

**Brunetti**<sup>®</sup>

*Tube amplification*

# USER'S MANUAL

# *Centaurus*

Before using, please take few minutes to get familiar with your Amplifier and carefully read the advices, explanations hereby reported. All our units are hand made. For this reason you could find design or sound differences. All this as guarantee that you bought a true hand-made product.

*Finest Italian handmade*

## CONGRATULATION FOR YOUR CHOICE!

**Centouno** preamplifier is endowed with innovative technical characteristics. Its exclusive all-tube circuitry uses pentodes for the production of high saturation values which perfectly reflect the typical head sounds not often obtained with preamplifiers. **Centouno** faithfully reproduces the harmonic interaction between the different preamplification stages and the power supply. The result is a hot and naturally compressed sound that will become more involving increasing the gain and making the system work at its maximum possibilities (EXTRA).

The two channels of **Centouno** use the same manufacturing philosophy which has made its predecessor Mille become famous.

The gain and tone controls are separated for each channel.

The MASTER knobs act on the sound as post-gain; this device allows you to change the channel total gain deviding it between GAIN and MASTER, thus creating different harmonic balances.

**Centouno** is also provided with a serial/parallel stereo effects loop. In this way one or more processors can be used keeping the original sound qualities unaltered.

All the internal power supplies are separated and optimized in order to have the best results in dynamic and noise.

## TECHNICAL SPECIFICATIONS

|               |  |
|---------------|--|
| Channels:     | 2+1 (Clean / Crunch / Crunch + Extra)            |
| Controls:     | Separated GAIN and MASTER                        |
| Equalization: | Separated BASS / MID / HIGH                      |
| Output:       | Stereo main out (max 5 Vrms)                     |
| Effects Loop: | Stereo Serial / Parallel Send + Return           |
| Switching:    | Jack Stereo Clean/Crunch and Crunch/Crunch Extra |
| Tubes:        | 3 x 12AX7A / 1 x PCF82                           |
| Power Supply: | 110/220 V 20 W max                               |
| Dimensions:   | 1 U rack depth 200mm                             |
| Weight:       | 1.5 Kg.  |

## EQUIPMENT

- Power cable
- Instruction manual
- Warranty Card

## ELECTRIC CONNECTION

- Electric safety and correct work are guarantee when the unit is correctly earthed.
- Ensure that voltage value printed on the rear panel correspond to available current.

### PREAMP TUBES

The preamp tubes are used to preamplify the signal. They usually last the entire life of the amplifier.

The possible problems of these kind of tubes are: microphonics and noise.

#### Microphonics

The microphonics is the ability of a tube to reproduce external vibrations further the signal. This phenomenon can be much more evident in high gain stage like the distortion channels.

Lightly tapping on the glass side of the preamp tubes, while the head is on, you'll hear a stroke through the speaker, this is normal don't worry.

But if you hear hi frequencies (ringing or squealing) and in some case a distorted sound, it means that the tube is microphonics.

You will note that the first tube is more subject to reproduce this stroke more than the others, because it's at the begin of the preamplification chain.

#### Noise

Tube has an own intrinsic floor noise that comes from its work and construction.

During tube life this noise may increase creating a sort of a ringing or squealing. In these two cases, you have to find the defective tube and replace it with a new one.

The preamp tube doesn't need to be selected, (normally this control has been made by the constructor), but be sure to replace with good quality tubes.

We suggest that you use tubes of same brand and model.

### POWER TUBES

Power tubes are the last amplification stage before the out transformer and speaker out, and they can get exhausted.

Normally a power tube working in A/B class lasts 800 - 1000 hours. It depends also on the volume used.

In an amplifier with same power, in A class, the tube lasts 600 - 800 hours. In this class work tubes are more stressed.

#### When replace power tubes

You can recognize an exhausted tube because there's a loss of power and volume. Sound has not the same impact, in particular on low frequencies.

Main faults on this kind of tube are :

- short inside the tube. In this case normally the HT fuse will blow.
- tube light off. It's easy to recognize this problem tube because you can't see any light inside the tube.
- tube become glowing. In this case there's an increase of noise (hum) and sound will be distorted.

In all the above cases tubes can't be fixed, and have to be replaced.

If the problem tube has worked more than 1 year, we suggest that you replace all power tubes, this to guarantee the best performance of your amp.

If the problem tube has less than 1 year you can replace only that one.

#### Warning!!

You have to mount only selected and matched tubes, with the same characteristics of the tube supplied on your amplifier. See the "Matching Reference" label on the tube.

If you mount tubes with different "Matching Reference" is necessary to adjust the Bias, to let the amp work properly.

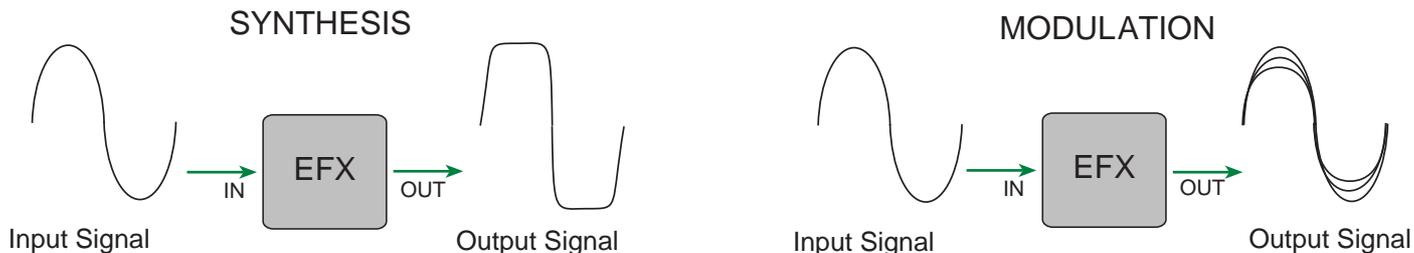
### SYNTHESIS EFFECTS

The main characteristic of the synthesis effect (see example) is to modify the signal wave form. (i.e. the distortion effects).

This kind of effect should be used between the guitar and the input of your amp, in a standard connection chain.

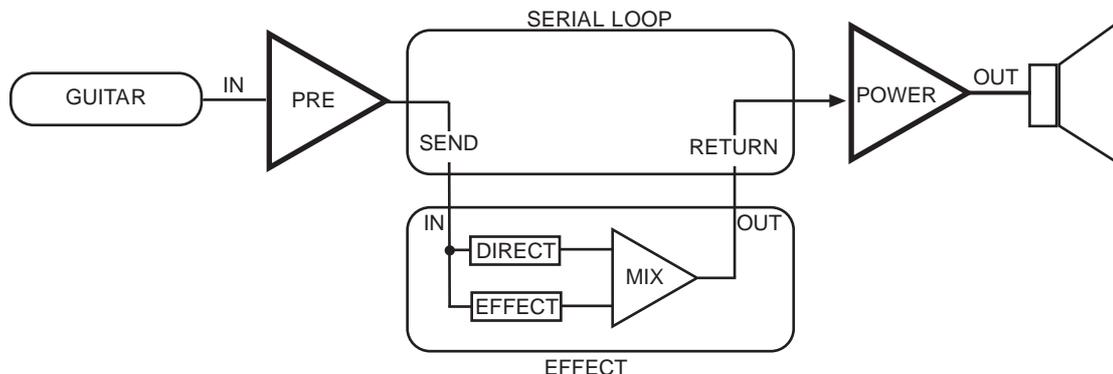
### MODULATION EFFECTS

The main characteristic of the modulation effect (see example) is to add and/or lay other wave forms to the signal. This kind of effect should be used in the loop effect of your amp, that is between the Preamp and the Power amp.



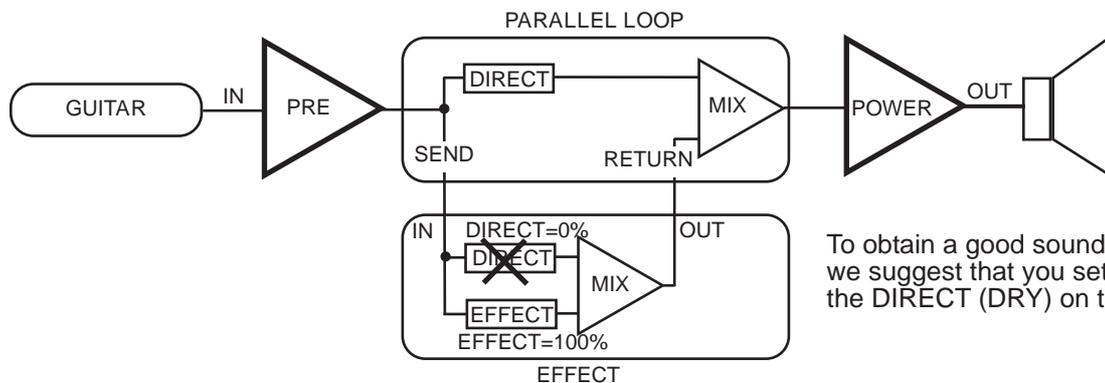
### SERIAL LOOP

In a Serial Loop all the output signal coming from the Preamp passes through the effect. In this case on your effect unit it is necessary to adjust the balance between the DIRECT (DRY) and the EFFECT (WET).



### PARALLEL LOOP

In a Parallel Loop only a part of the direct sound passes through the loop effect, without going out from the Send. This part of the signal will be mixed with the signal that comes from the Return. In this connection the quality of the effect is not so important as it is in the Serial Loop connection, because the Direct will be kept by the loop (see drawing).



To obtain a good sound we suggest that you set on zero "0" the DIRECT (DRY) on the effect.

### CLEANING

Before any kind of cleaning operation, disconnect the appliance from the electric supply.

- Do not throw water jets directly on the appliance.
- Do not use water steams to clean the appliance.
- Do not use solvents to clean the appliance.

Surface Cleaning: system suggested

Satin Aluminium: Soft cloth + product for metal parts

Stainless steel : Paper + product for chrome parts

### WARNINGS

- The manufacturer declines all responsibility for any kind of damage to persons, things and/or animals resulting from a wrong use of the appliance.
- The appliance' s conformity is proved by CE symbol on the rear side.
- The manufacturer reserves the right to make any useful and essential change to the products without compromise the main safety and working features.
- Do not use the appliance barefoot.
- Do not touch the appliance with wet or moist hands or feet.
- Do not allow children or incompetents to use the appliance.
- Do not leave inflammable materials near to the appliance.
- Do not pull up the appliance by control knobs.
- Read carefully, compile and deliver the warranty attached to the appliance.
- The appliance' s repair may be done during the warranty period only by us, in our laboratory, or by authorized staff, in conformity to the national previsions in force.
- Control periodically all cables supplied with the appliance, if they result damaged, you have to replace them immediately with another one with the same characteristics.
- In case of damage contact the shop where you bought the appliance.
- The appliance must be earthed in conformity to the national previsions in force.

For any further information and/or support contact us.

#### **Brunetti Marco & C. S.a.s**

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