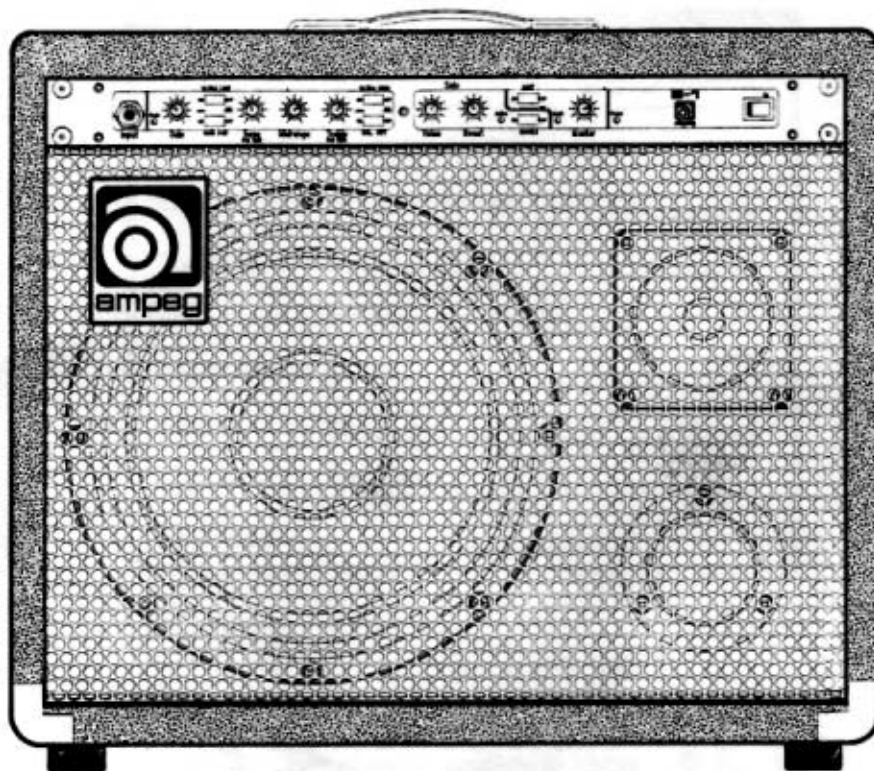

Owner's Guide
for the
ampeg
B-1 / B-1R
Bass Amplifier



Made in the
U.S.A.

by
ampeg

An Introduction to your new Ampeg B-1 / B-1R Bass Amplifier

First of all, **thank you** for making what could be one of the best choices you could ever make concerning your musical career - choosing one of the finest bass amplifiers available, the Ampeg B-1 or B-1R.

Whether you've purchased the portable B-1 combo system or the single rack space B-1R head version, your new bass amplifier offers you more power and flexibility than you may imagine possible from such a compact package. 150 watts of pure bass energy with 2 channel voices and total tone control, rugged construction and many outstanding features make this a true performer's bass amp.

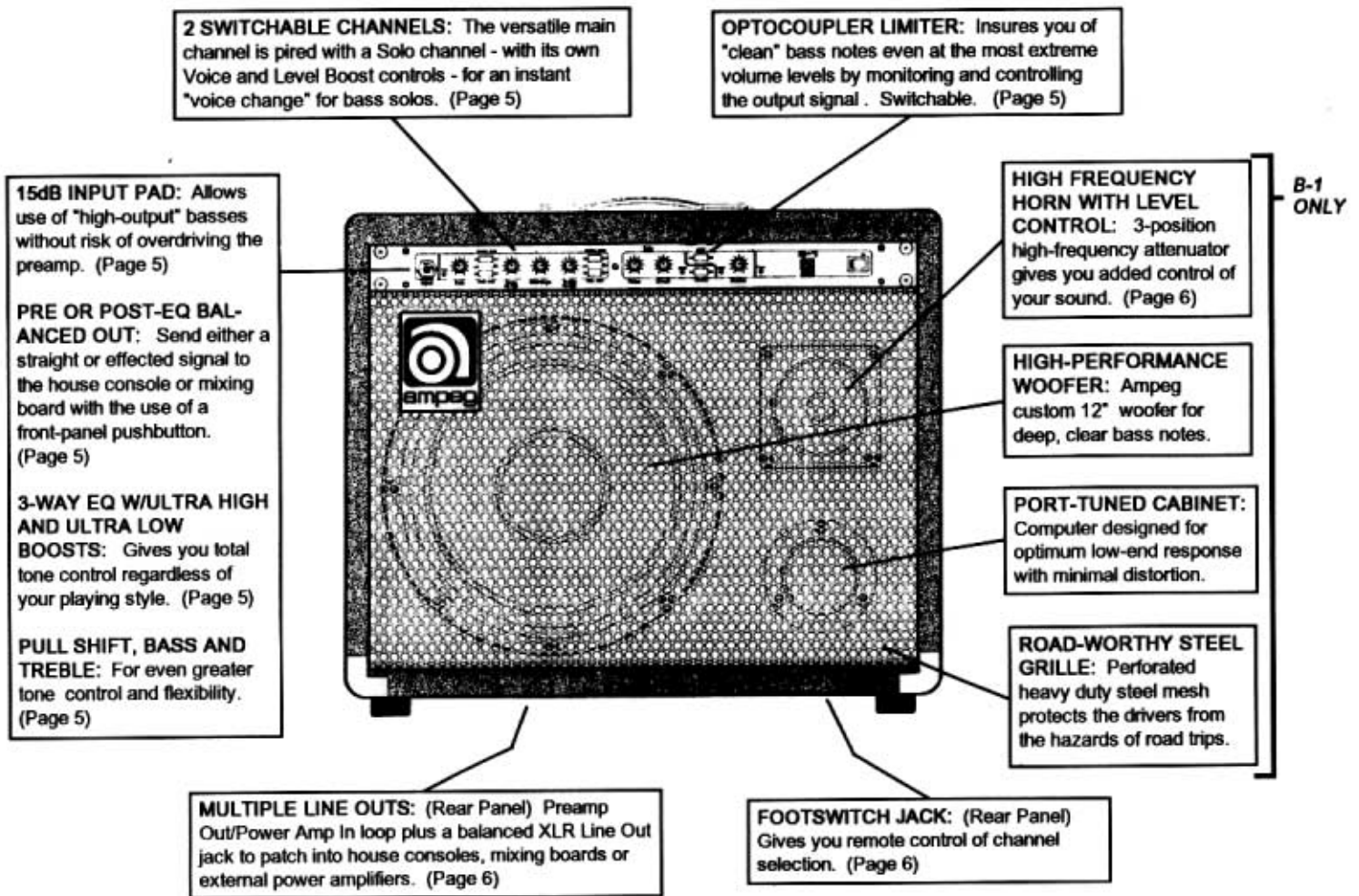
All of the features and controls of your B-1 / B-1R are covered in detail within the pages of this owner's guide. We recommend going over them before you use the amplifier.

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FEATURES

In the world of high-performance bass amps, Ampeg amplifiers stand alone. In true Ampeg tradition, your new B-1 / B-1R offers you more power, performance and flexibility than any other bass amplifier in its class. Below are some of the outstanding features of your new amplifier: features which set it - and you - apart from the competition!



Additional information on certain features can be found on the pages indicated.

IMPORTANT SAFEGUARDS AND PRECAUTIONS

All Ampeg products are designed for continued safe operation, as long as common sense is followed and steps are taken to help avoid certain problems. Abiding by the following rules can help prevent damage to your amplifier, yourself, and others.

-The amp is equipped with a three-prong AC power cord. To reduce the risk of electrical shock, **NEVER** remove or otherwise attempt to defeat the ground pin of the power cord.

-Connect the amplifier **ONLY** to a properly-grounded AC outlet of the proper voltage for your amp. If no grounded outlet is available, use **ONLY** an approved method of adapting to a two-prong AC source.

-Avoid sudden temperature extremes, rain and excessive moisture. Also, avoid sudden and intense impact. (If the unit has been subjected to any of the preceding abuses, have it looked at by an authorized service center. See page 8.)

-The amplifier is heavy: never set it up on a support that might give out under its weight.

-Unplug the amp before cleaning it. Never spray liquid cleaners onto the amp: wipe it with a slightly dampened, lint-free cloth to remove dirt and film.

-Don't use the amplifier if it has sustained damage to the cabinet, controls or power cord. Refer the unit to an authorized service center for inspection. (See page 8.)

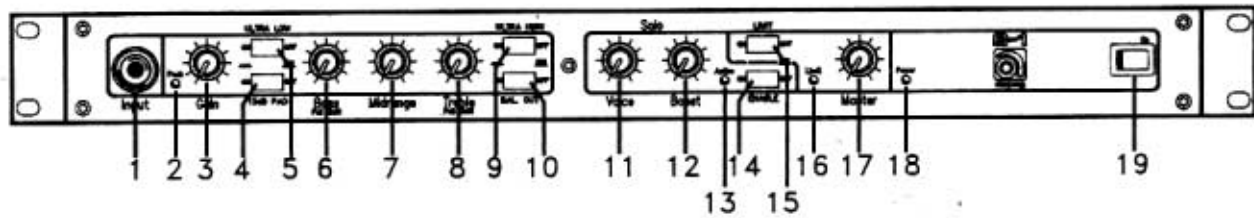
-Amplifiers capable of producing high volume levels are also capable of inflicting permanent hearing loss or damage, if the exposure to such levels is prolonged. Such damage is progressive and irreversible! Caution is advised and ear protection is recommended when playing at extremely loud levels.

The chart below shows the U.S. government's Occupational Safety and Health Administration (OSHA) regulations for permissible noise exposure, per 29CFR1910.95, table G-16:

SOUND LEVEL dBA, SLOW RESPONSE	DURATION PER DAY IN HOURS
90	8
92	6
95	4
97	3
100	2
102	1-1/2
105	1
110	1/2
115	1/4 or less

According to OSHA, any exposure in excess of those listed above could result in some hearing loss.

THE FRONT PANEL CONTROLS AND THEIR USE



1) INPUT: Connect your bass guitar here using a shielded instrument cable.

2) PEAK LED: This LED lights whenever any tube stage is near the point of being overdriven. Adjust the Gain control (#3) until a strong signal from your bass causes this LED to flicker.

NOTE: If the LED stays on with the Gain at a low setting, use the 15dB Pad (#4) to attenuate the input signal and readjust the Gain.

3) GAIN: This serves as the input level control for the amplifier. For the best signal-to-noise set this control so the Peak LED (#2) flashes when you strike a string fairly hard.

4) 15dB PAD: If your bass has high-output pickups or active electronics you may notice the Peak LED flashes or stays on even at low settings of the Gain control. To keep the signal clean, switch in the Pad. This will attenuate the input signal to the preamp allowing you to get the best signal to noise ratio for your bass.

5) ULTRA LOW: Pressing this switch IN greatly enhances the amount of low-end bass tones which you can feel and hear, especially the low E and low B strings (of a 5-string bass).

6) BASS/PULL SHIFT: This two-function knob serves as the primary low frequency control as well as performing the shift function for the mid-bass frequency center point. As the low frequency control, this allows for a range of 17dB of cut or boost at 40Hz in the normal position; 18dB at 80Hz in the out (shifted) position. When the control is pulled out the center point of the midrange control is also shifted. This has the greatest effect at low settings of the midrange control.

7) MIDRANGE: The primary midrange control. Allows for a range of 15dB of cut or boost at 200 to 600Hz, depending on the setting of the Shift switches (see #6 and 8).

8) TREBLE/PULL SHIFT: This two-function knob serves as the primary high frequency control as well as performing the shift function for the high frequency center point. As the high frequency control, this allows for a range of 17dB of cut or boost at 5kHz in the normal position; 22dB at 10kHz in the out (shifted) position. When the control is pulled out the center point of the midrange control is also shifted. The shift function has the greatest effect at low settings of the midrange controls.

9) ULTRA HIGH: Pressing this switch IN greatly enhances the amount of upper harmonic tones which accentuate such sounds as the strings slapping against the fretboard or your pick against the strings.

10) BAL. OUT: You may select either Pre or Post EQ for the signal at the Balanced Output XLR jack (#25, rear panel) with this switch. With the switch in the OUT position the signal at the jack will be *Pre-EQ*: a direct output, without being affected by any of the EQ or boost settings. With the switch in its IN position the signal is *Post-EQ* and is controlled and modified by the settings of the Gain and tone controls.

11) SOLO VOICE: The B-1's Solo channel allows you to instantly change the sound and level of your bass to a preset solo-perfect sound at the touch of a front-panel switch (see #14) or an optional footswitch (see #27). Rotate the Voice control to the left of center for a "contoured" sound (more distant, less midrange output) or to the right of center for a sound which really "cuts through."

12) SOLO BOOST: To increase the output of the Solo channel, rotate this control clockwise with the Solo Enable switch (#14) pressed in.

13) ACTIVE LED: This LED indicator lights when you engage the Solo channel by the front-panel Enable switch (#14) or a footswitch (see #27).

14) ENABLE: Press this switch IN to activate the Solo channel. Use of a footswitch overrides this switch.

15) LIMIT: The B-1 uses an internal Optocoupler Limiter to help keep the power amplifier's output "clean" at extreme volume levels. (All amplifiers may begin to clip their output signals as they approach maximum output levels, resulting in potentially damaging distortion.) To engage the Limiter, press in the Limit switch. Playing at full power with the Limiter off will give you increased output power, but the sound may be distorted - use discretion when playing without the Limiter.

16) LIMIT LED: This LED indicator will flash on any time the internal limiter circuit is called upon to keep the amplifier's output signal clean. This indicates that the amplifier is nearing full output and the limiter is keeping it from clipping the output signal.

17) MASTER: Set the overall output level of the amplifier with this control. The Effects Loop and Balanced Out (#24 - 26) are not affected by the Master control.

18) POWER LED: This LED indicator glows red when the power switch (#18) is ON.

19) POWER: This heavy-duty rocker switch applies the power to the amplifier: the amp is ON in the right position, OFF in the left position.

THE REAR PANEL



20) AC LINE IN: Firmly plug the female end of the supplied AC power cord into this socket, pushing it completely in until it is fully seated. Plug the male end of the cord into a grounded AC outlet. **DO NOT DEFEAT THE GROUND PRONG OF THE AC PLUG!**

21) SPEAKER OUTPUTS: These 1/4" jacks are for connecting the amplifier to your speaker(s). For the B-1 combo, use the supplied speaker cable to connect the output of the amplifier to your choice of the inputs on the crossover (see #29 and 30 below). **DO NOT** use an extension speaker when in the "combo" mode, as this will create a system impedance lower than 4 ohms. For the B-1R, connect the output(s) of the amplifier to your speaker(s) using high-quality speaker cable. **NOTE: When connecting multiple speaker cabinets to the B-1R, keep the overall impedance at or above four ohms!** The following chart shows the total

impedance load when connecting speaker cabinets in parallel:

Cabinet Impedance	# of Cabs	Total Impedance
4 ohms	1	4 ohms
8 ohms	2	4 ohms
16 ohms	4	4 ohms

22) POWER AMP IN: This mono jack allows you to feed the preamp output of another amplifier to the input of the B-1's internal power amp. This disconnects the B-1's preamp.

WARNING: This jack goes **directly to the amplifier. DO NOT** plug high-level signals into it!

23) PREAMP OUT: A post-EQ signal may be taken from this jack to be sent to the house mixing board, recording console or external power amplifier.

24) EFFECTS RETURN: To use an external effects device, connect the **OUTPUT** of the device to the Return jack using a shielded cable. This feeds the processed signal into the B-1's Master section.

25) EFFECTS SEND: Connect the output from the Send jack to the **INPUT** of your effects using shielded cable. This sends a post-EQ signal to your effects.

26) LINE OUTPUT, BALANCED: This XLR-type connector supplies a balanced pre-amp output signal for connecting to a house mixing board, recording console or external amplifiers with balanced inputs. The signal can be set to Pre or Post EQ by the front panel BAL. OUT switch (#10).

27) FOOTSWITCH: Plug an Ampeg AFP-1 footswitch here for remote control of the Solo channel. Use of a footswitch renders the front panel switch inoperative.

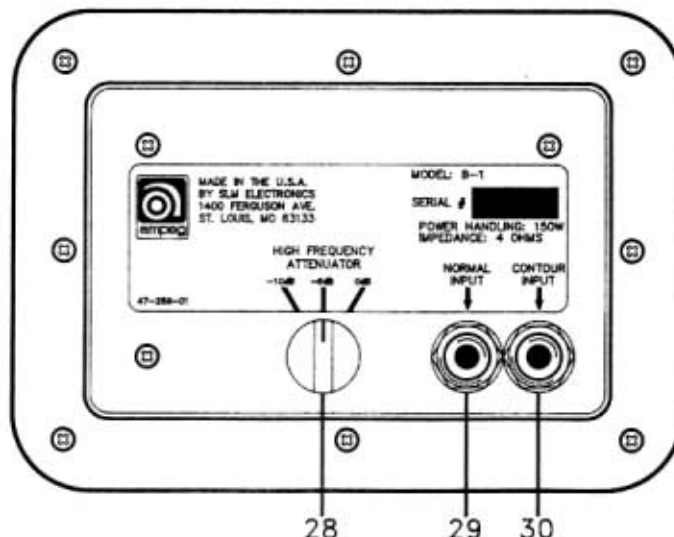
THE PASSIVE CROSSOVER (B-1 ONLY)

28) HIGH FREQUENCY ATTENUATOR: Adjustment of the output level from the tweeter can be made by setting this 3-way switch to the -6dB position for a moderate decrease or -10dB for a more drastic decrease in output. At the 0dB setting there is no attenuation of the tweeter level.

29) NORMAL INPUT: Connect the B-1's Speaker Output (#21) here for a full-range sound.

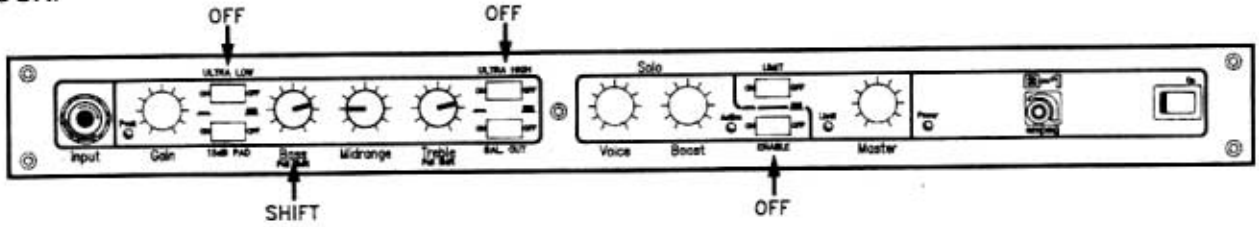
30) CONTOUR INPUT: Connect the B-1's Speaker Output (#21) here for a contoured sound - one with reduced midrange frequencies.

NOTE: DO NOT use the crossover's input jacks to "daisy-chain" multiple speaker cabinets together - they are **NOT** parallel inputs and do not function as such.

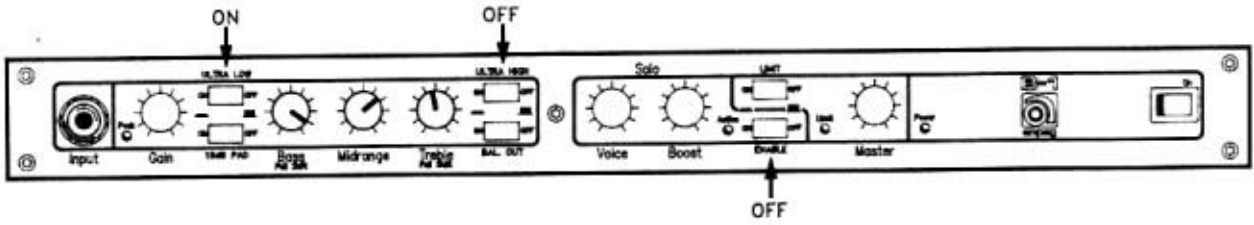


SOME SUGGESTED SETTINGS

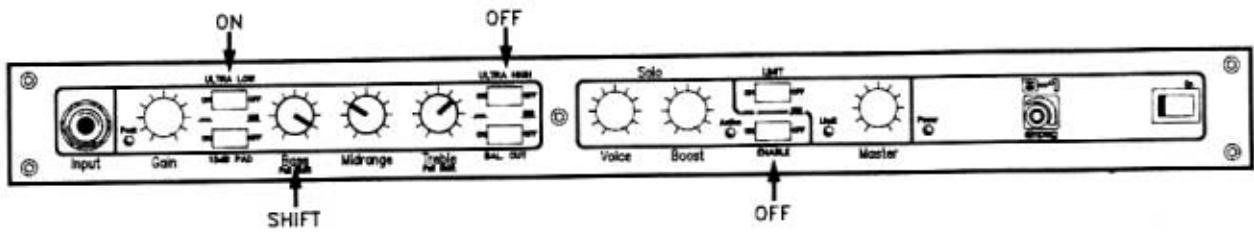
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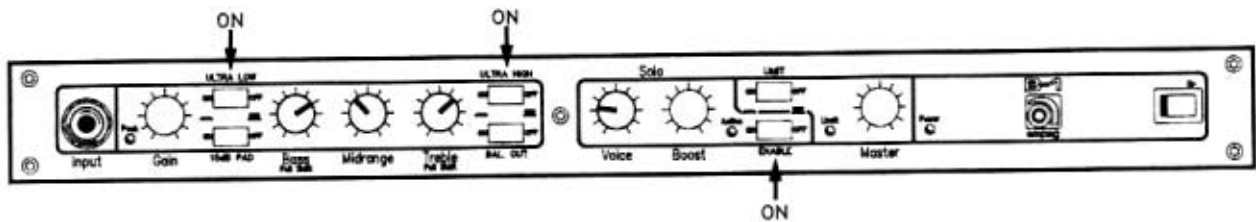
JAZZ:



COUNTRY:

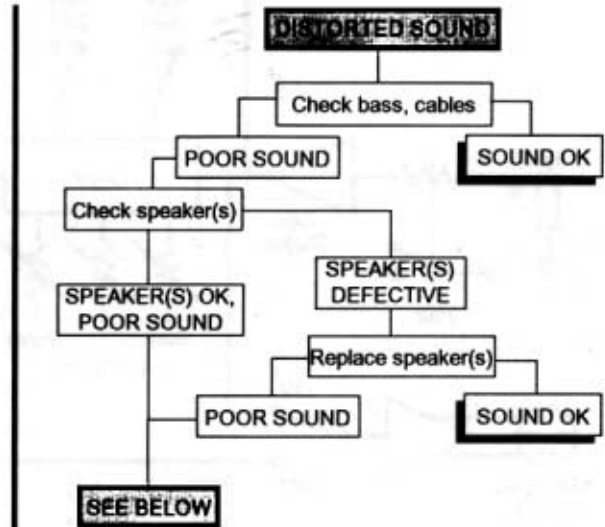
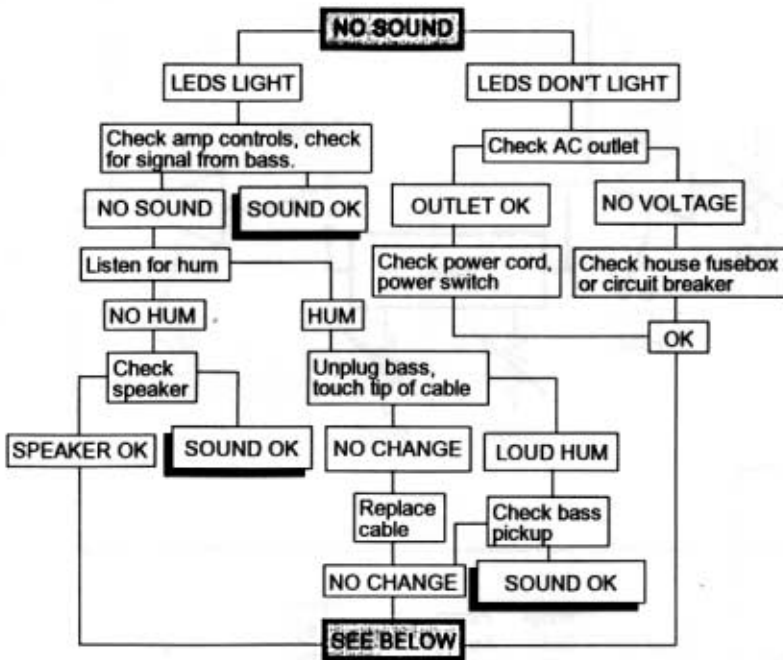


FUNK "POPPING:"



TROUBLESHOOTING

In the event that your B-1 / B-1R should stop working properly, or just stop working, take a few minutes to troubleshoot it before you call for service. You can save yourself a lot of time and sometimes money by doing it yourself, and often the cure for the problem is something quite simple.



If the problem isn't covered above, or if the steps led you here, then contact your Ampeg dealer for service information. Also, you should refer your amp for servicing if it gets dropped, has liquid spilled into it, or sustains damage to its power cord.

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B-1 / B-1R

TECH SPECS

OUTPUT POWER RATING	150 Watts RMS @5% THD, 4 ohm load 120 VAC
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TONE CONTROL RANGE

BASS:	17dB @ 40Hz 18dB @ 80Hz (shifted)
MIDRANGE:	15dB @ 200-600Hz, depending on shift controls
TREBLE:	17dB @ 5kHz 22dB @ 10kHz (shifted)
ULTRA LOW:	+6dB @ 50Hz
ULTRA HIGH:	+8dB @ 10kHz
SOLO VOICE:	from -9dB @ 500Hz to +7dB @ 2kHz
SOLO BOOST:	10dB

GAIN	45dB typical, tones @ center
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SIGNAL TO NOISE RATIO	78dB Typical
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TUBE COMPLIMENT	12AX7 (3)
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INTERNAL SPEAKER	Woofers	Tweeter
Size/Type:	12" Ampeg Custom	Wide-dispersion 4" HF Horn
Magnet:	56 oz	8 oz
Voice Coil:	2.5"	1"
Impedance:	4 ohm	8 ohm

POWER REQUIREMENTS

Domestic:	5A, 100/120VAC, 60Hz
Export:	2 1/2A, 220/240VAC, 50Hz

SIZE AND WEIGHT

	B-1	B-1R
	21"Wx18 1/2"Hx13"D	19"Wx1 3/4"Hx12 3/4"D
	63 lbs.	15lbs.

Ampeg reserves the right to change specifications without notice.

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