



Savant® 16 Channel Amplifier Quick Reference Guide

This Quick Reference Guide provides all the steps necessary to install the 16-channel AMP-2000 amplifier.

The following units are supported in this document:

- AMP-2000-00 (North America)
- AMP-2000I-00 (International)

Box Contents

- (1) Savant 16 Channel Amplifier (AMP-2000-xx or AMP-2000I-xx)
- (2) Rack Mounting Brackets
- (8) Pan Head Phillips Screws for Brackets (M3 x 8 mm)
- (1) AC Power cord - 6 ft
- (4) 4-pin Screw Down Plug-in 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)

Note:

The AMP-2000/2000I will be referred to as the AMP-2000 unless otherwise specified.

Specifications

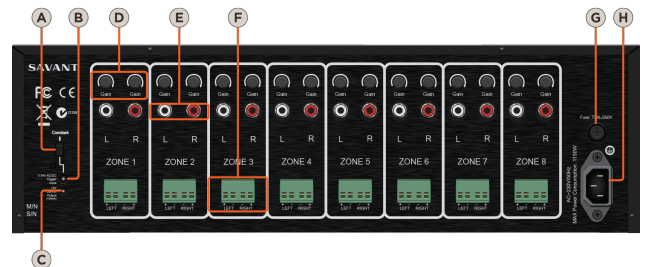
| Environmental | |
|---------------------------|---|
| Temperature | 32° to 104° F (0° to 40° C) |
| Humidity | 10% to 80% Relative Humidity (non-condensing) |
| Cooling | 202 cubic feet per minute (CFM) recommended |
| BTU | 3925 BTU/hr |
| Dimensions and Weight | |
| Height | 5.21 in (13.23 cm) |
| Width | 17.30 in (43.94 cm) |
| Depth | 15.00 in (38.20 cm) |
| Weight | Shipping: 44 lb (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 |
| Operating 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 \pm 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 DC 100mA |
| Regulatory | |
| Safety and Emissions | FCC Part 15 UL-60065 |
| RoHS | Compliant |
| Minimum Supported Release | |
| Savant OS | da Vinci 5.1.1 |

Front Panel



| | |
|---|---|
| A Power Button (Master) | Turns the amplifier On or Off based on the Turn On Mode settings. See Setting the Amplifiers Turn On Mode for details. |
| B Power LED | Indicates the power state of the amplifier: Red: Amplifier is in Standby Mode. Green: Amplifier is On. Off: No power is supplied to the amplifier. |
| C Protection Status Indicators (LED) | Indicate the status of each zone or pair of channels when in the central potential protection mode. Red: The central potential protection mode has been enabled to protect a zone/channel. See Protection Modes for details. Off: The central potential protection mode has not been enabled. |

Rear Panel



| | |
|--------------------------------------|--|
| A Turn-on Mode Switch | Provides three options for turning the AMP-2000 On and Off. <ul style="list-style-type: none"> 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. |
| B 3-24V AC/DC Voltage Trigger | 3-24V AC/DC - 3.5 mm (1/8") Mono jack Used to control the power state of the amplifier when Turn-on Mode switch is set to 3-24 AC/DC Voltage Trigger mode. |
| C 12V Trigger Control Output | 12V DC 100mA - 2.5 mm (3/32") Mono jack Used to trigger an additional AMP-2000 or other device that is activated by receiving a 12V DC 100mA signal. This voltage is present only when the amplifier is active or on. See External Trigger Connections for details |
| D Gain | Independent gain controls allowing for fine-tuning the output level of each channel. |
| E Audio Source Inputs | RCA Stereo (L&R) line-level analog audio inputs. |
| F Speaker Connections | 4-pin Screw Down Plug-in Connectors Note: Specify 4 or 8 ohm speakers when designing the system. |
| G Power Input | IEC 320 power connector with 3-pole detachable power cord. |
| H 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

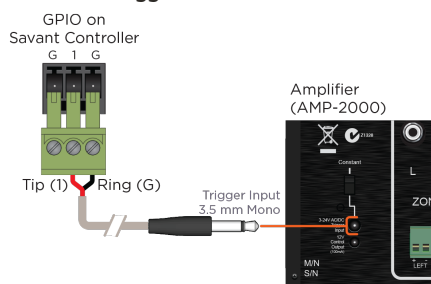
- The amplifier must be off whenever you make changes to the input connections.
- Never connect a source or preamplifier's input to the inputs of the AMP-2000 directly.
- All speaker wire connections must be made with the amplifier off.
- Do not allow a single strand of wire to touch the amplifier chassis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

External Trigger Connections

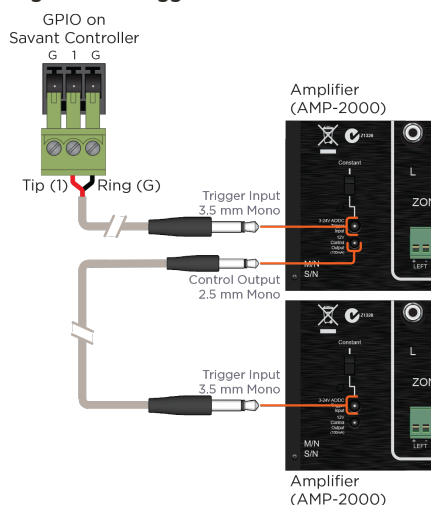
CAUTION!

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



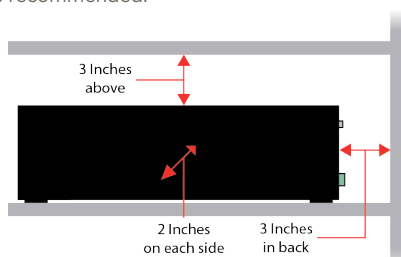
Daisy Chaining External Triggers



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 rack fans) 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 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.