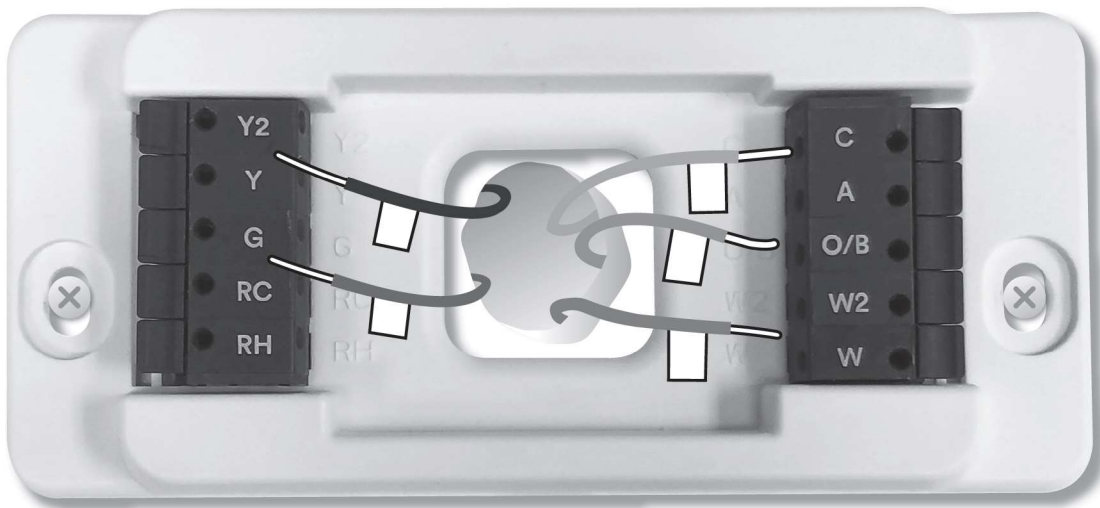
1. Carefully pull the labeled wires through the center hole in the mounting plate.
2. Position thermostat for best appearance to cover the hole in the wall.
3. Mark first and drill a ¼ in. (6mm) hole at each screw location.
4. If you are mounting the Thermostat to sheet rock or if you are using the old mounting holes, use the plastic anchors provided.
5. Attach the Thermostat to the wall with the screws provided.



## Prepare Wires

Make sure your wires are labeled. If necessary, find the “other end” connection for each wire on your furnace or air handler (i.e. heating or air conditioning) equipment and note the label there.

- 1 . Fan out wires so that they are aligned with the terminals.
- 2 . Do not bunch wires in front of the mounting plate. Feed any slack back into the wall.



If dual transformer (RH & RC wires), remove jumper. If single transformer leave jumper on.

Do not allow wires to touch each other or other parts on the thermostat.

Follow these guidelines for safe and secure wire connections:

- Use at least 2.6 inches of wire for each of your connections to the Thermostat.
- If you do not have enough wire, splice additional wire to allow enough slack.
- Terminals accept wires from 16-22 AWG.
- Remove 1/8 inch insulation from the tip of each wire.
- Take care not to damage the labels for each wire.

## Connecting Your Wires

Reference the Detailed Wire Diagrams on page 23 to identify your wiring diagram and set-up information. If necessary, contact customer support for help.

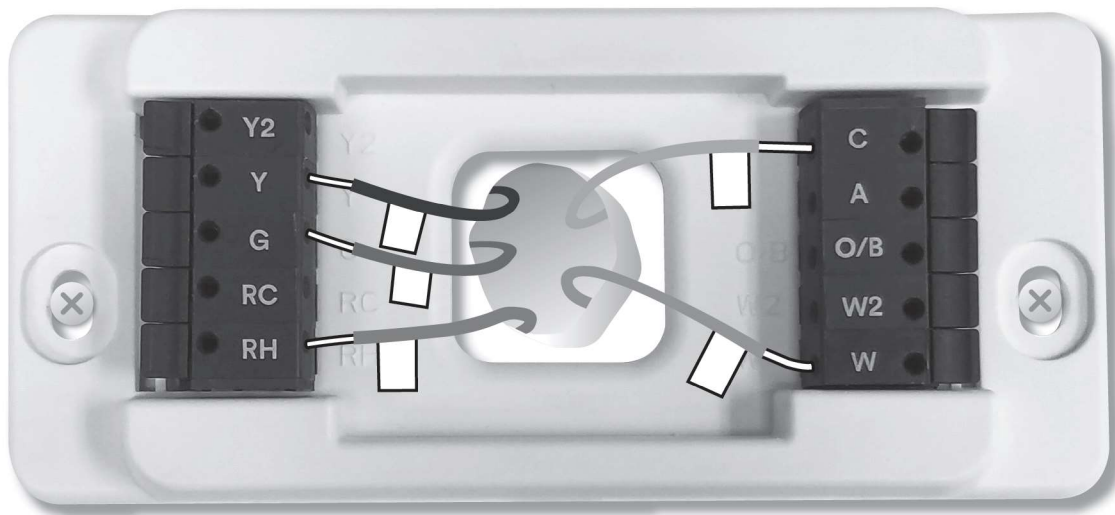
1. Connect a labeled wire only to a matching lettered terminal.
2. Insert the terminal labeled wire with corresponding terminal. (e.g. G wire goes to G terminal).
3. Make sure to insert the wire into the terminal as far as it will go. The wire should be secure and cannot be removed easily.

The Thermostat can be externally powered with a power source rated from 12V to 24V, AC or DC, at 100mA or greater. If used, connect to the C and RH terminals (no polarity).

The 24VAC “C” wire is the other side of the 24VAC heating transformer and can be found where the other thermostat wires connect at the wall or at the furnace. Do not use the common or ground side of the line voltage.

The Thermostat runs on 4 AA alkaline batteries, the C wire (if available), or both batteries and the C-wire . If you do not have a C wire, you can run a new wire from the HVAC or use a standard 12-24V [AC or DC] wall transformer.

The C-wire is optional but preferred for all installations.



### Power Supply

1. Install four (4) AA alkaline batteries following the marked polarity in the battery compartments. Insert the battery negative end first against the spring, then push the positive end in.
2. With all the wires connected and the unit attached to the wall, it is time to turn the furnace and/or air handler power back on. Reconnect the power at the breaker you used to switch it off. The Thermostat will power-up in the OFF mode.
3. Your Thermostat is not yet configured to operate your HVAC system. You must now connect your thermostat to a Z-Wave Network and configure the HVAC and Heat Source settings.

### Battery Installation





### THERMOSTAT BATTERY CAUTIONS

- Always use new Alkaline batteries.
- Do not use rechargeable batteries of any type. They will not operate the thermostat properly and may lead to damage.
- Do not mix old and new batteries.
- Do not mix battery types, for example Lithium with Alkaline.
- Do not dispose of batteries in fire. Batteries may explode or leak.
- Always replace the batteries as soon as the “Low Batt” warning flashes. The thermostat is a battery-powered device; you should replace the batteries before they run out.
- Always replace the batteries once a year, even if the “Low Batt” indicator does not flash. Replacing the batteries also helps to prevent leakage that can corrode and damage the thermostat.
- If you are leaving your home for a month or more, you should replace the batteries as a precaution against battery failure in your absence.
- Failing to replace the batteries when necessary could cause the thermostat to lose power or malfunction. If the thermostat loses power, then the thermostat will not control the temperature, which could result in your HVAC system not functioning as you intended and lead to possible damage from excessive heating or cooling.
- If the thermostat batteries fail with the heat OFF, this can result in NO HEAT and possible frozen or broken pipes and water damage.
- If the thermostat batteries fail with the cool OFF, this can result in NO COOL and could cause possible damage or excessive temperatures.