SAVANT

Savant® SmartControl 14 Quick Reference Guide

Box Contents

- (1) SmartControl 14 (SSC-0014-00)
- (1) Installation Kit SmartControl 14 (075-0177-xx)
 - (1) Mounting Plate (074-0577-xx)
 - (2) 6-pin Screw Down Plug-in Connector (028-9352-xx)
 - (2) 9-pin Screw Down Plug-in Connector (028-9353-xx)
 - (1) 12V DC 1.6A Power Supply (025-0166-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 80% RH (non-condensing)			
Dimensions and Weight				
Height	1.40 in (3.5 cm)			
Width	6.00 in (15.2 cm)			
Depth	3.20 in (8.1 cm)			
\\\\aightarrow\	Net: 0.50 lb (0.22 kg)			
Weight	Shipping: 1.50 lb (0.68 kg)			
Power				
Input Power (Max)	12V DC 1.6A			
Max Power	18 Watts			
Compliance				
Safety and Emissions	FCC Part 15 CE Mark C-Tick			
RoHS	Compliant			
Minimum Supported Release:				
Savant OS	da Vinci 7.0			

Network Requirements

Savant requires the use of business class/commercial grade network equipment throughout the network to ensure the reliability of communication between devices. These higher quality components also allow for more accurate troubleshooting when needed.

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.

Network Changes

Savant recommends performing one of the following steps to refresh the IP connection after connecting to a new network, changing routers, or if the IP Address range is changed in the current router. This will reset any IP connection and ensure that the host is communicating with the network correctly.

Cycle Power

Disconnect the controller from the AC power source for 15 seconds and then reconnect.

Hot Plug the Ethernet (LAN) Connection Disconnect the Ethernet (LAN) connection from the controller for 15 seconds and then reconnect.



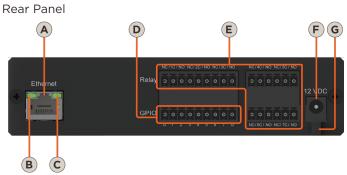


Press and hold for 5 seconds while powered On to clear network settings. Status LED will blink rapidly A Reset Button when reset is complete. Blinks Once: No IP Address Blinks Twice: Waiting for Host Connection

Solid: Connected to Host

Blinks Three Times: Host Connection Lost

B Status LED



10/100 Base-T auto-negotiating port with Link/ Activity Ethernet LEDs: 8-pin RJ-45 female. See items B and C for LED functionality. Off: Ethernet link is not established. Green Solid: Ethernet link is established. Link LED

Green Blinking: Ethernet activity is occurring.

Data Rate Off: 10 Mbps data rate (C) LED Green: 100 Mbps data rate

max

GPIO (General Purpose Input and Output Ports) 9-pin Screw Down Plug-in Connector. See GPIO Wiring and Connections for pinouts.

When configured as an input, the processor will look for a low (<0.8V DC) or high (>2.4V DC) **GPIO** Input state Minimum OV DC / Maximum 12V DC When configured as an output, the port GPIO Output provides a binary output of 0-12V DC 150mA

Normally Open / Normally Closed - Relays 6-pin Screw Down Plug-in Connector (Right 3 Pins) See Relay Wiring for pinouts.

Dry contacts (open/closed) to control devices (E) requiring basic on/off operation. DC Voltage Max: 30V DC 1A Relay 1-3: 9-pin Screw Down Plug-in Connector 4-5: 6-pin Screw Down Plug-in Connector 6-7: 6-pin Screw Down Plug-in Connector 12V DC 1.6A - Connect to included power Input Power

Use with included cable tie to secure power Cable Lance (G) supply connection.

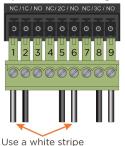
Relay Wiring

Relays are used when a contact closure (normally open or normally closed) is needed to activate a device such as raising or lowering shades, opening or closing a gate, etc.

In the tables below, (R1 - R7) indicate Relay 1 through Relay 7.

Relays 1/2/3

9-pin Screw Down Plug-in Connector



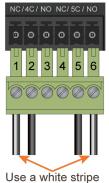
1: NC	(R1)	7: NC	(R3)
2: 1C	(R1)	8: 3C	(R3)
3: NO	(R1)	9: NO	(R3)
4: NC	(R2)		
5: 2C	(R2)		
6: NO	(R2)		

NC = Normally Closed C = Common NO = Normally open

Relays 4/5

for NC or NO

6-pin Screw Down Plug-in Connector



for NC or NO

1:	NC	(R4)
2:	4C	(R4)
3:	NO	(R4)
4:	NC	(R5)
5:	5C	(R5)
6:	NO	(R5)

NC = Normally Closed C = Common NO = Normally open

Relays 6/7

6-pin Screw Down Plug-in Connector



1: NC	(R6)
2: 6C	(R6)
3: NO	(R6)
4: NC	(R7)
5: 7C	(R7)
6: NO	(R7)

NC = Normally Closed C = Common

NO = Normally open

GPIO Wiring and Connections

General Purpose Input/Outputs (GPIO) are binary I/O ports used on Savant® controllers to trigger an action within the system. Events can control a device, such as turning on an amplifier (output) or detecting a state change for a device (input) to perform a workflow. Pins 1-9 are used for input or output depending on configuration. The General Purpose Input and Outputs (GPIO) use a supplied 9-pin Screw Down Plug-in Connector to connect to the SSC-0014.

9-pin Screw Down Plug-in Connector

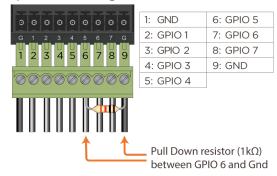


1: GND	6: GPIO 5
2: GPIO 1	7: GPIO 6
3: GPIO 2	8: GPIO 7
4: GPIO 3	9: GND
5: GPIO 4	

GPIO Pull Down Resistor Usage

The GPIO pins are by default configured as inputs and pulled high to 12V while the host is booting up. To pull the GPIO signal low during a host reboot and/or a power cycle, a 1k ohm resistor can be connected between a GPIO pin and ground (GND). Doing this will keep the GPIO output below 0.8V while host is rebooting.

9-pin Screw Down Plug-in Connector



Making Connections

- 1. Remove Power if power is applied.
- 2. Pull to remove the terminal block from the rear of the controller.
- 3. With a small flat bladed screwdriver, turn the screws on the top of connector counterclockwise until the silver crimps in the front of the connector opens enough to slide the wires into the square slots.
- 4. Insert one of the stripped wires from the device being controlled into its respective slot in the connector. Refer to the diagrams.
- 5. Turn the screw clockwise until the screw tightens around the wire. Tug on the wire a bit to verify it is installed securely. Do not allow more than 1/2 inch of stripped wire exit from the rear of the connector.
- 6. Repeat for each wire till all wires are installed in that connector.
- 7. Repeat steps above for all connectors as required.
- 8. Plug terminal blocks back into rear of the controller.
- 9. Reapply power

Additional Documentation

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

- SmartControl 14 SSC-0014 Deployment Guide (009-1272-xx)
- Relay and General Purpose Input/Output Profiles: Application Note
- Savant Controllers Family video in the Savant University pages