SAVANT

Savant® Smart Host Rack Mountable (SHR-2000)
Quick Reference Guide

Box Contents

- (1) Savant® Smart Host Rack Mountable - (SHR-2000)
- (1) Install Kit (075-0223-xx)
  - (1) Multi-Blade 5V DC 3A Power Supply (025-0223-xx)
  - (2) 6-pin Screw Down Plug-in Connector (028-9352-xx)
  - (2) 3-pin Screw Down Plug-in Connector (028-9351-xx)
- (1) Product and Regulatory Insert (009-1950-xx)

Specifications

Environmental				
Temperature	32° to 104° F (0° to 40° C)			
Humidity	10% to 90% Relative Humidity (non-condensing)			
Cooling	10 CFM			
Maximum BTU	34.1 BTU/hr			
Dimensions and Weights				
	Height	Width	Depth	Weight
Device	1.6 in (4.15 cm)	8.5 in (21.50 cm)	3.7 in (9.33 cm)	1.4 lbs (0.64 kg)
Shipping	2.2 in (5.59 cm)	12 in (30.48 cm)	7.3 in (18.54 cm)	2.3 lbs (1.05 kg)
Rack Space	1U			
Power				
Input Power	5V DC 3A			
Maximum Power	15 watts			
Power over Ethernet (PoE)	IEEE 802.3af			
Regulatory				
Safety and Emissions	FCC Part 15 FC	CE CE	C-Tick	UKCA UK CA
RoHS	Compliant			
Minimum Supported Release				
Savant OS	da Vinci 9.2			

Network Configuration

For information on network requirements, refer to the **Savant Device Networking Guidelines** on the Savant Community.

Front Panel
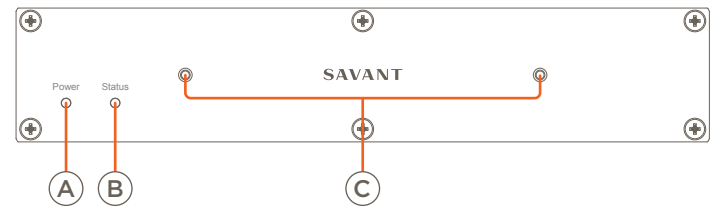
| A	Power LED	**Green**: System has power and is operating normally.
		Off: System is not receiving power.
B	Status LED	**Off**: Disconnected from power supply.
		Amber: Host is booting/rebooting and is disconnected from the network.
		Green: Connected to the local network and is assigned an IP Address.
C	Mounting Points	Threaded insert for use with optional rack mounts

Chassis Installation

The Smart Host can be installed on a solid, flat, level surface such as a table, cabinet, or shelf. The location should be dry, well ventilated, and out of direct sunlight.

Rack

The optional RMB-PAVAM2F-xx or RMB-PAVAM2-xx allows two devices to be mounted side by side. For example, a Smart Host can be mounted next to a PAV-AIM7C. This rack is compatible with all standard 19-inch National Electrical Manufacturers Association (NEMA) rack mounts.

The instructions below show the RMB-PAVAM2F-xx, both brackets install the same way they just face different directions.

1. Align the bracket with the Smart Host mounting points.
2. Attach using the screws provided with the bracket.
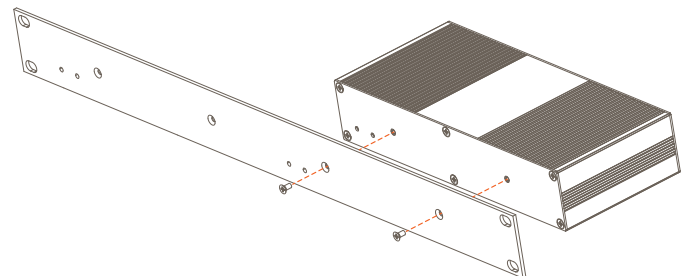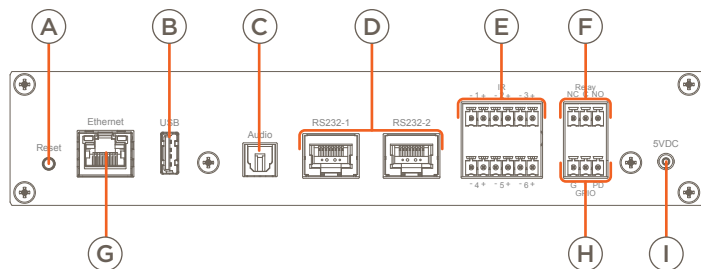

Refreshing the IP Connection

After connecting to a new network, changing routers, or if the IP Address range in the router was changed, the IP connection should be refreshed. To refresh the IP connection, do one of the following:

- Hot Plug the Ethernet (LAN) Connection
- Cycle power

Rear Panel

(A)	Reset	Hold Reset Button for 5 seconds while powered on to clear network settings. Status LED will rapidly blink red when reset is complete.
(B)	USB	Not Used
(C)	Audio	Digital optical audio (TOSLink) output. Sends Audio Interrupt Service (AIS) to distribution chassis. Supports up to 192kHz/24-bit digital audio in; PCM stereo format only.
(D)	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 is based on the component profile. See RS-232 Wiring section for pin-outs.
(E)	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 section for important precautions regarding IR functionality before making connections.
(F)	Relay	3-pin Plug-in Connector. See Relay Wiring section for pin-outs. Normally Open (NO) / Normally Closed (NC) to control devices requiring basic on/off operation. DC Voltage Max: 30V DC 1A
(G)	Ethernet	8-pin RJ-45 female. 100 Base-T auto negotiating port. Connecting to this port will disable Wi-Fi settings.
(H)	GPIO	3-pin Plug-in Connector. See GPIO Wiring section for pin-outs. **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.
(I)	5V DC	5V DC 3A - Connect included wall wart power supply between the 5V DC connection and a 115-240V AC surge protected outlet.

Further Product Information

To view available documentation, detailed product specs, and more:

– Visit the Savant Knowledge tab via the Savant Customer Community to search all Savant documentation.

Control Connections

RS-232 Wiring

|	
Pin 1: No Connection	Pin 5: RXD (Receive)
Pin 2: No Connection	Pin 6: TXD (Transmit)
Pin 3: No Connection	Pin 7: CTS (Flow Control)
Pin 4: GND (Ground)	Pin 8: RTS (Flow Control)

RJ-45 Connector
(Gold pins facing up)
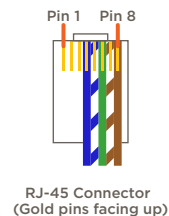
⚠ IMPORTANT NOTES!

– Wire colors are included to identify the pins used for this connection. Colors shown do not represent any wiring standard.

– When wiring, DO NOT connect any wires within the cable that are not required for communications.

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

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

– RS-422/485 is not supported

– Refer to the **RS-232 Conversion to DB9 and RS-422/485 Pin-out Reference Guide** on the **Savant Customer Community** for more information on RJ-45 to DB9 adapters offered by Savant.

Relay Wiring

Both Normally Open and Normally Closed outputs are available.

Pin 1: NC (Normally Closed)
Pin 2: Common
Pin 3: NO (Normally Open)
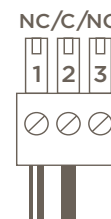
GPIO - General Purpose Input/Output

– GPIO's configured as an output can be used to trigger an action within the system such as switching a device.

– GPIO configured as an input can detect a state change and trigger a workflow.

| |
|---|
| Pin 1: GND (Ground) |
| Pin 2: GPIO 1 |
| Pin 3: PD (Pulldown) |

GPIO 1 Standard   GPIO Using PD Jumper
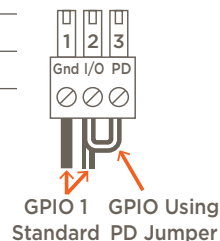
– GPIO pins configured as an input are pulled high to (+12V) during the boot process. To force the GPIO signal low during a boot-up, connect the PD pin to the GPIO pin. This forces the GPIO output to (< 0.8V) during the processor boot times.

IR Wiring (Infrared)

– Ensure that all IR emitters are within 15 feet (4.6 meters) from the controller's 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.

Pin 1: IR 1 -
Pin 2: IR 1 +
Pin 3: IR 2 -
Pin 4: IR 2 +
Pin 5: IR 3 -
Pin 6: IR 3 +
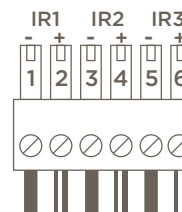
Use White Stripe for Positive (+)

– IR connections IR4 to IR6 (not shown in diagram) follow the same wiring as connections IR1 to IR3.