

User Manual

BASS AMPLIFIER

JBA100

JBA100 BASS AMPLIFIER



JOYO

JOYO TECHNOLOGY CO., LTD

INTRODUCTION

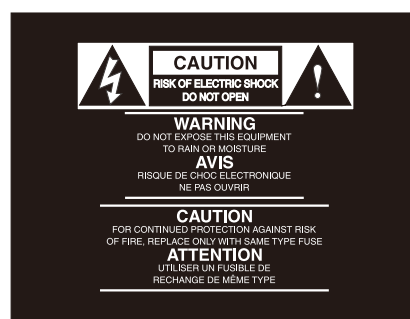
We know you don't like reading owners manuals, but you've just purchased one of the finest bass amplifiers around, and we want to tell you about it! So, before you plug in and start popping and slapping, we'd like to suggest you take just a few moments out to scan these pages.

The JBA100 is powerful combo amplifiers, which include a matched 8-ohm aluminum bass speaker in a specially designed cabinet which can be used either flat on the floor or on its "kickback" position for increased high end clarity on directionality. It's the perfect system for use in small venues such as club dates and for home recording studios. Plus, the CD input and dedicated headphone output makes them awesome practice amps!

JBA100 got a 100-watt amp and a "15" custom design Aluminum Series speaker. When you purchased this JBA100, you're assured of that great JOYO sound system.

In these pages, you'll find a detailed description of the many features of your JBA100 Combo Bass Amplifier, as well as a guided tour through its front and rear panels, step-by-step instructions for setting up and using the amp. Additional, please try to check out our website www.joyoaudio.com for complete information about our full product line.

SPECIAL NOTE: Should your JBA100 Combo Bass Amplifier ever require servicing, a Return Authorization (RA) number is necessary. Without this number, the unit will not be accepted. Please retain the original packing materials and, call JOYO 0755-29765393 before you sending out if possible, return the unit in its original carton and packing materials.



INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.



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 the literature accompanying the product.

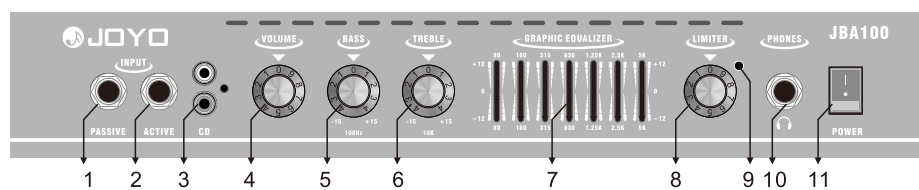
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BASS AMPLIFIER

JBA100

GUIDED TOUR - FRONT PANEL



- Active** – Connect your bass guitar to this standard 1/4" unbalanced jack. This JBA Series Input was designed to handle the signals from hotter bass pickups if your bass has active electronics.
 - Passive** – Connect your bass guitar to this standard 1/4" unbalanced jack. The JBA Series Input was designed to handle low-level signals if your bass has passive electronics.
 - CD Input** – JBA100 amplifier features a CD input which you can use with a portable CD player, cassette, mini disk or MP3 player. You can use the CD input to jam with pre-recorded tracks or to learn a riff from a favorite recording.
 - Volume control** – This is the overall volume control. For best signal-to-noise ratio, keep the output of your bass at or near maximum and adjust the Volume to the desired level.
 - Bass EQ control** – This control provides approximately 15 dB of cut or boost at 100 Hz, with a peak (bell) curve. When the knob is at the triangle "0" position (at a sticking point), there is no boost or attenuation. As it is turned clockwise to the +15 position, the frequency area is boosted; as it is turned counterclockwise from the -15 position, the frequency area is attenuated.
 - Treble EQ control** – This peaking control provides approximately 15 dB of cut or boost at 10 kHz. When the knob is at the triangle "0" position (at a sticking point), there is no boost or attenuation. As it is turned clockwise to the +15 position, the frequency area is boosted; as it is turned counterclockwise from the -15 position, the frequency area is attenuated.
 - Graphic Equalizer** – These sliders allow you to "draw" the tonal response of the system by adding 15 dB of boost or attenuation to seven different narrow-band frequency areas (80 Hz, 160 Hz, 315 Hz, 630 Hz, 1.25 kHz, 2.5 kHz, and 5 kHz). When a slider is at its center detented ("0") position, the selected frequency area is unaffected. When a slider is moved up towards the "+12" position, the selected frequency area is boosted, and when it is moved down towards the "-12" position, the selected frequency area is attenuated.
 - Limiter Control** – This determines the amount of compression (peak signal reduction) by simultaneously adjusting both threshold and compression ratio which ranges from 2:1 to infinity (limiting). At the triangle turn counterclockwise from "0" position, the circuitry is bypassed and no compression is applied. As the knob is raised clockwise (at settings from "0" to maximum, increasing amounts of compression are applied.
 - Limiter LED** – Light out, no compression is being applied. When flashing or light up, limiter start to work, the amount is decided by limiter.
 - Phone jack** – Connect any stereo headphone (600 ohms or less) to this standard 1/4" stereo jack. When a plug is inserted into the headphone jack, the speaker output is disconnected, allowing you to use your JBA100 as a practice amplifier. The level of the signal sent to the headphones is determined by the setting of the Volume knob. Recover speaker output by pull out stereo headphone.
- WARNING:** Because even the smallest JBA amplifier is capable of generating extremely high headphone signal levels, for protection of your phone, always start with the Volume knob at minimum and then slowly turn it up till the best hearing effect.
- Power switch** – Turn on power switch, LED is up, operate normally after 5seconds.

- Direct Output** – This standard, balanced XLR connector provides a Line-level output signal from the JBA100 amplifier. You'll usually use this to connect the JBA100 signal to a Line-level input when interfacing with PA systems or recording mixing consoles.
- Preamp Out (Effects Loop Send)** – Use this 1/4" unbalanced jack to send signal to a professional outboard effects processor. Output after equalized, output level is approximately 0 dB to +2 dB.
- Amp In (Effects Loop Return)** – Use this 1/4" unbalanced jack to return signal from a professional outboard effects processor.

SETTING UP AND USING YOUR JBA100 COMBO BASS AMPLIFIER

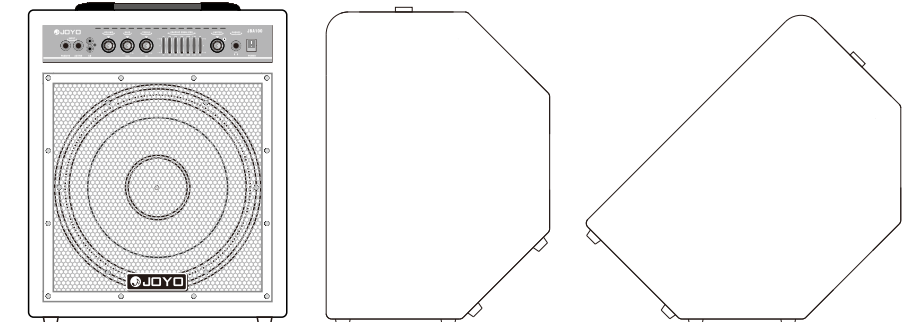
Setting up your JBA100 Combo Bass Amplifier is a simple procedure which takes only a few minutes:

- Remove all packing materials (save them in case of need for future service) and decide where the amplifier is to be physically placed. You may decide to use the "kickback" position for additional directionality and high frequency clarity. To avoid potential overheating problems, make sure that the rear panel is unobstructed and that there is good ventilation around the entire unit.
- Before you plug-in the power cable, be sure the Power switch is in the off position. Connect the supplied power cable to the AC inlet located on the rear panel. Then, plug-in the 3-pin AC plug into any grounded AC socket. Don't turn the JBA on just yet, though.
- Use a standard music instrument cable to connect your bass to the Input jack on the front panel. Plug in Active Input for your active bass guitar, and plug in Passive Input for your passive bass guitar.
- On the front panel, turn the Volume and Limiter control to triangle position "0" (fully counterclockwise). Set the Bass, Treble control to triangle position "0", and all seven graphic EQ sliders to their "0" position.
- Press the front panel Power switch; the LED in the switch will light up, the unit starts to work.
- Set the output of your bass to maximum and then, while playing, slowly turn the Volume control up until the desired level is achieved. It's nearly impossible to overload the JBA100 amplifier, so if you hear distortion even at low Volume settings, check for a faulty cable.
- Adjust the Bass, Treble and graphic equalizer controls to taste. When you get a great setting that complements your instrument and playing style, it's a good idea to write it down for future use.
- Now try out limiter circuitry. Activate it by turning the Limiter knob clockwise from its "Triangle" position. The input signal from your bass becomes more and more severely compressed—you'll hear peak signals begin to sound increasingly "squashed," relative to the lower-level signals produced by standard playing. The result will be a decreased dynamic range but an overall leveling of signal throughout the full pitch range of your instrument. The Limiter LED will light steadily blue when no compression is being applied, will flash or light steadily blue when limiting (severe compression) is being applied.
- Turn the Volume control to its minimum (fully counterclockwise) position and then connect a standard stereo headphone to the front-panel Phones jack. While playing your bass, slowly turn the Volume control up—you should hear sound from the headphones and none from the connected speaker. We recommend the use of large size headphones (those with large transducers) for optimum bass reproduction.
- If you need to connect the JBA to a PA system or a recording mixing console, connect a cable between the rear-panel Direct Out output and a Line-level input on the mixer.
- If you're using a professional external signal processor that has Line-level inputs and outputs, turn your amp off momentarily and then connect a standard audio cable between the rear panel Preamp Out jack and your effects processor input and another standard audio cable between the Amp In jack and your effects processor output. Then turn the JBA100 amp back on and play your bass while adjusting the controls of your effects processor(s). For best results, set both the input and output gain of the connected effects processor(s) to 0 dB, so that there is no increase or decrease in level whether the effects are switched in or out.
- If you encounter difficulty with any aspect of setting up or using your JBA100 Bass Combo Amplifier, you can call JOYO (0755-29765393) between 9 AM and 5 PM, or contact your local distributor.

IMPORTANT NOTES ▲

- Please read all instructions before operating the unit.
- Keep these instructions for future reference.
- Please heed all safety warnings.
- Follow manufacturers instructions.
- Do not use this unit near water or moisture.
- Clean only with a damp cloth.
- Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
- Please use matched polarized or grounding-type plug, the wide blade or third prong is provided for your safety. When the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on and pinched particularly at plugs, convenience receptacles and at the point at which they exit from the unit.
- Unplug this unit during lightning storms or when unused for long periods of time.
- Refer to qualified personnel when the unit has been damaged in any way.

JBA100 COMBO BASS AMPLIFIER FEATURES



The JBA100 offers all the newest concepts in state-of-the-art aluminum drive bass amplification in an extremely compact size and affordable price. Here are some of its main features:

- The 100 Watts of power to its specially designed 15-inch aluminum bass driver.
- Specially designed cabinet which can be used either flat on the floor or on its "kickback" position for increased high end clarity on directionality.
- Bipolar circuit design ensures that every nuance of your bass performance is reproduced faithfully.
- Flexible input that accommodates a broad range of input levels, so that you can use the JBA100 with pretty much any kind of bass, from passive models to those with active circuitry. It is almost impossible to overload the input of a JBA100 bass amplifier!
- Four bands of high-quality equalization, allowing you to create a broad range of tonal colors for your bass instrument.
- Preamp Out and Amp In jacks that allow you to connect to professional outboard effects processors.
- A dedicated CD input is included allowing you to hook up a portable CD or MP3 player or other sound sources to practice along with.
- A separate headphone output, which automatically disconnects the speaker output allowing use as a high-quality practice amp.
- For interfacing with PA systems or recording mixing consoles, an XLR line-level direct output is included on the rear panel.
- Included is a matched JOYO 8-ohm speaker mounted in a specially designed cabinet for clean, crisp sound.
- Rugged construction makes the JBA100 eminently road-worthy.

GUIDED TOUR - REAR PANEL



- AC Power Inlet** – Use the supplied grounded AC power cord to connect your JBA100 amplifier to mains power. This cord comes supplied with the appropriate plug for your geographic area. Do not use an adapter to defeat the third grounding pin on this plug or severe electric shock may result!
- Speaker Output** – The jack is used to connect the internal 8-ohm aluminum driver.

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USING THE CD INPUT:

Your JBA100 amplifier features a CD input which you can use with a portable CD player, cassette, mini disk or MP3 player to jam with pre-recorded tracks or learn a riff from a favorite tune. In fact, you can plug any line level signal into the CD input including the signal from a keyboard or drum machine. Connect the CD player or other Line level device to the CD Input using standard RCA cable. You will want to use the volume control on the CD player or other Line level device to set the balance between the track and your bass. So, start with the volume control all the way down and slowly raise it until you reach a good balance with your bass.

USING EQUALIZATION:

- The JBA100 Bass Amplifier gives you enormous control over shaping the sound of your bass, using a process called equalization. To understand how this works, it's important to know that every naturally occurring sound consists of a broad range of pitches, or frequencies, combined together in a unique way. This blend is what gives every sound its distinctive tonal color. The JBA EQ controls allow you to alter a sound by boosting or attenuating specific frequency areas—they operate much like the bass and treble controls on your hi-fi amp, but with much greater precision.
- JBA100 offers standard Bass and Treble controls, plus seven bands of graphic equalization. This extended, dual stage equalization circuit allows you to tailor the mid-band with precise control and then, boost and cut the bottom and top.
- The Bass knob affects the low-frequency area at 100 Hz, and provides approximately 15 dB of boost and attenuation. The Treble knob affects the high-frequency area at 10 kHz, and provides approximately 15 dB of boost and attenuation. The Graphic Equalizer points are at 80 Hz, 160 Hz, 315 Hz, 630 Hz, 1.25 kHz, 2.5 kHz and 5 kHz and the sliders provide 12 dB of boost and attenuation.
- When a Bass or Treble knob is in its center triangle position ("0"), it is having no effect. When it is moved right of center, the particular frequency area is being boosted; when it is moved left of center, the frequency area is being attenuated. When a Graphic Equalizer slider is in its center detented position ("0"), it is having no effect. When it is moved up above center, the particular frequency area is being boosted; when it is moved down below center, the frequency area is being attenuated.
- In many instances, the best way to deal with equalization is to think in terms of which frequency areas you need to attenuate, as opposed to which ones you need to boost. Be aware that boosting a frequency area also has the effect of boosting the overall signal; specifically, too much Low EQ boost can actually cause overload distortion or even harm the connected speaker.

SPECIFICATIONS

1. Rated Output Power (@ 1 kHz, 8 ohm, 5% THD)	100W
2. Rated Input Level (@ 1 kHz)	
Passive	-20 dBu
Active	-10 dBu
3. Total Harmonic Distortion (@ 1 dB below rated output, 1 kHz typical)	0.3%
4. Signal To Noise Ratio (re: 1 Wrms @ 1 kHz)	67 dB
5. Dynamic Range (re: Rated output @ 1 kHz)	66 dB
6. Signal Gain	
Input to Direct Out	-20 dB
Input to Preamp Out	+20 dB
Input to Speaker Out	+51 dB
7. Equalizer	
Bass (100 Hz)	±15 dB
Treble (10 kHz)	±15 dB
Graphic (80 Hz, 160 Hz, 315 Hz, 630 Hz, 1.25 kHz, 2.5 kHz, 5 kHz)	±12 dB
8. Headphone Output	700 mW 600 ohms
9. Fuse Type	Slow-blow fuse
10. Fuse Rating	
100-120V~60Hz	T3.15AL
220-240V~50Hz	T1.6AL
11. Weight	27.6 kg
12. Dimensions	459(L) x 417(W) x 576(H)mm

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