



**A-1240 & ASO-1240**  
12-Channel Amplifier  
Owner's Manual

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# Safety instructions for SmartAS 12-Channel Amplifiers

**Warning** - To reduce the risk of fire or shock, do not expose this appliance to rain or moisture.

**Caution** - To reduce the risk of fire or shock, do not remove the cover or back. No user serviceable parts inside.  
Refer servicing to qualified service personnel.

**Caution** - To prevent electric shock, match wide blade of plug to wide slot, fully insert.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this appliance.



## Read Instructions

All the safety and operating instructions should be read before the appliance is operated.

## Retain Instructions

The safety and operating instructions should be kept for future reference.

## Heed Warnings

All of the warnings on the appliance and in the operating instructions should be adhered to.

## Follow Instructions

All operating and use instructions should be followed.

## Water and Moisture

The appliance should not be used near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

## Ventilation

The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings. Never place the appliance in a confined space such as a bookcase, or built-in cabinet, unless proper ventilation is provided.

## Heat

The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances that produce heat. Position the appliance at least 4" away from any heat-producing amplifier, including SmartAS amplifiers.

## Power Sources

The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

## Grounding or Polarization

Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

## Lightning

Unplug this device during lightning storms.

## Power Cord Protection

Route the power cord so that it is not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the plugs, receptacles, and the point where the cord exits from the appliance.

## Cleaning

Unplug the appliance from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a cloth lightly dampened with water for cleaning the exterior of the appliance only.

## Non-Use Periods

The power cord of the appliance should be unplugged from the outlet when left unused for long periods of time.

## Object and Liquid Entry

Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

## Damage Requiring Service

The appliance should be serviced by qualified personnel when:

- a) the power supply cord or the plug has been damaged
- b) objects have fallen, or liquid spilled into the appliance
- c) the appliance has been exposed to rain
- d) the appliance does not appear to operate normally or exhibits a marked change in performance or
- e) the appliance has been dropped, or the enclosure damaged

## Servicing

The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

## Product Servicing

If the system fails to operate properly, please contact SmartAS for further assistance at 469-405-2266.

Additional information, including detailed specifications for each model, can be found on our website, [www.smartas.us](http://www.smartas.us).

## Consignes de sécurité importantes

1. Lisez ces instructions.
2. Conservez ces instructions.
3. Respectez tous les avertissements.
4. Suivez les instructions.
5. Ne pas utiliser cet appareil près de l'eau.
6. Nettoyez uniquement avec un chiffon humide.
7. Ne pas obstruer les ouvertures de ventilation. Installer conformément aux instructions du fabricant.
8. Ne pas installer près de sources de chaleur telles que des radiateurs, registres de chaleur, poêles ou autres appareils (incluant les amplificateurs) qui produisent de la chaleur.
9. Ne pas contourner le dispositif de sécurité de la fiche polarisée type. Une fiche polarisée possède deux lames dont une plus large que l'autre. La lame large est fournie pour votre sécurité. Si la fiche fournie ne rentre pas dans votre prise, consultez un électricien pour remplacer la prise obsolète.
10. Protégez le cordon d'alimentation ne soit piétiné ou pincé, en particulier au bouchon, prises de courant, et au point où ils sortent de l'appareil.
11. Utilisez uniquement des fixations / accessoires spécifiés par le fabricant.
12. Utilisez seulement avec un chariot, un support, un trépied, une console ou table spécifié par le fabricant ou vendu avec l'appareil. Lorsque vous utilisez un chariot, soyez prudent lorsque vous déplacez l'ensemble chariot / appareil pour éviter les blessures en cas de chute.
13. Débranchez cet appareil durant les orages ou si inutilisé pendant de longues périodes de temps.
14. Confiez toute réparation à un personnel qualifié. Une réparation est nécessaire lorsque l'appareil a été endommagé de quelque façon que ce cordon d'alimentation ou la fiche est endommagé, du liquide a été renversé ou des objets sont tombés dans l'appareil, l'appareil a été exposé à la pluie ou à l'humidité, ne fonctionne pas normalement , ou s'il est tombé.

**AVERTISSEMENT:** Pour réduire le risque d'incendie ou un choc électrique, ne pas exposer cet appareil à la pluie ou à l'humidité. L'appareil ne doit pas être exposé au ruissellement ou aux éclaboussures et aucun objet rempli de liquide, comme des vases, ne doit être placé sur l'appareil



## Introduction

Thank you for giving Smart Audio Solutions the chance to win your business! We are confident you will find that SmartAS offers an outstanding combination of performance and value in everything we make. To ensure you get the most out of your new amplifier, please take a moment to read this manual before you get started.

The A-1240 is a 12-channel, multi-use, multi-zone power amplifier that is flexible and powerful enough to amplify every speaker in your whole-house audio system and/or home theater system. This amplifier delivers exceptionally accurate sound and is designed to deliver trouble-free performance for many years to come. Each channel delivers 40 watts RMS into 8 ohms and 50 watts RMS into 4 ohms with all channels driven. In addition, you can choose to bridge adjacent channels (eg. 1 and 2) to create a single 100 watt RMS channel. This allows for a multitude of set-up options for virtually any application that requires multiple discreet channels of amplification.

## General Guidelines

***Please read the following warnings and tips before hooking up your amplifier:***

- Never connect speaker wire or line level connections with the front power button in the ON (in) position. Always make your connections with the amplifier OFF.
- Only use the detachable power cord supplied with your amplifier. It is a 3-prong, grounded power cord.
- Never disable the ground wire in the power cord. This is for your protection.
- Never plug the amplifier into the back of another electrical component.
- We highly recommend plugging the amplifier into a power tree with adequate surge protection.
- Dual banana plugs with industry standard 3/4" spacing (sold separately) will fit the speaker connections in each individual channel, but will not fit across the two red posts when operating side-by-side channels in bridged mode. We offer single banana plugs (sold separately) for this purpose.

### **\*\*\*WARNING\*\*\***

**PLEASE DO NOT MOVE THE BRIDGE SWITCH INTO THE BRIDGED POSITION UNLESS YOU FULLY UNDERSTAND ITS PURPOSE AND OPERATION. INCORRECT OPERATION OF BRIDGE MODE CAN DAMAGE YOUR EQUIPMENT AND VOID YOUR WARRANTY. NEVER MOVE THE BRIDGED SWITCH WHILE UNIT IS POWERED ON.**

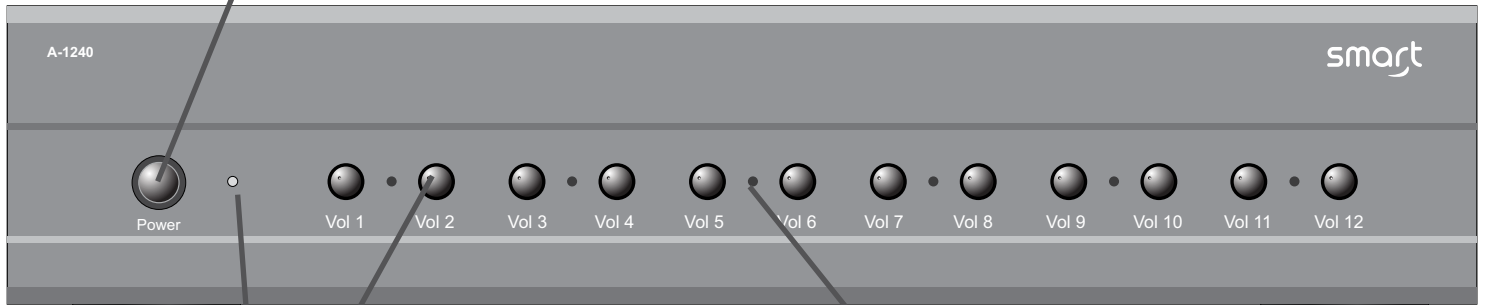
# Product Features

Included with A-1240  
and ASO-1240  
(1) Power cord



**Power On/Off Button**  
Press "In" to turn amplifier "ON"  
Press again (to OUT position) to  
turn amplifier "OFF"

Top panel air vents allow unwanted heat to escape the inside of the amplifier chassis. For proper ventilation, please allow at least 5 inches of open air space above the component. If the amplifier is placed within a cabinet, please make sure the cabinet is well ventilated to prevent overheating.



**Power Indicator Light**  
Amber = Standby  
Blue = ON

**Variable Level Controls** for each channel make limiting or balancing maximum volume levels throughout your home easy.

**Channel Protection Lights**  
Every channel is designed with a "Protection Mode". These red lights will turn ON when a channel goes into "Protection Mode" and will automatically turn OFF when the problem has been resolved.

**Power Button:** Press this button in to turn the amplifier "ON". Press this button again to turn the amplifier "OFF".

**Power Indicator Light:** The front power light shines "amber" to indicate the component is plugged in, the Power Button is pressed in, and the amplifier is in stand-by mode. This light will remain amber until the amplifier is activated based on the setting of the "Power mode switch" found on the back side of the amplifier. Once the amplifier is activated, the power light will change to blue.

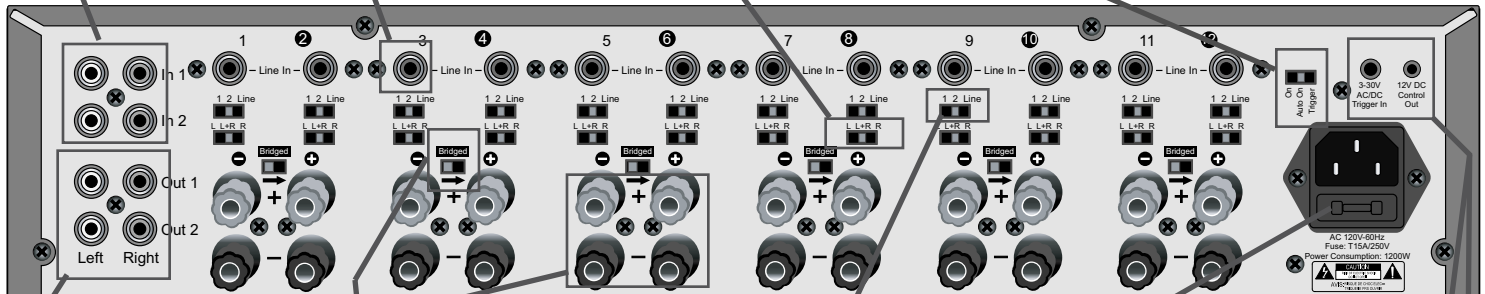
**Channel Protection Lights:** Every amplifier channel includes a protection circuit designed to prevent the amplifier from being damaged as a result of improper speaker installation. A channel will go into protection mode if: 1.) the impedance from the speakers drops below 4 ohms, or 2.) a short exists across the positive and negative lines of the speaker cable or connection points. When this happens, the other channels will continue to operate normally and a red light on the front panel corresponding to the protected channel will turn on. Once conditions return to normal, the affected channel will resume operation and the red light will turn off.

2 pairs of gold-plated stereo inputs are available to all channels.

An individual gold-plated Line input is available to each channel.

Select Left, Right, or Left+Right (mono) to determine which signal from input 1 or input 2 is assigned to each channel. This switch is bypassed when the individual Line input is selected.

Power mode switch determines if the component is always on (ON), turns on when an input signal is sensed (AUTO-ON), or turns on when triggered by another component (TRIGGER).



2 pairs of gold-plated stereo outputs are available to pass along the signals received in the two stereo inputs.

5-way gold-plated binding posts for solid connections with speaker cable.

Bridge switch - position to the right to "bridge" adjacent channels. The controls for the Even Numbered channels (2,4,6,8,10,12) take over in bridged mode.

**\*See WARNING on page 5\***

Input selection switch for determining input source that each channel plays. Choose from input 1, input 2, or the dedicated Line input.

An external fuse can be replaced in the event of an unexpected electrical shock to the unit.

3.5mm (mono) Input trigger jack-Turns the DMA-1240/DMA-1275 ON from another component.

2.5mm (mono) Output trigger jack-Turns ON another component from the amplifier's signal.

## Product Features

**Gold-Plated Connections:** All line level inputs, outputs and speaker connections are gold-plated for clear signal transfer.

**Multiple Inputs:** Any audio component with a stereo analog RCA-type output can be connected to the A-1240. Two stereo line level inputs (In 1 and In 2) are available to every channel. Plus, every channel has its own dedicated input (Line In). In addition, you can choose to power either the left (L) or right (R) input, or select a summation of the left and right (L+R). This provides incredible flexibility for selecting which signal to amplify through the speaker(s) connected to each channel.

**Stereo Outputs:** Two stereo line level outputs (Out 1 and Out 2) are provided to allow the stereo input signals (In 1 and In 2) to be passed on to additional equipment as needed.

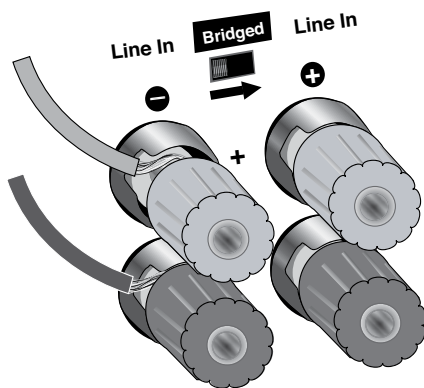
**Power-On Modes:** The A-1240 can be turned on automatically when an input signal or voltage trigger is sensed. You can alternatively leave the A-1240 in always-on mode. An output voltage trigger is also available for activating other components as the A-1240 is turned on.

**Level Settings:** Each channel has its own adjustable Level knob. Use this knob to set the maximum output level for each channel. This feature allows you to easily balance the output volume throughout your home.

**Best practice:** When using separate volume controls or keypads to locally control volume level within a zone, start with the Level setting at the 12:00 position (turned about half-way up). Next, set the volume level on your rotary volume control (sold separately) or digital keypad (sold separately) to its maximum setting for the speaker(s) connected to that channel/zone. Then slowly turn up the Level knob on the A-1240 until the desired maximum volume level is achieved. This is most easily accomplished with the assistance of a second person. It is acceptable to turn the Level knob to its maximum setting but you can extend the life of the component and save energy by only utilizing as much power as necessary.

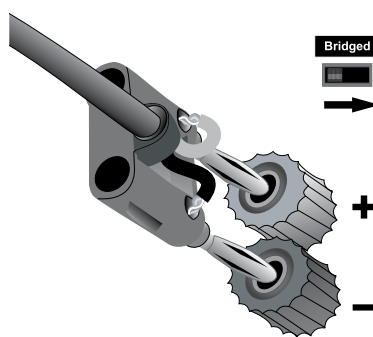
**Speaker Connections:** Speakers are connected directly to the amplifier using speaker cable. For all behind-the-wall installations, CL3-rated cable is recommended to comply with most building-codes. Speaker cable can be connected to the 5-way binding posts using bare wire, dual or single banana plugs, spade connectors or pins. Be sure to maintain polarity (**Speaker + to Amplifier +, Speaker - to Amplifier -**).

### Speaker Connection Examples



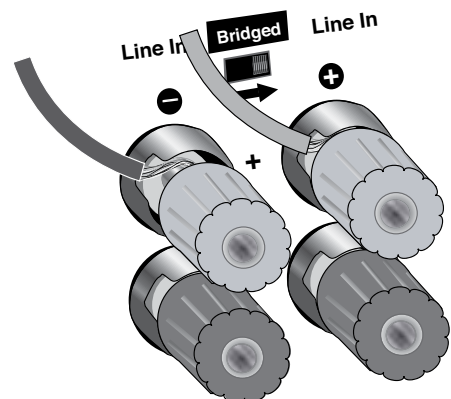
#### Bare Wire

Rotate binding post counter-clockwise to reveal post. Strip back 3/8" insulation from cable. Tightly twist copper wires and wrap around post as shown. Rotate binding post clock-wise to tighten.



#### Banana Plug

Make sure binding posts are tightened then push in banana plug



#### Bare Wire - Bridged Mode

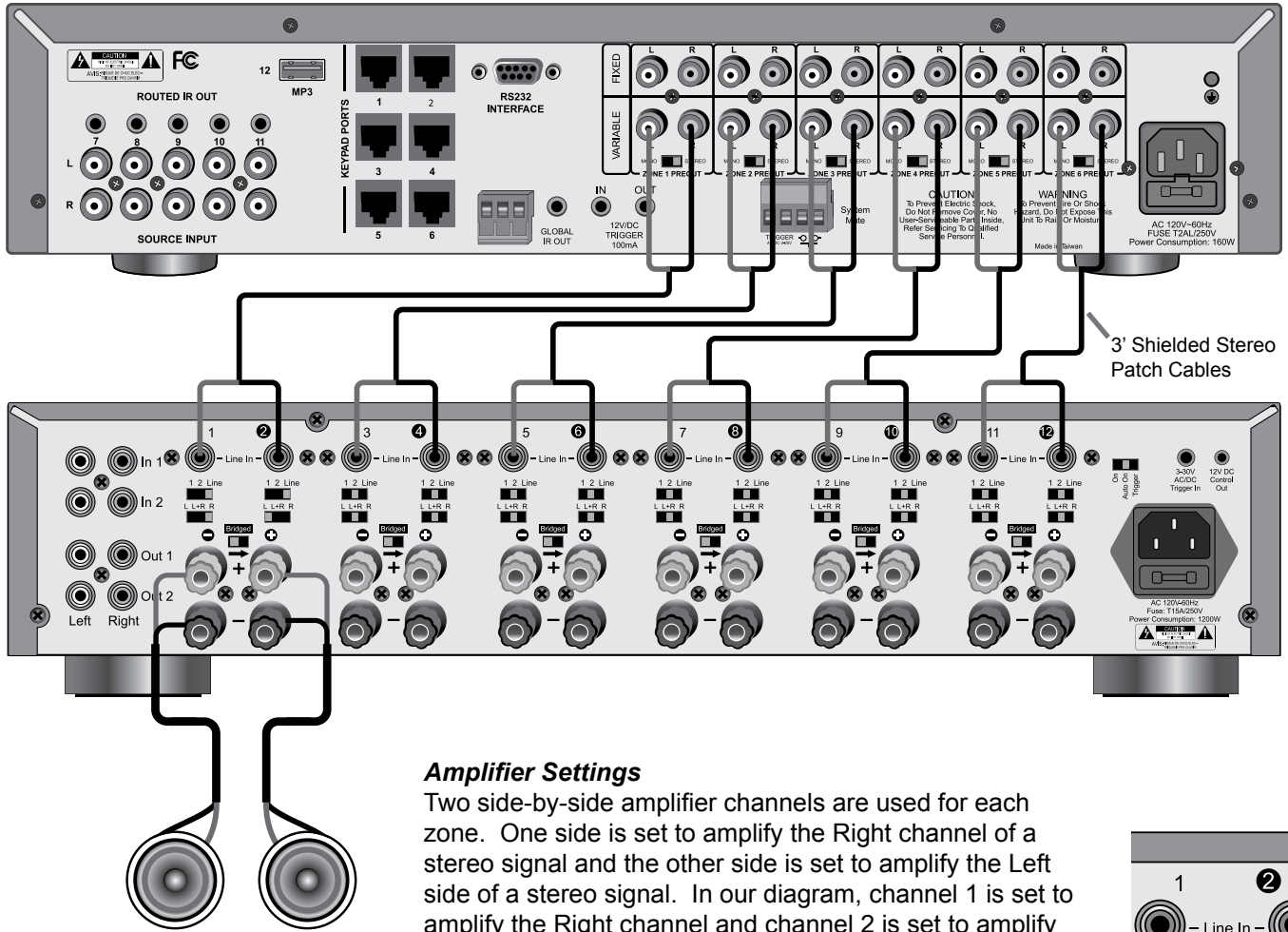
When bridging two side-by-side channels the top binding post from the odd-numbered channel becomes the negative post and the top binding post from the even-numbered channel becomes the positive post. Dual banana plugs will not fit across these two posts. Single banana plugs, spade connectors, or bare wire should be used in bridged mode. The controls for the even-numbered channels take over in bridged mode. \*See WARNING on page 5\*

**THE AMPLIFIER SHOULD BE POWERED OFF (FRONT BUTTON)  
WHEN CONNECTING OR DISCONNECTING SPEAKER CABLES**

# How to Connect and Use the A-1240

## Example One: Connecting the a whole-house audio controller to the amplifier.

Use the Line Outputs on the whole-house audio controller to connect to the Line Inputs on the amplifier channels for each zone.



### Amplifier Settings

Two side-by-side amplifier channels are used for each zone. One side is set to amplify the Right channel of a stereo signal and the other side is set to amplify the Left side of a stereo signal. In our diagram, channel 1 is set to amplify the Right channel and channel 2 is set to amplify the Left channel for the speakers in Zone 1.

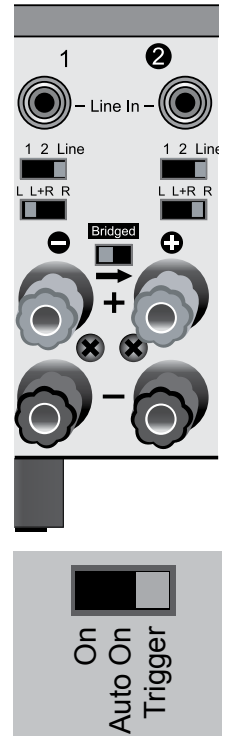
**Level:** Turn the rotary Level knob all the way clockwise to get the maximum power out of the amplifier. You can set the Level at less than maximum to limit the volume output in a zone (e.g. limit how loud a child can play their music). See “Best Practices” under Level Settings on Page 5 for more information.

**Input Selection Switch:** Set to “Line”.

**L, L+R, R Switch:** When the “Line” input is used, this switch is inactive so the setting is irrelevant. However, you might want to set odd numbered channels to Left (L) and even channels to Right (R) just to make it easier to recall which Line Output from the audio controller is being sent to each channel.

**Bridge Switch:** Since you are not bridging the two channels, make sure the Bridge Switch is off (far left position). **\*See WARNING on page 5\***

**On - Auto On - Trigger Switch:** When used with a whole-house audio system, it is best to set this switch to “Trigger” which will have the amplifier power on whenever a keypad is turned on, and return to sleep mode once all keypads are powered off. “Auto On” may not always recognize a low-level source signal coming from the audio controller, i.e. if a zone’s volume is too low, the amplifier might not wake up from sleep mode.

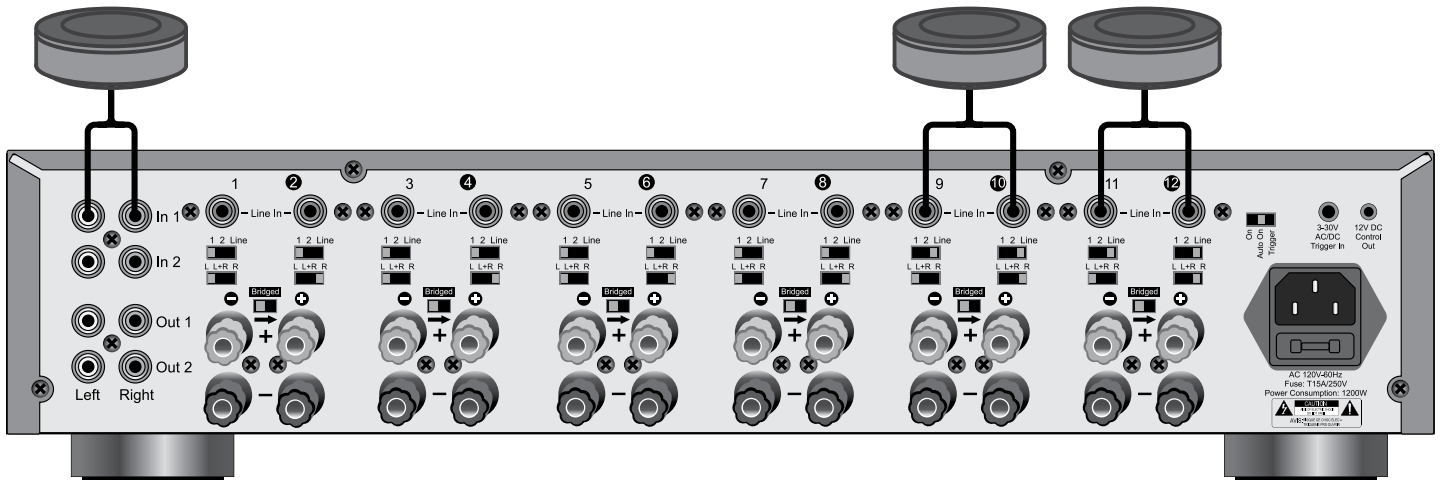




## How to Connect and Use the A-1240

### Example Two: Connecting audio sources to the amplifier.

Use the stereo pre-amp or auxiliary outputs on your receiver and/or component to connect to input 1 (In 1) and/or input 2 (In 2) and/or the dedicated Line Inputs on each channel of the A-1240.



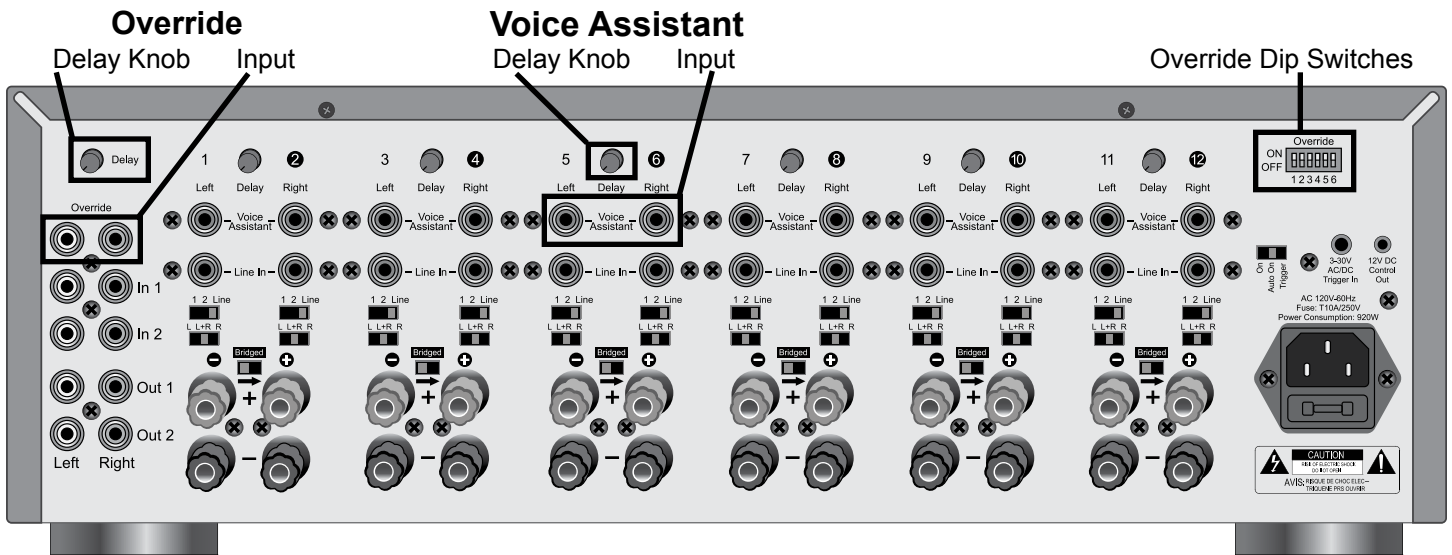
In this example, amplifier channels 1-8 are all set to In 1, alternating Left and Right, and so the speakers connected to these amplifier channels will all hear the source connected to In 1. In this example that source is a music streamer, although it could just as easily have been the variable output of a home theater receiver or some other audio source. Note that controlling the volume output of the music streamer will simultaneously control the volume heard through all of the speakers connected to amplifier channels 1 through 8.

A second music streamer is connected to amplifier channels 9 and 10, but again this could have been any audio source with a variable volume control. If the source does not include a way to control volume, i.e. the output level is “fixed” such as with a traditional CD player, the speakers connected to channels 9 and 10 would require an attenuating volume control be connected somewhere between the amplifier and speakers. This volume control is typically installed in a wall within the same room as the speakers. Music streamers, however, typically either have their own app for controlling output volume, or the app for the music service (such as Spotify and Pandora) being streamed through the streamer will include a way to control volume. In this example, a third streamer is similarly connected to amplifier channels 11 and 12.

In the above example, the speakers connected to amplifier channels 1-12 have been divided into three unique zones, each with just one source available to it. The first zone likely has speakers spread across multiple rooms, while zones two and three are likely in separate areas in or around the home. Note that the app for some music streaming devices allow multiple devices to be grouped together in order to stream the same music service in sync. This means that it is possible for all three zones to play the same thing at the same time (often referred to as “party mode”), while still retaining separate volume control within each of the three zones.

## Features unique to model ASO-1240

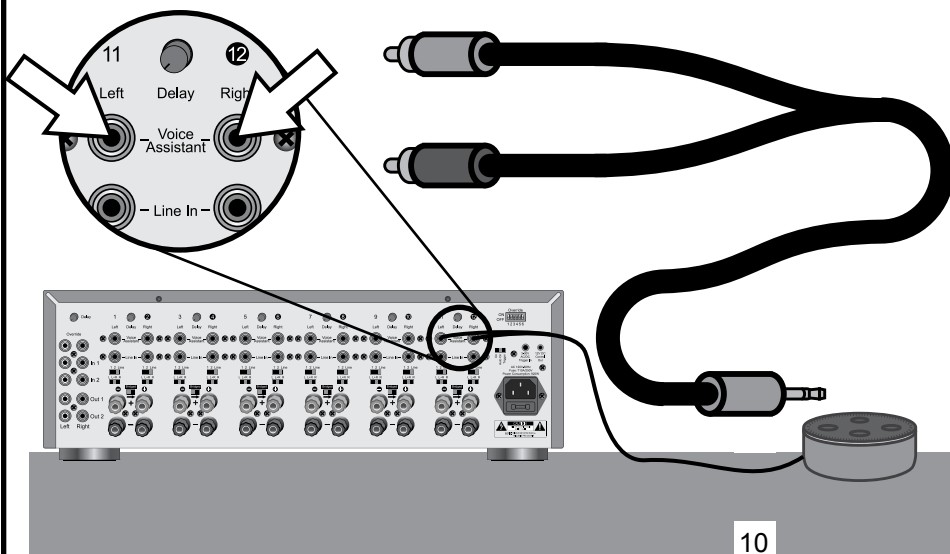
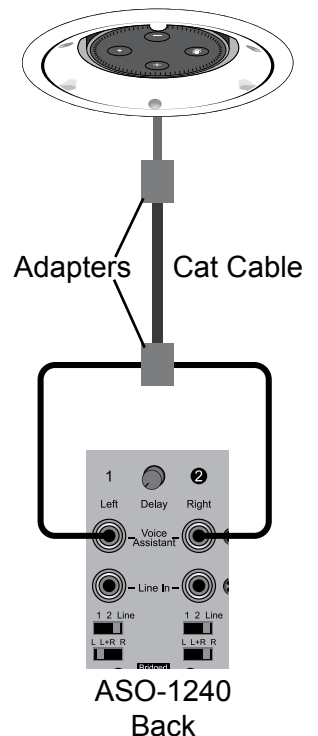
Model ASO-1240 offers an additional feature called ADS not available on the A-1240. ADS stands for Auto Detect and Switch. ADS includes a proprietary circuit specifically designed for use with the variable volume output of music streamers and voice assistant devices. Automatic signal-detection and source-switching means you hear the source you want, when you want . . . automatically!



### Voice Assistant Inputs

The ASO-1240 provides 6 Voice Assistant Inputs for voice assistant devices (VAD), such as the Amazon Echo Dot and Echo Input. When one of these devices outputs an audio signal, such as streaming audio or a response to a voice command, its audio signal takes priority and will override the audio connected to **In 1**, **In 2**, or **Line In**. When no signal is sensed, and after an amount of time set by the rotary Delay Knob (between 0.5 and 30 seconds), the amplifier channels will return to their previous state.

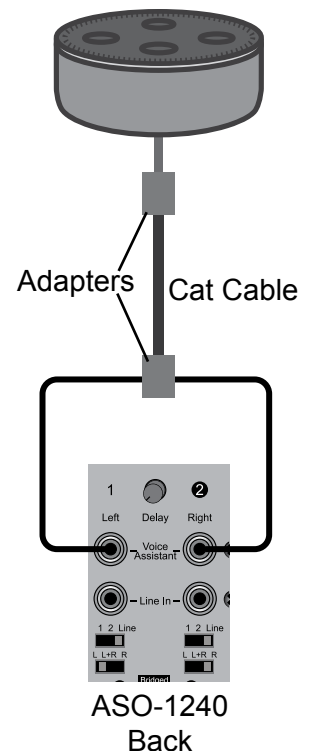
The best way to get the audio signal from the VAD into the ASO-1240 is through the use of one of our Voice Assistant Mounting Kits. These kits “hide” the VAD in the ceiling or wall of the room and use a proprietary set of adapters to power the VAD and transport its audio signal over a single Category 5e or Category 6 cable (Cat 5/6 cable) over distances up to 240 feet.



If you have a Cat 5/6 cable run but prefer to simply place the VAD on a counter or bookshelf rather than installing it in the wall or ceiling, you can power the VAD with its included power supply and purchase a set of audio adapters separately (see diagram to the right).

If you do not have a Cat 5/6 cable available between the VAD and your ASO-1240, you may still have options:

1. If the VAD is located very near your ASO-1240, you can simply connect the two using a shielded audio cable, typically a stereo 3.5mm to stereo RCA cable. See diagram near bottom of page 11.
2. If your VAD is located within about 30 feet of the ASO-1240, you may be able to pair your VAD with a Bluetooth player (sold separately) that you connect to the Voice Assistant Input.
3. If the VAD is located a long distance from the ASO-1240, you may be able to pair the VAD with a second VAD on the same Wi-Fi network that you plug into the Voice Assistant Input. Not all VADs include this feature. Check with the manufacturer of your VAD for details and further instruction.



Worth noting . . .

- Voice Assistant Inputs should be used in stereo channel pairs of 1-2, 3-4, 5-6, 7-8, 9-10, and 11-12.
- The output volume of the VAD is controlled using voice, the app provided with the VAD, or by the service (Spotify, Pandora, Podcast, etc.) streaming through the VAD.
- If the ASO-1240 is in sleep mode, an audio signal sensed by a Voice Assistant Input will automatically “wake up” the amplifier even if the amplifier is set to “Auto-On” or “Trigger”. Because the amplifier requires a few seconds to fully come out of sleep mode, the first few seconds of audio from the VAD may be missed when the ASO-1240 has been asleep.
- It is okay to connect a device other than a voice assistant to the Voice Assistant Input. For certain zones in a whole-house audio system, you may prefer to connect a music streamer, TV or some other device that will have priority and only be available to a particular zone or set of speakers.

## Override

The Override feature includes its own audio-sensing circuit and delay knob. A signal sensed by the Override Input will take priority over all other audio inputs (including Voice Assistant Inputs). By default, all amplifier channels are subject to the Override priority. You can prevent amplifier channels from being overridden by setting the override “dip switch” for those channels to “OFF”. On the dip switch: 1=Amp Channels 1&2, 2=Amp Channels 3&4, 3=Amp Channels 5&6, 4=Amp Channels 7&8, 5=Amp Channels 9&10, and 6=Amp Channels 11&12.

Override is most often used with third-party devices that make security announcements, etc. that need to be heard in place of any other audio. Volume of the override signal is set by the third-party device. The Delay Knob determines how long after the Override signal has been silent before the amp channels return to their previous state. The delay range is approximately 0.5 to 30 seconds.

Specifications	A-1240	ASO-1240
Channels of Amplification:	12 (6 stereo)	12 (6 stereo)
8 ohms RMS Watts Per Channel (all channels driven)	40	40
4 ohms RMS Watts Per Channel (all channels driven)	60	60
Adjacent Channels Bridged @ 8 ohms RMS Watts Per Channel	120	120
Total Harmonic Distortion (THD) 20 Hz - 20 kHz		
8 ohms	.04%	.04%
4 ohms	.06%	.06%
Adjacent Channels Bridged 8 ohms	.09%	.09%
Dimensions (HxWxD)	3.75" X 17" X 15.5"	5.25" X 17" X 15.5"
Net Weight	28 lbs.	30 lbs.



This product has been tested by Intertek, a Nationally Recognized Testing Laboratory (NRTL), and found to be in compliance with accepted national standards.



This device complies with Part 15 of the FCC Rules. Operation is subjected 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.

### Warranty

All SmartAS electronics carry a two-year parts and labor warranty. Warranty registration occurred automatically at the time your order was placed. There is no need to complete or mail in additional paperwork.

**smart**  
Audio Solutions  
www.smartas.us  
469-405-2266