

SMART HOME MONITORING



# Smart Thermostat

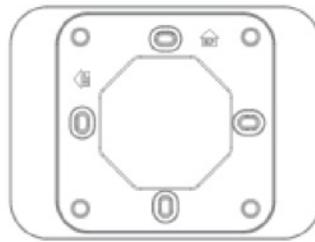
Manufacturer's Installation Guide

# Let's get started

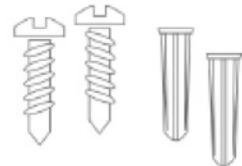
Make sure you have the following items:



Thermostat with Mounting Plate



Trim plate



Screws and Anchors

Heat Pump HP (Wiring label)		Gas or Electric Non-HP (Wiring label)	
R	R	RC	RC
C	C	RH	RH
L	L	C	C
Y1	Y1	Y1	Y1
Y2	Y2	Y2	Y2
W1	W1	W1	W1
O/B	O/B	W2	W2
G	G	G	G

Wire Labels



2 x AA alkaline batteries

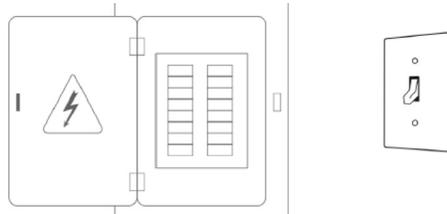


User's Manual



Quick Start Guide

# Turn off the heating and/or cooling



Turn OFF the breakers or remove the fuses to the heating and/or cooling systems at the electrical panel. In some regions, there may be a switch located near the furnace.

# Determine wiring configuration

<b>Heat Pump HP (Wiring label)</b>		<b>Gas or Electric Non-HP (Wiring label)</b>	
R	R	RC	RC
C	C	RH	RH
L	L	C	C
Y1	Y1	Y1	Y1
Y2	Y2	Y2	Y2
W1	W1	W1	W1
O/B	O/B	W2	W2
G	G	G	G

- › Remove the old thermostat to expose the wiring terminals.
- › Take a picture of the wiring for future reference.
- › Note the terminals attached to each wire and attach the matching label to the ends of the wires. Use the following table as a reference.

\* A jumper connects RC and RH as most combination heat and cooling systems use a single transformer. For systems where separate transformers are used, remove the jumper in place across the RC and RH terminals.

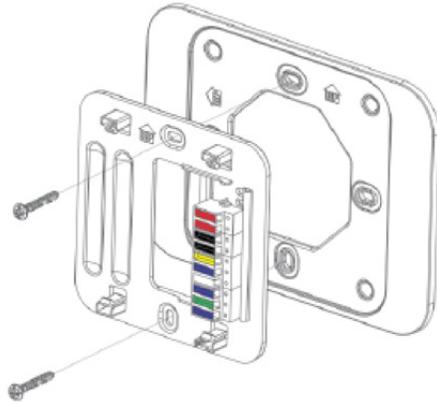
<b>Optima Thermostat Wiring Reference</b>			
<b>Gas, Electric, or Oil (non-HP)</b>		<b>Heat Pump (HP)</b>	
R or RC*	24 VAC for Cooling system	R or RC*	24 VAC for Cooling system
RH*	24 VAC for Heating system	RH*	24 VAC for Heating system
C	24 VAC common return	C	24 VAC common return
--	Reserved	L	System monitor
Y or Y1	Single / 1 <sup>st</sup> stage cooling	Y or Y1	Single / 1 <sup>st</sup> stage compressor
Y2	2 <sup>nd</sup> stage cooling	Y2	2 <sup>nd</sup> stage compressor
W or W1	Single / 1 <sup>st</sup> stage heating	W or W1	Emergency heat
W2	2 <sup>nd</sup> stage heating	O/B	Changeover valve
G	Fan signal	G	Fan signal
--	Reserved	--	Reserved

## Remove old thermostat terminals

Remove the old thermostat wiring terminals from the wall, taking care not to allow the wiring to fall inside the wall.

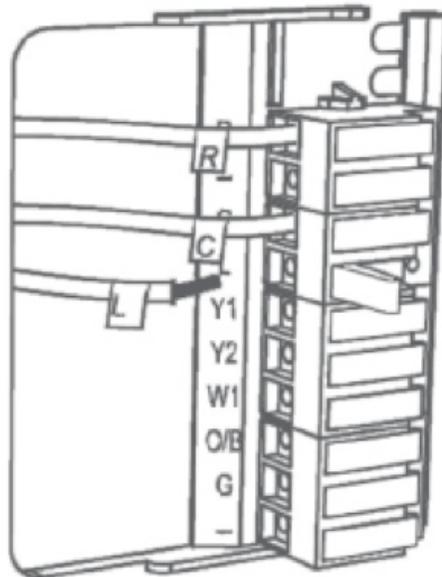
**TIP:** Wrap the wire ends around a long stick, such as a pencil to keep the wires from falling into the wall.

# Install mounting plate



Remove the Mounting Plate from the back of the Optima thermostat. Use the included wall anchors and screws to attach the Mounting Plate to the wall, making sure the wires run through the center opening. Use the Trim Plate vertically or horizontally if desired.

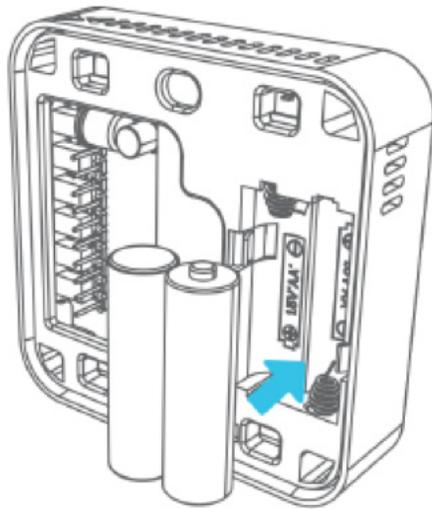
# Attach wiring



Before attaching the wires, match the wire (using the labels) to its corresponding terminal. Refer to the picture of the wiring taken earlier if necessary.

- › Open the terminal by lifting the latch up.
- › Push each wire into the hole of the terminal and push the latch down to secure the wire.

# Install batteries



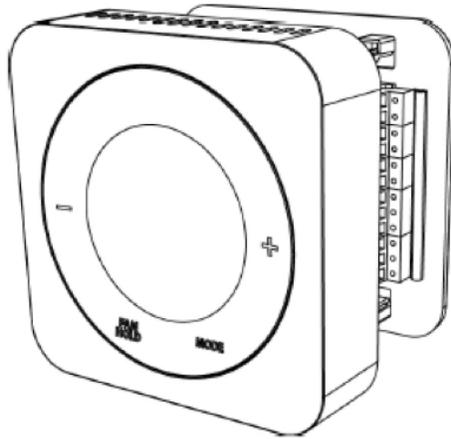
Insert the alkaline batteries into the back of the thermostat. **Make sure the polarity of the batteries is correct.** After inserting the batteries, the display will flash all the segments, followed by the version number of the firmware, then display US / CA with a blinking US.

# Initial configuration

Value	Description
US	United States - Configures thermostat for use in the US.
CA	Canada - Configures thermostat for use in Canada
HP	Heat Pump
NON-HP	Non Heat Pump - Gas, electric, or oil heat
O	Heat Pump with O reverse valve
B	Heat Pump with B reverse valve
FAN HE	Non-HP: Electric or Oil Heat
FAN HG	Non-HP: Gas Heat

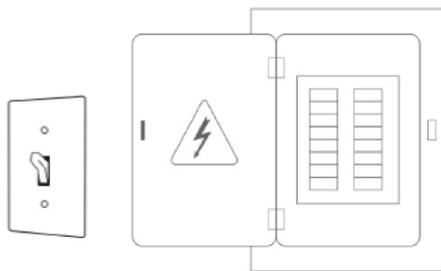
When configuring the thermostat, press the + or - button or use the slider ring to cause the desired value to blink, then press MODE to select the value. Using the table on the left, select the country, then the type of system. After this configuration, the thermostat will display the Home Screen, and be ready for attachment to the Mounting Plate.

# Attach thermostat to mounting plate



Attach the thermostat to the Mounting Plate by aligning the connector pins and the plastic retention posts and pushing the thermostat onto the Mounting Plate. Make sure the connector pins are not bent and that the **thermostat is fully seated** on the Mounting Plate.

# Turn power back on to the HVAC system



Go to the electrical service panel or furnace switch and turn the HVAC system back on.

# Configure thermostat

The thermostat can now be used as a basic local thermostat. To enable the enhanced features, additional settings need to be configured, such as pairing with a connected home system. See the *Configuring the Thermostat* section in the **User's Manual** for more details.