Owner manual

al series, aluminium based combos and cabinets

AL.112 combo

the edge of sound
Welcome to the Epifani family and thank you for your purchase. To operate this product to its fullest potential and enjoy trouble free operation for years to come, please read this manual carefully and completely.

The AL112 Combo features the new and incredible Piccolo 600 amplifier and our exclusive D.I.S.T. technology.

D.I.S.T. (Dual Impedance Speaker Technology) enables the combo to run at 4-ohms by itself and switch to 8-ohms when the extension cabinet is connected. This insures the amplifier always runs at 4-ohms for max power in all situations.

Here at Epifani we are very proud to have added another gem to our long list of bass engineering accomplishments.

The AL series is the first to utilize solid-aluminium for the main enclosure shell. Aluminium natural characteristics together with the carefully selected design, give to the whole AL line a superior strength-to-weight ratio. This allows us to use the latest high-performance ceramic drivers and achieve lower weight comparing to similar neo-based wood cabinets.

Furthermore, the AL 112 Combo with its slightly bowed trapezoidal structure, allows improved frequency response and power output without introducing unwanted tonal colorations.

Extension cabinets (AL110, AL.112, AL.210) use a bowed, rectangular shape for best coupling to the AL combos.

We are always interested in your comments and thoughts about Epifani gear.

Contact us with questions and suggestions on how we can best serve your needs at www.epifani.com.

Love the way you sound!

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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 a dry cloth.
7. Do not block any ventilation openings. Install in accordance with all applicable 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-type plug. A polarized plug has two blades with one wider than the other. A grounding-type 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 the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to a qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
15. Never push any foreign objects of any kind into the openings as they may touch dangerous voltage points that could result in fire or electric shock. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids such as a beverage container should come in contact with the unit.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric 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 literature accompanying the product.

16. This apparatus has been designed with Class-I construction and must be connected to mains socket outlet with a protective earthing connection (the third grounding prong).
17. The MAINS plug or an appliance coupling is used as the disconnect device, so the disconnect device shall remain readily operable.
18. Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficient intense noise for a period of time.

The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the permissible noise level exposures shown in the following chart:

<table>
<thead>
<tr>
<th>Duration</th>
<th>SPL in dBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Hours</td>
<td>Slow Resp.</td>
</tr>
<tr>
<td>8</td>
<td>90</td>
</tr>
<tr>
<td>6</td>
<td>92</td>
</tr>
<tr>
<td>4</td>
<td>95</td>
</tr>
<tr>
<td>3</td>
<td>97</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>1.5</td>
<td>102</td>
</tr>
<tr>
<td>1</td>
<td>105</td>
</tr>
<tr>
<td>0.5</td>
<td>110</td>
</tr>
<tr>
<td>0.25 or less</td>
<td>115</td>
</tr>
</tbody>
</table>

According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent permanent hearing loss if exposure is in excess of the limits set forth above.
1. Passive/Active Pad - Reduces the input signal by -10 dB to compensate for the higher output of instruments with active electronics or high-output pickups. The Peak LED glows green when signal is present and turns red with the signal is clipping. Occasional red flashing while playing aggressively is acceptable. Set to Active mode if there is excessive clipping.

2. Input - 1/4" TS phone jack. Connect your instrument here using a shielded instrument cable.

3. Gain - Preamp gain control adjusts the input signal. Play aggressively and gradually turn it up until the LED begins to flash red, then back it off a little. This will give you an optimum input level.

4. Mid Cut Level - Increases the amount of mids that are cut when turned counterclockwise.

5. Mid Cut Switch - Activates the Mid Cut circuit when pushed in. This feature can also be controlled with a foot-switch.

6. Master - Adjusts the Speaker Output level. Other outputs such as the DI Output, Tuner Out and Send jack are unaffected. The Power LED directly above Master knob glows blue when power is on.

7. Mute - Mutes all outputs except for the Tuner Out. The LED glows red when the amp is muted and will be active upon startup. This feature can be controlled with a foot-switch.

8. Bass Control - Active shelving control which adjusts the low frequencies.

9. Midrange Control - Active bandpass control which adjusts midrange frequencies.

10. Treble Control - Active shelving control which adjusts the high frequencies.

11. Vintage Switch - Engage to add an exclusive Epifani circuit that adds a warmer, tube-like, 1960's tone to the overall output.
1. Level – This adjusts the output level of the DI output.
2. DI Output – This is a balanced, low impedance output. Use a standard XLR mic cable to send a signal to a mixing console or recording device.
3. Pre/PostEQ – Sets the DI Output to either pre-EQ or post-EQ.
4. Ground Lift – Disconnects the chassis ground from the DI Out signal to reduce 60-cycle hum.
5. Mix – This feature allows you to mix between a dry (unaffected) signal and a wet (effected) signal when an external signal processor is connected to the Effects Loop. When using a processor like a Graphic EQ or a Compressor/Limiter, turn the Mix all the way to right. This ensures that 100% of the signal will go to the processor. When using Reverb, Delay or a Chorus/Flanger-type effect, gradually rotate the knob to the left until the desired blend is achieved.
6. Pedal – TRS 1/4” connector. Connect the optional two-button foot-switch to this jack. Button one will engage the Mute control while button two activates the Mid Cut.

7. Effects Loop – Use the Send jack to connect to the input of external signal processors. Connect the the output of your signal processor to the Return jack.
8. TunerOut – Use this output to connect an electronic tuner. The Tuner Out sends signal out even when the amplifier is muted allowing for silent tuning.
9. Voltage Selector – Before turning on amplifier, be sure you set this switch to the proper line voltage of your region.
10. Fuse Sled – Contains the fuse. No replacement fuse is needed if the fuse blows, contact Epifani.
11. Power Switch – Turns the amplifier on and off. Upon power-up, there is about a 3 second delay before the amplifier is fully functional as it goes through a self diagnostic process.
12. IEC Receptacle – Firmly plug the included IEC compliant AC cable power cable in here.

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**Rear Panel Crossover Control**

Note: Some AL Combo rear panel connectors may be different from what is shown here. If any questions, call your dealer or Epifani directly.

1. **Tweeter Level Control**
   Adjusts the amount of high frequency sound coming from the tweeter.

2. **Speaker Output Connector**
   Connect your extension cabinet using a Speakon.

3. **Speakon enabling switch/impedance selector switch**
   - Selecting “Combo Only” position will disable the speakon connector and switch the AL 112C to 4ohm for maximum power output.
   - Select “Combo+Extension cabinet” mode to activate the speakon whenever a 8ohm extension cabinet is added to the AL 112C.

   **ATTENTION**

   USE ONLY 8 OHM EXTENSION CABINET

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**Stuff you should know**

⚠️ **WARNING! BEFORE TURNING YOUR AMPLIFIER ON FOR THE FIRST TIME READ THE FOLLOWING SECTION CAREFULLY. ⚠️

Verify AC Power – AC outlet voltages vary from country to country. The Piccolo 600 allows you to select either 120 volts or 240 volts and 50Hz or 60Hz. Use caution when connecting your amplifier to AC power. Verify that the power outlet you are plugging into is properly grounded.
1. Verify that the power switch on the top of the combo is in the OFF position. Connect the AC cable to the back of the amplifier and to a wall outlet.

2. Before turning your amplifier on, always set the MASTER volume control to the zero position. This will prevent damage to your speakers in the event of a product failure or faulty input signal.

3. Turn the amplifier on using the power switch located on the top upper level of the control panel. The POWER indicator “600” light will illuminate blue. Upon power-up, the amplifier will go through a self-diagnostic test for about 3 seconds before it is fully functional.

Then, the MUTE feature will engage and its light will be illuminated red. You will also see the PEAK light illuminate green.

4. Turn the volume controls on your instrument to their full, or loudest positions.

5. Set the amplifier EQ controls (bass, mid, and treble) to zero (twelve o’clock position) and begin playing aggressively while turning up the Gain control. When the PEAK LED light is green there is still potential to increase the Gain. When the light starts flashing red, your input is too high and your signal will distort. For the cleanest sound, allow the LED indicator to flash red intermittently while playing aggressively.

6. Disengage the MUTE button. It’s light will turn off.

7. Turn the MASTER Volume Control clockwise to the desired listening volume. At this point you should be hearing your instrument through the internal speakers.

8. By adjusting the EQ controls and utilizing the mid-cut feature, the sound of your instrument can be shaped in very subtle or very dynamic ways.

The PRE-AMP in Epifani amplifiers are designed to work like the channel strip of a professional mixing console, a little EQ goes a long way. In fact, many sound engineers start with the EQ in the flat position and CUT rather than BOOST frequencies to achieve the desired sound. They then add gain to make up the loss of volume due to the reduction in EQ. Cutting back is typically preferred to boosting. If you are dramatically boosting all of your EQ settings, you might want to call your Epifani Dealer or us directly to discuss your setup.

9. The MID CUT level adjusts the amount of mid-range frequencies that will be reduced when you engage the MID CUT switch either by pressing the switch on the front panel or activating the switch via the optional footswitch. This feature actually gives you an additional level of control as you change playing styles or when changing your instrument. It’s almost like having a second channel.

10. Experiment with the Vintage circuit by engaging its front-panel button to add a warmer sound to your tone.
AL.112 Combo is equipped with Neutrik connectors for higher-power handling and more secure connections, use Speakon-to-Speakon cables with a speaker wire of at least 16-gauge. A lower gauge number means thicker cabling, so a 14-gauge cable is thicker in diameter and thus better than a 16-gauge cable. Thicker cabling means better low-frequency transmission to the cabinets.

Pin connection inside the Speakon connector should be +1 and -1. Be sure to specify this configuration when buying your speaker cables. Although this is the most common style, it is not the only style made.

The Output Speakon connection for external extension cabinet in the back of your cabinets works only when the selector switch is set to Combo+Extension cabinet (8 ohm) operation. Make sure to use only 8 ohm extension cabinet.

When using multiple cabinets, be sure they are all in “phase”. With a 9V battery (the same battery used inside most active basses) you can test the polarity, or phase, of your speakers to make sure all are working and moving in the right direction forward! Sometimes, when you daisy chain two cabinets, you will note a lack of bass response. Typically, this means that one of the cabinets is out of phase and its speakers are moving backward when they should be moving forward. If one cabinet or one speaker is moving backwards when the other moves forward, they will cancel each other out. You can readily notice this when a single cabinet has more bass and better response then when two are connected. Here’s how to verify phase. Take a ¼” cable. Insert one side into a cabinet and touch the other tip of the ¼” jack to the “+” of a 9 volt battery and the shaft to the “-” of the battery. The connected speaker should move forward when this connection is made. If it does, the cabinet is in phase. If it moves backwards, you have a cabinet that’s wired out of phase. The problem can be easily corrected by a speaker technician.
**AL.112 C Specifications**

**AL. Series Project team:**
- Engendered by: Nick Epifani, Franco Savio
- Design: Romano Ferretti
- Industrialization: Kevin C. Nguyen (Palexmetal), Nick Epifani, Romano Ferretti.

**CONFIGURATION**
- Single Channel Preamp
- Class-D Power amp
- Switch-Mode Power Supply
  - 1 x 12"-300 Watt Dual Voice Coil Epifani Ceramic Driver
  - 100 Watt Bullet Tweeter
- Adjustable Tweeter Control

**SPEAKER IMPEDANCE**
- Switchable 8 or 4 Ohms Using DIST Technology

**AMPLIFIER POWER RATING**
- 385W RMS @ 8 Ohms
- 600W RMS @ 4 Ohms

**SPECS**
- Amplifier Response 20Hz - 25kHz
- Cabinet Response 44Hz - 16kHz
- Sensitivity 98dB (1W@1m)

**HARDWARE**
- Solid Aluminum Enclosure
- Powder Coat Finishes
  - White w/Red
  - Graphite w/Red
- Specially Engineered Wood Baffle

**CONNECTORS**
- INPUT - 1/4" TS Phone Jack
- SEND - 220k Ohms
- RETURN - 50k Ohms
- TUNER OUT
- FOOTSWITCH - 1/4" TRS
- DI Low impedance XLR Direct Out
  - Level Control
  - Pre and Post EQ selector Switch
  - Ground Lift

**TONE CONTROLS**
- Bass - Shelving +22dB @ 40 Hz
- Mid - Shelving +17dB @ 550 Hz
- Treble - Shelving +22dB @ 3 kHz
- MID CUT - -8 dB @ 800 Hz
- VINTAGE TONE - Proprietary Circuit
  - selectable switch engages tube emulated 'warmer' tone

**VOLTAGE**
- Voltage selector 120/240V - 50/60Hz

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Photonics is the enabling technology for a bright future. Photonics is about the future. Photonics is the future. An exciting new world of optical technologies is emerging out of the laboratory, ready for all new applications...
The AL series

AL Extension cabinets

**AL.110**
- 1 x 10" 250-watt Epifani ceramic driver
- 100 watt bullet tweeter with adjustable control
- 8 ohms 250 watt RMS, 500 watt peak
- Response 45Hz - 16kHz
- Sensitivity 98dB (1W@1m)
- 11"h x 20"w x 16.5"d

**AL.112**
- 1 x 12" 300-watt Epifani ceramic driver
- 100 watt bullet tweeter with adjustable control
- 8 ohms 300 watt RMS, 600 watt peak
- Response 43Hz - 16kHz
- Sensitivity 100dB (1W@1m)
- 15"h x 20.25"w x 16.5"d

**AL.210**
- 2 x 10" 250-watt Epifani ceramic driver
- 100 watt bullet tweeter with adjustable control
- 8 ohms 500 watt RMS, 1000 watt peak
- Response 42Hz - 16kHz
- Sensitivity 102dB (1W@1m)
- 18.75"h x 20.5"w x 16.5"d

**The perfect match for your AL.112 combo**

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Professional Bass Amplifier

Do not forget to check out the new light weight UL3 cabinet series and our great light weight, powerful amplifiers.

The latest generation of our UL Series speakers combines what bassists have been asking for, the clarity and midrange depth of our UL speakers combined with the round warmth of our PS series. The new UL.3’s combine the best of both for a sonic experience that lifts you to sonic nirvana.

UL.3

+ 112DIST

piccolo 600

- Hi-Fi Digital Power Amplifier
- 600 W. Rms
- Exclusive Nick Epifani Developed Vintage Tone Circuit
- Ergonomic Innovative Stylish Design

UL 501

- Hi-Fi Class AB Power Amplifier
- 800 W. Rms
- Light Weight Switching Power Supply