SAVANT

Savant WiFi Thermostat With Touchscreen
QUICK START GUIDE

CLI-W200

What's in the Box

(1) Wi-Fi Thermostat (CLI-W200x)
(1) Installation Kit
    (2) Drywall Anchors (xxx-xxxx-xx)
    (2) #8 x ¾ inch Pan Head Screws (xxx-xxxx-xx)
    (1) Sheet of Wire Labels (080-0096-xx)
(1) Quick Start Guide (this document)

Specifications

Environmental	
Temperature	32 to 104 F (0 TO 40 C)
Humidity	10% to 90% (non-condensing)
Standards	
Wireless	Wi-Fi (802.11 b/g/n 2.4 GHz)
	⚠ IMPORTANT! 802.11r fast roaming is not supported.
Security	70 mA typical, 250 mA maximum
Max Power	6 watts
Power	
Input	24V AC
Current Draw	70 mA typical, 250 mA maximum
Max Power	6 watts
Cable Requirements	
Power	#18 AWG
HVAC	#18 AWG Thermostat Wire (solid)
Remote Sensors	#24 AWG - 500 feet (152 m) max
Regulatory	
Safety and Emissions	FCC	FCC Part 15
Contains FCC ID:	ASU-CLIW200
Contains IC:	10052A-CLIW200
RoHs	Compliant

Optional Sensors

– SST-TEMP1 Remote Temperature (Flush Mount)
– SST-OTEMP1 Remote Temperature (Outdoor)
– CLI-THFM1 Temperature and Humidity (Flush Mount)
– CLI-PLEN1R/C Plenum Sensor
– CLI-SLAB1 Slab Sensor

Welcome

This document describes how to:
1. Remove the old thermostat.
2. Mount your new CLI-W200 thermostat.
3. Wire your new CLI-W200 thermostat.

Getting Started

The following is needed for a trouble free installation:

	– Pencil
	– #2 Phillips screwdriver
	– Small slotted screwdriver
	– Drill with $\frac{5}{32}$ inch drill bit
	– Wire stripper
	– Needle-nose pliers
	– Hammer (if wall anchors are used)

⚠ **CAUTION!** When replacing an older thermostat that contains Mercury in a sealed tube, do not discard into trash. Refer to the thermostat-recycle.org website for information on how to properly dispose.

Location and Mounting Overview

For new installations or when relocating the thermostat, follow the guidelines below:

– Locate thermostat on an inside wall.

– Do not locate where air circulation is poor such as in a corner or behind a door.

– Do not locate near windows or doors to reduce the exposure to drafts.

– Install away from any heating conditions such as direct sunlight, near a radiator register or vent, or near a fireplace.

– To adhere to ADA requirements, install thermostat 48 - 54 inches (1.22 - 1.37 meters) above the floor.

– Height requirements can be adjusted upward to 60 inches (1.5 meters) if ADA requirements are not mandatory.

– The thermostat does not need to be level to operate correctly. Leveling the thermostat is for aesthetics only.

– Thermostat can be oriented in either a portrait or landscape layout.

Remove Old Thermostat

1. Switch OFF power to the heating and cooling system at either the breaker panel or the switch that controls your HVAC system.
2. Open the old thermostat so the wiring is accessible. Take a photo of the existing thermostat and wiring. The photo should reveal wire colors and terminal designations.
3. Using the chart below, add a check and record the wire color for each power wire. Not all terminals may be populated.

Terminal		Color of Wire
	R	_____
	C	_____
	RC	_____

4. Remove each of the wires recorded above and attach a label that matches the terminal designation from the old thermostat. Wires should be labeled according to the terminal designation and NOT the wire color.
5. Again, using the chart below, add a check and record the wire color for each signal wire.

Terminal		Color of Wire
	O	_____
	G	_____
	Y2	_____
	Y1	_____
	W2	_____
	W1	_____

NOTE: Additional information on the various terminal designations as well as useful wiring diagrams are available in the CLI-W200 Thermostat Deployment Guide located in the pages of the **Savant Customer Community**.
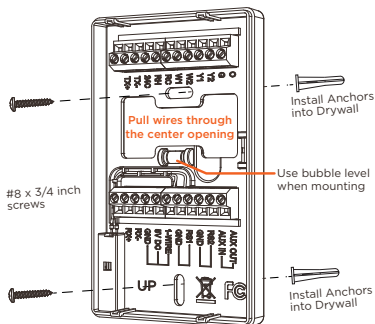
6. Using a screwdriver, remove the wires from each terminal.

🔧 TIP! To prevent the wires from falling back into wall, wrap wires around a pencil or similar.

7. Remove the old thermostat from the wall.

Install Thermostat Mounting Plate

1. To separate the thermostat from its mounting plate, grasp the mounting plate in one hand and the thermostat in the other (Grasp the end opposite the proximity sensor).

2. Rock the top and bottom halves until they separate.

3. Position the thermostat mounting plate onto the wall. With a pencil, mark the two mounting holes onto the wall (See image above).

   – If mounting using a portrait layout, use the bubble level installed in the mounting plate to level.

   – If mounting using landscape layout, a separate leveling device is required.

4. Drill a $\frac{5}{32}$ inch hole on each mark made and tap the wall anchor into wall until flush. In some installations that have a sub wall to fasten to, wall anchors may not be required.

5. Pull the existing wires through the center cutout in the mounting plate.

6. Screw the mounting plate to the wall using the supplied #8 x $\frac{3}{4}$ inch screws.

Making Connections

When connecting wires to the CLI-W200, follow the guide-lines set below to ensure a safe and secure connection.

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

< 1/8 inch bare wire exposed

2. Strip back insulation on each wire to $\frac{1}{4}$ inch and insert the stripped wire into the proper connection.
3. Turn screws clockwise (CW) until the crimps tighten around each wire. Tug on each wire a bit to verify they are secure.
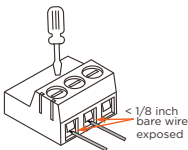
Connecting Power

The CLI-W200 does not run on batteries and requires a separate power source to operate. To power the thermostat, a voltage must be applied to the RH and 24C terminals.

If only the power wires removed were from the R and C terminals of the old thermostat (See Remove Old Thermostat section above), use the diagram below to make connections.
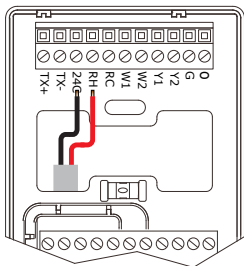
RH - Connect the wire removed from R termi-nal of old thermostat to the RH terminal.

On a new install, RH connects to the 48V AC wire from the HVAC transformer.

24C - Connect the wire removed from the C (common) terminal on old thermostat to the 24C terminal.

On a new install, 24C connects to the common wire from the HVAC transformer.

Additional Powering Schemes

If the HVAC system uses separate power sources to run the heating and cooling, you should have three wires labeled for power (R, C, and RC). In this scenario, remove the jumper shunt from JP1. The next section describes this.
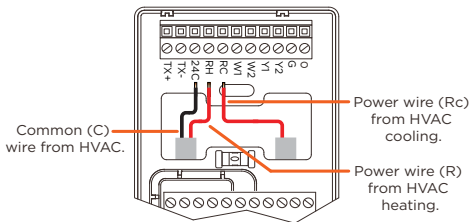
Jumper Shunt - JP1

Jumper JP1 on the thermostat board connects the RH and RC terminals. The thermostat is shipped from the factory with a jumper shunt installed. For systems with more than one power source, remove the jumper shunt.

Powers Relays W1, W2, and O.

Powers Relays Y1, Y2, and G.

24C RH RC

JP1
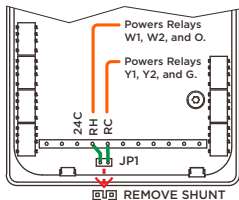
REMOVE SHUNT

⚠️ **IMPORTANT!** Remove jumper shunt from JP1 if more than one power source is used. Failure to remove the shunt will result in damage to the thermostat.

Two Power Source Wiring

TX+ TX- 24C RH RC W1 W2 Y1 Y2 G O

Common (C) wire from HVAC.

Power wire (Rc) from HVAC cooling.

Power wire (R) from HVAC heating.

RH	Supplies power to the relays connected to terminals W1, W2, and G.
RC	Supplies power to the relays connected to terminals Y1, Y2, and O.
24C	Common terminal. The common (C) wire from HVAC system is required for thermostat to run.

HVAC Wiring

Use the table below to connect the signaling wires from the HVAC system. Depending on the type of system installed in your home will determine which wires are connected. In some installations, only the power wires described in the previous sections are required.

O	Relay to control changeover valve on a Heat Pump
G	Fan Relay
Y2	Relay for control of 2nd stage cooling
Y1	Relay for control of 1st stage cooling
W2	Relay for control of 2nd stage heating
W1	Relay for control of 1st stage heating

TIP! Refer to the Making Connections section above to ensure a safe and secure connection is made.

Temperature Sensors

There are connections for two temperature sensors.
– **RS1** - The main temperature sensor. This sensor is shipped already pre-installed between terminals **RS1** and **GND**
– **RS2** - A remote temperature sensor can be added between terminals RS2 and GND. No polarity is observed on either sensor.

Remote Sensor (RS2)
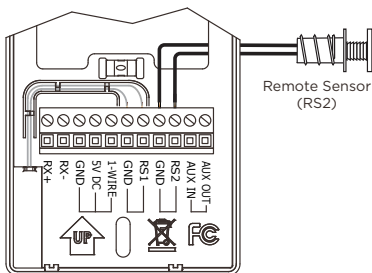
Smart Sensor Connection

A 1-wire humidity/temperature (CLI-THFM1) sensor that supports measuring both humidity and temperature can also be added to the system. Connect the sensor to the 1-Wire, 5V DC, and GND terminals as shown in diagram below.

Remote 1-Wire Sensor
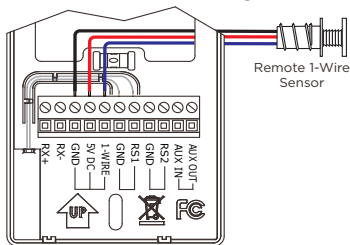
Network and Configuration Requirements

With the thermostat is installed and wired, it can now be added to the local network and once communicating with the Savant Pro System Host an HVAC configuration can be created and uploaded to the Host. Locate the **Wi-Fi Thermostat with Touchscreen Deployment Guide** available on the **Savant Customer Community** to finish installation of the thermostat.

Network Configuration

To ensure the IP Address will not change due to a power outage, a static IP Address or DHCP reservation should be configured. Savant recommends using DHCP reservation within the router. By using this method, static IP Addresses for all devices can be managed from a single User Interface, avoiding the need to access devices individually.

Setting DHCP reservation varies from router to router. Refer to the documentation for the router to configure DHCP reservation.

Additional Information

– CLI-W200 Deployment Guide (009-1636)
– SST-TEMP1 Remote Indoor Temp Sensor QRG (009-0800)
– SST-OTEMP1 Remote Outdoor Temp Sensor QRG (009-0989)
– CLI-THFM1-xx Temp and Humidity Sensor QRG (009-1064)
– CLI-SLAB1 Slab Sensor QRG (009-1097)
– CLI-PLEN1R Residential Plenum Sensor (009-1096)
– CLI-PLEN1C Commercial Plenum Sensor (009-1100)

Frequently Asked Questions

Does the CLI-W200 require batteries?

No, the CLI-W200 is powered using the power from the HVAC system. If no common (C) wire was removed from the old thermostat, a common wire must be added.

How does CLI-W200 get software updates?

Software is updated Over The Air (OTA). Whenever an update is available on the Savant Cloud, the update will take place automatically. The CLI-W200 must be connected to a local network that has WAN access for the updates to occur.

Will CLI-W200 still work if the Wi-Fi connection is lost?

Yes, most thermostat functions will still function when not connected to Wi-Fi. Certain network only functions such as OTA software updates will be lost.

Why does the screen go blank?

The CLI-W200 periodically goes to sleep to conserve energy or not distract you at night while sleeping. There is a proximity sensor mounted on the front panel. Any motion such as waving your hand in front of the screen will wake up the display.

My thermostat was received damaged. What should I do?

If thermostat was purchased through a contractor or retailer, contact the contractor or retailer to return it. If thermostat was purchased from the Savant Store, contact Savant through the Savant Customer Community.

Are both Fahrenheit and Celsius supported?

Yes

Does the thermostat support setting both a heating and cooling set point?

No, The CLI-W200 thermostat is a single set point thermostat. However, the thermostat does support adding a +/- range to the set point. For example, adjusting the set point to 70° with a range of +/- 3° will manage the temperature so it stays between 67° and 73°.

Regulatory

The following statements are applicable to the CLI-W200x

FCC Interference Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interferences that may cause undesired operation.

This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications, However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver
- Connect this equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or experienced radio/TV technician for help.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC and IC Identifier for Savant Thermostat

This device electronically displays the FCC declaration of conformity logo as well as the FCC and IC identifier. This information can be found on the device by accessing:

HVAC Mode menu ❄ → Swipe Left 👆 About.

Identificateur de la FCC et d'IC pour Savant Thermostat

Ce périphérique par voie électronique affiche le logo de déclaration de conformité FCC ainsi que l'identificateur de la FCC et d'IC. Cette information peut être trouvée sur le terminal en accédant à:

menu du mode HVAC ❄ → Balavez vers la gauche 👆 → (A propos de).

Radiation Exposure Statement

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless device employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. *Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.

Industry Canada Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage, et
2. L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

– This Class B digital apparatus complies with Canadian ICES-003.

– Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

– This device complies with RSS-310 of Industry Canada. Operation is subject to the condition that this device does not cause harmful interference.

– Cet appareil est conforme à la norme RSS-310 d'Industrie Canada. L'opération est soumise à la condition que cet appareil ne provoque aucune interférence nuisible.

– This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter, except tested built-in radios. The County Code Selection feature is disabled for products marketed in the US/Canada.

– Cet appareil et son antenne ne doivent pas être situés ou fonctionner en conjonction avec une autre antenne ou un autre émetteur, exception faites des radios intégrées qui ont été testées. La fonction de sélection de l'indicatif du pays est désactivée pour les produits commercialisés aux États-Unis et au Canada.

Radiation Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operate with minimum distance 20cm between the radiator and your body.

Declaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnementnon contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.