SAVANT

Relay Module with One 6-Port Climate Relay and One Aux Relay Quick Reference Guide
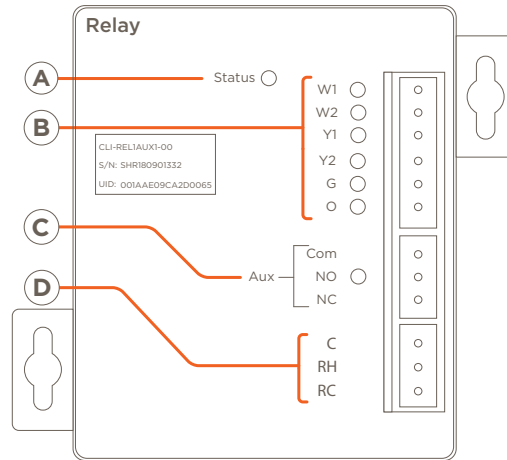
Box Contents

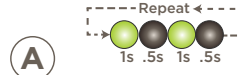|	
(1)	HVAC Relay Module - (CLI-REL1AUX1)
(2)	3 Position Screw Down Plug-In Terminal Block (028-0736)
(1)	6 Position Screw Down Plug In Terminal Block (028-0737)
(1)	6 Position Screw Down Plug In Terminal Block (028-9352)
(1)	Product and Regulatory Insert (009-1707)

Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% Relative Humidity (non-condensing)

Dimensions and Weights				
	Height	Width	Depth	Weight
CLI-REL1AUX1	3.77 inch (9.58 cm)	3.16 inch (8.03 cm)	.91 inch (2.31 cm)	< 1 lbs (< .5 kg)
Shipping	6.25 inch (15.88 cm)	4.8 inch (12.19 cm)	1.25 inch (3.18 cm)	< 1 lbs (< .5 kg)

Power	
Input Power	24V AC (19.2 - 28.8V AC)
Max Current Draw	0.2 amps (rms)

Maximum Wiring Distances	
RS-485	Up to 1000 feet (304.8 meters) cumulative.
Power	#24 AWG - 20 feet (6.10 meters)
	#20 AWG - 57 feet (17.37 meters)
	#18 AWG - 90 feet (27.43 meters)
	#16 AWG - 143 feet (43.59 meters)
	#14 AWG - 228 feet (69.49 meters)

Regulatory	
Safety and Emissions	FCC Part 15 FC
Contains FCC ID:	2AEHU-MESHTEK-H52
Contains IC:	20059-MESHTEK52
RoHS	Compliant

Minimum Supported Release	
Climate Config App	Version 1.1.2

Top Panel

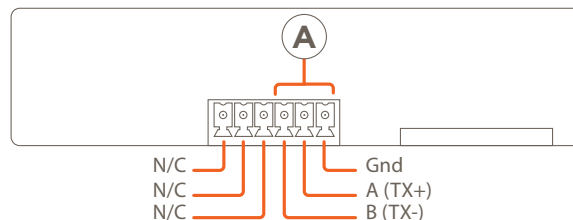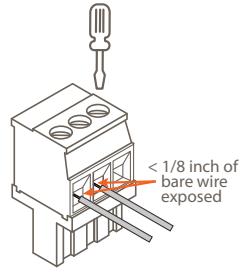|		
A	Blinking Green	RS-485 communications is not established. Once power is applied, it can take up to 20 seconds to establish communications. **HELPFUL!** If communications was established and subsequently lost, the LED will stay solid for about 1 minute before it starts blinking.
	Solid Green	RS-485 communication is established. Module is communicating with thermostat.
B		**Climate Relays** - The relay outputs on this module operate similar to the relays of the same name on the thermostat. Connect the relay outputs (W1, W2, Y1, etc) to the appropriate connection on the HVAC system equipment. Refer to the Relay Connections section when making the connections. **Climate Relay LEDs** - The LEDs associated with each relay will light when the relay is energized and be off when relay is in its idle state.
C		**Auxiliary Relay** - An additional relay is available for controlling external HVAC equipment such as a vent damper, humidifier, or dehumidifier. Refer to the Auxiliary Relay Connections section on the next page for wiring information.
D		**24V AC input** - To power the module as well as supply power to the W1, W2, and O relays, connect a 24V AC transformer between the C and RH terminal. To supply power to the Y1, Y2, and G relays, add a jumper between the RH and RC terminals or connect a separate 24V AC source between the C and RC terminals. See the Power Connections section on next page for wiring information.

Left Side Panel

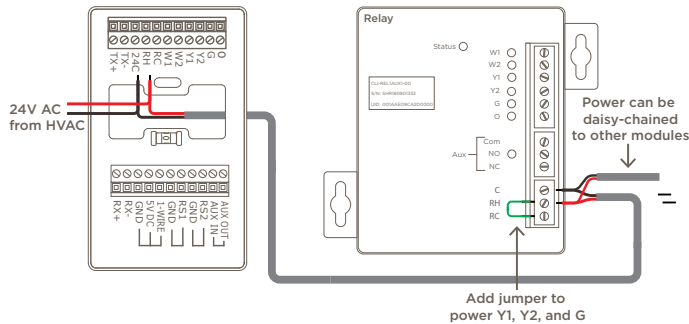|	
A	**RS-485 Port** - As shown above, the right three pins connect to the RS-485 terminals in thermostat. Refer to the RS-485 Connections section on the next page for more information.

Making Connections

When making connections, follow the guidelines set below to ensure a safe and secure connection

1. With a small slotted screwdriver, turn the screws on the connector counterclockwise (CCW) until the silver crimps open enough to slide a wire into the square slots.

2. Strip back insulation on each wire to $1/4$ inch and insert the stripped wire into the proper connection.

3. Turn the screw clockwise (CW) until the crimps tighten around each wire. Tug on each wire a bit to verify they are secure.

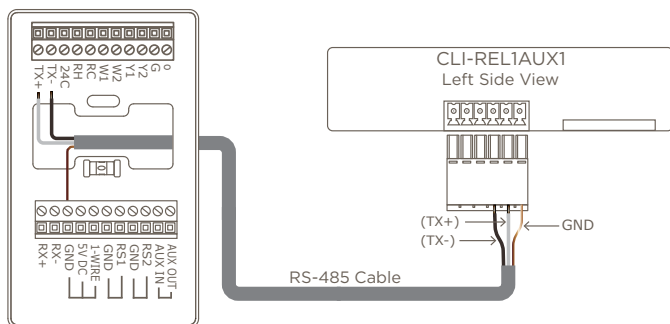< 1/8 inch of bare wire exposed

Power Connections

Use the diagrams below when making the power connections between the thermostat and CLI-REL1AUX1 climate module.

– Power can be daisy-chained between modules.

– The cable lengths vary depending on the size of the wire. See the specifications table on page 1 for more information.

– Power applied across the C and RH terminals will power the module and supply voltage to relays W1, W2, and O.

– Add a jumper between the RH and RC terminal to supply power to the Y1, Y2, and G relays. If separate power supplies for heating and cooling are available and you would like to use that power, do not install jumper. Instead, connect the transformer from the cooling equipment between the RC and C terminal.
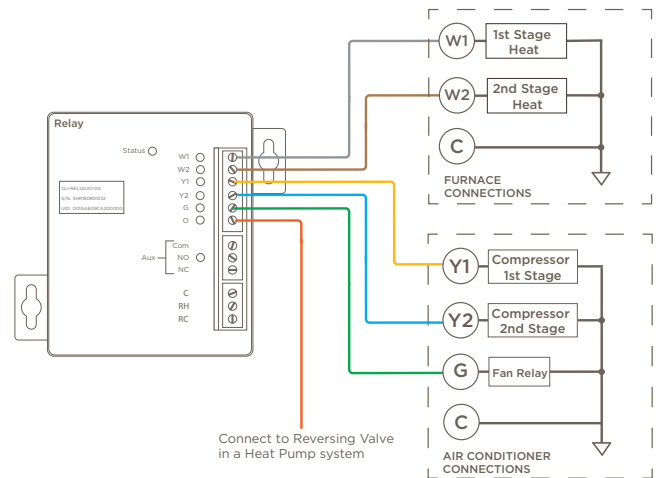
RS-485 Connections

Use the diagrams below when making the RS-485 connections between the thermostat and CLI-REL1AUX1 climate module.

– Max cable length is 1000 feet (304.8 meters).

– Savant recommends using standard RS-485 cable for wire runs.

Relay Connections

Use the diagrams below when making connections between the relay outputs and the connections at the HVAC equipment.
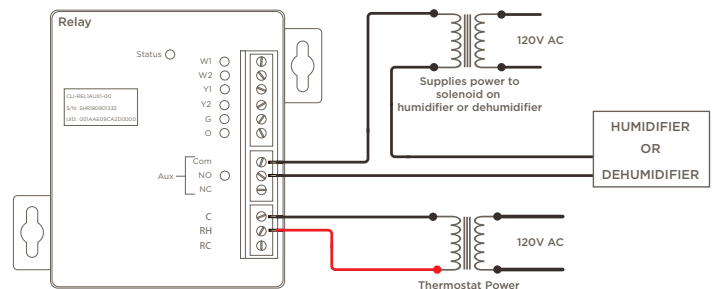

– Use only HVAC approved wiring to make the connections.

– The Common wire connection is made through the power wire connections. This is shown in the Power Connections diagram to the left.
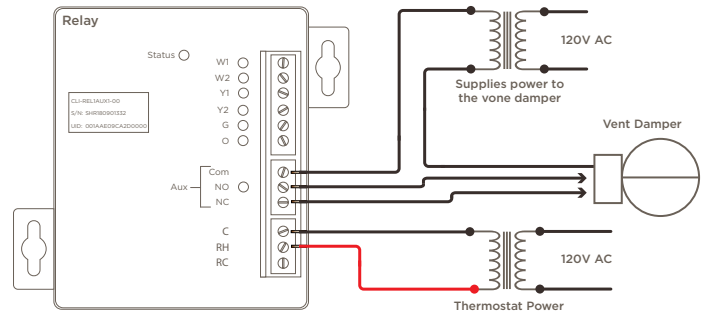
Auxiliary Relay Connections

Use the diagrams below when making connections to a piece of equipment such as a humidifier, dehumidifier, or external vent damper.

Humidifier or Dehumidifier

External Vent Damper

– The auxiliary relay does not have a voltage connected to it. Therefore an external source connected in series with the equipment is required.

Additional Information

Refer to the following documents located on the **Savant Customer Community** for additional information.

– Multistat Smart Thermostat Deployment Guide (009-1636)

– Multistat Thermostat with Touchscreen QSG (009-1593)