VC-120H
Vintage Club Amplifier

OWNER’S MANUAL
Congratulations!

You are now the proud owner of one of the newest and most versatile tube amplifiers available for the guitar! The CRATE VC-120H offers flexibility and portability with two separate channels for a uniquely rich palette of tonal variety and simplicity of control over your sound.

Your CRATE Vintage Club Series amplifier is musician-made in the U.S.A. using the finest components available. Each unit is rigorously tested by skilled technicians and musicians to ensure that your amplifier is the best it can be!

In order to get the most out of your new amplifier, we strongly urge you to go over the information contained in this manual before you begin playing.

And thank you for choosing CRATE!
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Features:

• All tube operation

• Two completely independent channels with individual gain and tone controls

• Channel switching from the front panel or footswitch (supplied)

• Individual reverb return controls for each channel

• Effects Loop for virtually noise-free connection of your favorite effect(s) – controllable by a footswitch (supplied)

• Specially designed paper bobbin output transformer for a true “vintage” sound

• Durable tolex® covering and special cosmetic treatments for a unique stage appearance
The Front Panel Controls and Their Use:

1. **POWER SWITCH**: Toggle this switch to the ON position to turn on the amplifier.

   **NOTE**: Always turn the power switch **ON FIRST, OFF LAST**. Use the Standby switch (toggled to the Standby position) when first turning the amp on as well as during breaks.

2. **STANDBY SWITCH**: Toggle this switch to the ON position to activate the amplifier – once the power switch (#1) has been on for at least 30 seconds. (This allows the tubes to come up to a safe operating temperature before use.) The amp should be set in the Standby mode (switch down) during extended breaks to help promote longer tube life.

3. **POWER LAMP**: This dual color jewel lamp glows when the amp is turned on – an amber color indicates Channel A, a red color indicates Channel B.

4. **PRESENCE CONTROLS**: These controls govern the upper-high frequencies for each channel, allowing an enhancement to the sound beyond the Treble and Mid controls.

5. **REVERB CONTROLS**: These controls govern the amount of reverb applied to each channel.

6. **MASTER CONTROLS**: These controls govern the output volume levels of each channel.

7. **BASS CONTROLS**: These controls adjust the low end levels for each channel.

8. **LOW BOOST SWITCH**: Toggle this switch to the ON position to boost the low end response of Channel A.

9. **MID BOOST SWITCH**: Toggle this switch to the ON position to boost the midrange response of Channel B.

10. **MID CONTROLS**: These controls adjust the midrange levels for each channel.

11. **TREBLE CONTROLS**: These controls adjust the high frequency levels for each channel.

12. **MID BOOST SWITCH**: Toggle this switch to the ON position to boost the midrange response of Channel A.

13. **BRIGHT SWITCH**: Toggle this switch to the ON position to boost the upper register of Channel B.

14. **GAIN CONTROLS**: These controls govern the amount of signal going to the output stage of the amplifier. Channel A Gain offers a range of sounds from clean to a bluesy crunch; Channel B from a slight crunch to full tilt screaming distortion.

15. **CHANNEL SWITCH**: Toggle this switch to the desired channel: up for Channel A, down for Channel B. A footswitch also may be used to select channels, in which case this switch is bypassed – see #17, rear panel.

16. **INPUT JACKS**: The **High** input is a direct connection for “standard” electric guitars. The **Low** input is padded 6dB and is best suited for guitars with “hot” pickups or on-board active electronics. (Use a high quality shielded instrument cable.)
**The Rear Panel:**

17. **FOOTSWITCH JACK:** Connect the supplied two button footswitch for control of channel switching and the effects loop on/off. The tip of the jack is for channel switching; the ring is for effects. When a footswitch is connected here, the front panel channel select switch is disabled.

18. **EFFECTS LOOP SEND JACK:** Connection to an external effects device is made via this jack. Connect a shielded instrument patch cord from the send jack to the input jack of the effect. The send jack also doubles as a "preamp out" jack, to feed a post-eq signal to a mixing board, recording console or external amplifier.

**NOTE:** Effects loop operation is parallel with the signal path. Mix controls on the effects should be set to 100% (full wet). If no effects are connected to the Effects Loop, the Effects Level control (#20) acts as an extra volume boost which can be activated by the footswitch. For the best signal to noise ratio when NOT using the effects loop, keep the Effects Level control (#20) set to "0".

19. **EFFECTS LOOP RETURN JACK:** Connection from an external effects device is made via this jack. Connect a shielded instrument patch cord from the output jack of the effect to the return jack. The return jack also doubles as a "power amp in" jack, to feed a line-level signal directly into the internal power amp. This is useful when "slaving" two amplifiers together. When using in this mode (slaving), make sure the front panel Master volume controls are all the way down (at "0").

20. **EFFECTS LEVEL CONTROL:** Use this knob to set the input level of the signal from the Effects Loop Return jack (#19). The Effects Loop Send level is adjusted by the Master volume controls (#6).

21. **SPEAKER JACKS:** Connect the amplifier to your speaker cabinet(s) via these jacks, using heavy-duty speaker cables (not instrument patch cords). Use cabinets rated at 8 ohms or higher, in combinations which never create a load lower than 8 ohms. Make sure the Impedance switch (#22) is properly set. Always use the MAIN speaker jack first, then connect to the EXTENSION jack if using more than one cabinet.

22. **IMPEDEANCE SWITCH:** For the best performance and least strain on the amp, you MUST match the amp's impedance to that of your speaker cabinet(s). Set the selector switch to the 8 or 16 ohm position, depending on the total impedance of your cabinets. The chart below can help you determine that impedance based on the following combinations of speakers connected in parallel.

<table>
<thead>
<tr>
<th>CAB IMP.</th>
<th># OF CABS</th>
<th>TOTAL IMP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 ohms</td>
<td>2</td>
<td>8 ohms</td>
</tr>
<tr>
<td>32 ohms</td>
<td>2</td>
<td>16 ohms</td>
</tr>
<tr>
<td>32 ohms</td>
<td>4</td>
<td>8 ohms</td>
</tr>
</tbody>
</table>

23. **BIAS ADJUST / BIAS TEST POINT:** For qualified Service Personnel only! (All others please just ignore these internal Bias adjustment potentiometers.)

24. **FUSE:** This fuse protects the amplifier against damages caused by overload conditions in the unit. If the fuse blows, replace it only with the same size and type as indicated on the rear panel. If the fuse blows continually, the line voltage may be incorrect, or the amp may need servicing.

25. **AC LINE IN:** Firmly plug the female end of the supplied power cord into this socket, pushing it in until it is fully seated. Plug the male end of the cord into a properly grounded AC outlet of the correct voltage. **DO NOT DEFEAT THE GROUND PIN OF THE AC PLUG!** Use only the supplied power cord. If the amplifier is to be used outside of the United States, see your authorized Crate dealer for information about alternate line cords and power converters if needed.
Some Suggested Settings:

**Good 'n Crunchy:**

**Nice 'n Clean:**

**Bright 'n Crunchy:**

**Jazz Tone:**

**Viola:**

**Strong Blues:**

**Blitzkrieg:**

**It Goes to "12":**

*Set Reverb to taste*
System Block Diagram:
TECHNICAL SPECIFICATIONS:

Output Power Rating 120W RMS @ 5% THD, 16 ohm load, 120 VAC

Input Impedance 1 M ohm

Maximum Signal Accepted 0dB: 1.5V peak to peak; -6dB: 2.8V peak to peak

Gain

Channel A: 68dB
Channel B: 100dB

Tone Control Range

Channel A: Treble: 16dB @ 5kHz
Mid: 8dB @ 700Hz
Bass: 10dB @ 50Hz
Mid Boost: 12dB @ 800Hz
Low Boost: 13dB @ 100Hz

Channel B: Treble: 16dB @ 2.5kHz
Mid: 6dB @ 800Hz
Bass: 22dB @ 150Hz
Bright: 10dB @ 3kHz
Mid Boost: 8dB @ 800Hz

Both Channels Presence: 4dB @ 10kHz

Effects Send 2.1V RMS @ full power output

Tube Type Preamp: (1) 12AU7, (4) 12AX7; Power Amp: (4) 6L6GC/EL34

Power Requirements 120VAC, 60Hz, 400VA
100/115VAC, 50/60Hz, 400VA
230VAC, 50/60Hz, 400VA

Size and Weight 12-1/2" H x 27" W x 9-1/2" D, 47 lbs

The VC-120H is covered with a durable black Tolex® material. To keep the cabinet in top condition, wipe it clean with a damp lint-free cloth to remove dirt and road film. Never spray cleaning agents directly onto the cabinet, and stay away from abrasive cleansers which could damage the finish.

Crate continually develops new products, as well as improves existing ones. For this reason, the specifications and information in this manual are subject to change without notice.