



PA2100 OWNER'S MANUAL



PA2100

Stereo Power Amplifier

FEATURES:

- MAIN / INTERRUPT priority input switching
- MAIN auxiliary output
- Speaker A/B switching
- Signal sensing "Power On" and Trigger mode
- Rear mounted treble and bass controls
- High level input
- Front panel balance and volume trim controls
- Independent rear left / right master level controls
- Front panel diagnostic LEDs
- Triple-Darlington Power Amplifier Stages
- Dual-differential error amplifiers
- Rack-mountable

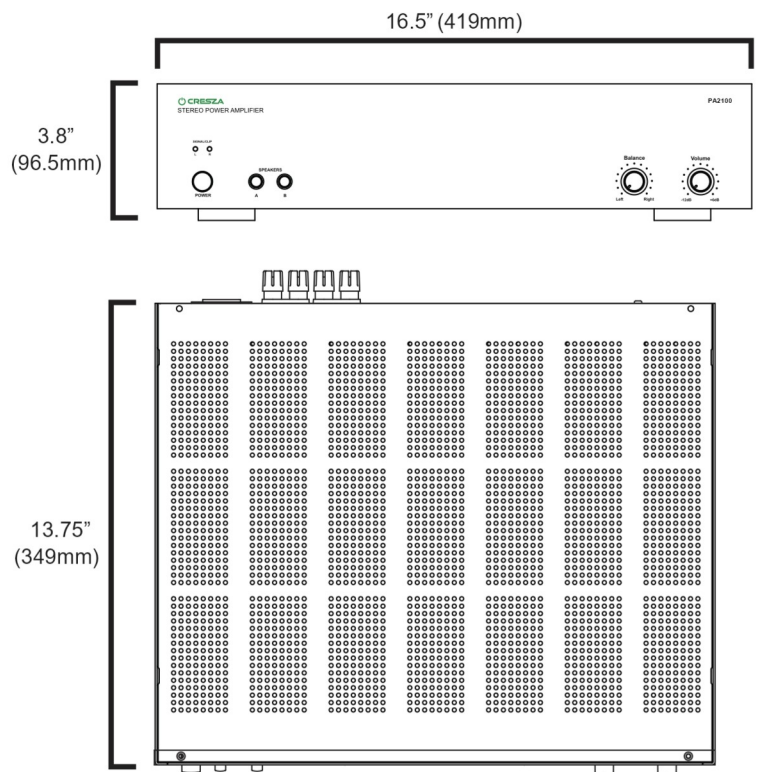
SPECIFICATIONS

Stereo (8 ohm):	100W per channel, <0.2% THD+N
Stereo (4 ohm):	125W per channel, <0.2% THD+N
Bridged Mono (8 ohm):	250W, 1kHz, <0.2% THD+N
Frequency Response:	10Hz ~ 50kHz, +0dB/ -3dB
Signal to Noise Ratio:	100dB below 100W output into 8 ohms
Channel Separation:	70dB @ 1kHz, referred to 100W output into 8 ohms
Input Sensitivity:	Variable, 350mV to 2.8V for rated power into 8 ohms
Bass/Treble Control:	+/- 12dB @ 100Hz and 10kHz
AC Power Consumption:	700W maximum
Net Weight:	24lbs / 10.9kgs
Gross Weight:	30lbs / 13.6kgs

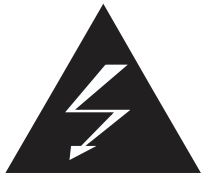
Congratulations on your purchase of the CRESZA PA2100. Please take a few moments to read this entire manual, and be sure to retain this document for future reference. Please read and observe all safety instructions detailed on page 2.

NOTE: If any part of this product is damaged or missing, please call your dealer or AudioSource® directly at 1.877.715.5439 or 503.914.4688

Please read your warranty and retain your receipt and original carton for possible future use.



CRESZA
13970 SW 72nd Ave
Portland, OR 97223
503.914.4688



CAUTION

RISK OF ELECTRICAL SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL!



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 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 plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or 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 the plugs, convenience receptacles, and at the point of exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug the apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified 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 has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.
16. WARNING: The mains plug/appliance coupler is used as disconnect device, the disconnect device shall remain readily operable.



17.
 - This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.
 - Warning: To reduce the risk of electric shock, do not remove cover (or back) as there are no user-serviceable parts inside. Refer servicing to qualified personnel.
 - The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.
18.  Protective earthing terminal. The apparatus should be connected to a mains socket outlet with a protective earthing connection.
19.  Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.
20. No naked flame sources, such as lighted candles, should be placed on the apparatus.
21. Do not install this equipment in a confined or building-in space such as a book case or similar unit, and remain a well ventilation openings with items such as newspaper, table-cloths, curtains etc.
22. WARNING: for the terminals marked with symbol of "⚡" may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.
23. CAUTION: These servicing instructions are for the use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
24. Class 2 wiring: To reduce the risk of electric shock, The external wiring connected to the terminals marked with "class 2 wiring" requires installed with class 2 wiring by an instructed person or the use of ready-made leads or cords.
25. This apparatus is for professional use only.

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.



Figure 1. Front Panel

FRONT PANEL CONTROLS

- 1. Power Switch**
Switches the PA2100 on or off.
- 2. Clip LEDs**
Blinks red during signal clipping. Shows solid red during protect mode. Check speaker wires for shorts or extreme low impedance (< 4 ohms).

- 3. Speaker Selector**
Selects speaker zone A or B. For A + B zones push both buttons in.
- 4. Balance**
Fades speaker output between the Right and Left Channels
- 5. Volume**
Trims amplifier volume from -12dB to +6dB referenced to the rear panel Level controls.

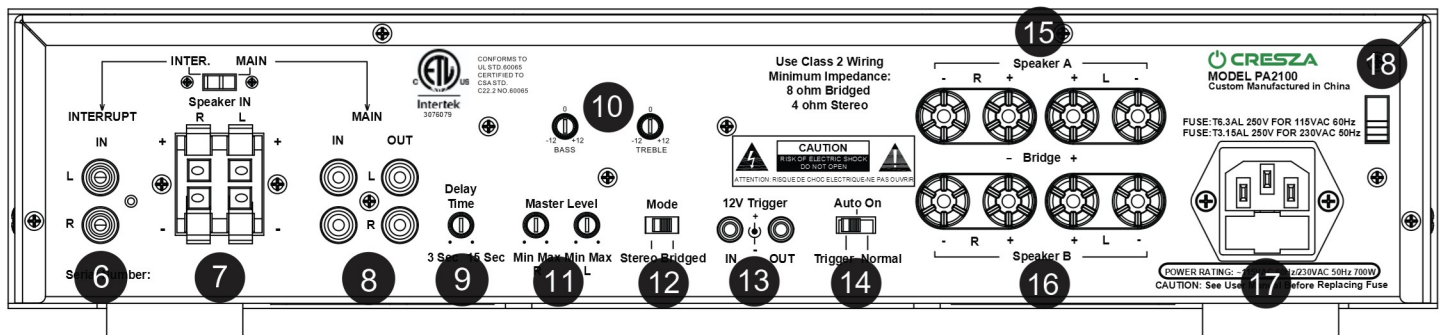


Figure 2. Rear Panel

REAR PANEL CONTROLS

- 6. Interrupting Line Input**
This is the secondary input, use MAIN IN for your main input. INTERRUPTING INPUT can be used if a second source is desired and takes over when signal is present and has at least a 5mV level. When there is no signal, or a signal with less than 5mV level, the amp switches back to MAIN IN after a brief delay.
- 7. Speaker Level Input/Speaker Level Input Line Select**
Can be used to connect a source with speaker level output instead of line level outputs. Use the Speaker Level Input Line Select to route the source to either Main Input or Interrupt Input function.
- 8. Main Input/Output**
MAIN IN should be used as the "primary" or main input for the amplifier. Connect your receiver or main source to this input. Use MAIN OUT to pass MAIN IN signal to another amplifier.
- 9. Delay Time**
Allows for a 3-15 second delay to be set and accommodate the source connected to the Interrupting Input.
- 10. Bass and Treble Controls**
These controls can adjust bass and treble frequencies +/- 12dB at 100Hz and 10kHz.
- 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 mode.
STEREO MODE
If you will be connecting one or two pair of speakers to the amplifier, place the switch in the "Stereo" position. NOTE: For playing 2 pairs of speakers (A plus B), make sure each speaker has an impedance of 8 ohms or greater.
BRIDGED MODE
When set to "Bridged" mode, the amplifier is a single channel mono amplifier.
BRIDGED MODE- MONO APPLICATION
For bridged mode, playing Right and Left together as mono output, use a Y cable adapter to connect Right and Left RCA signal to the Right (Red) input at MAIN IN. Set the MODE switch to BRIDGED and follow the instructions for bridged speaker connection in the SPEAKER TERMINALS section of this manual.
NOTE: The PA2100 supplies 250W in bridged mode, Please verify that your speakers are capable of handling such power to avoid possible damage!

- 13. 12V Trigger**
Allows the PA2100 to be powered on by other electronics or to power on other electronics via a 3.5mm mini phone plug cable.
- 14. Power Mode**
Sets the power on option of the PA2100. Set it to Normal for manual power on/off. Set to Auto-On for signal sensing power up. Set to Trigger if the 12V Trigger input is used.
- 15. Speaker Zone A Output**
Speaker output terminals for zone A. Minimum impedance: 8 ohm bridged or 4 ohm stereo.
- 16. Speaker Zone B Output**
Speaker output terminals for zone B. Minimum impedance: 8 ohm bridged or 4 ohm stereo.
SPEAKER TERMINALS - STEREO MODE
For stereo output connect the speaker's positive (red) terminal to the amplifier's positive (red) terminal, and the speaker's negative (black) terminal to the amplifier's negative (black) terminal for each Right and Left speaker.
SPEAKER TERMINALS - BRIDGED MODE
Place the "MODE" switch in the "BRIDGED" position and use both red terminals to connect to the speaker. Connect the speaker's positive (red) terminal to the amplifier's red (+) terminal noted next to the bridging mark, and the speaker's negative (black) terminal to the amplifier's unmarked positive (red) terminal.
NOTE: Only one zone (A or B) can be bridged. Do not attempt to bridge both A and B speaker terminals! This may result in a lower impedance than the amplifier is designed for and may damage your amplifier. The minimum impedance for the total load connected in bridged mode is 8 ohms.
NOTE: Use Class 2 wiring for speaker connections.
To wire the output connector: 1. Strip the insulation off each speaker wire to expose 3/8" (10 mm) of bare conductor. 2. Unscrew the output terminal binding post several twists, insert each wire into the correct terminal. 3. Tighten binding post by twisting clock-wise until it is firmly clamping the speaker wire.
Warning: While the amplifier does self-protect under most improper output conditions, misconfiguration of loudspeaker mode and incorrect connection of loudspeakers could damage connected loudspeakers and/or amplifier. Please refer installation to a qualified installation professional, and always check state and local electrical codes when installing.

17. Mains Power Inlet & Fuse Holder

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

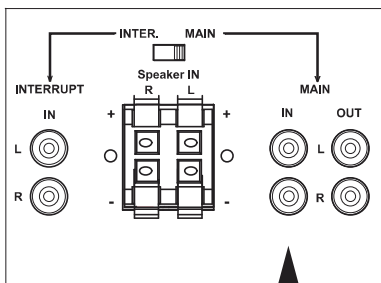
18. Mains Voltage Selector

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.

APPLICATIONS

STEREO SETUP

In this configuration, the mode switch is set to "Stereo". Connect the line out jacks from a stereo pre-amplifier or source to the MAIN input jacks of your PA2100. Next connect your speakers to the terminals marked "Speaker A" observing proper polarity. Select the "A" speakers using the front panel zone selection buttons. Connect a second (optional) pair of speakers to the terminals marked "Speaker B". If you are connecting 4 speakers to the PA2100 they must be 8 ohm speakers only. Press A and B together to use both zones.



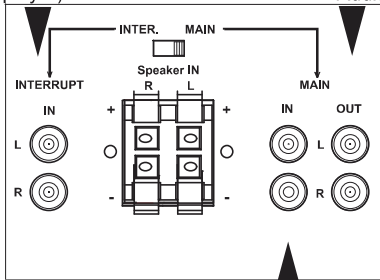
Use these Inputs to connect
Pre-amp or Receiver Line Out

SETUP FOR MULTIPLE SOURCE

In the multiple source set up, a distributed audio system is connected to the PA2100 as a local zone amplifier via the MAIN inputs. Normally the distributed audio system will be the audio source for the PA2100. The distributed audio is then passed on to be used by additional zones or sub zones in the distributed system via the MAIN outputs.

Connect Local Source
Line Out here (such as
.mp3 player)

Line Out to
Additional Zones



Use these Inputs to connect
Pre-amp or Receiver Line Out

The audio output of a local source, such as an MP3 Player, CD, television, computer, etc., is connected to the PA2100 via the INTERRUPTING inputs, and whenever the local source is active its signal will take priority over the distributed audio signal present at MAIN input. However, the distributed audio signal will still be present at the MAIN input. In this circumstance the audio output of the local source will be heard via the PA2100. Once the local source is turned off or muted, the PA2100 will automatically switch back to the distributed audio system as an audio source, assuming the local source remains inactive. There is a delay of up to 6 seconds when switching from INTERRUPTING input back to MAIN inputs.

Limited Warranty

CRESZA warrants its amplifier products against defects in materials and workmanship for a limited period of time. For a period of two years from date of original purchase, we will repair or replace the product, at our option, without charge for parts and labor. Customer must pay all parts and labor charges after the limited warranty period expires. The limited warranty period for factory refurbished products expires after ninety (90) days from date of original purchase.

This limited warranty applies only to purchases from authorized CRESZA electronics retailers. This limited warranty is extended only to the original purchaser and is valid only to consumers in the United States.

Consumers are required to provide a copy of the original sales invoice from an authorized CRESZA dealer when making a claim against this limited warranty. This limited warranty only covers failures due to defects in materials or workmanship that occur during normal use. It does not cover failures resulting from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, modification, service by anyone other than CRESZA, or damage that is attributable to Acts of God. It does not cover costs of transportation to CRESZA or damage in transit. The customer should return his defective product, freight prepaid and insured, to CRESZA only after receiving a Return Authorization.

This warranty will become void if the serial number identification has been wholly or partially removed, altered or erased. Repair or replacement under the terms of this warranty does not extend the terms of this warranty. Should a product prove to be defective in workmanship or material, the consumer's sole remedies will be repair or replacement as provided under the terms of this warranty. Under no circumstances shall CRESZA be liable for loss or damage, direct, consequential or incidental, arising out of the use of or inability to use the product. There are no express warranties other than described above.