Savant Power® Director

Quick Reference Guide

SAVANT POWER SYSTEM

Box Contents

(1) Director (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 screws (039-0001)
(1) Product Regulatory Statement (009-1950)

Accessories (Sold Separately)

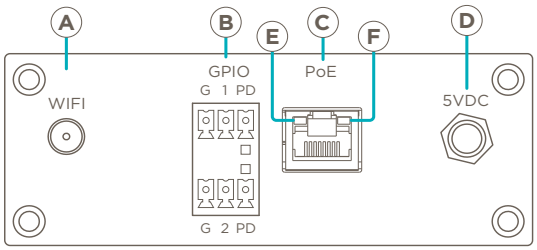
- SEM-VT01 SmartEnergy Voltage Sensor
- SEM-150A1 Smart Energy Sensor - 150 Amp
- SEM-250A1 Smart Energy Sensor - 250 Amp
- SEM-2015 Stand Alone Energy Monitor

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:	A8DAIRGEN-1			
Contains IC:	419B-AIRGEN			
Minimum Supported Release				
da Vinci 10.2				

Network Requirements

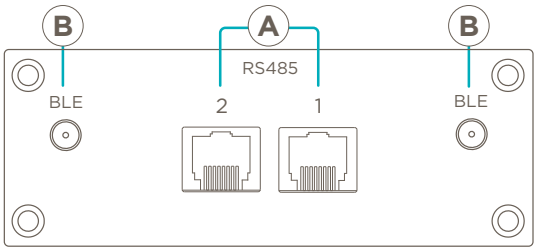
For networking guidelines and recommendations, refer to the Savant Device Networking Guidelines document available on the Savant Customer Community.

Left Side Panel



A		**Wi-Fi** - Port accepts the dual band antenna with the SMA connection. With the antenna installed, the Director can communicate with the local Wi-Fi network. When there is no access to ethernet, use Wi-Fi to connect to the local network.
B		**GPIO (General Purpose Input /Output)** **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 **GPIO Output** - When configured as an output, the port will provide a binary output of either 0 or 12V DC (150mA max)
C		**PoE** - Ethernet port – 8-pin RJ-45 port – Supports Power Over Ethernet (802.3af compliant) – 10/100/1000 Base-T auto negotiating port with link / activity LEDs
D		**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.
E	**Link LED**	**Solid Yellow** - Network Speed = 100/1000 Mbps **Off** - Network Speed < 100 Mbps
F	**Activity LED**	**Green Blinking** - Tx/Rx activity **Off** - No activity. Verify the Ethernet cable is securely plugged into the local Ethernet switch.

Right Side Panel



A	**RS-485** - Used to control devices with RS-485 input ports. Pin 4 - Data + Pin 5 - Data - Pin 7/8 - Gnd
B	**BLE** - Screw the supplied antennas onto each of the SMA connectors on the Director's side panel. An antenna must be installed into both BLE ports. With the antennas installed, the HST-DIRECTOR can communicate with the Companion Modules over Bluetooth Low Energy 5.1.

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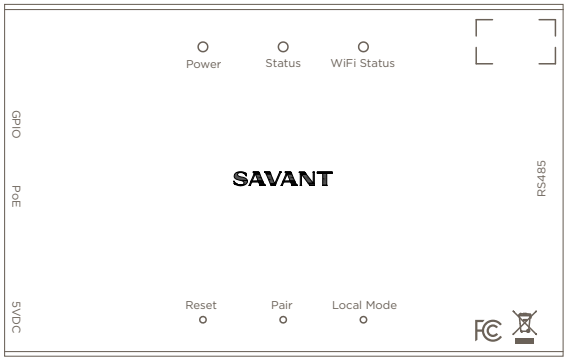
SAVANT POWER SYSTEM

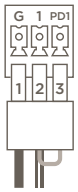
Top Panel



Power LED	**Solid Green** - Power is applied. **Off** - No power. Verify the power source (PoE or power supply) is supplying the proper voltage.
Status LED	**Amber** - System is booting/rebooting and is currently disconnected from the local network. **Amber Blinking** - The system is in Provisioning Mode and ready to be added to the local network. In this mode, an IP Address is not yet assigned. **Green** - Normal operation mode. The system is communicating with the local network, assigned an IP address, and communicating with the Host. **Green/Red Blinking** - The Pair button was pressed and the system is attempting to pair itself to any available Companion Modules. Once the pairing is complete the system will go back to normal operation.
WiFi Status LED	**Off** - Not connected to the local Wi-Fi network. **Amber** - Local Mode (Access Point Mode). **Green** - Provisioned and communicating with the local Wi-Fi network. **Red** - The system is provisioned for Wi-Fi but not communicating with the Wi-Fi network.
Reset Button	The reset button has two functions: **Press and hold** - Press and hold for 5 seconds then release. The Director reboots and returns to provisioning mode. After the reboot, all network settings and programming are cleared. **Press and Release** - Clears the configuration programmed into the Director.
Pair Button	Press and hold to put Director into Pairing Mode. In this mode, the Director will locate any Companion Modules that were put into the pairing mode, and connect with them. **Note:** When Companion Modules are in pairing mode, a gear icon is displayed on the module's LCD screen.
Local Mode Button	Press and release the button to put the Director into Local Mode. In Local Mode, the HST-Director functions as an Access Point and communicates directly with the Companion Modules over Wi-Fi.

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 to act 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

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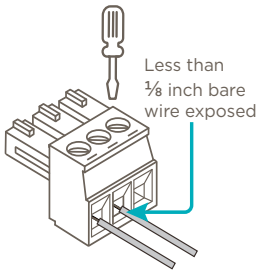
Making Connections

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 of the connector open enough to slide the wire into the square slot.
4. Strip back the insulation of each wire to 1/4 inch. Insert the stripped wire into the proper port. Do not allow more than 1/8 inch of 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 installed securely.
6. Continue until all wire are installed.
7. Plug the terminal block into the appropriate port on the Director.
8. Repeat steps 2-7 for any additional GPIO ports.
9. Reapply power.

Additional Information

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

Mounting

Mount the Director to the mounting plate using the two supplied M3 x 6 mm screws to a wall or similar surface using the supplied mounting bracket (see mounting diagram). Alternatively, the chassis can be set into a rack, cabinet, or similar. Install the chassis in a dry, well-ventilated place that is out of direct sunlight. Because the Director communicates with the Companion Modules over Bluetooth, install the Director within 1000 feet and have a direct line of sight to the Companion Modules.

Peter C,
Do we have any line drawings that I could use that shows the Director being mounted using the supplied mounting brackets?

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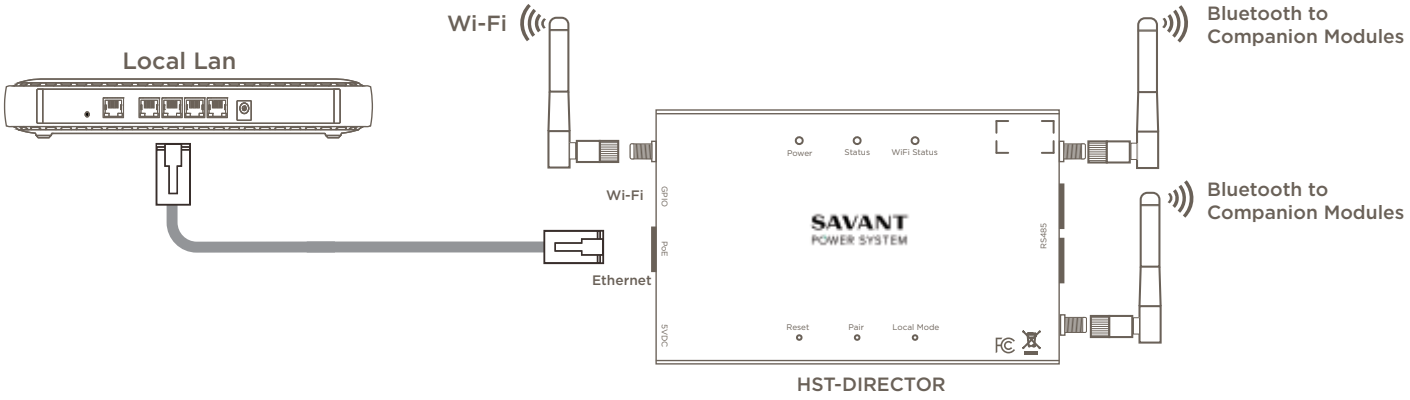
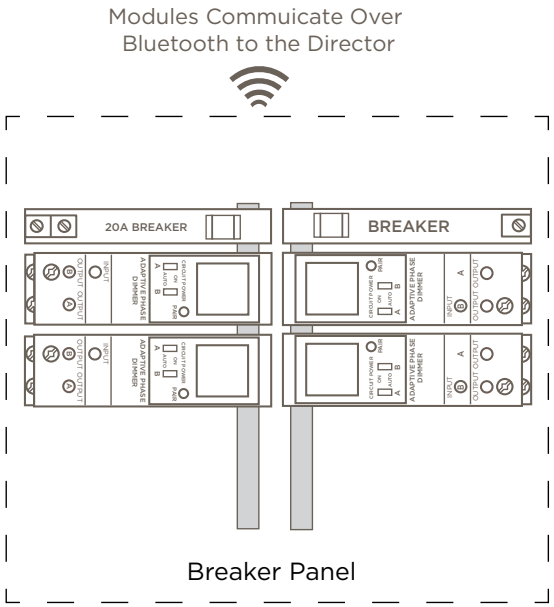
System Overview

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





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