8-Channel Digital Audio Amplifier (AMP-8125) Quick Reference Guide

The Savant 8-Channel Digital Audio Amplifier (AMP-8125) Quick Reference Guide provides all the steps necessary to set up the AMP-8125.

Box Contents
(1) AMP-8125
(1) Installation Kit (075-0142-xx)
- (2) 1U Rack Mounting Brackets (071-0715-xx)
- (4) Screws for Rack Mounts (039-0236-xx)
- (6) Torx Screws for Brackets (039-0237-xx)
- (1) Torx Wrench (071-0755-xx)
- (4) Plastic Feet (074-0445-xx)
- (4) Phillips Screws for Plastic Feet (039-0238-xx)
- (4) 4-position Phoenix-style Connectors for audio output (028-0454-xx)
- (1) 3-position Phoenix-style Connector for Trigger I/O (028-0455-xx)
- (1) Power cord (3 feet) (N. America) (064-0333-xx) or appropriate international power cord

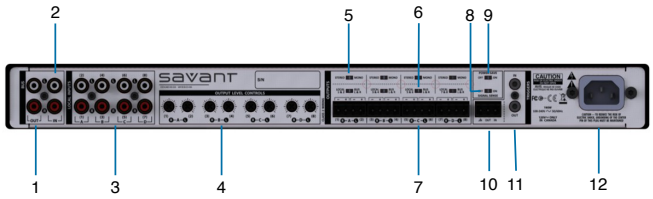
(1) Quick Reference Guide (this document)

Required System Component
(1) Any Savant Controller with RCA audio output connectors

Specifications

Environmental	
Temperature	32° to 95° F (0° to 35° C)
Humidity	10% to 80% Relative Humidity (non-condensing)
Cooling	34 cubic feet per minute (CFM) recommended.
BTUs	650 BTUs per hour
Dimensions and Weight	
Height	1.70 in/4.50 cm
Width	17.30 in/43.94 cm
Depth	14.9 in/37.88 cm
Weight	9.2 lb/4.2 kg
Rack Space	1U
Power	
Input Power	100-240V AC, 50/60 Hz
Nominal Power	190 watts
Operating Parameters	
Output Power	125W RMS/channel@8 ohms from 20Hz - 20kHz (all channels driven)
Frequency Response	20Hz - 20kHz +0dB/-1.5dB
Total Harmonic Distortion (THD)	<0.05% - 20Hz - 20KHz (At Full Rated Power)
Signal-to-Noise Ratio (SNR)	>105dB ref: full power (a-weighted)
Crosstalk	< -70dB @ 1kHz
Input Sensitivity	1.12 volts for 125 watts out in 8 ohms
Gain	29dB
Input Impedance	100K ohms (typical)
12V DC Trigger Signal	Current = 0.12 mA
Compliance	
Safety and Emissions	FCC Part 15 | CE | CAN/CSA | C-Tick
RoHS	Compliant

1	Standby Button	**Red** indicates that the unit is in standby mode. **Blue** indicates that the system is powered on.
2	Channel Status LEDs (1-8)	**Blue** indicates the channel has adequate power and is operating normally. **Blue flashing** indicates the channel has a fault such as a short or some other problem. **Off** indicates that the system is in standby mode.



1	Bus Output	Provides RCA connector loop/pass-thru output for connecting multiple AMP-8125s in a system utilizing a single bus input signal.
2	Bus Input	Provides RCA connectors input to simultaneously feed all speaker output channels utilizing a single bus input signal.
3	Local Inputs	Provides eight RCA input connectors input to feed a corresponding speaker-level output channels labeled in pairs A, B, C and D. .
4	Output Level Controls	Provides eight Stereo line-level audio outputs labeled in pairs A, B, C and D.
5	Stereo Mono Selection	Selects between stereo and mono output configuration for each group of speaker output pairs.
6	Local/Bus Selection	Selects between local and bus inputs for each group of speaker output pairs.
7	Speaker Outputs	Provides connection for up to four pair of stereo speakers.
8	Signal Sense On/Off	Enables the audio Signal Sense circuitry for the bus and local inputs.
9	Power Save On/Off	Enables the extreme low-power automatic standby mode.
10	Trigger In/Out connector (Phoenix-style)	Provides connectivity for remote 5-15V DC trigger signals used to activate and deactivate the standby mode from devices.
11	Trigger In/Out connector (Mono mini- plug)	
12	Input Power	100-240V AC, 50/60 Hz

NOTE: The Power Save function can only be used when operating the AMP-8125 from the front panel standby button. If a trigger input is being used, it will override the Power Save function.

Installation Considerations

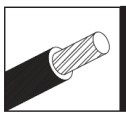
The AMP-8125 should be installed on a solid, flat, level surface such as a table or shelf using the four plastic feet that are shipped with the product.The AMP-8125 can also be installed in a standard 19-inch equipment rack using the rack-mount brackets included with the product. Select a dry, well ventilated location out of direct sunlight.

If multiple AMP-8125s are rack mounted together, it is acceptable to “flat stack” them one atop the other in adjacent rack spaces without additional ventilation spaces left in between them. However, in some installations or in heavy usage scenarios where multiple channels are consistently driven at high outputs for long periods of time, it might be necessary to leave one empty rack between the amplifiers in order to assist with heat dissipation and prevent thermal protection due to overheating.

Cable and Wire
The AMP-8125 has multiple connections on the back panel. Savant recommends that the input cables and the speaker wires are clearly labeled. Label the cables and the wires with their destination or source, not the AMP-8125 terminal. Modifications will be easier in the future.

The AMP-8125 connects to your Savant multi-room audio solution via shielded line level audio cables with RCA Audio Output connectors. Use high quality RCA cables to connect the multi-room audio to the amplifier inputs.

The AMP-8125 connects to your speakers using 2-conductor speaker wire. For most applications, Savant recommends using 16 or 18 gauge wire. For wiring runs longer than 80 feet Savant recommends using 14-gauge wire. Each channel features a removable screw terminal speaker connection for easy installation in tight spaces. The terminal connector can accommodate up to 14-gauge stranded speaker wire.



TECH TIP
Wire size is expressed by its AWG (American Wire Gauge) number. The lower the number, the larger the wire, i.e. twelve AWG is physically larger than fourteen AWG.

Power Outage Considerations

If there is a power outage and the standby button is used to operate the AMP-8125, the amplifier will be in the OFF state when the power is restored. The standby button must be pressed to restore power.
If there is a power outage and an external device is used to trigger the AMP-8125, the amplifier will be reinstated to its last state when the power is restored.
If the AMP-8125 is to be on at all times, a simple DC power supply should be connected to the amplifier and plugged into an outlet.

45 Perseverance Way, Hyannis, MA 02601 ▼ P: 508-683-2500 ▼ F: 508-683-2600 ▼ www.SavantSystems.com

8-Channel Digital Audio Amplifier (AMP-8125) Quick Reference Guide

Speaker Wire Connections

Warning: Never make or break connections to the AMP-8125 unless the AMP-8125 and all associated components are powered off.

Caution: Do not connect the outputs of one channel to the outputs of other channels or to other amplifiers.

Speaker Outputs
It is recommended to use 16-gauge or larger speaker wire in order to ensure low-impedance connections between the amplifier and speakers. Be sure to observe correct polarity when making connections to speakers: Positive (+) leads to the Positive (+) terminals and Negative (-) leads to the Negative (-) terminals.

Caution: The speaker out puts on the AMP-8125 are balanced (differential) and should not be connected to any equipment that groups the Negative (-) terminals.

Trigger Cable
The Trigger In and Out connections can be used to activate ad deactivate the standby mode of the AMP-8125 from devices such as remote control systems, preamplifiers or other external devices. The Trigger In and Out connections are duplicated for both 1/8 inch (3.5mm) mono mini-plug and phoenix-style connectors. Use the Trigger In for making connections to external control devices that will activate and deactivate the AMP-8125 standby mode. The Trigger Out does not provide DC power on its own, but can be used for making Trigger In daisy-chain connections to additional AMP-8125 amplifiers or other components that need to mimic the AMP-8125 power state.
Note: When a remote trigger is connected it will override the front panel standby button operation.

Trigger Cable Installation
1. Power the controlling source and the AMP-8125 amplifier off.
2. Connect the trigger cable to the controlling source and the AMP-8125 amplifier.
3. Power on the controlling source and the AMP-8125 after the the connections are made. After the source unit is fully powered up. the LED power indicator on the front of the AMP-8125 should be lit **Blue**.
4. Verify the trigger is working by putting the source unit into standby mode. The AMP-8125 amplifier will also go into standby mode and the power indicator will light up **Red** after a short delay.
5. Once trigger cable operation is verified, only use the source unit to power on and off the AMP-8125.

Warning: When installing the trigger cable, never have the controlling source or AMP-8125 amplifier powered on. Doing so will cause the trigger device to work improperly and could cause damage to both the source and amplifier.

AC Main Power Connector
After all audio and system connections have been made, connect the power cord to an AC power source. Be sure that any device connected to the remote trigger input is powered off when connecting the AMP-8125 power cord to an AC outlet.

Warning: Do not plug the AMP-8125 directly into the “switched accessory” outlet of another device! These outlets are intended for use with low current draw products such as tuners, CD players, Blu-ray players and other similar devices. These outlets are not designed to handle the high current draw of a power amplifier. Using these outlets for a power amplifier is a significant safety hazard.

Cleaning and Maintenance

The internal parts of the AMP-8125 are electronic and require no maintenance. Once a year it is appropriate to twist the RCA connectors on each input to remove any oxidation and improve conductivity. You can clean only with dry cloth. Do not use any spray-type, abrasive cleaners on the amplifier.

Additional Documentation

Additional documentation for the AMP-8145I is available at:
SavantSystems > **Dealer Login > Knowledge Base > Products**

Click link: **RacePoint Blueprint**™

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Use the mains plug to disconnect the apparatus from the mains.
16. **WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.
17. DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, ARE PLACED ON THE EQUIPMENT.
18. THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

TO PREVENT ELECTRIC SHOCK DO NOT REMOVE TOP OR BOTTOM COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE. THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WATCH FOR THESE SYMBOLS:

The lightning bolt triangle is used to alert the user to the risk of electric shock.

The exclamation point triangle is used to alert the user to important operating or maintenance instructions.

IMPORTANT

DD-8 amplifiers require Class 2 output wiring.

MAGNETIC FIELD

CAUTION! Do not locate sensitive high-gain equipment such as preamplifiers or tape decks directly above or below the unit. Because this amplifier has a high power density, it has a strong magnetic field which can induce hum into unshielded devices that are located nearby. The field is strongest just above and below the unit.

If an equipment rack is used, we recommend locating the amplifier(s) in the bottom of the rack and the preamplifier or other sensitive equipment at the top.

FCC Compliance Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

45 Perseverance Way, Hyannis, MA 02601 ▼ P: 508-683-2500 ▼ F: 508-683-2600 ▼ www.SavantSystems.com