CRATE

G600 XL
G1600 XL

GUITAR AMPLIFIER

G600XLH GUITAR AMPLIFIER
G1600XLH GUITAR AMPLIFIER

We would like to take this opportunity to thank you for selecting a Crate product, and to tell you of our commitment to the design and manufacture of only the finest musical instrument amplification equipment; built for you, the musician.

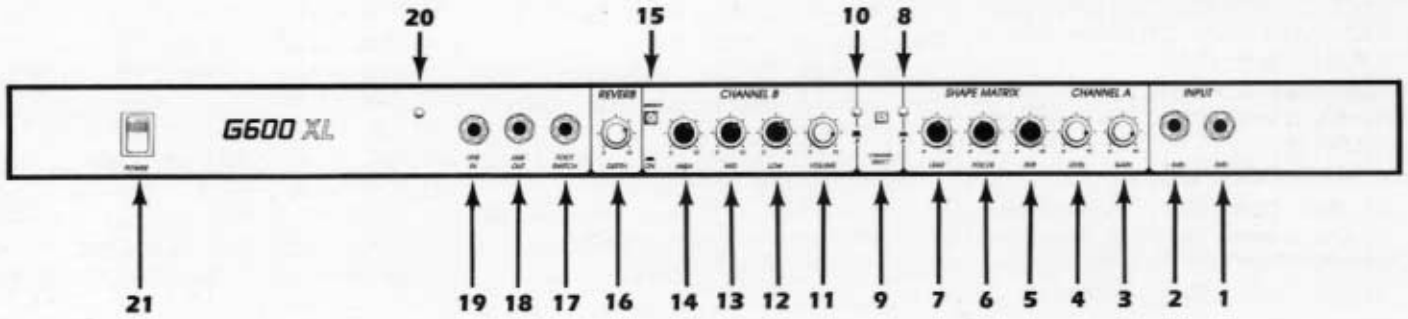
You have purchased one of the most innovative sound amplification devices available today. Your Crate amplifier gives you more performance features than ever before; features that you, the musician, have asked for.

Your Crate amplifier is an American product, manufactured at our factory in St. Louis, Missouri. Only the finest available components and materials are used in the manufacture of each amplifier.

All Crate amplifiers are subject to seven or more inspection and testing steps to assure you of a high quality product. The final test for each amp is conducted by a trained musician with the instrument the amp was designed for. Any unit that does not meet the standards of his discriminating ear will not be passed.

Since all Crate products are designed, developed, and manufactured through the cooperative efforts of engineers and professional musicians, the end result is a product that responds to the musician's audio requirements, and a product that will serve your needs for years to come.

OPERATION



FRONT PANEL FEATURES AND FUNCTIONS

INPUT SECTION

1. **0 dB INPUT JACK:** This input accepts a standard 1/4" phone plug and is suitable for any low to line level signal source such as an electric guitar.
2. **−6 dB INPUT JACK:** This input also accepts a standard 1/4" jack but is padded 6 dB for hotter inputs such as tape decks or guitars with hot pickups. If both jacks are used, this input is not padded and will be equal to the 0 dB input jack.

CHANNEL A CONTROLS

3. **GAIN CONTROL:** This control sets the amount of gain for Channel A and is used to vary the amount of distortion. Minimal distortion is achieved with this control rotated counter clockwise. A fully clockwise setting creates maximum distortion.
4. **LEVEL CONTROL:** The overall volume of Channel A is controlled with this knob and should be used in conjunction with the Gain Control (#3).
5. **SUB CONTROL:** This control is part of the shape matrix and is used for adding bottom end to the A Channel.
6. **FOCUS CONTROL:** This is the overall tone control for Channel A. When turned to the left, a setting with heavy emphasis on mid range is achieved. When rotated to the right, the amp creates a "fat" sound with extra boost on lows and highs.
7. **LEAD CONTROL:** This control is part of the shape matrix and is used in adding a lead sound to the A Channel.

CHANNEL SWITCHING CONTROLS

8. **CHANNEL A INDICATOR:** The amplifier is in Channel A mode with this LED lit.

9. **CHANNEL SELECT SWITCH:** This switch is used to select between Channel A and Channel B.
10. **CHANNEL B INDICATOR:** The amplifier is in Channel B mode with this LED lit.

CHANNEL B CONTROLS

11. **VOLUME CONTROL:** This control sets the overall listening level of Channel B. This control is independent of any setting made in Channel A.
12. **LOW CONTROL (Bass):** The desired amount of "Bottom" or "Warmth" may be increased or decreased with this knob.
13. **MID CONTROL (Mid):** The tonal qualities of the midrange are very important to a good guitar sound. This knob can "thin-out" the sound when turned down, or "fatten-up" the tone when larger amounts are used.
14. **HIGH CONTROL (Treble):** This knob will affect the upper harmonic range of the guitar. Boosting it sharpens or adds crispness to the sound. For additional effect, use this control in conjunction with the Bright Switch (#13).
15. **BRIGHT SWITCH:** This switch affects the brilliance of the guitar's sound by adding additional "bite" or sharpness. This switch affects only Channel B.

REVERB SECTION

16. **REVERB DEPTH CONTROL:** This control allows the player to alter the apparent acoustical qualities of a room. The sound can be altered from very "Flat" or "Dry" when the control is turned off, to that of a concert hall when used in larger amounts.

FOOTSWITCH SECTION

17. **FOOTSWICH JACK:** This jack is to be used with the Channel Selector/Reverb footswitch.

EFFECTS LOOP

18. **LINE OUT JACK:** This jack is used to link the G600XLH/1600XLH to additional amplifiers or to connect the amp to a tape recorder. Simply run a cable from the output of this jack to the input of another amplifier or tape deck. External speakers cannot be hooked up to this jack.
19. **LINE IN JACK:** This jack is used as a direct input to the power amp. It can be used in conjunction with the Line Out jack for an effect loop.

POWER

20. **ON/OFF LED INDICATOR:** The amplifier is on when the LED is lit.
21. **ON/OFF SWITCH:** This is a two position switch, the down position will turn the unit on, while the up position off.

REAR PANEL FEATURES AND FUNCTIONS (NOT SHOWN)

22. **POWER CORD:** Your G600XLH/1600XLH is equipped with a heavy-duty grounded three-wire power cord. Be sure this cord is properly plugged into a safely wired grounded 120 volt, 60 Hz AC power outlet before use. (If your G600XLH/1600XLH was purchased outside the United States, refer to the rear panel for power ratings). For your safety, never attempt to defeat the ground connection on this cord.
23. **EXTERNAL SPEAKER JACKS:** These jacks are used to connect the speakers to the power amp. The G600XLH/1600XLH external jacks are hooked up in parallel; so adding additional speakers will lower the total load impedance of the power amp. Do not go below 2 ohms total load impedance.

G600XLH/1600XLH TECHNICAL SPECIFICATIONS

Output Power Rating	G600XLH: 60 watts RMS @ 5% THD/4 ohm load; G1600XLH: 160 watts RMS @ 5% THD/4 ohm load
Speaker Cabinet Options	GE-412R or S: 4 12" Crate Custom-L speakers in a straight or slope front infinite baffle enclosure. Power Handling 80 watts RMS @ 4 ohms; 35"H x 31"W x 15"D 90 lbs. GE-412RS or SS: 4 12" Celestion G12S-50 speakers in a straight or slope infinite baffle enclosure. Power Handling 200 watts RMS @ 8 ohms; 35"H x 31"W x 15"D 90 lbs.
Input Impedance	220k ohms/"0 dB" input; 44K ohms/" – 6 dB" input
Maximum Signal Level Accepted	4 volts, p-p/"0 dB" input; 8 volts, p-p/" – 6 dB" input
Total System Gain	Channel A: 110 dB @ 1 Khz all controls at "10"; Sub, Focus, Lead @ "0" Channel B: 66 dB @ 1 Khz all controls at "10"; Bright off
Signal To Noise Ratio	Channel A: 45 dB with all controls @ "10"; Sub, Focus, Lead @ "0" Channel B: 67 dB with all controls @ "10"; Bright off
Sub Control	9 dB Boost @ 80 Hz
Focus Control	Proprietary circuit
Lead Control	15 dB Boost @ 1 Khz
Low Control	10 dB Range @ 80 Hz
Mid Control	16 dB Range @ 1 Khz
High Control	17 dB Range @ 5 Khz
Input Power Requirements	G600XLH: 120VAC, 60 Hz, 200 watts max; G1600XLH: 120VAC, 60 Hz, 500 watts max
Fuse Rating and Type	G600XLH: 2 amp SLO Blow, 2150V internal; G1600XLH: 5 amp SLO Blow, 250V internal
Cabinet Size and Weight	11-5/8" H X 30-3/4" W X 11" D 35 lbs.

Specifications subject to change without notice.

CAUTION: To reduce the risk of electric shock, do not remove chassis. No user serviceable parts inside. Refer servicing to qualified service personnel.

CAUTION: This equipment is capable of producing sound pressure levels greater than 110 dB SPL. Continued exposure to such high sound pressure levels can cause permanent hearing impairment or loss. User caution is advised, and ear protection is recommended.