



## ACOUSTIC ARRAY™ PRO



### OWNER'S MANUAL

#### FEATURES:

- Ultra Lightweight 27lb Compact Design
- 10" Woofer w/4 x 2.5" Cone-driver Line Array
- XLR Mic and 1/4" Instrument Inputs
- Phantom Power for Condenser Mics
- Signal Phase Reverse Switch
- Bottom Speaker Stand Mount
- Innovative Acoustic Array™ Speaker System
- Slanted Cabinet Design for Improved Projection
- Two Identical Preamp Channels w/Active EQ & Sweepable Mids
- Unique Contour Circuit for Quick Tonal Adjustments
- Adjustable Digital Reverb and Chorus on each Channel

**PRODUCT DESCRIPTION** – The **ACOUSTIC ARRAY™ PRO** represents the next generation in professional acoustic instrument amplification. The innovative speaker system features a 10" woofer and integrated 4 x 2.5" cone-driver line array element which delivers smoothness, clarity, dynamics and dispersion like no other acoustic amplifier available. This array system design reproduces the natural tone of the acoustic stringed instrument and greatly increases the horizontal dispersion and projection, providing even response across the performance area. The electronics feature our dual channel preamp design, light-weight Class D power section, and a full featured rear panel interface. All together the **ACOUSTIC ARRAY™ PRO** offers the most pure and natural reproduction of the acoustic instrument along with ease and versatility in set up and performance.



## FRONT PANEL

The **ACOUSTIC ARRAY™ PRO** offers a full featured preamp design with 2 identical channels.

**MIC INPUT** – This jack is a balanced XLR microphone level input which contains an “RFI” filter (radio frequency interference) to eliminate unwanted noise. It also provides IEC P12(L) phantom power (12 volt) which works well with most microphones found in the live sound industry. If a microphone requiring a higher voltage is to be used then an appropriate external phantom power supply can be added in line.

**NOTE** – To prevent audible pops and unwanted noises, it is recommended that you turn down the PREAMP VOLUME on the appropriate channel anytime you are connecting to or disconnecting from the MIC inputs.

**INST INPUT** – This jack is a standard 1/4” unbalanced instrument input. The INST input stage contains an FET input buffer circuit with an input impedance of 5 Meg ohms, a 40 Hz active high pass filter, and an “RFI” filter to eliminate unwanted noise.

**COMBINING MIC AND INST INPUTS** – A unique feature of the **ACOUSTIC ARRAY™ PRO** is the ability to mix the MIC (XLR balanced) and INST (1/4” unbalanced) inputs. This effectively allows the amplifier to function as a 4 channel amplifier. The most effective way to use this feature is to first set the PREAMP VOLUME, CONTOUR, and EQUALIZATION on the desired channel using the MIC input and then adjust the level and tone controls on the instrument itself (assuming that it has them) to blend the levels and tone between the MIC and INST inputs. The amp’s channel EQUALIZATION and CONTOUR will be common to both the MIC and INST inputs for that channel.

**CLIP LED** – This LED shows the operating status of the preamp channels and EQUALIZATION stages. When this LED flashes, clipping of the preamp channels or EQUALIZATION stages is occurring or about to occur. Adjusting the PREAMP VOLUME or the relevant EQUALIZATION controls down will remove the clip condition. Adjust the final overall volume with the amp’s MASTER VOLUME.

**PREAMP VOLUME** – This control sets the preamp’s input volume level for both the MIC and INST inputs.

**PHASE SWITCH** – This switch reverses the phase of the instrument’s signal. By reversing the phase, feedback can be reduced if caused by sympathetic vibrations between the speaker system and the instrument. Under some conditions, changing the phase can drastically improve the acoustic output from the amplifier and can improve the playability of the instrument.

**CONTOUR** – Our unique CONTOUR circuit offers a continuously variable pre-shaped curve that boosts lows and highs while simultaneously cutting mid frequencies. The slope is fairly gentle which keeps the tone shaping very musical. This curve covers a wide frequency range and can be used by itself or in conjunction with the EQUALIZATION controls. When the SHAPE control is all the way off (CCW) the CONTOUR response curve is completely FLAT.

**EQUALIZATION** – The **ACOUSTIC ARRAY™ PRO** contains an active 3 band equalizer with a sweepable parametric mid-range frequency control. The mid-range filter is typically (but not always) used to reduce or remove offending frequencies in the instrument or room response; or to boost response to achieve a particular voicing. Spend some time experimenting so that the process becomes creative as well as corrective.

- LOW:** +/- 15dB boost/cut shelving curve with a corner frequency of 75Hz
- MID GAIN:** +/- 15dB boost/cut of the variable mid frequency selected
- MID FREQ.:** Variable mid frequency from 200Hz-5kHz
- HIGH:** +/- 15dB boost/cut shelving curve with a corner frequency of 7.5kHz

**EFFECTS** – Each channel has its own set of REVERB and CHORUS level controls that provide the user with the most flexibility in having either or both effects on either channel.

- REVERB:** This control sets the level for the amount of Reverb effect.
- CHORUS:** This control sets the level for the amount of Chorus effect.

#### **MASTER SECTION –**

**REVERB TIME:** This control adjusts the decay time of the internal digital reverb effect. The more the control is turned clockwise the longer the decay time. This provides a wide range of useable reverb effects. A good starting point for this control would be a setting around 11 o'clock to 1 o'clock. Turning this control to 0 turns off this effect entirely. The volume of this effect is controlled by the Channel REVERB control.

**CHORUS RATE:** This control adjusts the rate and depth of the digital chorus effect. The more the control is turned clockwise, the faster the chorus rate and the shallower the depth of the effect. A good starting point for this control would be a setting around 10 o'clock to noon. Turning this control to 0 turns off this effect entirely. The volume of this effect is controlled by the Channel CHORUS control.

**MASTER VOLUME:** This control adjusts the overall volume of the amplifier and also adjusts the input level of the EFFECTS LOOP RECEIVE and AUX INPUT jacks. Typically, best results are obtained when this control is operated between the 9 o'clock and 3 o'clock positions.



**CUSTOM CONTROL KNOBS** – We've included custom designed control knobs which offer marker lines for precision adjustments and a "finger positioning dip" so that the player can know the knob position by tactile feel alone.





## REAR PANEL

**DIRECT OUTPUTS** – Three XLR balanced DIRECT OUTPUTS are provided for connection to PA systems, recording interfaces, or external power amplifiers. CHAN 1 and CHAN 2 outputs are post-channel volume/pre-EQ/pre-effects (to take advantage of the dual inputs on each channel) while the CHAN 1+2 output is pre-master volume/post-EQ/post-effects to aid in sending out a “finished” mixed signal. The DIRECT OUTPUTS signal grounds may be connected or lifted using the GLOBAL PIN 1 switch. This switch lifts pin 1 on all of the DIRECT OUTPUTS to eliminate hum or buzz due to ground loops between the **ACOUSTIC ARRAY™ PRO** and other equipment connected to the DIRECT OUTPUTS. These outputs are fully protected against phantom power and may be used for driving lines of up to 300 feet.

**INTERNAL EFFECTS CANCEL** – Either internal effect may be cancelled globally by connecting a standard 2 button latching style footswitch with a ¼” TRS (tip/ring/sleeve) connector into this jack. Shorting the tip to the sleeve cancels the Reverb, and shorting the ring to the sleeve cancels the Chorus. (Footswitch not included).

**EFFECTS LOOP** – A rear panel effects loop (SEND and RECEIVE) is provided for connecting “serial” outboard devices such as compressors and may also be used for parallel type outboard devices (delays, reverbs, harmonizers, octavers etc.) by using the mix control located on the outboard device. This loop is located right before the MASTER VOLUME control and is also intended as a Preamp Out / Power Amp In connection for possible “chaining” of amplifiers in a Master / Slave configuration. The effects loop contains a “normal switch” in the RECEIVE jack that interrupts the signal path when a plug is inserted into the RECEIVE jack. The SEND jack may be used for an aux. output without breaking the signal path.

**AUX INPUT** – A 1/4” stereo line level auxiliary input is provided that sums directly to the main output bus controlled by the MASTER VOLUME control. This input is ideal for practicing or performing with recorded tracks from a CD player, IPOD/IPAD, cell phone, or MP-3 player. This input is a tip-ring-sleeve type jack with built-in summing resistors that sum left and right signals when used with a stereo cable. This input will also work with a mono tip-sleeve plug. Adjust the level of the playback source to balance with the instrument’s volume.

**HEAD PHONES** – A 1/4” TRS jack is provided for connection to headphones for silent practice use. Do not connect this output to anything but headphones.

**NOTE** – For silent practice use, the combo’s internal speakers will need to be disconnected at the amplifier’s speaker output jacks, however there is no danger in operating the amplifier without any type of speaker load connected.

**POWER AMPLIFIER** – The **ACOUSTIC ARRAY™ PRO** uses a state of the art, class D power amplifier design and a high frequency auto-sensing universal switch-mode power supply (SMPS) to achieve unprecedented high performance and lightweight packaging. For international use there are no voltage switches to change or jumpers to move. This SMPS senses the line voltage from 100-240 Volts and automatically configures itself for the correct voltage. The detachable mains IEC power cable with the proper plug configuration for the voltage source and country of operation is required.

**SPEAKER OUTPUTS** – The **ACOUSTIC ARRAY™ PRO** offers 2 paralleled ¼” speaker outputs. The combo speaker load is 8 ohms and an additional 8 ohm cabinet may be added for a total load of 4 ohms, producing 300 watts of total output.

**POWER INLET CONNECTOR AND POWER SWITCH** – The **ACOUSTIC ARRAY™ PRO** utilizes a rear panel power switch and power inlet connector. Use the correct mains IEC power cord required for the country where the amp is to be used. The power supply auto-senses the correct voltage from 100V to 240 volts, 50 to 60 Hz for worldwide use.

**NOTE** – There is no externally accessible AC mains (line) fuse. The internal fuse is integral to the SMPS power supply and is not user serviceable. This fuse will not fail except under very unlikely fault conditions to the SMPS. If this occurs a qualified service technician is required to correct the problem.

**SPEAKER SYSTEM DESIGN** – The heart of the **ACOUSTIC ARRAY™ PRO** design is the combination of a 10” woofer in a ported chamber and an integrated 4 x 2.5” neodymium cone-driver line array placed directly in front of the woofer. This allows all of the audio to project from a single point source for a more even and seamless projection of all frequencies. The response benefits of this design are unparalleled clarity, definition and detail, ideal for the complexity of the chords and tonal variations of acoustic instruments. Additionally, because the array column reproduces the mid and high frequencies without a tweeter, the top end clarity is even, articulate and smooth – without excessive hiss or harshness. Other major benefits of this design are increased horizontal dispersion, more precise vertical pattern control and deeper projection into the performance space.



**CABINET DESIGN** – The **ACOUSTIC ARRAY™ PRO** offers a unique cabinet shape that uses a 6-degree upward slant of the speaker baffle for optimum projection and affords easy access to the control panel. This cabinet shape is ideal for tight stages and provides superior audience coverage. The cabinet is constructed of multi-layer poplar plywood covered in an attractive dark brown/black vinyl and comes with nickel corners and a soft molded strap handle. A metal speaker grille is used with a center “pleat” to protect the line array speakers, and soft rubber feet and a bottom mounted stand-adaptor round out the lower portion of the cabinet.





**SPEAKER STAND MOUNTABLE** – The cabinet design offers a 35mm metal stand-mount socket in the bottom of the cabinet for stable mounting to a speaker stand and extends the usability of the **ACOUSTIC ARRAY™ PRO** as an acoustic PA. For many performance venues this helps to get the projection of the speaker system above the heads of the audience.

**OPTIONAL COVER** – A heavy-duty padded cover is offered for full protection while in transit. This is much more than a dust cover and offers thick Cordova covering for protection against the elements and heavy padding for the bangs and knocks of the road.



## SPECIFICATIONS

### ACOUSTIC ARRAY™ PRO

Rated Power: 150 watts @ 8 ohms; 300 watts @ 4 ohms

Speaker System Freq. Response: 60 - 20KHz

Dimensions: 16.75" H x 15.75" W x 13.75" D

Weight: 27 lbs

Product Type:	Audio Amplifier
Product Name:	<b>ACOUSTIC ARRAY™ PRO</b>
Model Number:	AA-PRO (all versions)
Operating Power Condition:	100~240V, 50/60 Hz
Effective Date:	11/01/2017

## SAFE OPERATING REQUIREMENTS:

- Never set an amplifier on anything that will tip over or collapse under its weight.
- Provide a minimum distance of 1 inch (25.4mm) around all sides of the amplifier for sufficient ventilation. The ventilation should not be impeded by covering the amplifier's vent openings with items such as newspapers, tablecloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the **ACOUSTIC ARRAY™ PRO** amplifier.
- This amplifier should not be exposed to dripping or splashing and no objects filled with liquids, such as vases or drinks, should be placed on this product.
- The **ACOUSTIC ARRAY™ PRO** amplifier should be connected to a mains outlet (power receptacle) with a protective earth (ground) connection at all times.
- The amplifier's mains plug (power plug) is considered the disconnect device and the connection must remain accessible at all times.
- This amplifier is capable of producing sound pressure levels that may cause hearing loss.
- There are no user serviceable parts and hazardous operating voltages are present inside this unit. Always consult a qualified repair facility for service.

## WARNING!

- The use and operation of this device constitutes an agreement of full release of any and all liability connected with its use. Only persons familiar with the operation of high-powered professional audio equipment should attempt to operate this device.
- In addition, by use of this device, the user agrees to hold **GENZLER® AMPLIFICATION** and its designers, sales agents and all other affiliates and related parties harmless in the event of any accident, injury, damage, or loss resulting from such use.
- Manufacturer's sole responsibility is to provide a warranty on the specified performance of the product under normal operating conditions for a period of 3 years.

## WARRANTY:

- **GENZLER® AMPLIFICATION** warrants the **ACOUSTIC ARRAY™ PRO** to be free from defects in materials and workmanship for a period of 3 years from the date of purchase, when purchased from an authorized **GENZLER® AMPLIFICATION** dealer.
- This warranty does not cover normal wear and tear incurred from the normal designed use of the product.
- This warranty is effective only if a copy of the original sales receipt is presented at the time of warranty service.
- All warranty service must be performed by a **GENZLER® AMPLIFICATION** authorized service center.
- Before returning any unit for service, a returned merchandise authorization number (RMA#) must be obtained by emailing [support@genzleramps.com](mailto:support@genzleramps.com).
- This warranty is valid in the US & Canada only. For all products sold outside the US, warranty is handled through our international dealer or distributor for that country.
- All warranty registration must be completed on our website. We request that warranty registration be completed within 10 days of purchase.
- For complete warranty information and registration visit: [www.GENZLERAMPLIFICATION.com](http://www.GENZLERAMPLIFICATION.com).

**GENZLER® AMPLIFICATION LLC**

BROOKLYN, NY 11215 U.S.A.

Email: [info@genzleramps.com](mailto:info@genzleramps.com)

Form: AA-PRO-OM-REV1