



JET CITY AMPLIFICATION
Custom 22
OWNER'S MANUAL



- **DANGER: RISK OF ELECTRIC SHOCK, DO NOT OPEN**
- **ATTENTION: RISQUE DE CHOC ELECTRIQUE!**
- **NE PAS OUVIRIR!**
- **ACHTUNG: STROMSCHLAG GEFÄHRDUNG, NICHT AUFMACHEN!**

CAUTION: To reduce the risk of electric shock, do not remove cover or open rear panel. No user serviceable parts inside: refer handling to qualified personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this amplifier to rain or moisture.

Before using your amp.

Before operating the Custom 22 please make sure of the following:

- First, connect the amp head to a speaker cabinet or other suitable load. Never run the amp without a load connected to the output.
- Connect the power cable into the back panel and then to a power outlet.
- With the amp in the standby position, switch the power to ON and wait about 30 seconds for the tubes to warm up.
- Change the standby switch to ON.
- You're ready to go.

WARNING: If a speaker or suitable “dummy load” is not connected to the speaker output, output transformer failure is very possible.

Important Safety Message.

1. Read and keep these instructions.
2. Heed all warnings and follow all instructions.
3. Do not operate near water.
4. Clean only with a dry cloth.
5. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions
6. Do not install near heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
7. Protect the power cable from being walked on or pinched at the plugs, convenience receptacles, and the point where they exit the unit.
8. Do not defeat the safety purposes of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the outdated/obsolete outlet.
9. Unplug the amplifier during lightning storms or when unused for long periods of time.
10. Refer all servicing to qualified service personnel. Servicing is required when the amp has been damaged in any way, such as power cable or plug damage, liquid has been spilled or objects have fallen inside, the amp has been exposed to rain or moisture, does not operate normally, or has been dropped.

Thank you.

We truly appreciate and value your support through your purchase. If you have any questions or concerns about your new amp, feel free to email to doug@jetcityamplification.com

This Custom 22 was designed in USA, and meticulously assembled to assure that it meets the highest quality standards and value. Our 'Custom Shop' is a virtual concept, with the base model assembled in our usual way, and custom variations of the amp completed in a variety of secondary locations. This means it is possible some of the features and components may be different from other Custom 22 amps. Therefore this manual will just cover the base features.

Thank you for purchasing a JET CITY AMPLIFICATION product, we hope you love it.

Douglas White
Founder.

Controls and Operation.

- Input Jack
- CRUNCH Preamp Gain: Adjust the amount of gain (distortion) that the amplifier produces in the CRUNCH Channel. Set it low for cleaner tones, or dial it up for some tube grit.
- BRIGHT switch: On / Off
- CRUNCH Master Volume: Adjust the CRUNCH Channel output level.
- CHANNEL 1 / CHANNEL 2 Selection switch.
- OVERDRIVE Preamp Gain: Adjust the amount of gain (distortion) in the OVERDRIVE Channel.
- Mid Boost / Low Fat Tone shaping.
- OVERDRIVE Master Volume: Adjust the OVERDRIVE Channel output volume.
- TREBLE: Part of the 3-band EQ for adjusting middle frequencies.
- MIDDLE: Part of the 3-band EQ for adjusting middle frequencies.
- BASS: Part of the 3-band EQ for adjusting low frequencies.
- PRESENCE: adds an overall brightness, which can be handy when trying to cut through in a 'dead' room.
- STANDBY switch: Used in conjunction with the POWER switch. Use the STANDBY to "warm up" your the tubes before switching the POWER on or off.
- POWER switch: Turns the power on or off.

Tube Layout.

Custom 22 has 5 12AX7 Preamp tubes and 2 EL84 Power tubes. The 12AX7 tubes each have unique functions in the circuit, a brief overview of which is provided here. Counting from the first 12AX7 which is nearest to the input Jack:

V1	Gain
V2	Overdrive gain
V3	Tone controls
V4	Effects loop
V5	Phase inverter

When changing the Custom 22's tubes – either preamp or power tubes – it is not necessary to adjust the bias. This amp does have a bias adjustment control on the circuit board which is used for fine-tuning the bias at the factory, and should not be adjusted by anyone other than a qualified service technician.

Here are some signs that you need to change your tubes:

- Excessive noise like squealing, humming, or hiss
- Little or no high end/treble
- Muddy low end or loss of clarity; amp sounds “muddy”
- Mysterious fluctuations in the amp's overall volume
- Low, or no output volume

Speaker outputs.

Your amp has one 16 ohm output and two 8 ohm outputs.

Use the 16 ohm output for a 16 ohm load.

Use a single 8 ohm output for an 8 ohm load.

You can also connect two 16 ohm loads to the two 8 ohm outputs.

The output transformer of the Custom 22 is robust enough to manage a 4 ohm load, using the 8 ohm outputs, but we do not recommend lower than 4 ohms.

Register Your Product Online

Please visit www.jetcityamplification.com within 30 days from the date of purchase as listed on the buyer's receipt to register your product. Doing so will enable you to receive the most current information about our company and products, directly from Jet City.

Warranty

Jet City Amplification warrants the mechanical and electronic components of this product to be free of defects in material and workmanship for a period of one (1) year from the original date of purchase, in accordance with the warranty regulations described below. If this product shows any defects within the specified warranty period that are not excluded under this warranty, Jet City Amplification shall, at its discretion, either replace or repair the product using suitable new or reconditioned parts. In the case in which other parts are used which constitutes an improvement, Jet City Amplification may, at its discretion, charge the customer for these parts. If the warranty claim proves to be justified, the product will be returned to the customer freight prepaid. Warranty claims other than those indicated above are expressly excluded.

Return Authorization Number

To obtain warranty service, the buyer (or his authorized dealer) must call Jet City Amplification or Authorized Jet City Amplification Distributor (current list and contact information can be found at (www.jetcityamplification.com) during normal business hours before returning the product.

All inquiries must be accompanied by a description of the problem. Jet City Amplification will then issue a Return Authorization Number (RA Number).

Once the RA Number has been obtained, the product must be returned in its original shipping carton. The return Authorization Number must be printed clearly on the shipping label on the outside of the box, and included with the returned product. Both the product in its original package and the Return Authorization Number must be shipped to the address indicated by Jet City Amplification at the time the call is made. Shipments without prepaid freight will not be accepted.

Warranty Regulation / Exclusions

Warranty services will not be furnished if the product is not returned with the original sales receipt.

Tubes and loudspeaker drivers are considered maintenance items and are excluded from all warranty claims.

If the product needs to be modified or adapted in order to comply with technical or safety standards on a national or local level, in any country which is not the country for which the product was not originally developed and manufactured, this modification/adaptation shall not be considered a defect in materials or workmanship. This warranty does not cover any such modification/adaptation, irrespective of whether it was executed properly or not. Under the terms of this warranty Jet City Amplification shall not be held responsible for any cost resulting from such a modification/adaptation.

Free inspections and maintenance/ repair work are expressly excluded from this warranty, in particular, if caused by improper handling of the product by the user. This applies to defects caused by normal wear and tear of items such as knobs, tolex and similar parts.

Damages caused by the following conditions are not covered by warranty:

- Improper handling, neglect or failure to operate the unit in compliance with the instructions given in the Jet City Amplification user manual.
- Connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used.
- Damages/defects caused by force majeure or any other condition that is beyond the control of Jet City Amplification

- Any repair or opening of the unit by unauthorized personnel (user included) will void the warranty.
- In an inspection of the product by Jet City Amplification shows that the defect in question is not covered by warranty, the inspection costs are payable by the customer.
- Products, which do not meet the terms of the warranty, shall be repaired exclusively at the buyer's expense. Jet City Amplification will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within six (6) weeks, Jet City Amplification shall return the unit to the customer C.O.D with an invoice that will include charges for the inspection and a separate additional charge for freight and packing costs. Such costs will also be billed separately when a customer has sent in a unit for repair with a written repair order form.

Warranty Transferability

This warranty is extended exclusively to the original buyer (customer of the retailer) and is not transferable to anyone who may subsequently purchase the product. No other person (retailer, consumer, etc) shall be entitled to give any warranty promise on the behalf of Jet City Amplification.

Claims for Damages

Failure of Jet City Amplification to provide proper warranty service shall not entitle the buyer to claim (consequential) damages. In no event shall the liability of Jet City Amplification exceed the invoiced value of the product.

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