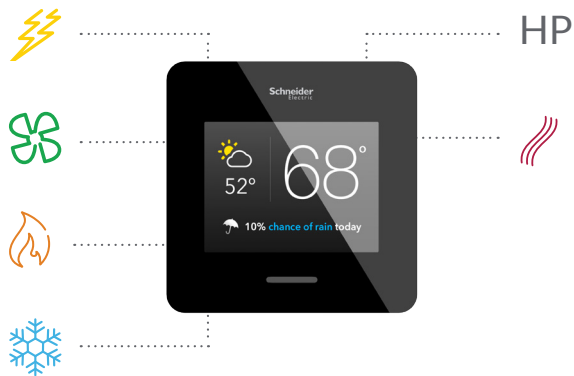







Wiring at a Glance



Connections	Typically used for:
 RH, RC, C	This supplies power to your thermostat
 G	This controls the fan
 W, W2, U	This controls heating
 Y, Y2	This controls air conditioning
HP O/B	Mainly used by heat pump and geothermal systems
 W, U	This controls auxiliary/emergency heating

Common System Configurations

In all applications: RC and C provide power to the thermostat; G controls the fan.

Single Stage Heat/Cool

Connections: RC, C, G, W, Y

W - Heating

Y - Cooling

Single Stage Dual Fuel Heat Pump

Connections: RC, C, G, Y, W, O/B, S1, S2

Y - Compressor Stage 1

W - Auxiliary Heat

O/B - Reversing Valve

S1, S2 - Exterior temperature sensor

Single Stage Heat Pump

Connections: RC, C, G, Y, W, O/B

Y - Compressor

O/B - Reversing Valve

W - Auxiliary Heat

Zone Control

Connections: RC, C, G, Y, W, Y2, W2

W - Zone Heating

Y - Zone Cooling

Y2, W2 - In a Zone Control Application with multiple thermostats, one of the thermostats serves as the primary thermostat controlling the System Mode. The Y2 and W2 terminals on the primary thermostat control System Heat and System Cool.

Two Stage Heat/Two Stage Cool

Connections: RC, C, G, Y, W, Y2, W2

Y - Stage 1 Cooling

Y2 - Stage 2 Cooling

W - Stage 1 Heating

W2 - Stage 2 Heating

Two Speed Heat Pump

Connections: RC, C, G, Y, Y2, W, O/B

Y - Compressor Stage 1

W - Auxiliary Heat

Y2 - Compressor Stage 2

O/B - Reversing Valve

Wiring Connections in Detail



RC, RH

Typical wire color is **RED** 

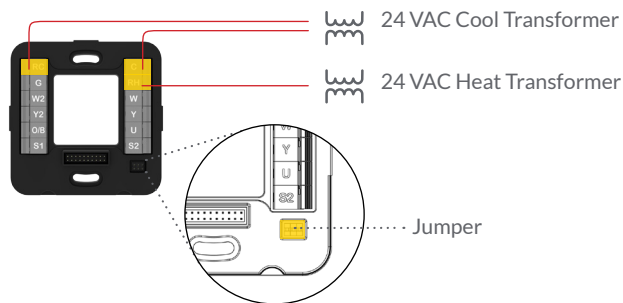
Wiser Air thermostats requires 24VAC power from the HVAC system in order to function.

In most modern homes, a single HVAC unit provides both heating and cooling

- In these cases, the RC/RH jumper shall be left in place.
- 24V R wire may be landed on either the RH or RC terminal.

If your home has 2 different sets of equipment for heating and cooling

- The R wire from each HVAC unit must be wired separately.
- The RH/RC jumper shall be removed.
- The R wire from the heating unit should be connected to RH.
- The R wire from the cooling unit should be connected to RC.
- The C wire from the cooling unit should be connected to C.



C

Typical wire color is **BLUE** 

Wiser Air also requires a connection to the Common side of the 24V transformer.

If you are replacing a thermostat that also had a C wire

- Move that wire to the C terminal.

If you are replacing a thermostat that did not have a C wire

- If there are spare conductors that were not connected to your old thermostat, one of these can possibly be used as the C conductor. Before connecting the spare wire to C on the thermostat, verify that that the conductor is connected to the 24VAC Transformer common terminal in the HVAC wiring compartment. Connect the conductor at the HVAC equipment if necessary and then connect it to the C terminal on the thermostat.
- If no spare conductors are available, then use the Wire Extender per Wiser Air Install Guide Appendix A.



G

Typical wire color is **GREEN** 

In all applications, the G terminal engages the fan of the HVAC equipment.



W, W2

Typical wire color is **WHITE** ¹



In a conventional system

- The W terminal engages the first stage of heating.

In a heat pump system

- The W terminal engages the auxiliary heat or emergency heat.

In advanced, multi-stage systems

- The W2 terminal engages the second stage of heating.



Y, Y2

Typical wire color is **YELLOW** ¹



In a conventional system

- The Y terminal engages the first stage of air conditioning.

In a heat pump system

- The Y terminal engages the compressor in both heating and cooling modes.

In advanced, multi-stage systems

- The Y2 terminal engages the second stage of cooling.



HP O/B

By default, the thermostat operates per Orange Wire Mode. It can be changed to Blue Wire Mode in the settings.



In a heat pump system

- The O/B terminal engages the reversing valve.



U

This is a universal terminal. It has a few different functions depending on configuration.



In 3 stage heat systems

- The U terminal is used to engage the third stage of heating.



S1, S2












In advanced systems with exterior temperature measurement










- S1 and S2 can be used to connect an exterior temperature sensor.
- Use Schneider Electric part number EER57200 or another 10K based thermistor.

¹ Wire Colors may vary. The wire colors are suggested and typical per HVAC standards in most locations.

Appendix

If replacing an existing thermostat, the terminals on your old thermostat may not have the exact same designations as Wiser Air. Use one of the charts below if this is the case.

Conventional System	
Other brands may use these terminals:	Corresponding Wiser Air terminal:
 C, X, B	C
 R, RC	RC
 RH	RH
 W, W1	W
 W2	W2
 W3, D, H	U
 G, F	G
 Y, Y1	Y
 Y2	Y2

Heat Pump System	
Other brands may use these terminals:	Corresponding Wiser Air terminal:
 C, X, B	C
 R, RC	RC
 RH	RH
 W, W1, W2, AUX	W
 W2*	W2
 E, X2, W3	U
 G, F	G
 Y, Y1	Y
 Y2	Y2
HP O/B, O, B	O/B
S1	S1
S2	S2

* If W, W1, or Aux is selected