

Owner's Guide
for the
Ampeg
B5R
Bass Amplifier



Made in the U.S.A. by

Ampeg



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Important Safeguards and Precautions:

All Ampeg products are designed for continuous safe operation, as long as common sense is used 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 amplifier is equipped with a three-pronged 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.
- Avoid sudden temperature extremes, rain and 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.)
- **NEVER** set the amplifier on a support that might give out under its weight.
- Whenever using tall or stacked speaker cabinets, use them **ONLY** on a level surface. **NEVER** set tall or stacked cabinets on a surface with more than a five degree incline since tipping or falling could occur, possibly causing serious injuries.
- Always keep the total speaker impedance at or above the rated load.
- Unplug the amplifier before cleaning it. **NEVER** spray liquid cleaners onto the amplifier. 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 chassis, controls, or power cord. Refer the unit to an authorized service center for inspection.
- 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! See the chart below.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

ATTENTION
RISQUE D'ELECTROCUTION
NE PAS OUVRIIR

ATTENTION: POUR REDUIRE DELECTROCUTION NE PAS ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE NEST REPRABLE PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSER A UN TECHNICIEN QUALIFIE.

VORSICHT
ELEKTRISCHE SCHLAGEGFAHR
NICHT OFFENEN

VORSICHT: ZUR MINIMIERUNG ELEKTRISCHER SCHLAGEGFAHR NICHT DEN DECKEL ABENHMEN. INTERNE TEILE KÖNNEN NICHT VOM BENUTZER GEWARTET WERDEN. DIE WARTUNG IS QUALIFIZIERTEM WARTUNGSPERSONAL ZU ÜBERLASSEN.

THIS EQUIPMENT HAS BEEN DESIGNED AND ENGINEERED TO PROVIDE SAFE AND RELIABLE OPERATION. IN ORDER TO PROLONG THE LIFE OF THE UNIT AND PREVENT ACCIDENTAL DAMAGES OR INJURY, PLEASE FOLLOW THESE PRECAUTIONARY GUIDELINES:

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT OPEN CHASSIS; DO NOT DEFEAT OR REMOVE THE GROUND PIN OF THE POWER CORD; CONNECT ONLY TO A PROPERLY GROUNDED AC POWER OUTLET.

CAUTION: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION: OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. USER CAUTION IS ADVISED AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME. The chart below shows the U.S. Government Occupational Safety and Health Administration (OSHA) regulations which were in effect at the time of this publication for permissible noise exposure, per 29CFR1910, Table G-16.

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

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

EXPLANATION OF GRAPHICAL SYMBOLS:



"DANGEROUS VOLTAGE"
"DANGER HAUTE TENSION"
"GEFAHRLICHE SPANNUNG"



"IT IS NECESSARY FOR THE USER TO REFER TO THE INSTRUCTION MANUAL"
"REFERREZ-VOUS AU MANUAL D'UTILISATION"
"UNBEDINGT IN DER BETRIEBUNGSANLEITUNG NACHSCHLAGEN"



An Introduction to your new Ampeg B5R Bass Amplifier:

Thank you for making one of the best choices you will ever make for your musical career – choosing one of the finest bass amps available, the Ampeg B5R. This versatile and powerful bass amplifier delivers up to 675 watts of unsurpassed musical power, and offers several outstanding features.

All of the features and controls of your B5R are covered in detail within the pages of this owner's guide. We recommend going over them before you use the amplifier.

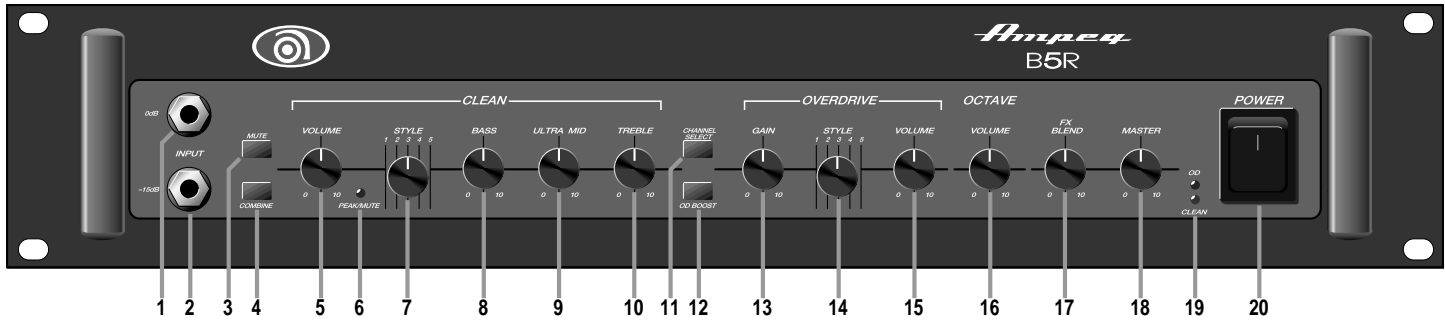
Features:

In the world of high performance bass amps, Ampeg amplifiers stand alone. In true Ampeg tradition, the B5R offers you more power, performance and flexibility than any other bass amplifier in its class. The outstanding features of your new amplifier, features which set it apart from the competition, are listed below.

- **TWO SEPARATE CHANNELS:** Clean and Overdrive, with the ability to combine the two for a unique sound and added versatility
- **TWO 5-POSITION STYLE CONTROLS:** Take your pick from five different tone variations to best suit your playing style
- **OCTAVE CIRCUIT:** Adds another signal to the input signal, one octave lower than the original
- **FX BLEND:** Varies the amount of external effects mixed into the signal
- **TUNER OUT JACK:** Allows connection to an electronic tuner and provides an “always live” monitor feed even when the other outputs are muted
- **HEAVY-DUTY SPEAKER JACKS:** A Speakon® jack is provided for a more reliable connection at higher outputs, as well as a pair of 1/4” jacks
- **TRANSFORMER BALANCED/UNBALANCED LINE OUTPUTS:** Balanced XLR and 1/4” line output jacks
- **EFFECTS LOOP:** Connect your effects here for increased intensity and quieter operation
- **POWER AMP IN/PREAMP OUT:** A separate preamp may be connected to the Power Amp In jack, and the Preamp Out jack may be connected to a slave amp, or use as a patch point for active devices such as compressors, EQs, etc.
- **FOOTSWITCH CONTROL:** Use footswitches to control channel selection, the octave circuit, and the channel combine feature
- **CIRCUIT BREAKER PROTECTION:** A heavy duty, resettable circuit breaker provides protection against fault conditions
- **BUILT-IN NOISE GATE:** A preset internal noise gate helps keep the Overdrive channel quiet while no signal is present



The Front Panel:



1. 0dB INPUT: The signal output from an instrument (active or passive – typically passive) or a line level signal may be connected here by means of a shielded instrument cable. The signal at this jack is sent into the preamp at full amplitude.

2. -15dB INPUT: The signal output from an instrument (active or passive – typically active) or a line level signal may be connected here by means of a shielded instrument cable. The signal at this jack is reduced 15dB before it is sent into the preamp.

3. MUTE: This switch, when depressed, mutes all outputs *except* the Tuner Out (28). This is excellent for tuning your bass with an electronic tuner without having to adjust any levels or turn down your stage volume.

4. COMBINE: This switch, when depressed, allows the clean channel to remain active when the overdrive channel is selected, combining the two channels to create a different-sounding “third channel.”

CLEAN CHANNEL:

5. VOLUME: This control adjusts the output level for the clean channel and the input to the Octave circuit (16). Adjust this control no higher than that which causes the Peak/Mute LED (6) to flash on strong signal peaks.

6. PEAK/MUTE LED: This LED flashes when the signal level in the preamp approaches clipping. When the Mute switch (3) is depressed, this LED remains illuminated until the Mute is turned off.

7. STYLE: This five-position switch allows you to vary the tone of the clean channel. The following table lists each of the different settings – experiment with the Style and other EQ controls for the results which suit you best.

- POSITION 1:** Fully “scooped” mids (mid cut)
- POSITION 2:** Traditional passive tone setting
- POSITION 3:** Basically flat
- POSITION 4:** Boosted high end
- POSITION 5:** Basically flat with low end roll-off – for loud playing without “muddiness”

8. BASS: This is the primary low frequency control which has a range of 22dB @ 50Hz.

9. ULTRA MID: This is the primary midrange control which has a range of 13dB @ 250Hz.

10. TREBLE: This is the primary high frequency control which has a range of 22dB @ 8kHz.

11. CHANNEL SELECT: This switch selects the clean channel in the out position and the overdrive channel when depressed.

OVERDRIVE CHANNEL:

12. OD BOOST: This switch, when depressed, adds gain and tone shaping to the overdrive channel signal for heavy overdrive.

13. GAIN: This control sets the level of the signal entering the pre-amp stage.

14. STYLE: This five-position switch allows you to vary the tone of the overdrive channel. The following table lists each of the different settings – experiment with the Style control for the results which suit you best.

- POSITION 1:** Mid cut – for clean to semi-overdriven sound
- POSITION 2:** Slight mid cut
- POSITION 3:** Basically flat
- POSITION 4:** High end roll-off
- POSITION 5:** Large mid peak tailored for heavily overdriven sound combined with the clean channel

15. VOLUME: This control adjusts the output level for the overdrive channel.

16. OCTAVE VOLUME: This control adjusts the output level for an added signal which is one octave lower than the instrument’s original signal. This signal is dependent on the clean channel’s Volume control (5) and can be switched by the Octave footswitch (31). The effectiveness of this signal depends on playing style, pickup selection, and neck position.

17. FX BLEND: This control varies the mix between the direct (dry) signal and the effects (wet) when the effects loop (26,27) is used. Full counterclockwise results in all direct signal (no effect) and full clockwise gives all effect and no direct signal. The clockwise position is equivalent to a series effects loop and should be used with such devices as limiters and equalizers.

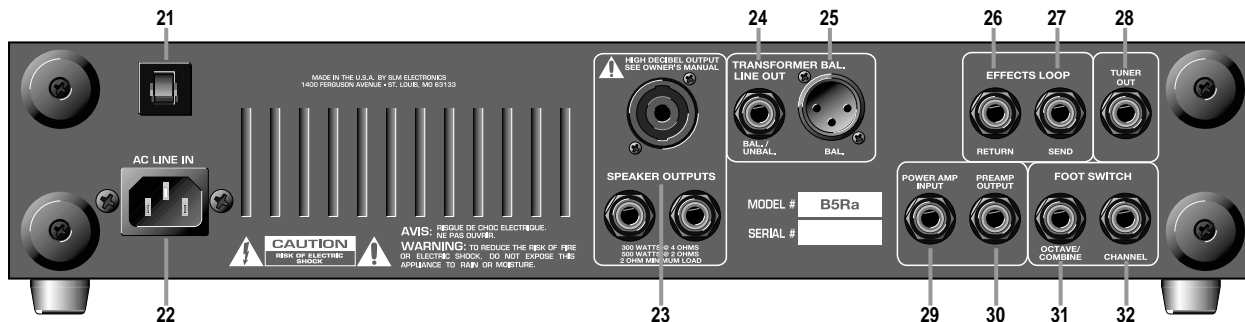
18. MASTER: This control sets the overall output level of the amplifier.

19. OD/CLEAN LEDS: The red LED (“OD,” upper) illuminates when the overdrive channel is selected, while the green LED (“CLEAN,” lower) illuminates when the clean channel is selected.

20. POWER: This heavy-duty rocker switch applies AC power to the amplifier. The amp is ON when the top of the switch is depressed, OFF when the bottom of the switch is depressed.



The Rear Panel:



21. CIRCUIT BREAKER: The B5R employs an AC line circuit breaker to help protect against damage due to excessive current demands. If the amplifier stops working, check the circuit breaker. If it has opened, the button will be protruding and showing a contrasting color. You can reset the circuit breaker by pushing it in until it latches. The breaker must cool down for a short time before the button will latch. If the circuit breaker opens repeatedly, have the amplifier checked by a qualified service person.

22. AC LINE IN: Firmly insert the supplied AC power cord into this socket 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!**

23. SPEAKER OUTPUTS: The 1/4" jacks offer a convenient method of connecting to speaker cabinets using cables terminated with 1/4" plugs. However, when using the amplifier at or near its full output power, using the Speakon® jack is recommended.

24,25. TRANSFORMER BAL. LINE OUT: These jacks supply a pre-Master, line level signal for connection to a house mixing board, recording console or external amplifier(s). The 1/4" jack (24) provides a balanced or an unbalanced signal (depending on the signal cable used); the XLR-type jack (25) provides a balanced signal.

26. EFFECTS LOOP RETURN: When using external effects, connect the effect's output into this jack by means of a shielded instrument cable.

27. EFFECTS LOOP SEND: When using an external signal processor, connect this jack to the input of the effect by means of a shielded instrument cable.

28. TUNER OUT: This jack is provided for connection to an electronic tuner and is always "live," even when the Mute switch (3) is engaged, allowing for "silent tuning" as well as a monitor feed which remains active when the other outputs are muted.

29. POWER AMP INPUT: This jack connects directly to the power amp for use with an external preamp. When using an external source, connect the OUTPUT of the source to this jack by means of a shielded instrument cable to feed the signal into the power amp section. The internal signal is disconnected when a plug is inserted.

30. PREAMP OUTPUT: This jack is a direct preamp output for use with an external power amplifier, mixing board, external effects, etc. Connect the external unit input to this jack by means of a shielded instrument cable. Using this output does not break the connection to the internal power amplifier.

31. OCTAVE/COMBINE FOOTSWITCH: Connect a two button footswitch to this jack for remote control of the Octave and Combine features. The tip connection controls the Octave feature and the ring connection controls the Combine feature.

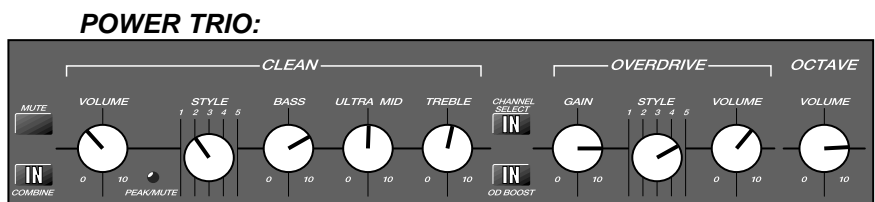
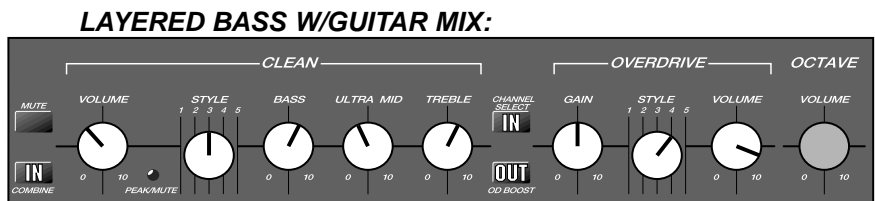
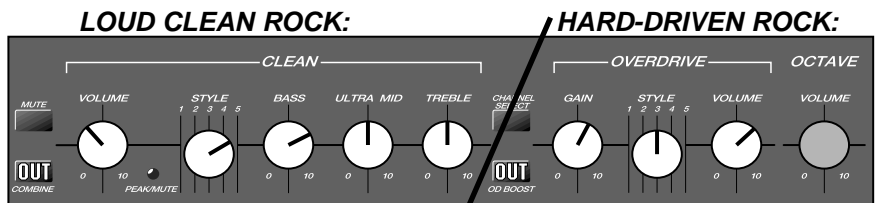
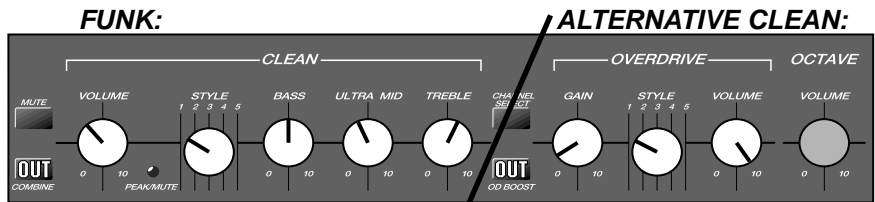
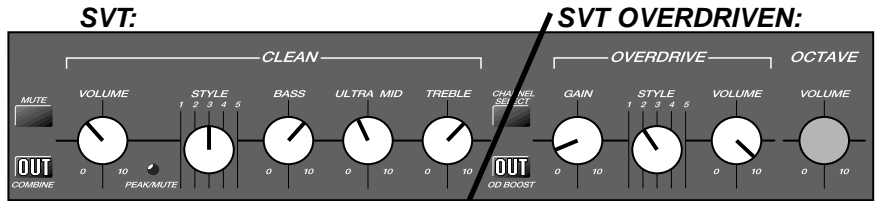
32. CHANNEL FOOTSWITCH: Connect a single button footswitch to this jack for remote channel selection.



Some Suggested Settings

Since so many variables affect the actual sound of any system, the following settings are offered as starting points to help you find the exact sounds your playing demands. When using the B5R, please keep in mind the following points:

- The Volume and Gain controls are used together to set the relative levels of each channel and the octave signal.
- The Master control should be set to produce the appropriate output volume level.



Rack Mounting

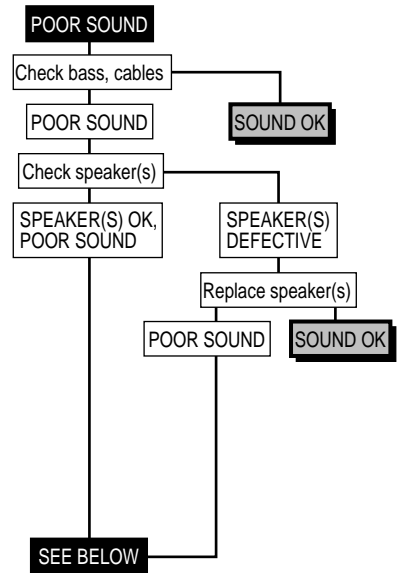
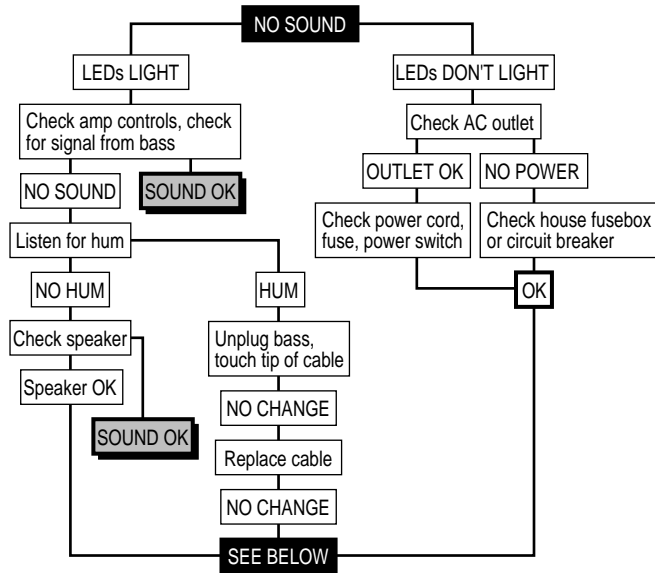
When mounting the amplifier into a rack, the four bottom feet should be removed to maintain the three rack space height of the amplifier. Be sure to keep the feet and their attachment bolts for future use. If the feet are reinstalled, never use screws which will protrude farther into the amplifier than the original hardware.

The rack must be a high quality enclosure capable of securely supporting the weight of the amplifier. Tighten the mounting screws securely through the amplifier's face plate, into the rack rails. Check the rack and mounting screws occasionally to ensure a continual safe and secure installation.



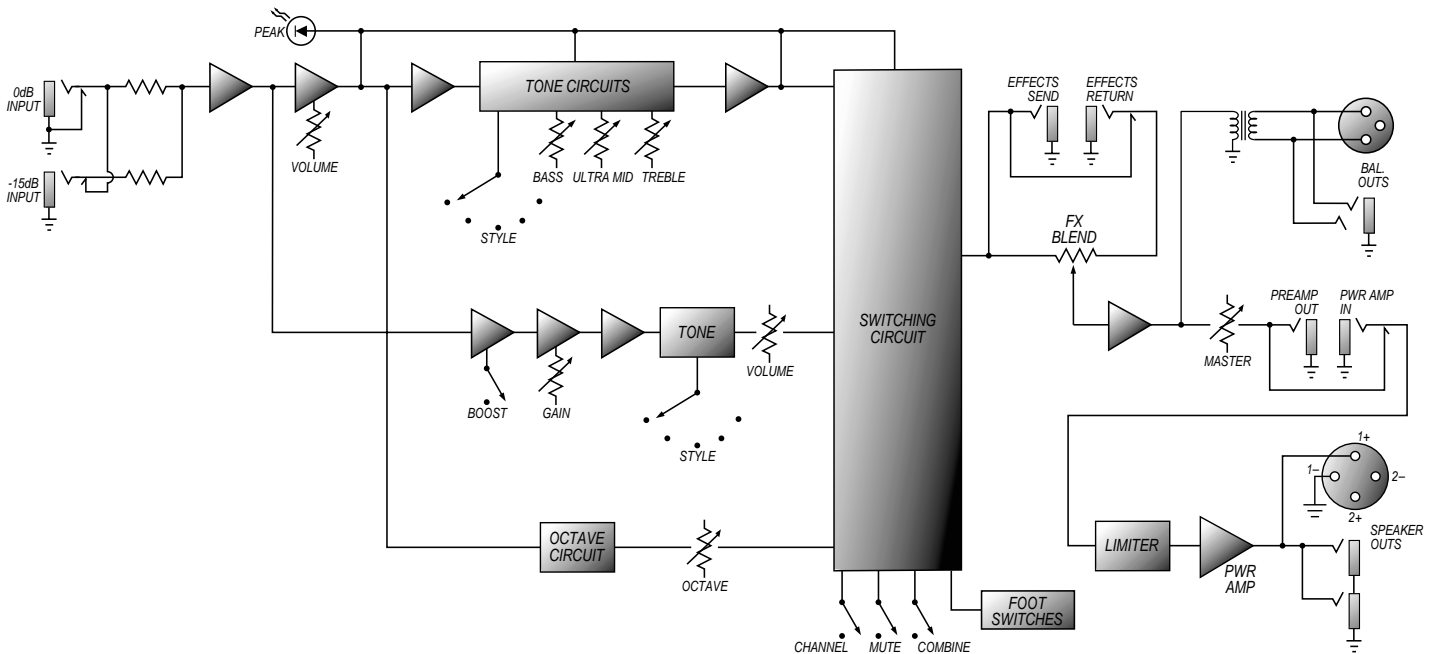
Troubleshooting

In the unlikely event that your B5R should malfunction, take a few minutes to troubleshoot it before you call for service. You can save yourself time and money by doing it yourself, and often the problem is something quite simple.



If the problem isn't covered above, or if the steps lead you here, then contact your Ampeg dealer for service information. Also, you should refer your amp to an authorized service center if it gets dropped, has liquid spilled into it, or sustains damage to its power cord (see page 2).

System Block Diagram





Ampeg B5R Bass Amplifier

Technical Specifications

OUTPUT POWER RATING	675 Watts @ 2 Ohms (500 Watts Continuous) 380 Watts @ 4 Ohms (310 Watts Continuous) 220 Watts @ 8 Ohms (180 Watts Continuous)
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TONE CONTROL RANGE

Bass: 22dB range @ 50Hz
Ultra Mid: 13dB range @250Hz
Treble: 22dB range @ 8kHz

SIGNAL TO NOISE RATIO	75dB typical
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FOOTSWITCH JACKS	A: Channel Switch; B: Octave (Tip), Channel Combine (Ring)
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POWER REQUIREMENTS

Domestic: 120VAC, 60Hz, 545VA
Export: 100-120VAC 50/60Hz, 545VA
220-240VAC, 50/60Hz, 545VA

SIZE AND WEIGHT	19/17.4"W x 3.8"H (with feet) x 15.5"D; 32 lbs
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Ampeg reserves the right to change specifications without notice.



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P/N 47-043-01 · 05/00