

# AMPLIFIER APPLICATION GUIDE

AMP 100 AMP 102 AMP 110 AMP 210 AMP 310

Power







# **Amplifier Guide**

AudioSource AMP series amplifiers are designed for home and commercial audio distribution systems where high quality sound, flexibility, and reliability are essential. The AMP series offers exceptional value and many features that will make their installation and use easy and convenient.

The AudioSource AMP series consists of 5 amplifier models ranging from 50 watts per channel to 150 watts. The amplifiers share some common features with intelligent industrial design, superior engineering and value as key components to the AMP series success story.

# AMP Series Products..... Value Priced Engineering Excellence!

All models incorporate the following features:

- 1. Bridgeable Outputs
- 2. Dual Stereo Inputs
- 3. Priority Input Switching (Automatic)
- 4. Heavy Duty Aluminum Faceplates
- 5. Stereo Line Outputs
- 6. Separate Volume and Balance Controls
- 7. 5-Way Binding Posts
- 8. A and B Speaker Selector Switches
- 9. Auto On (By-passable)

# **Amplifier Technology**

The AMP 110, AMP 210, and AMP 310 incorporate very precise circuit topology to ensure the best audio reproduction. Dual Differential Error amplifiers ensure linearity and low noise operation. Triple Darlington output stages ensure the amplifier can drive complex speaker loads without adding distortion. In addition, toroidal power transformers are used with large filter capacitors to create stunning audio dynamics.

# **Careful Engineering**

When discussing AMP series products with your contractors it's important to note that the entire AMP series went through rigorous testing procedures in Portland, Oregon by AudioSource's engineering staff. Years of audio engineering experience have been applied to these amplifiers to ensure years of use.

	AMP100		AMP102		AMP110		AMP210		AMP310	
Number of Channels	2		2		2		2		2	
Load Impedance	8ohm	4ohm	8ohm	4ohm	8ohm	4ohm	8ohm	4ohm	8ohm	4ohm
Rated Output Power	50	60	50	75	75	110	90	125	150	225
Frequency Response	20-20kHz		20-50kHz		20-50kHz		20-50kHz		20-50kHz	
Signal to Noise Ratio	100dB		100dB		100dB		100dB		100dB	
Input Sensitivity	1.5Vrms		350mV- 2.8Vrms		350mV- 2.8Vrms		350mV- 2.8Vrms		350mV- 2.8Vrms	
THD at Rated Power	<.2%		<.1%		<.1%		<.1%		<.1%	
Dimensions	2.9"H x 16.5"W x 9.25"D		3.8"H x 16.5"W x 8.25"D		3.8"H x 16.5"W x 13.75"D		3.8"H x 16.5"W x 13.75"D		5.5"H x 16.5"W x 13.75"D	
Weight	12 lbs		14.7 lbs		23.1 lbs		24 lbs		33.1 lbs	







# Applications:

- Ideal for use as a remote amplifier
- Use with Whole House Distributed Audio Systems
- Second Zone Amplifier
- Amplify MP3 Players
- Rear Channel Amplifier for Dolby 6.1 and 7.1 Systems
- Perfect for Computers and Video Games

### Key Features:

- Affordable!
- 2 Independent channels rated at 50 watts into 8 ohms
- 60 watts per channel into 4 ohms
- Independent level and balance control
- Dual Auto-Switching Inputs
- Auto Signal Sensing Power On
- A/B Speaker selector
- Bridgeable

- Power: 50 watts RMS @ 8 ohms
- 60 watts @ 4 ohms
- Less than 0.2% THD into 8 ohms
- Input Sensitivity 1.5 Vrms
- S/N Ratio: 100 dB A-weighted
- Frequency response: 20Hz to 20kHz







# Applications:

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- Use with Whole House Distributed Audio Systems
- Second Zone Amplifier
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- Rear Channel Amplifier for Dolby 6.1 and 7.1 Systems
- Perfect for Computers and Video Games
- Ideal for In-Wall and In-Ceiling Speaker Systems

## Key Features:

- Even More Affordable Power!
- 2 Independent channels rated at 50 watts into 8 ohms
- 75 watts per channel into 4 ohms
- Independent level and balance control
- Dual Auto-Switching Inputs
- Auto Signal Sensing Power On
- A/B Speaker selector
- Front Panel diagnostic LEDs
- Bridgeable
- 12VDC "Trigger On"
- Rack-mount ready

- Power: 50 watts RMS @ 8 ohms
- 75 watts @ 4 ohms
- Less than 0.1% THD into 8 ohms
- Input Sensitivity: 350mV to 2.8Vrms
- S/N Ratio: 100 dB A-weighted
- Frequency response: 20Hz to 50kHz







### Applications:

- Ideal for use as a Remote Amplifier
- Use with Whole House Distributed Audio Systems
- Second Zone Amplifier
- Amplify MP3 Players
- Rear Channel Amplifier for Dolby 6.1 and 7.1 Systems
- Perfect for Computers and Video Games
- Ideal for In-Wall and In-Ceiling Speaker Systems

#### Key Features:

- 2 Independent channels rated at 75 watts into 8 ohms
- Line 1/ Line 2 Priority input switching
- Line 2 Auxiliary output
- Front panel diagnostic LEDs
- Signal sensing "Power On"
- Bridgeable
- 12VDC "Trigger On"
- Speaker A/B Switching
- Triple-Darlington Power Amplifier Stages
- Dual-differential error amplifiers
- Rack-mount ready

- Power: 75 watts RMS @ 8 ohms
- 110 watts @ 4 ohms
- 225 watts @ 8 ohms bridged
- Less than 0.1% THD into 8 ohms
- Input Sensitivity 350mV to 2.8Vrms
- S/N Ratio: 100 dB A-weighted
- Frequency response: 20Hz to 50kHz







## Applications:

- Ideal for use as a remote amplifier
- Single or Dual Zone Amplifier
- Amplify MP3 Players
- Rear Channel Amplifier for Dolby 6.1 and 7.1 Systems
- Excellent Stand-Alone Stereo Amplifier

# **Key Features:**

- Incredible Value!
- 2 Independent channels rated at 90 watts into 8 ohms
- Line 1/ Line 2 Priority input switching
- Line 2 Auxiliary output
- Front panel diagnostic LEDs
- Front panel balance and volume trim controls
- Independent rear left/right master level controls
- Signal sensing "Power On"
- Bridgeable
- 12VDC "Trigger On"
- Speaker A/B switching
- High level inputs
- Triple-Darlington Power Amplifier Stages
- Dual-differential error amplifiers
- Rack-mount ready

- Power: 90 watts RMS @ 8 ohms
- 125 watts @ 4 ohms
- 250 watts @ 8 ohms bridged
- Less than 0.1% THD into 8 ohms
- Input Sensitivity 350mV to 2.8Vrms
- S/N Ratio: 100 dB A-weighted
- Frequency response: 20Hz to 50kHz







# Applications:

- Ideal for use as a remote amplifier
- Single or Dual Zone Amplifier
- Amplify MP3 Players (With Authority!)
- Rear Channel Amplifier for Dolby 6.1 and 7.1 Systems
- Excellent Stand-Alone Stereo Amplifier

#### Key Features:

- Massive Flexible Power!
- 2 Independent channels rated at 150 watts into 8 ohms
- Line 1/ Line 2 Priority input switching
- Line 2 Auxiliary output
- Front panel diagnostic LEDs
- Front panel balance and volume trim controls
- Independent rear left/right master level controls
- Signal sensing "Power On"
- Bridgeable
- 12VDC "Trigger On"
- Speaker A/B switching
- High level inputs
- Triple-Darlington Power Amplifier Stages
- Dual-differential error amplifiers
- Rack-mount ready

- Power: 150 watts RMS @ 8 ohms
- 225 watts @ 4 ohms
- 450 watts @ 8 ohms bridged
- Less than 0.1% THD into 8 ohms
- Input Sensitivity 350mV to 2.8Vrms
- S/N Ratio: 100 dB A-weighted
- Frequency response: 20Hz to 50kHz



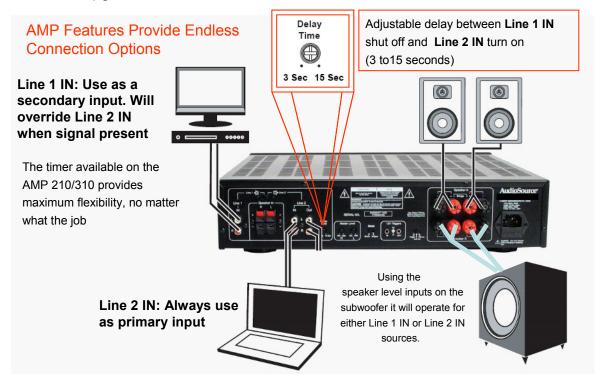
## What products go with the AudioSource AMP Series?

Any Program Source or Speaker You Want to Attain Peak Performance With!

The most exciting feature of the AMP series is the flexibility these products have to connect into any audio system: new or already installed, large or small, high-tech or traditional. This versatility comes from the expansive feature set built into all the AudioSource AMP products. Connect to other AudioSource products, such as the EQ 200, or powered subwoofers PSW 110 and PSW 112. Or connect to any receiver, MP3 player, TV, PC, Satellite Radio, Tape Deck, Phono... or any other source.

- 1. Use the High Level (Speaker Level) inputs on the AMP210/AMP310 to upgrade a zone that has speakers installed already
- 2. Save energy costs with the Auto-on or 12V Trigger-On feature
- 3. Add the ultimate gaming experience to a room using the auto-override feature of the AMP series by plugging in the audio out jack of any gaming console to the Line 1 inputs.
- 4. Add an MP3 player to a distributed audio system that automatically interrupts the regular program material just by pushing "Play"
- 5. A powered subwoofer connects to the AMP by plugging the Line 2 output of the amplifier, or amplified speaker outputs to the subwoofer.

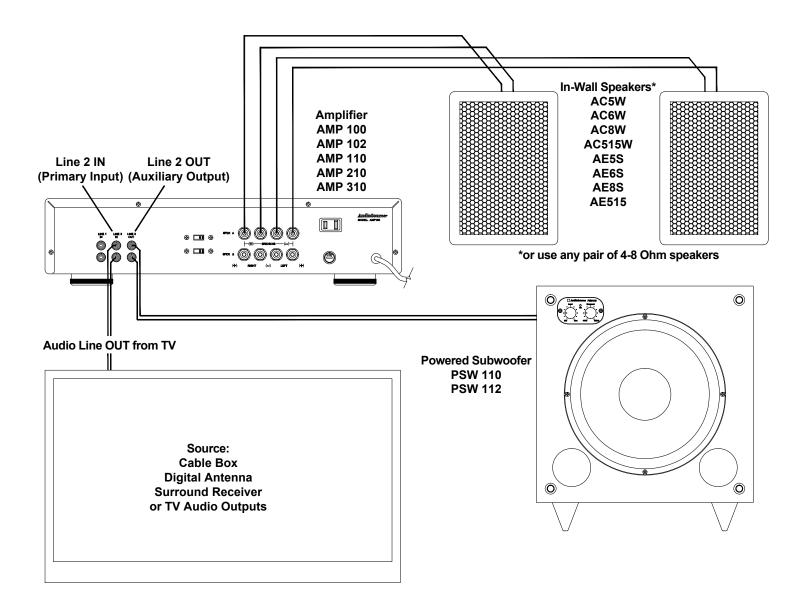
These are all easily planned upgrades that will keep your customers coming back for future upgrades and more audio excitement.





# Applications at a Glance...

The TV sound package provides excellent audio reproduction where television speakers fall short. For customers who don't need a full surround sound home theater but aren't satisfied with the sound coming from their new flat screen TV.

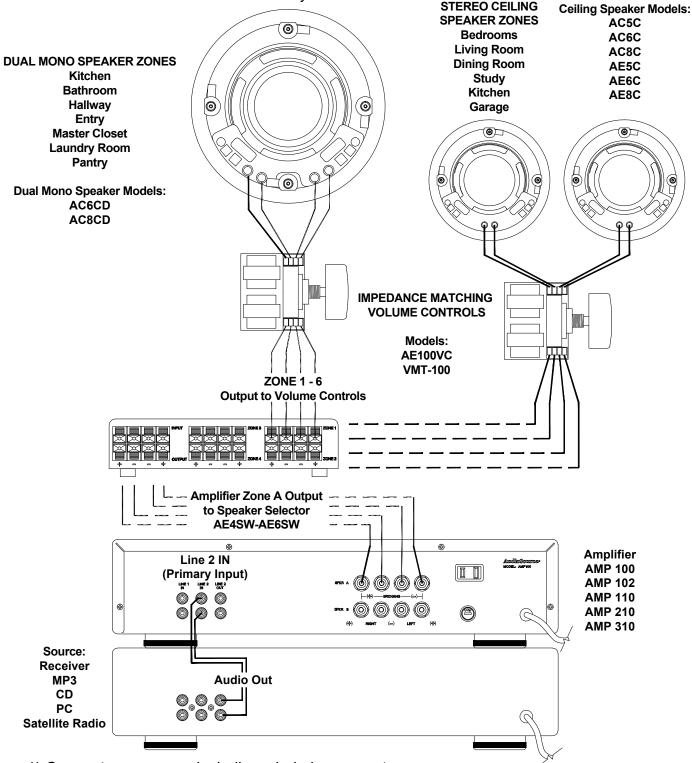


- 1) Easily add excellent TV sound
- 2) Plan future upgrades with amplifier Zone B output



# Applications at a Glance...

Whole house distributed audio is a snap with the added power of AudioSource AMP Series power amplifiers. Just add a selector and/or some impedance matching volume controls and connect to all the desired audio zones you want!

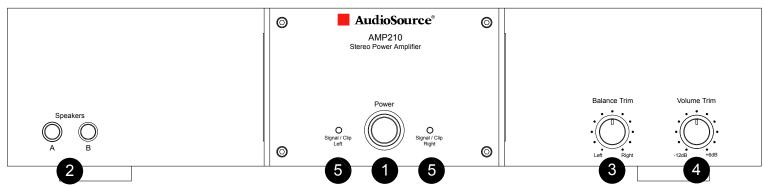


- 1) Connect any source, including whole house systems
- 2) Scale to any number of zones by adding another amp (Line 2 OUT), or another speaker selector (ZONE B OUT).

# AMP Series Products..... Value Priced Engineering Excellence!

Powerful, Flexible, Reliable.

All You Need to Bring Complete Satisfaction to Your Customer.



#### FRONT PANEL CONTROLS

1 Power

The front panel power switch switches the AMP210/310 on or off.

2. Speaker Zone Selector

Selects active speaker output ( A or B )

3. Balance Trim

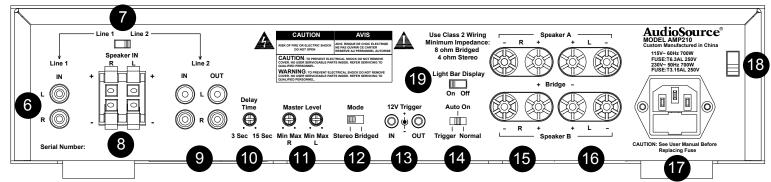
Fades speaker output between the Right and Left Channels

4. Volume Trim

Allows fine adjustment of amplifier volume.

5. Clip LEDs

Blinks red during signal clipping. Reduce volume slightly.



#### **REAR PANEL CONTROLS**

6. Line 1 Input

A switching input that can be used if a second source is desired. Will take over when a signal is present. When there is no signal at this input the amplifier switches back to the Line 2 or "primary" input.

7. Speaker Level Input Line Select

Switches the input of the speaker level input to Line 1 or Line 2.

8. Speaker Level Input

Can be used to connect a source with speaker level output instead of line level outputs.

9. Line 2 Input/Output

The primary line level input and output for a single source connection.

10. Delay Time

Allows for a 3-15 second delay to be set and accommodate the source connected to the Line 1 input.

11. Master Level Controls

Provides independent adjustment of Left and Right channel maximum level.

12. Mode Select Switch

Switches the amplifier from Stereo mode to Bridged Mono mode

#### 13. 12V Trigger

Allows the amplifier to be powered on by other electronics or to power on other electronics via a 3.5mm mini phone plug cable.

14. Power Mode

Set it to Normal for manual power on/off. Set to Auto-On for signal sensing. Set to Trigger when using 12V trigger for on/off.

15. Right Channel Speaker Output

Right channel terminals for speaker outputs A and B.

16. Left Channel Speaker Output

Left channel terminals for speaker outputs A and B.

17. Mains Power Inlet & Fuse Holder

Accepts IEC type line cord. A fuse located in integrated holder provides safety protection from fault conditions: replace fuse with one of same type and rating only.

18. Mains Voltage Selector

Voltage selection switch is preset to 115V (USA). For use in areas which require 230V contact your dealer. Fuse must be of type and rating marked on amplifier for use at local mains voltage.

19. Light Bar Display Control

Turns light bar display on front panel on or off. Does not control Signal/Clip LEDs or power button light ring.



MODEL	WATTS PER CHANNEL			FEATURES AT A GLANCE								
	Stereo 8 Ω	Stereo 4 Ω	Bridged 8 Ω	Channels	Inputs	Priority Input Switching	A/B Speaker Selection	Auto- On	12v Trigger	Rack Mount Ready	High Level Inputs	
AMP 100	50	60	160	2	2	✓	✓	<b>√</b>	X	X	X	
AMP 102	50	75	150	2	2	✓	✓	✓	✓	✓	X	
AMP 110	75	110	225	2	2	✓	✓	✓	✓	✓	X	
AMP 210	90	125	250	2	2	✓	✓	✓	✓	✓	✓	
AMP 310	150	225	450	2	2	✓	✓	<b>√</b>	✓	✓	✓	



**HEARD NOT SEEN** 

HERE AT AudioSource, we understand the power and importance of sound. That's why we've been connecting people to it for over 20 years. By powering, connecting and projecting its flow, we feel we have a responsibility: to create the best in sound quality. In this pursuit, we make no compromises. Our functional designs improve performance, and through expert and efficient engineering, we ultimately produce higher quality products at a great value.

We know not everyone will notice, but to those who understand and appreciate the small elements that make a difference in the flow of sound, we believe AudioSource's products stand alone.

See all of our products at www.audiosource.net

