



## Savant® S2 Host Quick Reference Guide

### Box Contents

- (1) Savant® Smart Host with Control 2 (SHC-S2-00)
- (1) 5V DC 3A Power Supply  
with 4 Quick Change AC Adapters (025-0153-xx)
- (2) M3x6 mm Flathead Phillips Screw Black (039-0001-xx)
- Wall Bracket:
  - (1) Wall Mount Frame (074-0585-xx)
  - (1) Host Mount (074-0584-xx)
- (2) 6-pin Screw Down Plug-in Connector Black (028-0664-xx)
- (2) 3-pin Screw Down Plug-in Connector Black (028-0665-xx)
- (1) Quick Reference Guide (this document)

### Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% Relative Humidity (non-condensing)
Cooling	10 CFM
Maximum BTU	51.15 BTU/hr
Dimensions and Weight	
Height	1.58 in (4 cm)
Width	7.86 in (19.9 cm)
Depth	7.65 in (19.4 cm)
Weight	Net: 1.3 lb (0.58 kg) Shipping: 2.1 lb (0.95 kg)
Rack Space	1U
Power	
Input Power	5V DC 3A
Maximum Power	15 watts
Regulatory	
Safety and Emissions	FCC Part 15   CE   C-Tick   ICES-003
RoHS	Compliant
Minimum Supported Release	
Savant OS	da Vinci 8.6

### Chassis Installation

The Smart Host can be installed on a solid, flat, level surface such as a table, cabinet, or shelf, or wall mounted using the included 2 piece bracket. The location should be dry, well ventilated, and out of direct sunlight. When placing the Smart Host on a shelf, the wall bracket must not be installed to allow for a flat, level installation.

### Rack Installation

The optional RCK-3000-xx provides a ventilated shelf for mounting up to 2 Smart Hosts. When rack mounting the Smart Host, the wall bracket must not be installed to allow for a flat, level installation.

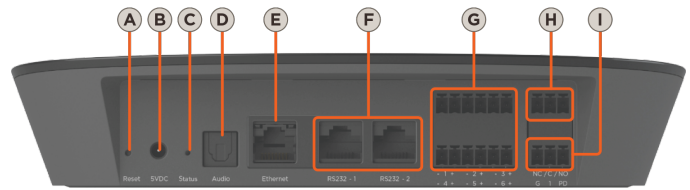
### Wall Bracket Installation

A 2 piece wall bracket is included that can be used to mount the Smart Host to a wall or back of a cabinet.

1. Attach the host bracket to the rear of the host using the included M3x6 mm Flathead Phillips Screws.
2. Attach the wall bracket to the wall. Screws to attach are not included.
3. Position the host over the wall bracket and gently slide into place.

See [Wall Bracket Diagram](#) on page 2.

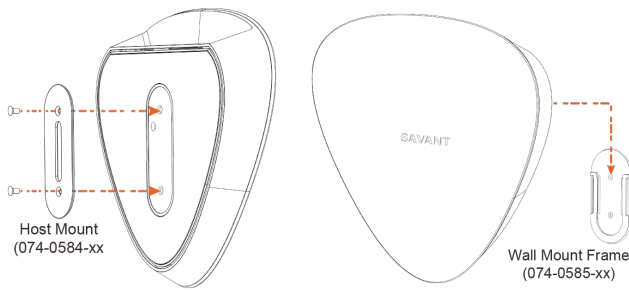
### Rear Panel



<b>A</b> Reset (hole)	Press and hold for 5 seconds while powered On to clear wired Ethernet settings. <b>Status</b> LED will blink rapidly when reset is complete.  <b>Note:</b> This will reset the network settings to factory defaults. Any static IP Addresses settings will be lost.
<b>B</b> Power Input	5V DC 3A - Connect to included power supply.  <b>Off:</b> Disconnected from power supply. <b>Amber:</b> Controller is booting/rebooting and is disconnected from the network.
<b>C</b> Status LED	<b>Amber Flashing:</b> Smart Host is not connected to a wired Ethernet network. <b>Green:</b> Connected to wired Ethernet Network.
<b>D</b> Digital Audio Output	TOSLink (Optical) digital audio output. Connect to digital optical audio input on switcher for using the Audio Interrupt Service (AIS).
<b>E</b> Ethernet	8-pin RJ-45 female. 10/100/1000 Base-T auto-negotiating port.
<b>F</b> RS-232	8-pin RJ-45 female. Used to transmit and receive serial binary data to and from serial controllable devices. Ports 1-2 RS-232 - CTS/RTS handshaking. CTS/RTS Handshaking availability based on component profile. See <a href="#">RS-232 Wiring</a> for pinouts.
<b>G</b> IR	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 only). See <a href="#">IR Wiring</a> for important precautions regarding IR functionality before making any connections.
<b>H</b> Relay	3-pin Screw Down Plug-in Connector. See <a href="#">Relay Wiring</a> for pinouts. Normally Open (NO) Normally Closed (NC) to control devices requiring basic on/off operation. DC Voltage Max: 30V DC 1A.
<b>I</b> GPIO	3-pin Screw Down Plug-in Connector. See <a href="#">GPIO Wiring</a> for pinouts.  <b>GPIO Input:</b> 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 / Maximum 12V DC  <b>GPIO Output:</b> When configured as an output, the port provides a binary output of 0-12V DC 150mA max.

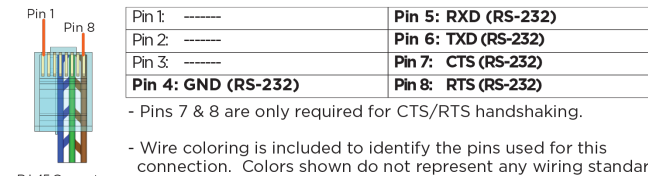


## Wall Bracket Diagram



## Wiring and Connections

### RS-232 Wiring



RJ-45 Connector  
(Gold Pins Facing Up)

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

### Note:

CTS/RTS handshaking is supported for flow control based on the profile used in the configuration.

### RJ-45 to DB9 Adapters

Refer to the **RS-232 Conversion to DB9 and RS-422/485 Pinout**

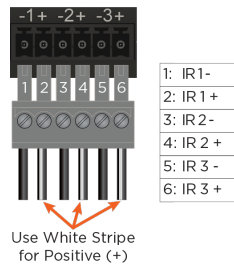
**Application Note** located on the **Savant Community** for more information on RJ-45 to DB9 adapters offered by Savant.

### Note:

The SHC-S2 does not support RS-422/485.

### IR Wiring

IR connections are made using 6-pin Screw Down Plug-in Connectors supplied with the Smart Host. The wire slips into the hole and locks with a screw located at the top of the connector.



### Note:

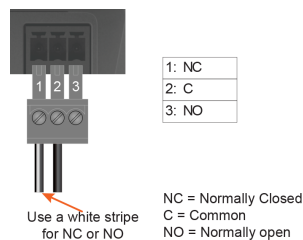
While not shown in the diagram above, IR connections 4 to 6 follow the same wiring as 1 to 3.

### **IMPORTANT!** IR Wiring Precautions

- Ensure that all 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 IR performance.

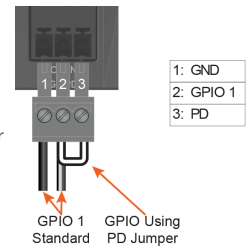
### Relay Wiring

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



## GPIO Wiring

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. Pin 2 is used for input or output depending on configuration.



### 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.

### Refreshing the IP Connection

- Reset Network Settings via Rear Panel Button
- Cycle Power
- Hot Plug the Ethernet (LAN) Connection

## Regulatory

### FCC Regulations

15.19. 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) 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 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.

### Additional Information

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

- Savant Smart Host Deployment Guide

