



CRATE

G-20 AMPLIFIER

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

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 the Crate factory located in St. Louis, Mo. Only the finest available components and materials are used in the manufacture of each Crate amplifier.

All Crate amplifiers are subjected 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 amplifier was designed for. Any Crate 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.

LIMITED WARRANTY

SLM Electronics warrants this product to be free of defects in material and workmanship for a period of one (1) year from the original date of purchase to the original purchaser and is not transferable. Speakers, tubes, and meters carry a ninety (90) day warranty. This warranty is subject to the conditions, exclusions, and limitations hereinafter set forth.

Excluded from this warranty are defects caused by wear and tear, misuse, neglect, alterations and modifications, or act of nature. Such determinations will be made by SLM Electronics. Warranty is also void if:

- The original retail purchase is not made from an Authorized Crate or Audio Centron dealer;
- The serial number affixed to the product is altered, defaced or removed.

All parts costs will be borne by SLM Electronics within the warranty period. Labor costs will be covered within the warranty period according to rate schedules established by SLM Electronics. Warranty service may be done by SLM Electronics or an SLM Authorized Field Service Center. Transportation charges involved in warranty service are the sole responsibility of the purchaser.

SLM Electronics warrants speakers to be free from defects in material and workmanship for a period of ninety (90) days from original date of purchase. Speaker warranty will be subject to inspection of speaker by SLM Electronics or SLM Authorized Field Service Center. Obvious overpowering will result in warranty denial. Realizing speakers can be overloaded causing failure, SLM Electronics will replace the speaker with a speaker of some or equal type at a price one-half the then current suggested retail price of the new speaker for life, regardless of reason.

Warranty repairs may be handled by your authorized dealer, authorized SLM Service Center, or SLM Electronics. All units being returned to SLM Electronics must be accompanied with a detailed description as to needed repairs, a copy of the original sales receipt, and an SLM Electronics return authorization. SLM Electronics reserves the right to repair or replace this piece of equipment at their option.

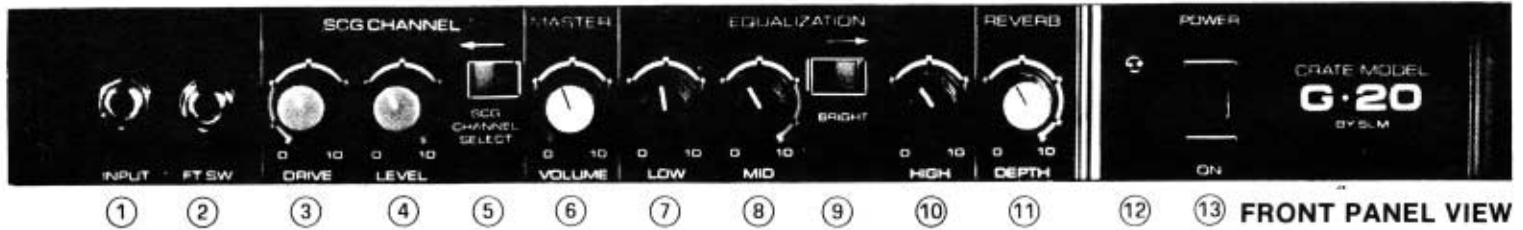
SLM Electronics is not liable for any incidental or consequential damages resulting from any defect or failure of this instrument other than the repair of the SLM Electronics product subject to the terms of this warranty. This limited warranty gives you specific legal rights, and you may have other rights which vary from state to state. This warranty is expressly in lieu of all other agreements and warranties, expressed or implied, except as may be otherwise required by law.

SLM ELECTRONICS division of ST. LOUIS MUSIC
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DETAILED SPECIFICATIONS:

OUTPUT POWER RATING	20 Watts RMS @ 5% THD 4 Ohms—120 VAC line)	Input Power Requirements	120 VAC, 60 Hz. 60 Watts Max.
SPEAKER SIZE & RATING	12" Dia. Special Design 4 Ohm. 1" Alum. voice coil, 10 oz. mag. Power Handling, 30 Watts RMS, 60 Watts EIA	Fuse, Rating and Type	1 Amp, Fast Acting, Internal
BASS CONTROL	12 dB Boost @ 80 Hz. (600) Hz. action Pt.)	Line Out Jack	2 Volts peak to peak @ full rated RMS output
MID CONTROL	8 dB Boost @ 1 KHz	Headphone Jack	Headphones Mode: 8 to 600 Ohms nominal drive range
BRIGHT SWITCH	8 dB @ 5 KHz (5dB @ 1KHz)	Ext. Speaker Jack	Extension Speaker: 2 to 16 Ohms nominal load acceptance-series operation
TREBLE CONTROL	12 dB Boost @ 10 KHz (1500 Hz. action pt.)	Cabinet Size and Weight	17-3/4" H x 17-3/4" W x 9-1/2" D 25 Lbs.
INPUT IMPEDANCE	220K Ohms	<div style="border: 1px solid black; padding: 5px;"> <p>CAUTION: To reduce the risk of electric shock, do not remove chassis. No user serviceable parts inside. Refer servicing to qualified service personnel. To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>CAUTION: To reduce the risk of fire, replace only with same type 1 amp 250V, normal blow 3AG fuse. Disconnect line cord before replacing fuses.</p> </div>	
MAXIMUM SIGNAL LEVEL ACCEPTED	10 Volts, peak to peak		
TOTAL SYSTEM GAIN	70 dB—With All Tones @ "Flat" or "O" setting		
SIGNAL TO NOISE RATIO	70 dB—with all Gains/Levels @ mid rotation, all tones @ full boost, Bright "On", Reverb "O"		
	specifications subject to change without notice		

FEATURES AND FUNCTIONS



FRONT PANEL—INPUT SECTION

1. **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. **FOOT SWITCH JACK (Ft. Sw.):** This jack is used to connect the optional reverb/channel select footswitch. When using the footswitch, the channel select switch (5) must be in the left or "OD" position for proper operation. Refer to (5).

SCG (Sequential Cascading Gains) SECTION

3. **DRIVE CONTROL:** This knob determines the amount of overdrive or distortion. By increasing the DRIVE, the player will increase the amount of distortion and sustain of the guitar.

4. **LEVEL CONTROL:** This is the overall volume (loudness) of the distortion previously set with the DRIVE control (3). It is used to set the listening level of the overdrive channel. This has no effect on the level of the clean, non-distorted channel.

5. **CHANNEL SELECT SWITCH:** This switch offers manual selection of either the clean or overdrive channels. When this button is in the left position, all controls are functional and distortion is achieved with the DRIVE and LEVEL controls. When pushed to the right position, the clean channel has been selected. The Drive and Level controls are no longer functional, the volume control adjusts the listening level of the clean channel. When using a footswitch, the channel select switch should be in the left position.

NORMAL CHANNEL—MASTER SECTION

(Channel selector switch to the right position). NOTE: For best results, it is suggested that Normal (clean) channel settings should be made prior to Overdrive Channel adjustment.

6. **VOLUME CONTROL:** (Volume) When playing through the Normal (clean) Channel, the volume at which the G-20 will operate is determined with this knob. This volume control will also retain operation when the Overdrive Channel is being used. In overdrive operation, the volume control functions as the overall volume control. The player can affect the overall level of both channels at once through proper use of this volume control.

EQUALIZATION SECTION

(All EQ controls will operate with either channel selected).

7. **LOW CONTROL (Bass):** The desired amount of the "Bottom" or "Warmth" may be increased or decreased with this knob.

8. **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.

9. **BRIGHT SWITCH (Bright):** This switch affects the brilliance of the guitar's sound by adding additional "bite" or sharpness.

10. **HIGH CONTROL (Treble):** This knob will affect the upper harmonic range of the guitar. In the "Overdrive" channel it brings out the "bite" or "edge" of the guitar, while in the "Normal" (clean) channel it

sharpens or adds crispness to the sound. For additional effect, use this control in conjunction with the Bright switch (#9).

11. **REVERB CONTROL (Reverb):** This control allow 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.

POWER

12. **ON/OFF LED INDICATOR:** The amplifier is on when this L.E.D. is lit.

13. **ON/OFF SWITCH (On):** This is a two position switch, the down position will turn the unit on, while the up position off.

REAR PANEL

14. **POWER CORD:** Be sure the amplifier is properly plugged into a safely wired AC outlet before use.

15. **EXTERNAL SPEAKER JACK:** This jack is used for additional speaker hookup. The G-20 external speaker jack is hooked up in series so there is no limit to how many additional speakers may be hooked up.

16. **HEADPHONE JACK:** Unpowered headphones may be plugged into this jack. Once a plug is inserted into this jack, the internal speaker is disconnected and the output of the amplifier will be heard only through the headphones.

17. **LINE OUT JACK:** This jack is used to link the G-20 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.



REAR PANEL VIEW

