SAVANT

Savant 16 Channel Amplifier
Quick Reference Guide

Box Contents

(1) Savant 16 Channel Amplifier (AMP-2000-xx or AMP-2000I-xx)
(2) Rack Mounting Brackets
(8) Pan Head Screws (M3 x 8 mm)
(1) AC Power cord - 6 ft
(8) 4-pin Speaker Connectors
(4) Rubber Chassis Feet
(1) Trigger Cable - 2.5 mm (3/32") Mono to 3.5 mm (1/8") Mono
(1) Quick Reference Guide (this document)

Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 80% Relative Humity (non-condensing)
Cooling	202 cubic feet per minute (CFM) recommended
BTU	3925 BTU/hr

Dimensions and Weights	
Height	5.21 in (132.3 mm)
Width	17.30 in (439.4 mm)
Depth	15.00 in (382.0 mm)
Weight	Shipping: 44lb (19.5 kg)

Power	
Input Power	120V AC 10A 60 Hz - AMP-2000-00 (N. America) 230V AC 5A 50 Hz - AMP-2000I-00 (International)
Fuse Rating	T15AH/250V (120V) (N. America) T8AL/250V (230V) (International)
Maximum Power	1150 watts

Operation Parameters	
Rated Power	40 WPC at 8 ohms, 50 WPC at 4 ohms; (0.1% THD+N, 1kHz)
Input Impedance	33k ohms
Input Sensitivity	750mV for 40W at 8 ohms
Overall Voltage Gain	27.5dB
Frequency Response	Bandwidth limited from 20Hz to 20kHz ±0.8dB
Distortion, THD+N	< 0.07% THD+N from 20Hz to 20kHz, All channels driven at 8 ohms (1 Watt)
Signal-to-Noise Ratio	>90dB
Input Triggers	3-24V AC/DC 5mA
Output Triggers	12V DV 100mA

Compliance	
Safety and Emissions	FCC Part 15 | UL-60065
RoHS	Compliant

Minimum Support Release	
Savant OS	da Vinci 5.1.1

Front Panel
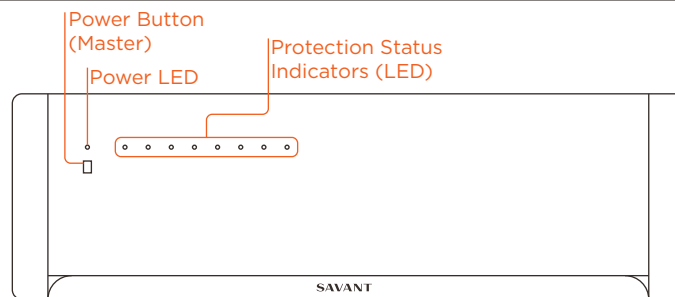
Item	Description
Power Button (Master)	Turns the amplifier On or Off See **Setting the Amplifiers Turn On Mode** for details.
Power LED	Indicates the power state of the amplifier: **Off**: No power is supplied to the amplifier. **Red**: Amplifier is in Standby Mode. **Green**: Amplifier is On.
Protection Status Indicators (LED)	Status LED of each zone. **Off**: The central potential protection mode has not been enabled. **Red**: The central potential protection mode has been enabled to protect a zone/channel. See **Protection Modes** for details.

Rear Panel
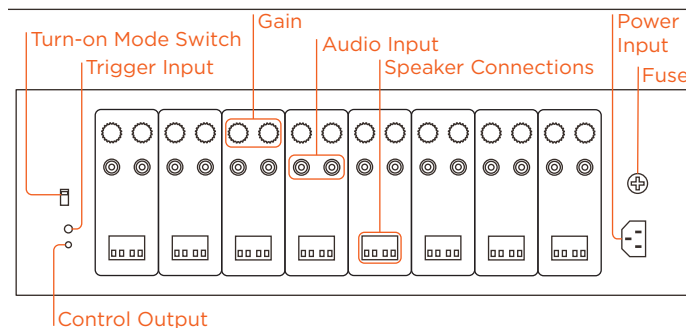
Item	Description
Turn-on Mode Switch	Three options for controlling power. – Constant (manual turn-on via the front panel master Power button) – Audio Sense – 3-24 AC/DC Voltage Trigger (External) See **Setting the Amplifiers Turn On Mode** for details.
Trigger Input	3-24V AC/DC - 3.5 mm (1/8") Mono jack Turn-on Mode switch is set to 3-24 AC/DC Voltage Trigger mode.
Control Output	12V DC 100mA - 2.5 mm (3/32") Mono jack Used to trigger another device that is activated by receiving a 12VDC 100mA signal. See **External Trigger Connections** for details
Gain	Independent gain controls allowing for fine tuning the output level of each. channel.
Audio Inputs	RCA Stereo (L&R) line-level analog audio inputs.
Speaker Connections	4-pin Speaker Connectors **NOTE**: Compatible with 8 ohm or 4 ohm speakers.
Power Input	IEC 320 power connector with 3-pole detachable power cord.
Fuse	T15AH/250V (120V) (N. America) T8AL/250V (230V) (International)

Installation

The AMP-2000 should be placed on a solid flat surface such as a table or shelf or in an audio/video equipment rack. It should be placed upright so that its weight rests on the unit's four feet (removable). See **Ventilation** for information on providing adequate cooling to the amplifier when placed in a cabinet.

Cabling and Wiring

Cabling Precautions
– The amplifier must be off whenever you make changes to the input connections.
– Never connect a source or preamplifier's input to the inputs of the AMP-2000 directly.
– All speaker wire connections must be made with the amplifier off.
– Do not allow a single strand of wire to touch the amplifier chassis or another connector.

External Trigger Connections

CAUTION! Do not use a DC wall adapter. The long discharge time of the DC adapter's filter capacitor will delay the turn-off of the amplifier.
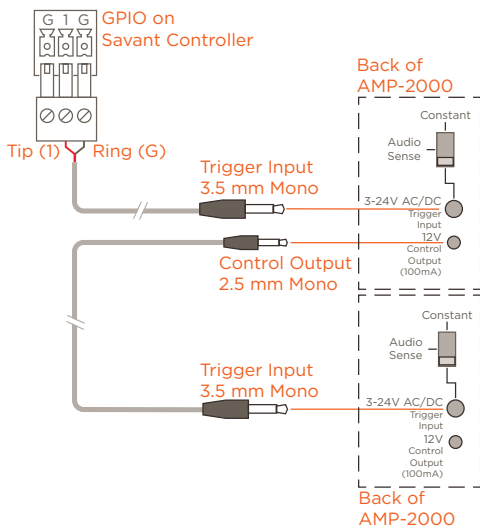
Savant GPIO External Trigger Connection
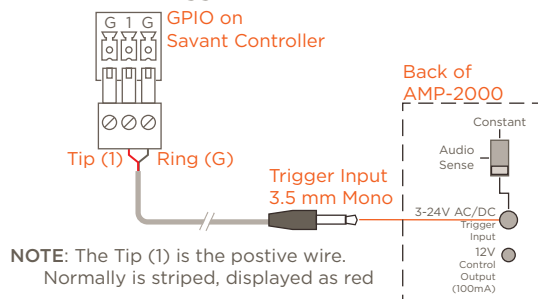
NOTE: The Tip (1) is the postive wire. Normally is striped, displayed as red

**NOTE:** Cut the 2.5 mm end off the Trigger Cable to wire the AMP-2000 to a Savant Controller.

Daisy Chaining External Triggers

Ventilation

The AMP-2000 must be provided with adequate ventilation for proper cooling.
– When installing the AMP-2000 in a cabinet, be sure that the rear of the cabinet is open to adequate air to provide proper cooling.
– Be sure to leave a minimum of 3 inches clearance above and behind the amplifier and at least 2 inches on each side.
– If installed in a rack, active thermal management (such as rackfans) is recommended.
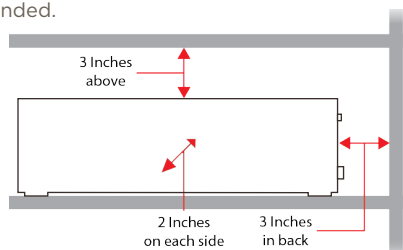
CAUTION! Do not block the ventilation holes on the sides and bottom of the AMP-2000.

Setting the Amplifiers Turn On Mode

Constant – Power state of the amplifier is controlled via the front panel master power button:
IN - Amplifier is powered ON (Sensing circuitry active)
OUT - Amplifier is powered OFF (Sensing circuitry inactive)

Audio Sense – Zone/Channel power state is controlled via the source inputs:
The master power button on the front panel must be in the On position.
Zone/Channel turns on when an audio signal higher than -46dB is present on both L/R inputs for the zone.
Zone/Channel turns off after 5 min. when an audio signal lower than -46dB or no signal is present on both L/R inputs for the zone.
Amplifier goes into standby mode if no signal is present on any zone/channel for 5 minutes.
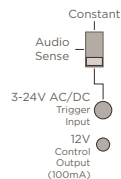
3-24V AC/DC Voltage Trigger – Power state of the amplifier is controlled via an external trigger (Savant GPIO):
The master Power button on the front panel must be in the On position.
Amplifier will turn on when the voltage trigger input receives a 3-24V signal.
Amplifier will turn OFF when the 3-24V signal is removed

Protection Modes

The AMP-2000 provides three protection modes. Note that the AMP-2000 does not shut down in a protection mode; only the faulty zone/channel is disabled.

Central potential protection mode (LED indication)

The central potential protection mode is the only mode that activates the Protection LEDs on the front panel. This mode is more commonly known as the DC potential protection mode and is designed to protect the connected speakers from any DC voltage that is output from the AMP-2000.
When the central potential protection mode is activated, the LED for that respective channel will be turned on (Red). When a channel is in the central potential protection mode, other active channels will remain operational unless they are in a protection mode. After the fault is fixed, the AMP-2000 will automatically restart the disabled zone/channel.

Speaker short protection mode (no LED indication)

This mode will disable a zone/channel until the fault is fixed. After the fault is fixed, the AMP-2000 will automatically restart the disabled zone/channel.

Overload protection mode (no LED indication)

This mode will disable a zone/channel until the fault is fixed. After the fault is fixed, the AMP-2000 will automatically restart the disabled zone/channel.

Additional Information

Refer to the following documents located on the **Savant Customer-Community** for additional information.
– **Relay and General Purpose Input/Output Profiles: Application Note** for information on input and output triggers and GPIO input and outputs to Savant Controllers.
– **RacePoint Blueprint™ Authoring Guide** on how to configure the AMP-2000 into a Savant System.