The AC1000 Sound System

There are many ways to use the versatile AG1100, here are a few possible configurations:

1. **Line Out Jack**: This jack is used to connect a power amplifier or other power source to the system.
2. **Effects Send Jack**: The SEND jack is used to send the output of the effects processor to another device.
3. **Effects Return Jack**: The RETURN jack is used to receive the processed signal from another device and return it to the system.
4. **Headphone Jack**: The HEADPHONE jack is used to connect headphones to the system.
5. **Microphone Jack**: The MIC jack is used to connect a microphone.
6. **External Speaker Jack**: The EXTERNAL SPEAKER JACK is used for connecting external speakers.

The AC1000 is designed to accommodate external speakers, allowing for a more powerful and rich sound output.
MONO HIGH POWERED PA SYSTEM SETUP:
Here the AG100 is used as a system mixer with the internal speaker as a stage monitor and an external high powered amplifier driving two main speakers for the audience. Also an external speaker is shown added for a possible second stage monitor.

1. REV/EFF RETURN CONTROL
The REV/EFF return level control is the volume control for the internal reverb tank. If the effects loop is being used, this is the effects return volume control. The volume controls the amount of reverb heard in the amplifier's speaker, headphones, and the line out. Use this volume to increase the loudness and decrease the decay of the internal reverb tank.

2. THE 5 BAND GRAPHIC EQUALIZER
The 5 band Graphic EQ provides an added degree of tonal flexibility to the over all sound of all three channels.

The Frequencies:
Here are some tonal reference ranges for the individual sliders to help relate the frequencies in hertz to perceived tonal changes.

In order from left to right:
- the 100 and 250 Hz are for low bass and low mid adjustments.
- the 800Hz is for high mid adjustments.
- the 4KHz and 8KHz are for treble and high treble adjustments.

Adjusting:
To properly use the Graphic EQ, set all sliders to their center detent position. When the sliders are in this position, they do not affect the audio signal. When a slider is raised or lowered about the center position, it boosts or cuts, respectively, the level of a narrow frequency band assigned to that particular slider. Typically low frequency feedback is in the 125 and 250 Hz range while high frequency feedback is in the 4KHz range. Occasionally one frequency (slider) of the equalizer will have to be pulled down to -12dB to stop feedback. If many of the sliders have to be pulled down to stop feedback move the microphone or acoustic guitar away from the amplifier and try adjusting the EQ again. As much as possible try not to let the microphone front face the speaker. The graphic EQ affects all three channels, so making adjustments for one channel may not work for the other two. For example adjustments for a guitar may make the microphone feedback. Don't be afraid to use the Graphic Equalizer, but take care to listen to any changes made on all three channels.

3. POWER LED
The power LED indicates when the AG100's power is on.
controls are of the type which can be adjusted with a small knob at 100Hz and 10kHz. 

 when the right speaker is in use, it is recommended to use the right speaker.

7. External Speaker: The speaker in the external speaker system (recommended 100 Watt minimum) can be plugged directly into the subwoofer. For equal volume with the external speaker (recommended 100 Watt minimum) can be plugged directly into the subwoofer.

8. Headphone: The headphone plugs into the headphone jack. The headphone plug is a 1/4" phone plug into the headphone jack. No adapter is needed. Use the headphone plug.

9. Line Out: The line out is a good way to plug the subwoofer into an external power amplifier.

10. Effects Loop: An effects loop is used in the effects processor. The effects loop is used in the effects processor. The effects loop is used in the effects processor.
**CHANNEL ONE SUGGESTED SETTINGS**

The following are suggested settings for channel one. These settings provide a good starting point to get familiar with the AG100’s controls. Don’t be afraid to make adjustments and experiment with the controls to find your particular sound.

The volume is not shown or expressed, because it is adjusted to your desired listening level and situation.

### STANDARD

- **ACOUSTIC (INTERNAL PICKUP)**
  - Acoustic/Electric switch in
  - Channel’s REV/EFF level at 6
  - RETURN REV/EFF level at 6

### CARVIN

- **ACOUSTIC AC175 or AE185 (PIEZO PICKUP)**
  - Acoustic/Electric switch in
  - Channel’s REV/EFF level at 5
  - RETURN REV/EFF level at 5

### STANDARD

- **ELECTRIC (blues sound)**
  - Acoustic/Electric switch out
  - Channel’s REV/EFF level at 6
  - RETURN REV/EFF level at 7

---

**CHANNEL TWO’S FEATURES**

1. **INPUT 2 JACK**
   The INPUT phone jack is designed for unbalanced instrument or line level inputs such as a drum machine, tape deck, another guitar or bass guitar, a keyboard, an unbalanced mic, etc.

2. **VOLUME CONTROL**
   The VOLUME control adjusts the level of the channel heard in the speaker, the line out jack, and the headphone jack. The gain structure of this channel is designed to handle both instrument and line level inputs. The result is some instruments, such as a single coil electric guitar, may need the VOLUME control turned up to 7 or higher on the dial to match the other channels. Also, for the same reason some line level inputs, such as a CD player, may need the VOLUME control less than 1 to match the other channels.

3. **LO AND HI TONE CONTROLS**
   The LO and HI tone controls are used to shape the bass and treble sound of the input signal. It is suggested that the tone controls start out in their center positions where they do not effect the signal. Then, if needed, turn the tone controls (turn to the right to boost, or turn to the left to cut) to change the sound. These controls are of the shelving type with corner frequencies at 100Hz and 10KHz.
If you're like most new owners, you're probably in a hurry to plug your AG100 in and use it. Here are some brief instructions to get you going quickly. With the AG100 unplugged, turn the unit off and complete the following procedures:

1. CONNECTING AC POWER TO YOUR AG100
   - Check the rear panel to make sure the AG100 received uses the proper AC Line Voltage. (USA 120VAC, Europe 240VAC...etc.)
   - Use only a grounded (3 prong) power outlet to prevent a shock hazard. This also gives the quietest grounding for the amplifier.

2. CONNECTING INPUTS TO YOUR AG100
   - Channel one is specially designed for acoustic and electric guitars, but any unbalanced device such as tape a recorder or keyboard can be plugged in using a 1/4" phone plug shielded cable.
   - Channel two is an instrument/line input. Any unbalanced device such as another guitar, tape recorder, drum machine, or keyboard can be plugged in using a 1/4" phone plug shielded cable.
   - Channel three is a microphone input. Plug a microphone into the balanced XLR MIC input using an XLR shielded microphone cable.

3. TURNING ON YOUR AG100
   - Adjust all three channel volume controls to their off position (full clockwise).
   - Adjust all "EQ" tone controls—channel one's Lo, Acoustic Sweep Gain, and High, and channels two and three's Hi and Lo to their center detent position.
   - Adjust channel one and three's effects send and the effects return (top right of channel three) to their off position.
   - Turn the AG100 on by the power switch on the front panel and watch for the power LED to come on.
   - Plug in your instruments and microphone into the appropriate channels, and adjust the volume controls to the desired playing level. (For detail on the individual channel tone controls and the graphic equalizer, see the appropriate sections in this manual.)

Your AG100 is ready to use.

MAINTENANCE

To bring back the new look, your AG100 can be washed with mild detergent and/or a warm damp cloth. This will remove normal dust and oil from the front and back panels. Never spray cleaners or detergents directly at the unit. The AG100 virtually sealed from outside dust and dirt, but it is recommended to keep the AG100 free from dust, dirt, and moisture as much as possible.
<table>
<thead>
<tr>
<th>Fuse Selection Chart for 240 VAC EXPORT Models</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
</tr>
<tr>
<td>6.3A</td>
</tr>
<tr>
<td>5A</td>
</tr>
<tr>
<td>3A</td>
</tr>
</tbody>
</table>

**For each model:**

The following chart shows the fuse values to be used for the European CEE-7 plug. The American plug has a 270V AC operation setting using the right American plug and a 270V AC operation setting using the left American plug.

**There are two versions of each of the AC100-10 and -12. A 270 VAC version.**

---

**Fuse Selection**

**AC100-10/12: 40mA, (17.5 x 10 x 22 mm)**

<table>
<thead>
<tr>
<th>Input</th>
<th>Power Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balanced L/F</td>
<td>Input 5.5A</td>
</tr>
<tr>
<td>Unbalanced L/F</td>
<td>Input 10A</td>
</tr>
</tbody>
</table>

**BANDS: 5 kHz ± 1dB**

**Channel 1:**

- HI: 100Hz ± 12dB
- LOW: 100Hz ± 12dB
- 3 Band active
- Channel 2:
  - HI: 100Hz ± 12dB
  - LOW: 100Hz ± 12dB
  - 3 Band active

**Channel 3:**

- HI: 100Hz ± 12dB
- LOW: 100Hz ± 12dB
- Acoustic Sweep 400 Hz ± 12dB

**Output Power:**

- 100W RMS @ 4 ohms
- Less than 0.8% @ Full Power

**Total Harmonic Distortion:**

- Max @ Line Input: 20Hz-20kHz ± 2dB

---

**Warranty Information**

**Fuse Selection**

**AC100 Specifications**

**AC100 Parts List**

**Channel One Settings**

**Channel Two Settings**

**Channel Three Settings**

**Maintenance**

**Getting Started Quickly**

**Table of Contents**

**For the New Owner**

**Receiver Inspection**

---

**Page**
WARRANTY AND SERVICE INFORMATION

Call Toll-Free 800-854-2235 if you need help with your CARVIN product. If you need to return it for service, our service dept will issue a Service Number so that we can expect your shipment. Write the Service Number on the carton and be sure to include a full description of every problem. Pack in its original carton using all its packing material. Return by UPS prepaid. Units returned with physical damage, missing parts, or damage from improper service are not serviceable.

REPAIRS UNDER WARRANTY (1 Year)
There is no charge for service under warranty. However, shipping is to be paid both ways by the customer.

REPAIRS OUT OF WARRANTY
If your warranty has expired, call us for the current flat rate service charge which includes parts, labor and testing to bring your unit up to factory specifications.

SERVICING IN YOUR AREA
You may select your own service center or have your own qualified technician work on the unit at your own expense. This will not void the warranty unless damage was done because of improper servicing. Under the ONE YEAR WARRANTY, CARVIN will ship parts pre-paid to you or your technician providing that the defective part(s) are first returned for our inspection. If you do not have a qualified service person, we ask that you do not involve yourself in servicing the unit.

EXTENDED WARRANTY
An extended warranty is available beyond the normal one year period. Please call 1-800-854-2235 for more information.

LIMITED WARRANTY
Your Carvin Professional Series Product is guaranteed against failure for ONE YEAR. Carvin will service the unit and supply all parts at no charge to the customer providing the unit is under warranty. CARVIN DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. This warranty is extended to the original purchaser only and is not transferable. THIS WARRANTY DOES NOT INCLUDE FAILURES CAUSED BY INCORRECT USE, INADEQUATE CARE OF THE UNIT, OR NATURAL DISASTERS. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY. Carvin takes no responsibility for any horn driver or speaker damaged by this unit. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin any liability in connection with the sale or servicing of Carvin products. No liability is assumed for damage due to accident, abuse, lack of reasonable care, loss of parts, or failure to follow Carvin's directions. CARVIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

RECEIVING INSPECTION

INSPECT YOUR AG100 FOR ANY DAMAGE which may have occurred during shipping. If any damage is found, notify the shipping company and call CARVIN immediately.

SAVE THE CARTON & ALL PACKING MATERIALS. In the event you have to reshup your AG100, always use the original carton and packing material. This will provide the best possible protection for the AG100 during shipment. CARVIN and the shipping company are not liable for any damage caused by improper packing.

SAVE YOUR INVOICE. It will be required for warranty servicing of your unit. Always check the invoice against the items you have received.

SHIPMENT SHORTAGE. If you find some items missing, it may be that they were shipped separately. Please allow several days for the rest of your order to arrive before inquiring. If you determine (after allowing an appropriate amount of time) you have not received all the items you ordered, please call CARVIN.

FOR THE NEW OWNER

Congratulations on your selection of CARVIN products: "The Professional's Choice." Your new AG100 Acoustic Guitar amplifier demonstrates CARVIN's commitment to producing the highest quality & most sophisticated engineering in the audio industry today. Its wide acceptance and use by industry professionals illustrates the basis for CARVIN's recognition as "The Professional's Choice."

The AG100 was designed as the ideal amplifier for any acoustic/electric situation. The three specially designed channels allow you to have a guitar (acoustic or electric) in channel one, another guitar, bass, tape deck, or drum machine in channel two, and a balanced XLR microphone in channel three all at the same time.

The AG100 features a 100 Watt amplifier and either a 10" or 12" speaker plus a piezo tweeter. All this is packed into a 3/4" poplar plywood cabinet, covered with Duratuff™, making it the ideal, all in one, sound system for small venues or coffee houses.

If you would like to comment on features or the performance of your new AG100, please feel free to contact us. Comments from our customers have helped us to improve and further develop our products and our business.

May you enjoy many years of success and fun with your new CARVIN AG100!

Carvin's toll free number: 800-854-2235

CARVIN
1-800-854-2235
(619) 487-1600  M-F 8 to 4:30