

# SAVANT

## SmartControl 25 with PoE Quick Reference Guide

### Box Contents

- (1) SmartControl 25 with PoE (SSC-P025-11)
- (1) Installation Kit: (075-0141-xx)
  - (2) 9-Pin Screw Down Plug-in Connectors (028-9353-xx)
  - (2) 6-Pin Screw Down Plug-in Connectors (028-9352-xx)
  - (1) 12V DC 1.5A Power Supply (025-0166-xx)
- (1) Product Info and Regulatory Statement (009-1729-xx)

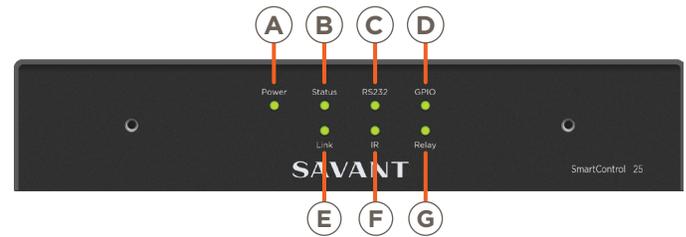
### Optional Accessories (Available on the Savant Store)

- RJ-45 to DB9 adapters
- DB-9 mini gender changers

### Specifications

Environmental				
Temperature	32° to 104° F (0° to 40° C)			
Humidity	10% to 90% RH (non-condensing)			
Cooling	2 cubic feet/minute (CFM) recommended			
Maximum BTU	41 BTU/hour			
Dimensions and Weights				
	Height	Width	Length	Weight
SSC-P025-11	1.52 inch (3.86 cm)	7.99 inch (20.29 cm)	7.60 in (19.30 cm)	3.0 lbs (1.36 kg)
Shipping	3.25 inch (8.26 cm)	10.5 inch (26.67 cm)	15.75 inch (40.01 cm)	4.0 lbs (1.81 kg)
Power Requirements				
Power over Ethernet	IEEE 802.3af			
Power Supply (not using PoE)	12V DC 1.5A 120-240V AC 50/60 Hz			
Max Power (Consumption)	12 Watts			
Regulatory				
Safety and Emissions	FCC Part 15	CE Mark	C-Tick	
				
RoHS	Compliant			
Minimum Supported Release				
Savant OS	da Vinci 4.4.3			

### Front Panel Descriptions



#### Power LED

- A** **Green** Has adequate power and is operating normally
- Off** Not receiving power

#### Status LED

- Green** Controller is operating normally
- Green Blinking** Controller was assigned an IP Address and is trying to connect to the system Host.
- Off** Controller is rebooting
- Red** A firmware update has failed and controller will reboot.
- Red Blinking** No IP Address assigned to controller and controller is trying to connect to a network.
- B** **Amber** Firmware update in process
- Amber Blinking** Controller has a link-local IP Address and is connecting to the Host. This applies to controllers that are not connected to an active router and may be connected directly to a system Host.

#### HARDWARE FAILURE

The Status LED will flash red once every 3 seconds. For example, if the LED is blinking green, when the failure occurs, the LED will continue to blink green and every three seconds flash red once.

#### RS-232 LED

- C** **Green** Serial port activity - (RS-232/422/485)
- Off** No serial port activity

#### GPIO LED

- D** **Green** GPIO port activity
- Off** No GPIO port activity

#### Link LED

- E** **Green** Ethernet port activity
- Off** No Ethernet port activity

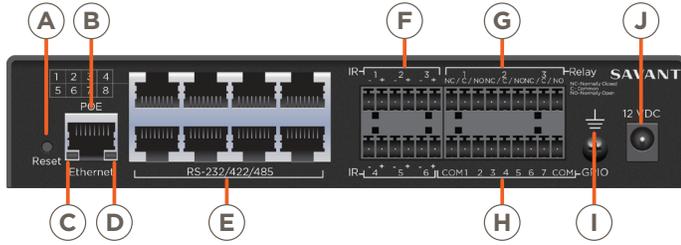
#### IR LED (infrared)

- F** **Green** IR port signal activity
- Off** No IR port activity

#### Relay LED

- G** **Green** Relay port activity
- Off** No Relay port activity

## Rear Panel Descriptions



### Reset Button

- A** To clear all network settings, press and hold for 5 seconds until the **Status** LED blinks rapidly; then release.

### PoE/Ethernet

- B**
- 8-pin RJ-45 female 10/100 Base-T auto negotiating port with link/activity LEDs
  - Supports Power Over Ethernet (802.3af)

### Link LED

- |                |                                 |
|----------------|---------------------------------|
| Off            | Ethernet link not established.  |
| <b>C</b> Green | Ethernet link established.      |
| Green Blinking | Ethernet activity is occurring. |

### Data Rate LED

- |              |                     |
|--------------|---------------------|
| <b>D</b> Off | 10 Mbps data rate.  |
| Green        | 100 Mbps data rate. |

### RS-232 / RS-422 / RS-485

- E**
- 8-Pin RJ-45 female used to transmit and receive serial binary data to and from serial controlled devices.
  - Ports 1-4 (RS-232/422) (CTS/RTS Handshaking)
  - Ports 5-8 (RS-232/422/485) (CTS/RTS Handshaking)
  - CTS/RTS handshaking availability is based on the components profile
  - See the [RS-232/422/485 Wiring](#) section for pin-outs.

### IR (Infrared)

- F**
- 6-Pin Screw Down Plug-in Connector
  - Used to send IR signals to control devices with an IR input or IR receiver via an IR flasher (5V tolerant).
  - See the [IR Wiring](#) section before making connections.

### Relay

- G**
- 9-Pin Screw Down Plug-in Connector
  - Normally Open (NO), Normally Closed (NC) to control devices requiring basic on/off operation.
  - DC voltage max: 30V DC 1A
  - See the [Relay Wiring](#) section for pinout information.

### GND Connection -

- H**
- 9-Pin Screw Down Plug-in Connector
  - When configured as an output, the port provides a binary output of 0-12V DC 150mA max.
  - When configured as an input the processor will look for a low (<0.8V DC) or a high (>2.4V DC) state.
  - Minimum 0V DC / Minimum 12V DC

### GND Connection -

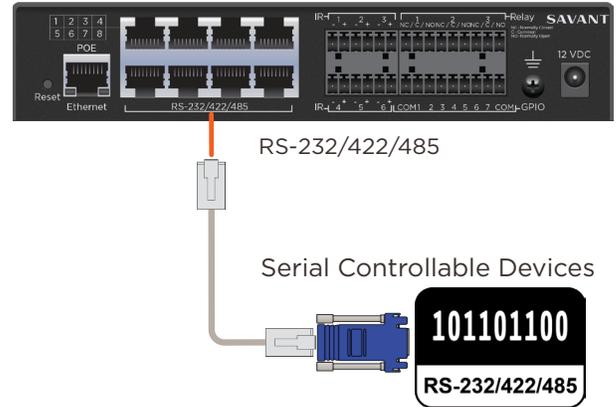
- I** Connect to suitable ground reference point when using Power over Ethernet (PoE).

### Power Input

- J** 12V DC 1.5A. Connect to supplied power supply when not using PoE.

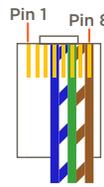
## RS-232/422/485 Wiring

When making connections, label the cables with the source and destination. This makes modifications and troubleshooting easier.



### RS-232 Pinouts

- Wire colors are included to identify the pins used for the connection. The colors shown do not represent any wiring standard.
- Pin 7 & 8 are only required for CTS/RTS handshaking
- CTS/RTS handshaking availability is based on the component profile

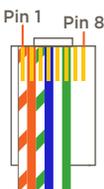


RJ-45 Connector (Gold pins facing up)

- IMPORTANT!** When wiring to this port, DO NOT connect any wires that are not required for communication

### RS-422 / RS-485 Pinouts

- Wire colors are included to identify the pins used for the connection. The colors do not represent any wiring standard.



RJ-45 Connector (Gold pins facing up)

- IMPORTANT!** When wiring to this port, DO NOT connect any wires that are not required for communication

### RJ-45 to DB9 Adapters

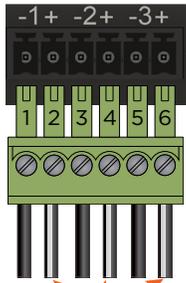
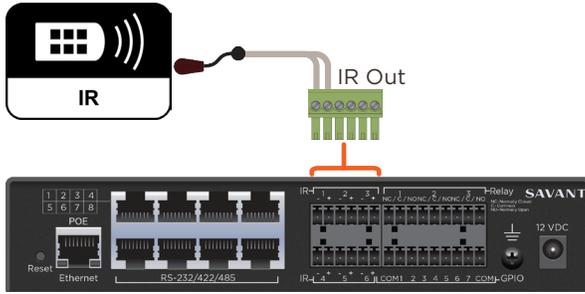
Savant offers RJ-45 to DB9 adapters in a variety of configurations that can be used for RS-232/422/485 control. If using an RJ-45 to DB9 adapter that is not supplied by Savant, ensure the following:

- Any wires required for communication/control must be terminated with an adapter.
- All wires NOT required for communication/control are NOT terminated in the connector.
- Any unused wires should be cut to prevent them from shorting as they may still be terminated in the RJ-45 connector on the controller side.

## IR Wiring

IR connections are made using the 6-Pin Screw Down Plug-in Connector supplied with the controller. The wire slips into the hole and locks with the screw located at the top of the connector.

### IR Controlled Device



- Pin 1: IR1-
- Pin 2: IR1+
- Pin 3: IR2-
- Pin 4: IR2+
- Pin 5: IR3-
- Pin 6: IR3+

**Note:** While not shown in diagram, IR connections 4 to 6 follow the same wiring as 1 to 3.

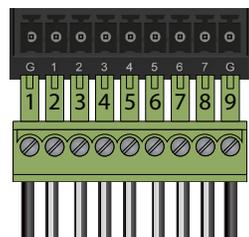
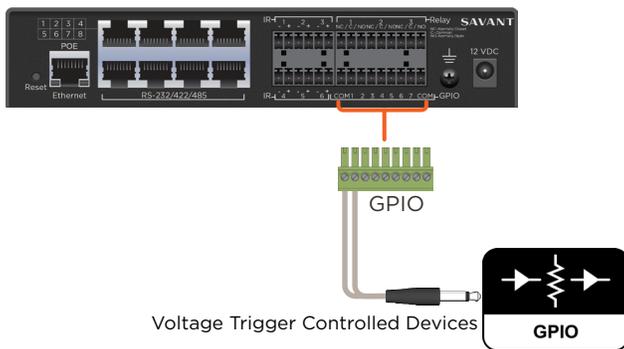
Use White Stripe for Positive (+)

### ⚠️ WIRING PRECAUTIONS!

- Ensure the IR emitters are within 15 feet (4.6 meters) from the controllers location.
- Use of 3rd party flashing IR emitters with Talk Back is not recommended. These types of emitters can draw voltage away from the IR signal that can degrade performance.

## GPIO Wiring

General Purpose Input/Outputs (GPIO) are binary I/O ports. These ports are used to trigger an action to occur within a system. Events such as turning on an amplifier (output) or detecting a state change to a device (input) to perform a work-flow are a few examples on how GPIO ports are utilized. Pins 2-8 can be used as either an input or output depending on the configuration.

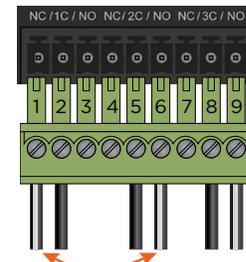
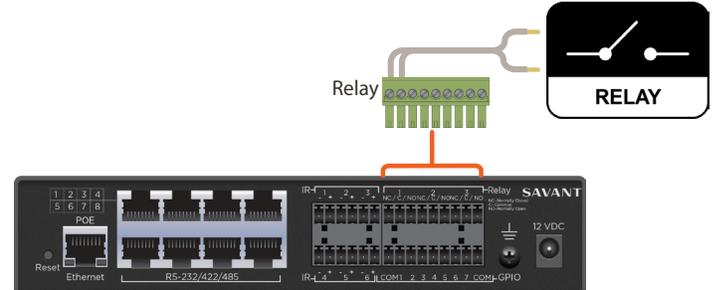


- Pin 1: GND
- Pin 2: GPIO 1
- Pin 3: GPIO 2
- Pin 4: GPIO 3
- Pin 5: GPIO 4
- Pin 6: GPIO 5
- Pin 7: GPIO 6
- Pin 8: GPIO 7
- Pin 9: GND

## Relay Wiring

Relay ports are used when a device is controlled via a normally open (NO) or normally closed (NC) relay.

### Contact Closure Controlled Devices



- Pin 1: NC 1
- Pin 2: NO 2
- Pin 3: C 1
- Pin 4: NC 2
- Pin 5: C 2
- Pin 6: NO 3
- Pin 7: NC 3
- Pin 8: C 3
- Pin 9: NO 3

Use a white stripe for NC or NO

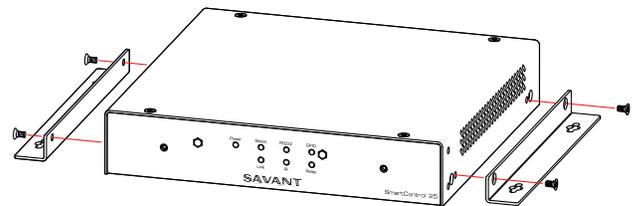
NC = Normally Closed  
C = Common  
NO = Normally Open

## Installation

The SSC-P025 can be placed on a 1u rack shelf, wall mounted using side mounting brackets SMB-1000 or rack mounted using the rack mount brackets RMB-0025.

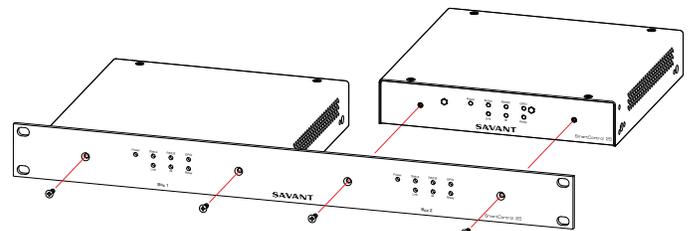
### Wall Mount (SMB-1000)

Use the supplied screws to install the brackets to the SSC-P025 as shown.



### Rack Mount (RMB-0025)

Use the supplied screws to install the brackets to the SSC-P025 as shown.



## Network Requirements

Savant recommends 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.

## Device Network Connections

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

## Managing IP Addresses

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.

DHCP Reservation	Setting DHCP reservation varies from router to router. Refer to the documentation for the router when configuring DHCP reservation.
Static IP	<p>Savant recommends setting IP Addresses using DHCP reservation. If setting IP addresses in the network statically is a requirement, they can be set using the rpmEmbScanner utility available in the Savant Application Manager.</p> <p>The following application note available on the <b>Savant Customer Community</b> describes how to set static IP Addresses using this utility:</p> <ul style="list-style-type: none"><li>- Retrieving and Setting IP Addresses for Savant Devices - Application Note</li></ul>

## Network Changes

After connecting to a new network, changing routers, or if the range of IP Addresses in router are changed, Savant recommends performing one of the following steps. The steps below will reset any IP connection and ensure that the controller is communicating with the network properly.

Cycle Power	<ol style="list-style-type: none"><li>1. Disconnect the controller from the power source.</li><li>2. Wait 15 seconds and then reconnect.</li></ol>
Hot Plug the Ethernet Connection (LAN)	<ol style="list-style-type: none"><li>1. Disconnect the Ethernet (LAN) connection from the controller.</li><li>2. Wait 15 seconds and then reconnect.</li></ol>

## Additional Information

For more information on the SSC-PO25 controller, refer to the following documents located on the **Savant Customer Community**.

- SmartControl 25 Deployment Guide (009-0395-xx)
- Savant Controllers Family Training Videos on the Savant University