# Savant® SmartControl 2 (SSC-W002G-01)

# Quick Reference Guide

## **Box Contents**

- (1) SmartControl 2 Controller (SSC-W002G-01)
- (1) Installation Kit (075-0174-xx)
  - (1) Mounting Plate (074-0569-xx)
  - (1) 6-pin Screw Down Plug-in Connector (028-9352-xx)
  - (1) 5V DC 1.2A Power Supply (025-0165-xx)
  - (1) Cable Tie (014-0071-xx)
- (1) Quick Reference Guide (this document)

# **Specifications**

| Environmental                   |   |  |
|---------------------------------|---|--|
| Temperature                     | 32° to 104° F (0° to 40°C)                          |  |
| Humidity                        | 10% to 90% (non-condensing)                         |  |
| Dimensions and Weight (Product) |   |  |
| Height                          | 0.64 in (1.62 cm)                                   |  |
| Width                           | 2.70 in (6.85 cm)                                   |  |
| Depth                           | 2.67 in (6.78 cm)                                   |  |
| Weight                          | Net: 0.25 lb (0.11 kg)                              |  |
|                                 | Shipping: 1.50 lb (0.68 kg)                         |  |
| Power                           |   |  |
| Input Power                     | 5V DC 1.2A  |  |
| Max Power                       | 6 watts   |  |
| Standards                       |   |  |
| Wireless                        | Wi-Fi (802.11 b/g/n 2.4 GHz)                        |  |
|                                 | IMPORTANT! 802.11r (fast roaming) is not supported. |  |
| Security                        | WPA™, WPA2™, WPA/WPA2™, WEP                         |  |
| Regulatory                      |   |  |
| Safety and Emissions            | FCC Part 15   CE Mark   C-Tick                      |  |
| Contains FCC ID:                | TLZ-CU277   |  |
| Contains IC:                    | 6100A-CU277   |  |
| RoHS                            | Compliant   |  |
| Minimum Supported               | H Release   |  |
| Savant OS                       | da Vinci 8.4  |  |

# **Network Requirements**

Savant requires the use of a wireless network that is configured to make use of at least one of the supported wireless Standards listed in the Specifications Table.

Connect all Savant devices to the same local area network (LAN) or subnet as the Host. Savant recommends not implementing any type of traffic or packet shaping in your network topology for the Savant devices as this may interfere with performance.

## **Network Configuration**

To ensure that 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 UI 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.



# Front Panel



Press and hold for five seconds while powered On to clear the network settings. The **Status** LED blinks rapidly when reset is complete.

# Off: No Power



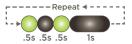
On Solid: Provisioned to the local network and communicating with the Savant System Host.



**Blinks Once:** In Provisioning Mode. Ready to be added to the local network.



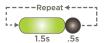
Blinks Twice: Establishing connection with the local network.



Blinks Three Times: Connected to the local network. Is connecting to the Host



Short Off Blink: Firmware is updating.



Rapid Blink: The reset button was held down for at least five seconds and the SSC-W002G is performing a factory reset. After reset, all network settings are cleared and the factory defaults are set.



# **Rear Panel**



# GPIO (General Purpose Input/Output)

|              | When configured as an input the processor will |
|--------------|--|
| GPIO (Input) | look for a low (<0.8V DC) or high (>2.4V DC).  |
| A            | Minimum OV DC / Maximum 12V DC.                |

GPIO (Output) When configured as an output, the port provides a binary output of 0-12V DC 150mA max.

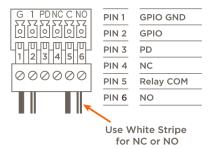
# Relay Port (Normally Open/Normally Closed)

| <b>B</b> Relay | Dry contacts (normally open/normally closed) to control devices requiring basic on/off operation. Max: 30V DC 1A. |
|----------------|---|
| C Input Power  | 5V DC 1.2A. Connect to included power supply.   |
| D Cable Lance  | Use with included cable tie to secure power supply connection.  |

## **GPIO** and Relay Wiring

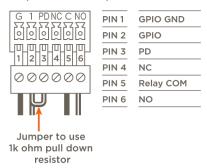
General Purpose Input/Outputs (GPIO) are binary I/O ports used on Savant® controllers used to trigger an action within the system. Events can be the control of a device, such as turning on an amplifier (output) or detecting a state change for a device (input) to perform a workflow. The left 3 pins of the supplied 6-pin screw down plug-in connector are used for GPIO connections.

Relays are used when a contact closure (normally open or normally closed) is needed to activate a device. An action such as raising or lowering shades, opening or closing a gate, or sending control signals to an HVAC system are a few examples. The right 3 pins of the supplied 6-pin screw down plug-in connector are used for Relay connections.



# GPIO Pull Down Resistor (PD) Usage

GPIO pins are configured as inputs and are pulled high to 12V while the Host is booting up. To make the GPIO signal low during a Host reboot and/or a power cycle, attach the GPIO 1 pin to the PD pin. The PD pin is a 1k ohm pull down resistor (to signal ground) which keeps the GPIO output below 0.8V during processor boot times.



# **Making Connections**

- 1. Remove power if applied.
- 2. Pull to remove the terminal block from the rear of the controller.
- With a small flat bladed screwdriver, turn the screws on top of the connector counterclockwise until the silver crimps in the rear of the connector open enough to slide the wire(s) into the square slots.
- 4. Strip back the insulation on each of the wires  $\frac{1}{4}$  inch. Using the diagram above, insert the stripped wires into their proper ports. There should be no bare wires protruding from the rear of the connector.
- Turn the screws on the top of the connector clockwise until the crimps tighten around each wire. Tug on each wire a bit to verify they are installed securely.
- 6. Plug terminal block back into the rear of the controller.
- 7. Reapply power.

# Connecting to a Wireless Network

To provision the SSC-W002G-01 controller onto a local network, one of the following methods can be used:

- SmartConnect Application da Vinci 8.4 or later
- Embedded Web UI All da Vinci builds

Both methods are described in the SmartControl 2 - (SSC-W002G-01) Deployment Guide.

#### Additional Documentation

Additional Documentation is available on the **Savant Customer Community**.

- SmartControl 2 (SSC-W002G-01) Deployment Guide (009-1515-xx)
- SmartConnect Software Reference Guide (009-1046-xx)
- Relay and General Purpose Input/Output Profiles App Note
- SmartControl 2 SSC-W002G Troubleshooting Guide
- Videos of the Savant Controllers Family in the pages of the Savant University

## Regulatory

The following statements are applicable to the SSC-W002G-01.

#### FCC Regulations:

15.19. These devices comply with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) These devices may not cause harmful interference, and (2) these devices must accept any interference received, including interferences that may cause undesired operation.

15.21. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.105. 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 environment. 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 to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving circuit different from that to which receiver is connected.
- Increase the separation between the equipment and the receiver.
- Consult the dealer or experienced radio/TV technician for help.

## IC Regulations:

RSS-Gen 7.1.3. These devices comply with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) These devices may not cause interference, and (2) These devices must accept any interference, including interference that may cause undesired operation of the device.

RSS-21- Annexe 9: A 9.4. 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.