



The **B1500** mono block bass head offers classic natural bass tone with the highest power headroom available in any bass amp to date. The **B1500** delivers 700w at 8Ω, 1250w at 4Ω and 1900w at 2Ω. The **B500** bulges with the same huge tone but delivers 225w at 8 ohms, 350w at 4Ω and 500w at 2Ω.

Four discrete Class A input stages produce the harmonic basis for the preamp right from the input jack. It begins with a boutique flat response, then we add 6 tone controls for you to carve out your signature sound. Harmonic content increases as you turn up the Drive control producing a growl at maximum settings. Solid design, bullet-proof construction and a list of indispensable features assure the B500 or B1500 will be the heart of your rig for years to come.

- Discrete Class A input stages
- Active/Passive input gain switch with input CLIP indicator
- Preamp DRIVE and master VOLUME controls
- Six EQ controls: SUB BASS, BASS, LOW MID, MID, HIGH MID, and TREBLE
- Signal MUTE front panel switch (also controlled by optional FS22 footswitch)
- EFFECT LOOP front panel bypass switch (also controlled by optional FS22 footswitch)
- DIRECT OUT balanced XLR with independent LEVEL control, switchable "Pre-Post" and "Ground Lift", DC isolated
- TUNER output jack independent of MUTE switch
- Internal OPTO (optical isolation) clip-activated power amp limiter with "limiter free" normal operation
- High current SPEAKON® connectors and 1/4" speaker jacks
- Metal shaft controls with threaded metal bushings mounted directly to front panel
- 19" 3U all steel chassis

**GETTING STARTED QUICKLY**

If you are like most players, you probably want to plug in your new amp and get started playing right away. Before you start, be sure your amp is plugged into the correct AC voltage.

1. With POWER off, connect a speaker cabinet to one of the rear SPEAKER OUTPUTS.
2. Set the VOLUME and DRIVE to "0" and set the ACTIVE INPUT switch for your type of bass.
3. Set all tone controls to their center "5" position. This is the "FLAT" setting for the amp.
4. Now, turn the amp ON. Turn the output level of the bass guitar fully up. Gradually increase the amp VOLUME control to the desired level. If no sound is heard, turn down the VOLUME control and check the MUTE and PROTECT LEDs.
5. Increasing the DRIVE control will add harmonic richness to your sound. Turning up the DRIVE also increases volume. Re-adjust the VOLUME after adjusting the DRIVE.
6. Adjust the tone controls to your liking. Keep in mind that turning up a tone control isn't always the answer. Sometimes turning down one of the MID controls will get you the sound you want. Depending on your speakers you may get more volume and clearer bass from your cabinet by lowering the SUB BASS control and increasing the BASS or LO MID control.
7. Need more volume? There is a limit to the amount of volume a speaker can produce and driving a speaker beyond it's limit can damage it. Even though the B1500 is a powerful amp, adding more speakers is the only way for substantially more output. Every time you double your speakers, you increase your acoustic output by a factor of four.

Hopefully, this will help you get started. Have fun exploring the features and sounds of the B500/B1500. Take the time with your new amp to realize it's full potential - and yours!

**DESIGNED FOR THE RIGORS OF TOURING**

The B500 & B1500 are constructed using a heavy-duty 16 gauge steel chassis and a 12 gauge steel front panel that are galvanized to prevent rust. Connections include Speakon® output connectors and a full featured XLR Direct Out. Controls feature metal shafts and threaded metal bushings mounted to directly to the front panel. All internal cabling is securely tied and harnessed. Every circuit card is MIL SPEC, double-sided, through-hole plated, fire retardant FR-4 glass epoxy. Toroid transformers are used as they are the engineer's choice for greater power supply current while reducing weight and magnetic "hum" fields.

**RECEIVING INSPECTION—read before getting started**

INSPECT YOUR UNIT FOR ANY DAMAGE which may have occurred during shipping. If any damage is found, please notify the shipping company and CARVIN immediately. SAVE THE CARTON & ALL PACKING MATERIALS. In the event you have to re-ship your unit, always use the original carton and packing material. This will provide the best possible protection 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 service if needed in the future. SHIPMENT SHORTAGE. If you find items missing, they may have been shipped separately. Please allow several days for the rest of your order to arrive before inquiring. RECORD THE SERIAL NUMBER on the enclosed warranty card for your records. Keep your portion of the card and return the portion with your name and comments to us.

USA customers register online at: [www.carvin.com/registration](http://www.carvin.com/registration)  
All other countries register online at: [www.carvinworld.com/registration](http://www.carvinworld.com/registration)

**B500/B1500 SPECIFICATIONS:**

MODEL	B500	B1500
<b>Output Power</b>		
8Ω, THD <1.0%	225w	700w
4Ω, THD <1.0%	350w	1250w
2Ω, THD <1.0%	500w	1900w
<b>Input Impedance:</b>	>200K	
<b>Tone Controls:</b>	±12dB @ 30, 100, 300, 1k, 3k, 10k (Hz)	
<b>Drive Control:</b>	Varies input gain and harmonic content	
<b>AC Requirements:</b>	120VAC 60 Hz or 240VAC 50 Hz optional models	
<b>Power Requirements:</b>	B500: 500VA, B1500: 1900VA	
<b>Dimensions (no cabinet):</b>	(3U) 5-1/4"H x 19"W x 10"D	
<b>Weight :</b>	B500: 25 lbs. B1500: 35 lbs net wt.	
<b>Warranty:</b>	One year parts and labor	



# FRONT PANEL CONTROLS



## 1. INPUT JACK

The 1/4" **INPUT** jack accommodates both passive and active instruments. The high impedance *Class A* input stage offers enough headroom to perform without clipping even when used with high output active basses. Input gain is adjusted with the **DRIVE** control (6) and the **ACTIVE INPUT** switch (5).

## 2. VOLUME CONTROL

The **VOLUME** control adjusts the output level to the speakers. Adjusting the **DRIVE** control will also change your output level.

## 3. MUTE SWITCH / LED

The **MUTE** switch will stop all output signals with the exception of the **TUNER** and **EFFECT SEND** signals. The **MUTE** function can also be remotely controlled from the rear **FOOTSWITCH** jack using the optional **FS-22** footswitch. The blue LED next to the **MUTE** switch will light whenever the amp is muted. The footswitch will have no effect if the front panel **MUTE** switch is on in the UP position.

## 4. CLIP LED

The red **CLIP** LED indicates that the input is near clipping. Since the B1500/B500 preamp is designed with several *Class A* input gain stages and the ability to be overdriven, the **CLIP** LED monitors only the first input stage and will not indicate when the **DRIVE** control is set to overdrive the preamp. To avoid input clipping, reduce the bass level or reduce the output level of devices placed between the bass and the input jack.

## 5. ACTIVE INPUT SWITCH / LED

The **ACTIVE INPUT** switch is used to match the input gain of the amp to instruments that contain active electronics. If the preamp is being prematurely overdriven, flip the **ACTIVE INPUT** switch to the ON position. If the output of your bass is low and you are not getting enough volume from the speakers, be sure the **ACTIVE INPUT** switch is OFF and increase the **DRIVE** control. The blue LED indicates that the **ACTIVE INPUT** mode is ON.

## 6. DRIVE CONTROL

The **DRIVE** control adjusts the input gain to the preamp and the level of harmonics in the signal. With the **DRIVE** control set low, both input gain and harmonics are at a minimum for clean output. Increasing the **DRIVE** control causes the *Class A* gain stages to introduce more harmonics resulting in a rich sound typical of vintage tube amps. With the **DRIVE** control set near maximum, overdrive sounds can be produced. The **DRIVE** control can be used with the **ACTIVE INPUT** switch to get the sound you want. To reduce preamp overdrive while retaining the harmonics of a high **DRIVE** level setting, turn the **ACTIVE INPUT** switch ON or reduce the level on the bass guitar. Turning the **ACTIVE INPUT** switch OFF will make the preamp overdrive easier.

## 7. TONE CONTROLS

The six **TONE CONTROLS** on the B500/B1500 are designed with the center frequencies most requested by professional bass players. To start, set each control at its center flat position (no tones are cut or boosted). Raise or reduce each control to get your desired tone.

The **SUB BASS** control is centered at 30Hz.

The **BASS** control is centered at 100Hz.

The **LO MID** control is centered at 300Hz.

The **MID** control is centered at 1kHz.

The **HI MID** control is centered at 3kHz.

The **TREBLE** control is centered at 10kHz.

## 8. EFFECT LOOP SWITCH / LED

The **EFFECT LOOP** switch engages the rear effects loop connections. The effects loop can be turned on with the **EFFECT LOOP** switch on the front panel or by using the optional **FS22** footswitch. When the front panel switch is in the UP position, the loop is engaged regardless of the footswitch. The status of the effects loop is indicated on the front panel by the **BLUE LED** next to the **EFFECT LOOP** switch.

See **EFFECT LOOP SEND/RETURN JACKS #13**.

## 9. AMP CLIP LED

The **AMP CLIP** LED indicates that the power amp is being driven too hard. Reduce the volume level.

## 10. PROTECT LED

The **PROTECT** LED indicates that the power amp has gone into one of its protect modes.

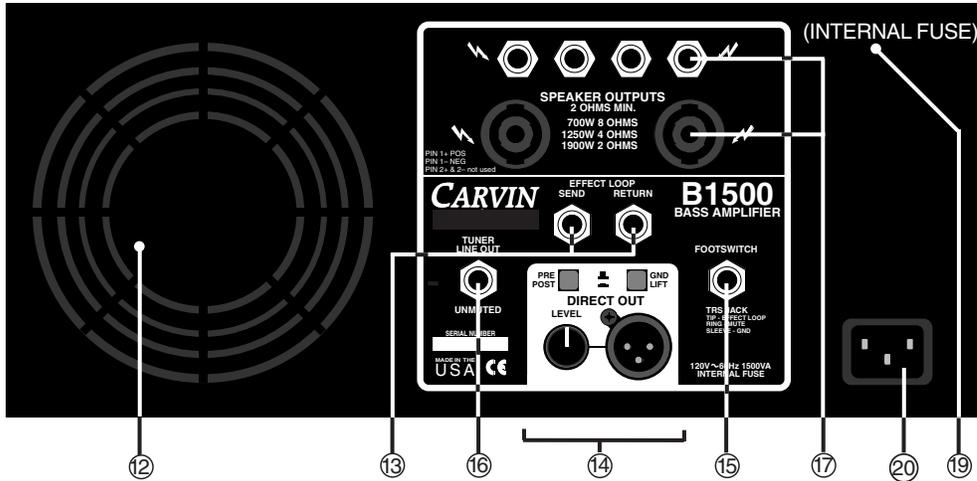
## 11. POWER SWITCH / (PROTECT RESET)

Push the upper portion of the **POWER SWITCH** to turn the amplifier on. If the large blue power indicator is on but no sound is coming out of the speakers, the amp may have gone into one of its protection modes. To reset the amp, turn the power off for 30 seconds and then turn the amp back on. If the problem persists, check for; a) The speaker impedance is too low for the amp, b) bad speaker cable, c) damaged speaker or, d) blocked rear fan intake.

## HELPFUL HINTS

- 1) **NO SOUND FROM AMP:** The **MUTE** function has been inadvertently engaged, speakers have been improperly connected or Effect Loop has been improperly connected.
- 2) **NO HIGH FREQUENCIES:** Tweeters or midrange drivers have been damaged from too much power.
- 3) **WEAK BASS:** The speaker systems are wired out of phase to each other. To correct, reverse the wires on one of the speaker connectors.
- 4) **DIR XLR HUM:** Try switching the rear **GND LIFT** switch IN or OUT. Check for noise from external effects or bad cabling.

# REAR PANEL CONTROLS



## 12. COOLING VENTS

The rear vents are for cooling the internal power amps. Provide a minimum 3" rear clearance for adequate ventilation. Blocking the air flow to these vents will cause the amp to thermally protect and turn the speaker relay off. If this happens, clear the obstruction first, keep the power on and turn the volume down allowing the amp to cool. The amp will engage the speaker relays when cooling conditions return to normal.

## 13. EFFECT LOOP SEND/RETURN JACKS

The **EFFECT LOOP - SEND** and **RETURN** jacks are used to connect external effects into the B500/B1500 signal chain. The loop is inserted after the **DRIVE** and **TONE CONTROLS** but before the **VOLUME** control. To use the effects loop, connect the **SEND** jack to the input of the effects unit and connect the **RETURN** jack to the output of the effects unit. The effects loop can be turned on with the **EFFECT LOOP** switch on the front panel or by using the optional **FS22** footswitch. When the front panel switch is in the **UP** position, the loop is engaged regardless of the footswitch. The status of the effects loop is indicated on the front panel by the **BLUE LED** next to the **EFFECT LOOP** switch.

## 14. DIRECT OUT XLR

The **DIRECT OUT XLR** is a balanced output that can be configured in a number of different ways. The **PRE / POST** switch is used to select a pre or post preamp feed. In the **"PRE"** (OUT) position, a direct feed is taken off of the **INPUT** jack and is similar to using a direct input box at the bass guitar output. In the **"POST"** (IN) position, the feed is post the preamp section and contains all of the signal that is sent to the power amp and speakers. To set the output, use the **DIRECT OUT LEVEL** control. A **GND/LIFT** switch is also available for the **DIRECT OUT XLR** jack. Set this switch for the lowest noise when using this output. When the **GND/LIFT** switch is depressed, the signal ground is lifted from this jack thus eliminating any ground loops between the B500/B1500 direct out and the gear it is feeding.

## 15. FOOTSWITCH

Connect the optional **FS22** footswitch to remotely control the **MUTE** function and the **EFFECTS LOOP** bypass. The first button on the **FS22** turns the **MUTE** on and off and the second button turns the **EFFECTS LOOP** on and off. Any standard footswitch with a stereo plug will work.

## 16. TUNER LINE OUT JACK (UNMUTED)

The **TUNER LINE OUT** jack is provided as a place to hook up a tuner. This output is unaffected by the **MUTE** function so that you may tune your bass quietly.

## 17. SPEAKER OUTPUTS

The B500/B1500 amp contains four 1/4" and two **SPEAKON** speaker output connectors. Multiple speakers can be attached to either the 1/4" or **SPEAKON** jacks so long as the total impedance is not below 2Ω. See **SPEAKER COMBINATIONS AND OHMS** chart.

## 19. INTERNAL FUSE

If there are high AC voltage surges or if the amp is used with excessive loads, the internal fuse will protect your amp from damage. If the fuse fails, remove the cover and replace with the proper replacement fuse. For 120 VAC models; B500-**15 AMP** and B1500-**25 AMP** 250VAC slow blow.

240 VAC models; B500-**10 AMP** and B1500-**15 AMP** 250 VAC slow blow.

## 20. AC LINE CORD

All B500/B1500 Series bass amplifiers are supplied with detachable three conductor AC line cords. Make sure the cord is securely inserted into the back of the unit. Never defeat the ground of the AC line cord. If you must plug into a two prong outlet, use a quality 3 to 2 prong grounded adapter and properly ground it.

## FOR MAXIMUM OUTPUT:

- To get more output, use multiple speakers or enclosures. Every time you double your speakers, your acoustic output goes up by a factor of four. Load the amplifier down to its lowest minimum impedance for maximum RMS power.
- To get the highest output from your B500/B1500 bass amp use two 4 ohm speakers. Plug two **SPEAKON** cables into the rear **SPEAKER OUTPUT** connectors or daisy-chain another **SPEAKON** from speaker to speaker. Two 4 ohm speakers will give you a total impedance of 2 ohms, which is the maximum power from your amp. If you use more than two 4 ohm speakers, your amp will shut off and go into the "protect" mode. To reset, turn your amp off and connect only two 4 ohm speakers.
- SPEAKON** cables are recommended for your bass rig because of their high current capacity. While standard 1/4" speaker cables will work, the **CARVIN 12 GA SPEAKON** cables will allow higher currents to pass through the cable to extract every watt from your B500/B1500 bass amp.

## SPEAKER COMBINATIONS and OHMS (Ω):

Four x 8Ω cabinets =	2Ω	(OK)
Three x 8Ω =	2.66Ω	(OK)
Two x 8Ω =	4Ω	(OK)
Two x 4Ω =	2Ω	(OK)
One 8Ω and One 4Ω cabinet =	2.66Ω	(OK)
Two 8Ω and One 4Ω =	2Ω	(OK)
One 2.66Ω and One 8Ω =	2Ω	(OK)
Two x 2Ω =	1Ω	(no)
Three x 4Ω =	1.33Ω	(no)
Two x 4Ω and One 8Ω =	1.6Ω	(no)

The B1500 is a very powerful amplifier. As with any amplifier, make sure your speakers are suitable for the available wattage. Driving speakers with too much wattage will cause them to distort and eventually fail. If distorted sound is coming from the speakers, reduce the volume until the distortion stops.

 This symbol 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.

**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
**DO NOT OPEN**  


This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. 

**IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:**

**WATER AND MOISTURE:** Appliance should not be used near water (near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

**POWER SOURCES:** The product should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

**GROUNDING OR POLARIZATION:** Precautions should be taken so that the grounding or polarization is not defeated.

**POWER CORD PROTECTION:** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or adriest them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

**SERVICING:** The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

**FUSING:** If your unit is equipped with a fuse receptacle, replace only with the same type fuse. Refer to replacement text on the unit for correct fuse type.

**SAFETY INSTRUCTIONS (EUROPEAN)**

The conductors in the AC power cord are colored in accordance with the following code.

**GREEN & YELLOW—Earth    BLUE—Neutral    BROWN—Live**

**U.K. MAIN PLUG WARNING:** A molded main plug that has been cut off from the cord is unsafe. NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAIN PLUG INTO A POWER SOCKET.

**LIMITED WARRANTY**

Your Carvin product is guaranteed against failure for 1 YEAR unless otherwise stated. Carvin will service and supply all parts at no charge to the customer providing the unit is under warranty. Shipping costs are the responsibility of the customer. **CARVIN DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY.** Carvin assumes no responsibility for horn drivers or speakers damaged by this unit. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow instructions. 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. **CARVIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

**MAINTAINING YOUR EQUIPMENT**

Avoid spilling liquids or allowing any other foreign matter inside the unit. The panel of your unit can be wiped with a dry or slightly damp cloth in order to remove dust and bring back the new look. As with all pro gear, avoid prolonged use in caustic environments (salt air). When used in such an environment, be sure the amplifier is adequately protected.

**SERVICE**

In the USA, please call 800-235-2235 for a RMA # (return authorization number). Write this number on the box and enclose a description of the problem. Prepay to 12340 World Trade Drive, SD, CA 92128

Outside the USA, contact your dealer or go to <http://www.carvinworld.com> for your nearest service center. Include a written description of the problem with serial number and date of purchase.



**CAUTION**  
**RISK OF ELECTRIC SHOCK**

**REFER SERVICING TO QUALIFIED SERVICE PERSONNEL! THIS UNIT CONTAINS HIGH VOLTAGE INSIDE!**