# SAVANT

## Savant® ProAV 16 Channel Balanced Audio Output IP Receiver with Control (PAV-AOMBAL8C) Quick Reference Guide

### Box Contents

16   Channel Balanced Audio Output IP Receiver (PAV-AOMBAL8C-xx)

(1)   Installation Kit (075-0204-xx)

     (8)   Stereo Connectors (028-9347-xx)

     (2)   3-pin Control Connector (028-9351-xx)

     (1)   5V 3A Multi-Blade Power Supply (025-0223-xx)

(1)   Product Information and Regulatory Insert (009-1950-xx)

### Specifications

| Environmental | | |
|---|---|---|
| Temperature | 32° to 104° F (0° to 40° C) | |
| Humidity | 10% to 80% Relative Humidity (non-condensing) | |
| **Dimensions and Weight** | | |
| | Device | Shipping |
| Height | 1.6 in (4.15 cm) | 2.2 in (5.59 cm) |
| Width | 8.5 in (21.50 cm) | 12 in (30.48 cm) |
| Depth | 3.7 in (9.33 cm) | 7.3 in (18.54 cm) |
| Weight | 1.4 lb (0.64 kg) | 2.3 lb (1.05 kg) |
| Rack Space | 1U | |
| **Power** | | |
| Power Supply | 5V DC 3A Multi-Blade | |
| Maximum Power | 15 watts | |
| Power over Ethernet (PoE) | IEEE 802.3af (PAV-AOMBAL8C-10 **Only**) | |
| **Networking** | | |
| Supported Standard | IEEE 802.1 AVB/TSN switches IEEE 802.3 Ethernet | |
| **Regulatory** | | |
| Safety and Emissions | FCC Part 15   CE   C-Tick   UKCA | |
| RoHS | Compliant | |
| **Supported Releases** | | |
| PAV-AOMBAL8C-00 | da Vinci 8.10.2 and higher | |
| PAV-AOMBAL8C-10 | da Vinci 9.4.4 and higher | |

### Network Requirements

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

### Expansion

Savant AVB devices can be connected in a single system, providing a virtual audio switch that can be configured to suit almost any need. The maximum number of devices varies based on the active da Vinci runtime.

### Front Panel



| A | Power LED | **Green**: System has power and is operating normally. |
|---|---|---|
| | | **Off**: System is not receiving power. |

| B | Status LED | **Off**: Embedded processor is resetting, or is powered up, and is booting the embedded firmware. |
|---|---|---|
| | | **Green**: Host has established communications with the embedded system. |
| | | **Green Blinking**: Embedded system is ready, but no communication has been established with the host. |
| | | **Red**: Host has determined the firmware needs to be updated, but a problem occurred during the process that will initiate a reset. |
| | | **Red Blinking**: Embedded firmware is running, but has not received a DHCP IP Address. |
| | | **Amber**: Host is updating the embedded firmware. |
| | | **Amber Blinking**: Embedded system has a valid link-local IP Address and is connecting to the host. |

### Installation

The PAV-AOMBAL8C should be installed on a solid, flat, level surface. The device will fit on a 1U rack shelf. The location should be dry, well ventilated, and out of direct sunlight.
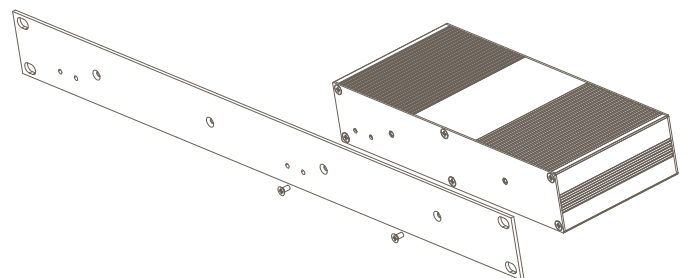
**IMPORTANT!** The PAV-AOMBAL8C must to be connected to a AVB Switch. Also a Savant AVB audio input device is required.
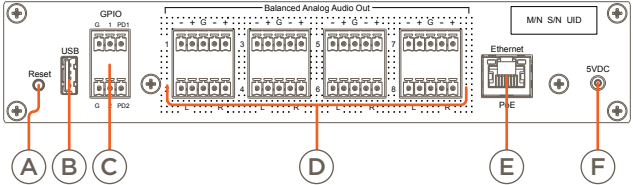
#### Rack

The optional RMB-PAVAM2F-xx or RMB-PAVAM2-xx allows two devices to be mounted side by side. 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 device's mounting points.
2. Attach using the screws provided with the bracket.

## Rear Panel



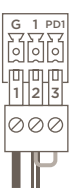| | | |
|---|---|---|
| Ⓐ | Reset | Resets the network settings of the device. Hold Reset Button for 5 seconds while powered on to clear network settings. Status LED will rapidly blink red when reset is complete. |
| Ⓑ | USB | USB 2.0 Type A (reserved for future use). |
| Ⓒ | GPIO | 3-pin Control Connector<br>See GPIO Wiring for pinouts<br><br>**GPIO Input**: When configured as an input the processor will look for a low (<0.8V DC) or a high (>2.4V DC) state.<br>Minimum 0V DC / Maximum 12V DC.<br><br>**GPIO Output**: When configured as an output, the port provides a binary output of 0-12V DC 150mA max. |
| Ⓓ | Balanced Audio Outputs | (8) Analog Stereo Balanced Line Output (Left & Right). Direct Line Level 4.2-VRMS. |
| Ⓔ | Ethernet | 8-pin RJ-45 port<br>10/100/1000 Base-T auto-negotiating port with Link/Activity LEDs.<br>Supports Power over Ethernet (PoE).<br>Supports Audio Video Bridging (AVB). |
| | | Activity LED (Left) — **Green Blinking**: Activity (Rx/Tx). **Off**: No Activity. |
| | | Link LED (Right) — **Green Solid**: Ethernet Link is established. **Off**: Ethernet link is not established. |
| Ⓕ | Power Input | 5V DC 3A Multi-Blade |

## Additional Documentation

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

IP Audio Deployment Guide (009-1571-xx)

## 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.



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

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

### 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.

## Stereo Wiring

The Balanced Audio Output wiring uses included 5-pin connectors. Each connector has connections for Left and Right channels and a ground.

**NOTE**: The Right and Left channels share a ground connection terminal.



| Pin 1 | Left - |
|---|---|
| Pin 2 | Left + |
| Pin 3 | Ground |
| Pin 4 | Right - |
| Pin 5 | Right + |

## Making Connections

1. Remove Power if power is applied.
2. Pull to remove the terminal block from the rear of the controller.
3. With a small flat bladed screwdriver, turn the screws on the top of the connector counterclockwise until the silver crimps in the front of the connector opens enough to slide the wire(s) into the square slots.
4. Strip back the insulation on each of the wires ¼ inch. Insert the stripped wires into their proper ports. Do not allow more than 1/8 inch of bare wire exposed.
5. Turn the screws clockwise until the screw tightens around the wire. Tug on the wire a bit to verify the wires are installed securely.
6. Continue until all wires are installed.
7. Repeat steps 3 - 5 for any additional IR devices.
8. Plug terminal block back into the rear of the controller.
9. Reapply power.



< 1/8 inch bare wire exposed