



## Savant® Smart Host with Control Quick Reference Guide

### Box Contents

- (1) Savant® Smart Host with Control (SHC-2000-00)
- (1) 5V DC 3A Power Supply  
with 4 Quick Change AC Adapters (025-XXXX-xx)
- (2) M3x6 mm Flathead Philips Screw Black (039-00101-xx)
- (1) Wall Mount Bracket (074-0585-xx)
- (1) Host Mount Bracket (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
Standards	
Wireless	Wi-Fi* (802.11 b/g/n dual band 2.4 GHz and 5.0 GHz)
Compliance	
Safety and Emissions	FCC Part 15   CE Mark   C-Tick   UL   ICES-003   Wi-Fi Alliance
RoHS	Compliant
Minimum Supported Release	
Savant OS	da Vinci 7.2

### 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 bracket. The location should be dry, well ventilated, and out of direct sunlight.

### Rack Installation

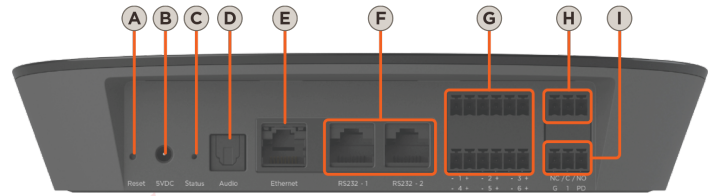
The optional RCK-3000-xx provides a ventilated shelf for mounting up to 2 Smart Hosts.

### Wall Bracket Installation

A wall bracket is included that can be used to mount the Smart Host to a wall or back of a cabinet. This bracket consists of two pieces, one for the host and one for the wall.

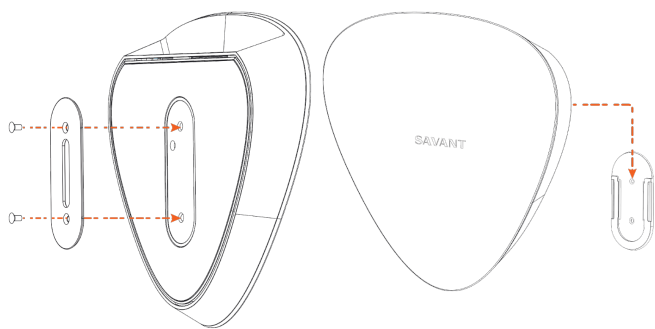
1. Attach the host bracket to the rear of the host using the included M3x6 mm Flathead Philips Screws.
  2. Attach the wall bracket to the wall. Screws to attach are not included.
  3. Position the host over the wall bracket and gently slide into place.
- See [Wall Bracket Diagram](#) on pg 2.

### Rear Panel



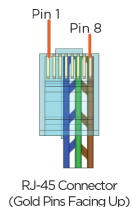
- A** Reset (hole)  
Press and hold for 5 seconds while powered On to clear Wi-Fi or wired Ethernet settings. Status LED will blink rapidly when reset is complete.  
**Note:** This will reset the network settings back to factory defaults. Any static IP Addresses or Wi-Fi settings will be lost.
- B** Power Input  
5V DC 3A - Connect to included power supply.  
**Off:** Disconnected from power supply.  
**Amber:** Controller is booting/rebooting and is disconnected from the network.  
**Amber Blinking:** Smart Host is not connected to a wired Ethernet network and has not joined a Wi-Fi network.  
**Green:** Connected to wired Ethernet or Wi-Fi Network.
- C** Status LED
- D** Digital Audio Output  
TOSLink (Optical) digital audio output. Connect to digital optical audio input on switcher for using the Audio Interrupt Service (AIS).
- E** Ethernet  
8-pin RJ-45 female.  
10/100/1000 Base-T auto-negotiating port. Connection to this port will disable Wi-Fi settings.
- F** 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 [RS-232 Wiring](#) for pinouts.
- G** 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 [IR Wiring](#) for important precautions regarding IR functionality before making any connections.
- H** Relay  
3-pin Screw Down Plug-in Connector. See [Relay Wiring](#) for pinouts. Normally Open (NO) Normally Closed (NC) to control devices requiring basic on/off operation. DC Voltage Max: 30V DC 1A.
- I** GPIO  
3-pin Screw Down Plug-in Connector. See [GPIO Wiring](#) for pinouts.  
**GPIO Input:** 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  
**GPIO Output:** 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



Pin 1: -----	Pin 5: RXD (RS-232)
Pin 2: -----	Pin 6: TXD (RS-232)
Pin 3: -----	Pin 7: CTS (RS-232)
Pin 4: GND (RS-232)	Pin 8: RTS (RS-232)

- Pins 7 & 8 are only required for CTS/RTS handshaking.

- Wire coloring is included to identify the pins used for this connection. Colors shown do not represent any wiring standard.

**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

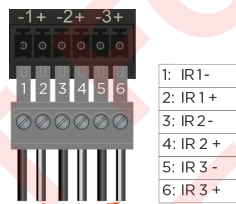
Refer to the **RS-232 Conversion to DB9 and RS-422/485 Pinout Application Note** located on the **Savant Community** for more information on RJ-45 to DB9 adapters offered by Savant.

### Note:

The SHC-2000 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.



Use White Stripe for Positive (+)

### Note:

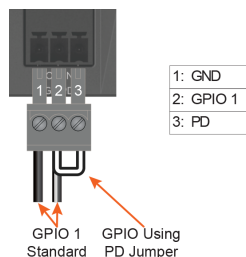
While not shown in the diagram above, IR connections 4 to 6 follow the same wiring as 1 to 3.

### 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.

### 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.

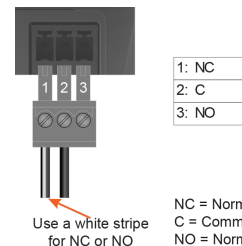


### GPIO Pull Down Resistor (PD) Usage

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.

### Relay Wiring

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



NC = Normally Closed  
C = Common  
NO = Normally open

### Refreshing the IP Connection

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

### Regulatory

#### FCC (see RED portions)

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 interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference 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 to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an 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.

#### Radiation Exposure Statement:

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