

## LIMITED WARRANTY

BC Audio warrants this product against defects in materials and workmanship for ONE (1) YEAR from date of original retail purchase (30 days for tubes). BC Audio reserves the right, before having any obligation under this limited warranty, to inspect the damaged product, and all costs of shipping the product to BC Audio for inspection shall be borne solely by the purchaser. In order to recover under this limited warranty, Purchaser must make claim to BC Audio within 30 days of occurrence, and must present acceptable proof of original ownership (such as original receipt) for the product. BC Audio, at its option, shall repair or replace the defective unit covered by this warranty.

This limited warranty does not cover any damage to this product that results from improper installation, accident, abuse, misuse, neglect, natural disaster, insufficient or excessive electrical supply, abnormal mechanical or environmental conditions, or any unauthorized disassembly, repair, or modification. This limited warranty also does not apply to any product on which the original identification information has been altered, obliterated or removed, has not been handled or packaged correctly, has been sold as second-hand or has been resold contrary to the US export regulations.

This limited warranty covers only repair or replacement of defective BC Audio products, as provided above. In the event of a claim, BC Audio's sole obligation shall be replacement of the product.

### DISCLAIMER OF WARRANTY

EXCEPT FOR THE LIMITED WARRANTY PROVIDED HEREIN, TO THE EXTENT PERMITTED BY LAW, BC AUDIO DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT THAT ANY IMPLIED WARRANTIES MAY NONETHELESS EXIST BY OPERATION OF LAW, ANY SUCH WARRANTIES ARE LIMITED TO THE DURATION OF THIS WARRANTY. SOME STATES/PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

### LIMITATION OF LIABILITY

REPAIR OR REPLACEMENT OF THIS PRODUCT, AS PROVIDED HEREIN, IS YOUR EXCLUSIVE REMEDY. BC AUDIO SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, PROPERTY DAMAGE, LOST REVENUES, LOST PROFITS, RENTAL OF REPLACEMENT EQUIPMENT, DOWNTIME, DAMAGE TO PROPERTY, AND THIRD-PARTY CLAIMS, ARISING OUT OF ANY THEORY OF RECOVERY, INCLUDING WARRANTY, CONTRACT, STATUTORY OR TORT. NOTWITHSTANDING THE TERM OF ANY LIMITED WARRANTY OR ANY WARRANTY IMPLIED BY LAW, OR IN THE EVENT THAT ANY LIMITED WARRANTY FAILS OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL BC AUDIO'S ENTIRE LIABILITY EXCEED THE PURCHASE PRICE OF THIS PRODUCT. SOME STATES/PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE AND PROVINCE TO PROVINCE.

©2018 Bruce Clement, BC Audio, San Francisco

Other copyrights and trademarks are the property of their respective owners.

[www.bcaudio.com](http://www.bcaudio.com)

# bc audio

hand-made all-tube non-clone guitar amps

## *Bel Air 40*

### OWNER'S MANUAL

Model BA40



The Bel Air 40 guitar amplifier features a series of Power Tube Configuration switches that allow you to reach inside the amp, so to speak, and re-wire the power section in multiple ways. Additionally, a number of unique and thoughtfully designed controls give you the power to finely tune the tonal and dynamic response of the amp. The Bel Air 40 utilizes Octal preamp tubes and true point-to-point wiring. Construction is heavy-duty, meant for real-world use and abuse. Made with the highest quality components and USA iron.

I sincerely hope you enjoy playing your new Bel Air 40 as much as I enjoyed building it.

### ESSENTIAL INFORMATION

Tube placement, left to right (facing the rear):

V1	V2	V3	V4	V5	V6	V7
6SL7	6SL7	6V6	6V6	6V6	6V6	GZ34

Your amplifier is hard-wired for the correct line voltage for your region. The following data is for 120VAC line voltage.

Power: 120VAC, 60Hz, 2A

Mains Fuse: 3A Slow Blow, Type 3AG, 1/4" x 1-1/4"

H.T. Fuse: 500mA, Type 3AG, 1/4" x 1-1/4"

When replacing power tubes, always replace with a matched quad and have the bias checked and adjusted by a qualified professional. For detailed information on setting the bias, have your amp technician contact BC Audio.

## IMPORTANT SAFETY INSTRUCTIONS



READ, FOLLOW, HEED, AND KEEP ALL INSTRUCTIONS AND WARNINGS. WE MAY COME TO YOUR HOUSE FOR VERIFICATION.

- DO NOT REMOVE SCREWS ON BOTTOM OF UNIT. LETHAL VOLTAGES LURK INSIDE. BOO! CONTACT THE MANUFACTURER FOR SERVICE INFORMATION. SERVICE MUST BE PERFORMED BY QUALIFIED PERSONNEL, NOT YOUR COUSIN WHO WIRED YOUR BASEMENT.
- THIS AMPLIFIER IS CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. YEAH! CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. WHAT? USER CAUTION IS ADVISED AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME, WHICH OF COURSE IT SHOULD BE.
- WHEN POWERED ON, THE TUBES MAY BECOME VERY HOT, HOT ENOUGH TO BURN SKIN ON CONTACT. SO DON'T TOUCH 'EM. AND KEEP OUT OF REACH OF CHILDREN AND PETS.
- DO NOT OPERATE WITHOUT SPEAKER OR OTHER SUITABLE LOAD CONNECTED TO THE SPEAKER JACK, AS DAMAGE TO THE AMPLIFIER AND YOUR REPUTATION MAY RESULT.
- DO NOT OPERATE NEAR ANY HEAT SOURCE, ESPECIALLY A SWEATY ONE.
- DO NOT OPERATE WITH VENTILATION OPENING(S) COVERED, AS THIS MAY OVERHEAT THE AMPLIFIER. DUH.
- DO NOT USE NEAR SPLASHING, FALLING, SPRAYING, OR STANDING LIQUIDS. AND DON'T EVER LET SOME FOOL SET HIS DRINK ON YOUR RIG.
- CLEAN ONLY WITH A LINT-FREE DRY CLOTH. DO NOT USE CLEANING AGENTS. WHO CLEANS THEIR AMP, ANYWAY?
- CONNECT POWER CORD ONLY TO A POLARIZED, SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRICAL CODES AND COMPATIBLE WITH VOLTAGE, POWER, AND FREQUENCY REQUIREMENTS STATED ON THE APPLIANCE. THIS MEANS YOU.
- PROTECT THE POWER CORD FROM DAMAGE DUE TO BEING WALKED ON, PINCHED OR STRAINED. IF YOU SMELL AN ELECTRICITY LEAK, CALL THE AUTHORITIES IMMEDIATELY.
- UNPLUG THE APPARATUS DURING LIGHTNING STORMS, WHEN NOT IN USE OR FOR LATE-NIGHT SILENT OPERATION.
- REPLACE FUSE WITH CORRECT TYPE AND RATING AS INDICATED IN THIS MANUAL AND ON THE APPLIANCE. DO NOT STUFF WITH FOIL FROM YOUR CHEWING GUM.
- ONLY USE ATTACHMENTS, ACCESSORIES, STANDS OR BRACKETS SPECIFIED BY THE MANUFACTURER FOR SAFE OPERATION AND TO AVOID INJURY TO YOU AND MEMBERS OF THE AUDIENCE.

## POWER TUBE CONFIGURATION Switches

**QUAD/PAIR** Selects four or two 6V6 power tubes. This serves as a half-power switch, with the Quad setting providing more girth and punch.

**PENTODE/TRIODE** Sets the operating mode of the 6V6 power tubes, reducing power by about half in Triode mode, and also noticeably changing the tone and feel of the amp, with Pentode mode being tighter and cleaner, while Triode mode feels smooth and loose.

**FIXED BIAS/CATHODE** Selects the way the 6V6 power tubes are biased, changing the power and dynamics of the power section, cathode bias mode being slightly lower-powered, more compressed and a little bit browner.

The Power Tube Configuration switches is independent and can be set in any combination. Depending on how they are set, power output ranges from 40 clean watts down to less than 5.

## FRONT PANEL CONTROLS AND FEATURES, Right to Left

**INPUT** Standard 1/4" guitar input jack.

**VOLUME** Standard volume control, set the overall loudness of the amplifier.

**BRIGHT Switch** 3-way switch allowing for two levels of added treble response, or none, at the input of the amplifier.

**BODY** Controls the low and low-mid frequency response of the amp. Set Body lower when driving the amp harder.

**BASS, MID & TREBLE, EQ IN/OUT Switch** Tone-shaping controls and bypass switch.

**PRESENCE & CUT, NFB Switch** Presence and Cut are complementary and interactive, offering superb control over the amplifier's top-end response. The 3-way Negative Feedback switch alters the damping and open-loop gain of the power section, with the Zero NFB setting being the most raw and touch-sensitive. Note that the effectiveness of Presence changes with the amount of negative feedback.

**POWER TUBE CONFIGURATION Switches** See above.

**POWER Switch & Indicator** Standard power switch and power-on indicator.

## REAR PANEL CONTROLS AND FEATURES, Left to Right

**IMPEDANCE** Matches the amplifier's output impedance to your speaker cabinet(s).

**SPEAKERS** Two standard 1/4" speaker output jacks. Always use speaker cables - NOT guitar cables - to connect speaker cabinets, or damage to the amplifier may occur. Do not operate the amplifier without a speaker or suitable load connected, as this can cause damage to the amplifier.

**FUSES** Replace with same type and rating only. The MAINS fuse is on the main power input to the amplifier. The HT or High Tension fuse is on the B+ plate voltage supply.

**MAINS INPUT** Standard IEC power inlet. Always use a proper grounded power cable. Your amplifier shipped with a Hospital Grade cable for reliability.