

INSTRUCTION MANUAL
BEDIENUNGSANLEITUNG

CF 200

GUITAR- PA STEREO POWER AMPLIFIER

MANUAL

Hughes & Kettner 

Hughes & Kettner Musical Instruments GmbH Magdeburgerstr.6 6690 St.Wendel
Telefon (0 68 51) 20 21 Telefax (0 68 51) 48 86

We are pleased you chose the CF 200 power amplifier. Its innovative CURRENT FEEDBACK circuitry is the ideal medium for the modern guitar rack. The CF 200 is equally suitable for PA, monitor, and keyboard applications.



PLEASE READ THE FOLLOWING GUIDELINES PRIOR TO OPERATING THE CF 200:

- The European model's voltage can be adjusted from 220 V to 240 V.
- To avoid overheating, ensure sufficient air circulation is available both at the sides and to the rear of the CF 200.
- Do not install any units sensitive to heat, for instance effects processors, directly above the CF 200.
- Never expose the CF 200 to climatic extremes and ensure the amp is always protected from moisture.
- To protect your speakers, always switch the CF 200's power on last.
- Service and repair work should be left to an authorized repair shop. Before opening the housing, always ensure the mains power cable is unplugged!

FRONT PANEL CONTROL FEATURES

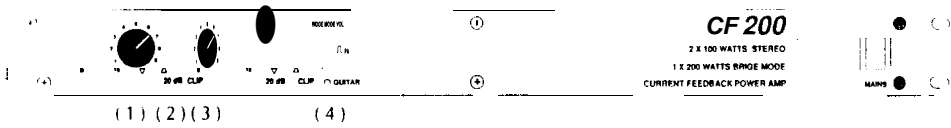
(1) The **VOLUME LEFT** and **VOLUME RIGHT** knobs regulate input sensitivity and subsequently the power output. In the **BRIDGE MODE**, only the right control is activated.

The green **-20 db LED** (2) indicates the signal level at the respective input is correctly adjusted. The red **CLIP LED** (3) denotes the signal level is too high, and the CF 200 is clipping. Adjust the appropriate **VOLUME** knob so that the red LED illuminates at impulse peaks only.

(4) **GUITAR/PA**

The **GUITAR/PA** switch activates the **CURRENT FEEDBACK** circuitry (**GUITAR** mode = on, **PA** = off). The **CURRENT FEEDBACK** circuitry elicits an amp, producing the type of signal most desirable for guitar amplification.

(5) **MAINS**: The **MAINS** power switch illuminates when engaged.



REAR PANEL FEATURES AND FUNCTIONS

(0) Prior to plugging the factory-included EUROMAINS CABLE in the AC receptacle off the rear panel, adjust the voltage selector to the correct voltage.

(7) Use a screwdriver to remove the FUSE BRACKET. Ensure replacement fuses have identical specifications to the originals. The fuse bracket on the European model doubles as a voltage selector. Read the upright value to determine the correct voltage setting.

(8) The GROUND LIFT switch severs the ground to the chassis, eliminating annoying background hum when the power amp is used in conjunction with other equipment.

(9) SPEAKERS

Connect speakers to these jacks for stereo operation. When using one speaker cabinet per channel, ensure each speaker has a minimum power rating of 100 watts and an impedance between 4 and 16 ohms. For two speakers per channel, each cabinet must be rated at 8 ohms or greater.

(10) SPEAKER PROTECT

Two fuses (3.15 A), one for each channel, protect speakers from damage due to malfunctions e.g. direct current in the output jack. They also protect the power amp from potential damage, e.g. **due to a defective** power cable.

Before resuming operation, ensure:

- you replace blown fuses with ones having identical ratings.
- both, the connected speakers and speaker cables are fully functional.
- a qualified repairman inspects the CF **200** for possible damage.



(6/7) (8) (9) (10)

(11/12) (13)

(11) BRIDGE MODE

The MODE switch (12) determines whether the CF 200 operates in the 2 x 1 00W stereo mode, or in the 200W mono mode. To avoid accidental switching between modes, a plastic coverplate is screwed in position. Ensure that the upper and lower screws are never removed simultaneously. When the **MODE switch** (12) is in the **MONO BRIDGE** position, the CF 200 operates as a mono 200W amp. Use the two binding posts to connect speaker cabinets. Ideally, use cables with terminals or banana plugs. Minimum impedance: 8 ohms.

Black binding post: negative. Red binding post: plus

The **INPUT RIGHT** and the **VOLUME RIGHT** control are activated in the **BRIDGE MODE**.

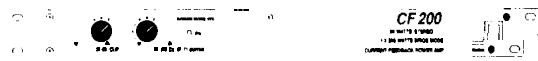
(13) INPUTS

The input jacks are suitable for preamps or mixers. Both channels automatically amplify the signal if only the **INPUT RIGHT** jack is accessed. In the **BRIDGE MODE**, only the **INPUT RIGHT** is activated.

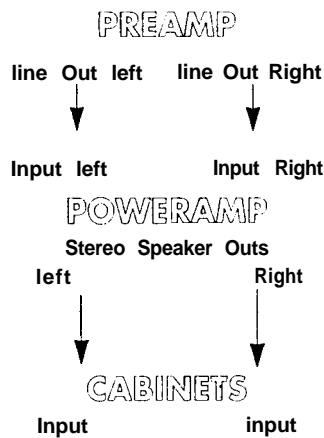
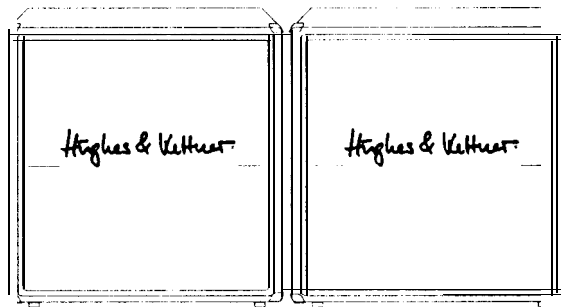
SIGNAL ROUTING DIAGRAM



Preamp e.g. HUGHES & KETTNER ATTAX



Poweramp HUGHES & KETTNER CF 200



Cabinets e.g. HUGHES & KETTNER
GL 112 / GL 212 / GL 412 oder GR 412

TECHNICAL DATA

Output power per channel:	70W at 8 ohms, 1 OOW at 4 ohms
Input sensitivity:	1 V eff / 0 cl bv
• Stereo mode	- 6dBV / 0.63 V eff
• Bridge mode) dBV/! V eff
Input impedance:	50 kohms

IMPORTANT SAFETY INSTRUCTIONS! BEFORE CONNECTING, READ INSTRUCTIONS

1. Read all of these instructions
2. Save these instructions for later use
3. Follow all warnings and instructions marked on the product
4. Do not use this product near water
5. Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation to ensure reliable operation of the product and to protect it from overheating these openings must not be blocked or covered. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available consult your dealer or local power company.
8. This product is equipped with a 3-wire grounding type plug, a plug having a third pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding type plug.
9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

10. If an extension cord is used with this product make sure that it is a 3-wire grounding- type and that the total amp ere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating. Also make sure that the total of all products plugged into the wall outlet does not exceed 1.5 amperes.
11. Never push objects Of any kind into this product through cabinet slots as may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind on the product.
12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to service personnel.
13. Unplug thia product li-om the wall outlet and refer servicing to qualilied service personnel under the following conditions:
 - When the power cord or plug is damaged or frayed
 - If liquid has been spilled into the product
 - If the product has been exposed to rain or water

 - If the product does not operate normally when the operating instructions are followed. Adjust only these controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and wilt often require extensive work by a qualified technician to restore the product to normal operation.

 - If the product has been dropped or the cabinet has been damaged

 - If the product exhibits a distinct change in performance, indicating a need of service! Selection of power supply cord
Use only a listed detachable power supply cord type SVT or SJT minimum 18 AWG. 3 conductor, one end configured for NEMA 5-1 5 other end for IEC 320/CEE 22!
- 14: Fuses: For continued protection against risk of fire, replace fuses only with same type and ratings

TO PREVENT THE RISK OF FIRE AND SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO MOISTURE OR RAIN. DO NOT OPEN CASE; NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.