

### Box Contents

- (1) HST-DIRECTOR
- (1) 5V DC (15 W) power supply (025-0250)
- (2) 3-pin screw down connector (028-0665)
- (3) 2.4-5 GHz dual band antenna (045-0902)
- (1) Side mount chassis bracket (071-1215)
- (2) M3 x 6mm flat head bracket mounting screws (039-0001)
- (1) Product Regulatory Statement (009-1950)

### Environmental

Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 90% Relative Humidity (non condensing)
Location	Indoor Use Only

### Dimensions and Weights

	Height	Width	Depth	Weight
HST-Director	4.3 inch (10.9 cm)	7.5 inch (19.1 cm)	1.6 inch (4.1 cm)	1.5 lbs (.68 kg)
Shipping	3.0 inch (7.6 cm)	9.0 inch (22.9 cm)	9.0 inch (22.9 cm)	3.1 lbs (1.41 kg)



### Power

Power Supply	120V AC to 5V DC (3A) external supply
Maximum Power	15 Watts
Power over Ethernet	IEEE 802.3af

### Standards

Bluetooth	Bluetooth Low Energy 5.1 (BLE)
Wi-Fi	2.4/5.0 GHz IEEE 802.11 a/b/g/n/ac
Ethernet	IEEE 802.3af

### Regulatory

Safety and Emissions	FCC Part 15	IC
		
RoHs	Compliant	
FCC ID:	ASU-DIRECTOR	
IC:	10052A-DIRECTOR	
Contains FCC ID:	VPYLB1ZM	
Contains IC:	772C-LB1ZM	

### Minimum Supported Release

da Vinci 10.2

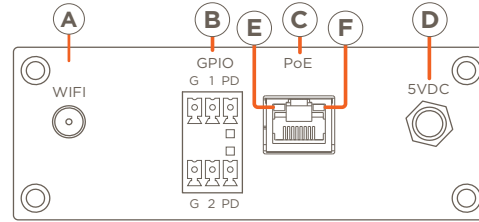
### Network Requirements

For networking guidelines and recommendations, refer to the [Savant Device Networking Guidelines](#) document available on the [Savant Customer Community](#).

### Additional Information

- The Director can communicate with up to 40 Power Modules.
- During installation, limit the distance between the Director and the Power Modules to 6 ½ feet (2 meters) or less.
- Wi-Fi is available when a wired Ethernet connection is not accessible.

### Left Side Panel



**Wi-Fi** - Screw the supplied dual-band antenna onto the SMA connector. When Ethernet access is unavailable, use Wi-Fi to connect to the local network.

**A**

**IMPORTANT:** Use only the supplied 5V DC power supply when connecting the Director to a Wi-Fi network. PoE shouldn't be used to power devices that communicate on Wi-Fi.

**GPIO Input** - When configured as an input port, the processor looks for one of the following:

Low state = <0.8V DC.

High state = >2.4V DC.

Minimum = 0V DC / Maximum = 12V DC

**B**

**GPIO Output** - When configured as an output, the port will provide a binary output of either 0 or 12V DC (150mA max)

**PoE** - Ethernet port

- 8-pin RJ-45 port

**C**

- Supports Power Over Ethernet (802.3af compliant)
- 10/100/1000 Base-T auto negotiating port with link / activity LEDs

**Input Power** - Connect the supplied power supply between the 5V DC port on the side panel and a surge protected 120-240V AC 50/60 Hz source. Use this power supply when Power over Ethernet (PoE) is not used.

**D**

**Link LED** **Solid Yellow** - Network Speed = 100/1000 Mbps

**Off** - Network Speed < 100 Mbps

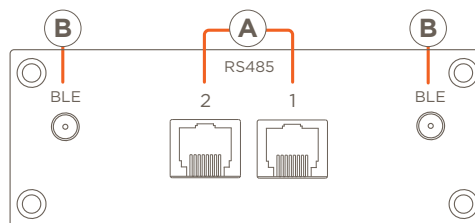
**E**

**Activity LED** **Green Blinking** - Tx/Rx activity

**Off** - No activity. Verify the Ethernet cable is plugged securely into the local Ethernet switch.

**F**

### Right Side Panel



**RS-485** - Used to control devices with RS-485 input ports.

Pin 4 - Data (B-)

Pin 5 - Data (A+)

Pin 7/8 - Gnd

**A**

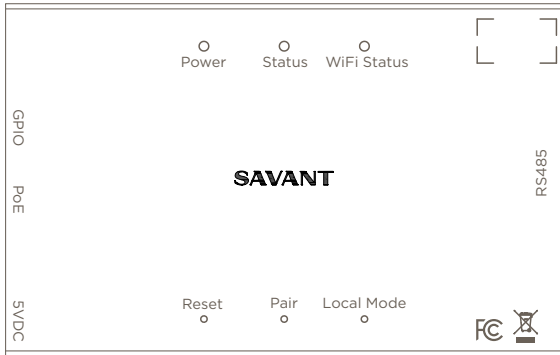


**IMPORTANT!** Termination resistors are pre-populated on each RS-485 port. Because of this, the Director must be placed at the end of the RS-485 chain.

**BLE** - Screw the supplied antennas onto both SMA connectors. With the antennas installed, the Director can communicate with the Power Modules over Bluetooth Low Energy.

**B**

Top Panel



<b>Power (LED)</b>	<b>Solid Green</b> - Power is applied.
	<b>Off</b> - No power. Verify the power source (PoE or power supply) is supplying the proper voltage.
<b>Status (LED)</b>	<b>Amber</b> - System is booting/rebooting and is currently not communicating with the network.
	<b>Amber/Green Blinking</b> - The Director's Host software is updating.
	<b>Green Blinking</b> - In Provisioning Mode. Ready to be added to a network or set up to function as an Access Point. In this mode, an IP Address is not assigned.
	<b>Green</b> - Normal operation mode. The system is assigned an IP Address and can communicate with the local network.
	<b>Green/Red Blinking</b> - The Pair button was pressed and is pairing itself to any Power Modules set to Pair Mode. The Director will return to normal operation when complete.
<b>WiFi Status (LED)</b>	<b>Red Blinking (fast blink)</b> - The reset button was pressed and held for 5 seconds. See description in the Reset (Button) field below.
	<b>Off</b> - The Director is not connected to Wi-Fi and Access Point (Local) Mode is Off.
	<b>Amber</b> - Local Mode (Access Point Mode).
<b>Reset (Button)</b>	<b>Green</b> - Provisioned and communicating with Wi-Fi.
	<b>Red</b> - Provisioned but can't connect to Wi-Fi.
	<b>Red Blinking (fast blink)</b> - The reset button was pressed and held for 10 seconds. See description in the Reset (Button) field below.
<b>Reset (Button)</b>	<b>Press and Release</b> - Reboots the Director.
	<b>Press and hold (5 secs)</b> - Press and hold for 5 seconds until the Status LED blinks red, then release. The Director reboots, all network settings are cleared, and the Director returns to provisioning mode.
	<b>Press and hold (10 secs)</b> - Press and hold for 10 seconds until the Status, and Wi-Fi LEDs blink red, then release. This performs a factory reset. After the reboot, the network settings, PBC configuration, Host configuration, logs, and passwords are all cleared.
	<b>NOTE!</b> The Director continues to be associated with a Home in the Savant Cloud. A call to Savant Support is necessary to redeploy to a different Home.

<b>Pair (Button)</b>	<b>Press and Release</b> - Puts the Director into Pairing Mode. In this mode, the Director locates any Power Modules put into pairing mode, and connects with them.
	<b>Press and Hold</b> - Press and hold for 5 seconds, then release. All Host and PBC configurations are cleared, and the Director reboots.
<b>Local Mode (Button)</b>	<b>Note:</b> A Power Module will display a gear icon on the module's LCD screen in pairing mode.
	<b>Press and Release</b> - Puts the Director into Local Mode. Press and release again to remove from Local Mode.
	In Local Mode, the Director functions as an Access Point and communicates directly with the Savant Power and Light App over Wi-Fi. Local Mode times out after 30 minutes of no activity. When the Director is provisioned, pressing this button does nothing.

GPIO Wiring

General Purpose Inputs/Outputs (GPIO) are binary I/O ports used on Savant's controllers to trigger the system to complete an action, such as turning on an amplifier (output) or detecting a state change of a device (input) to perform a workflow. The GPIO pin can be configured in Blueprint as either an input or output port.



Pin 1	Ground
Pin 2	GPIO 1
Pin 3	Pull-Down Jumper 1

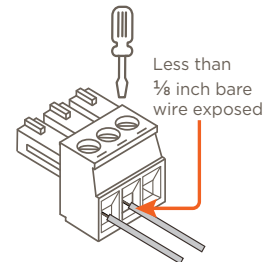
**NOTE:** While not shown in this diagram, GPIO 2 follows the same wiring as GPIO 1.

GPIO Pull Down Resistor

The GPIO pins are configured as inputs and pulled high to 12V DC while the Director is booting. To pull the GPIO signal low during the boot process, add a jumper wire between the GPIO pin and the PD1 pin. The jumper adds a 1k ohm resistor across these two signals and keeps the GPIO output below 0.8V DC during a processor reboot.

Making Connections

1. Remove power if power is applied
2. Pull to remove the terminal block from the controller's side panel.
3. With a small flat-bladed screwdriver, turn the screws on the top of the connector counterclockwise until the silver crimps on the front open enough to slide a wire into the square slot.
4. Strip back 1/4 inch of insulation from each wire. Insert the stripped wire into the proper port. Do not allow more than 1/8 inch of the bare wire exposed. See image.
5. Turn the screws clockwise until the silver crimps tighten around the wire. Tug on the wire a bit to verify the wire is securely installed.
6. Continue until all wires are connected.
7. Plug the terminal block into the appropriate port.
8. Repeat steps 2-7 for any additional GPIO ports.
9. Reapply power.



# Savant Power Director

## Quick Reference Guide



### Installation

The Director can be placed on a solid flat surface such as a table, cabinet, rack, or shelf or mounted onto a wall or similar structure using the supplied mounting bracket. Install the chassis in a dry, well-ventilated place that is out of direct sunlight. Both rack and wall mounting instructions are offered below. When installing, the Director must be placed within 6 1/2 feet of the Power Modules and have a direct line of sight.

#### Rack Mount

The optional RCK-3000 provides a ventilated shelf for mounting. This rack is compatible with all standard 19-inch National Manufacturers Association (NEMA) rack mounts.

#### Wall Mount

Screw the Director to the mounting plate using the two supplied M3 x 6 mm screws. The mounting plate attaches to a wall or similar surface using the four mounting holes at each corner of the mount.

### Documentation

**Savant Power System Deployment Guide** - This guide includes wiring diagrams, Power Module configuration information, Savant Power and Light App Setup, and other information regarding the installation and configuration of the Savant Power system.

All documentation is available on the [Savant Customer Community](#).

### System Overview

Use the diagrams below as a guide for when designing a system.

