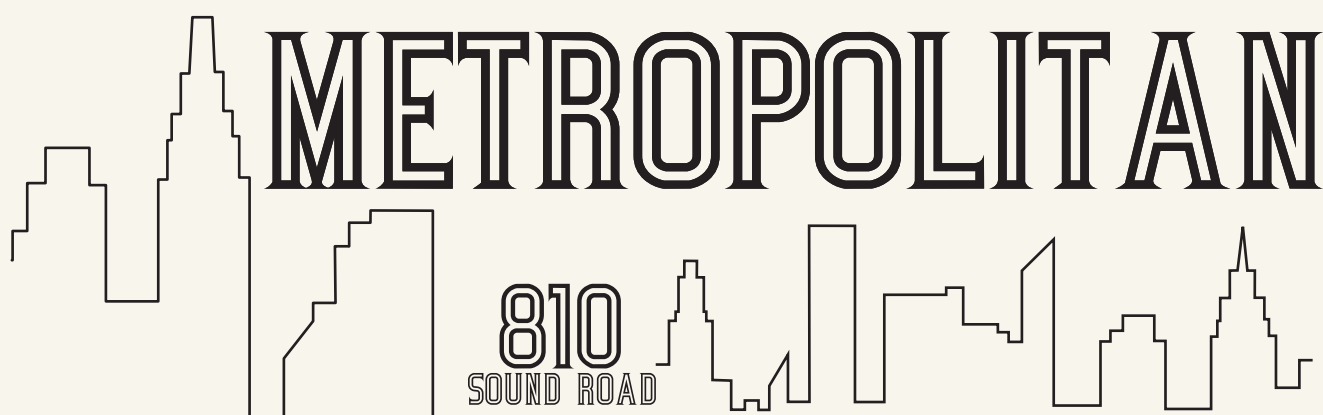


**Brunetti**

*Tube amplification*

**OWNER'S MANUAL**



By reading this manual you will deeply know the device you bought and will have the chance to fully experience its potential. Our sets are handmade. This is why you could find some sound and structural differences. This testifies the handmade making of the product.

*Finest Italian handmade*



## CONGRATULATION ON YOUR CHOICE!

With METROPOLITAN you're now in the big Brunetti family!

When I started thinking about this little jewel I didn't  
imagine I'd have to work so hard to make it!

My thought was "dimensionally" related to its small size, but

I was resolute to build an extreme quality combo.

At this point I had to face with reality, spending time and strenght  
to give Metropolitan the adjective it deserves: UNIQUE!

Size, the 8" speaker and its lightweight are not enough to  
represent how Metropolitan can express itself...

We compared it many times with much bigger & powerful  
systems, but we knew that the struggle was uneven.

The verdict left us with no words:

Metropolitan could fight with bigger systems.

We found the way to realize what all guitarists really miss:  
a small amplifier that souds great at home, in the studios  
and live, all in a small package and weight!

*Marco Brunetti*

### SPECIFICATIONS

#### *DUAL CHANNEL PREAMP:*

Clean channel: VOLUME & TONE controls

Drive channel: GAIN, TEXTURE, AIR & VOLUME controls

CHANNEL remote switch

SPEAKER ON/OFF manual switch

*POWER AMP:* 10W (with EL84 tubes) AB class

Automatic *POWERLIMIT*<sup>®</sup>

*SPEAKER:* 8" Jensen Custom Brunetti

*EXTERNAL SPEAKER:* rear output 8/16 Ohm for added speaker

*RECORDING/HEADPHONES output:* SPEAKER EMULATOR with INTERNAL DUMMY LOAD

*TUBES:* 1x 12AX7/ECC83 + 2x EL84

*STRUCTURE:* Chassis & panels in laser-cut iron/steel INOX

*ELECTRONIC:* WIMA "Red Series" MKP condensers, sealed relays, low noise film resistors

*DIMENSIONS:* L 330 mm, H 370 mm, P 250 mm

*WEIGHT:* 8,5 Kg

*BOX CONTENT:* power cable, channel switch, owner's manual, waterproof cover

## DESCRIPTION AND CONTROLS

The cliché wants that good sound quality of a guitar rig is proportional to its size.

**Metropolitan transform this idea** by supplying a sound worthy of all head/cab rigs with its **8 Kg in 33 x 25 x 37 cm!**

The heart of the structure is a **custom 8" speaker** set in a tuned birch cab intentionally resonant. Metropolitan adds its **EL84 10W** well articulated on a range of soft and balanced frequencies. The channels are so versatile that you won't think to deal with a compact amplifier. You can really feel and touch on your strings the creamy and fluid tones.

**The clean channel**, with his **WARM/SHINE** control doesn't fear dynamics in spite of power, and **the drive channel**, with his **TEXTURE & AIR** controls, will give you unlimited excitement! The equalization control of this channel is totally new, never experimented by us and by other manufacturers.

A very useful and important feature is the **headphone/recording output** that enables you to **disconnect the speaker** and play in complete silence. Metropolitan is equipped with a high quality circuit to emulate a cabinet inclusive of a 1W amp. It's now possible to play at home without disturbing anyone else and without loss of sound quality.

The Metropolitan circuit introduces a **great innovation**, reducing size and weight and assuring absolute quality.

In other words, thanks to all its merits Metropolitan cross the frontier of the small size sure of **succeeding!**

### WARNING!!

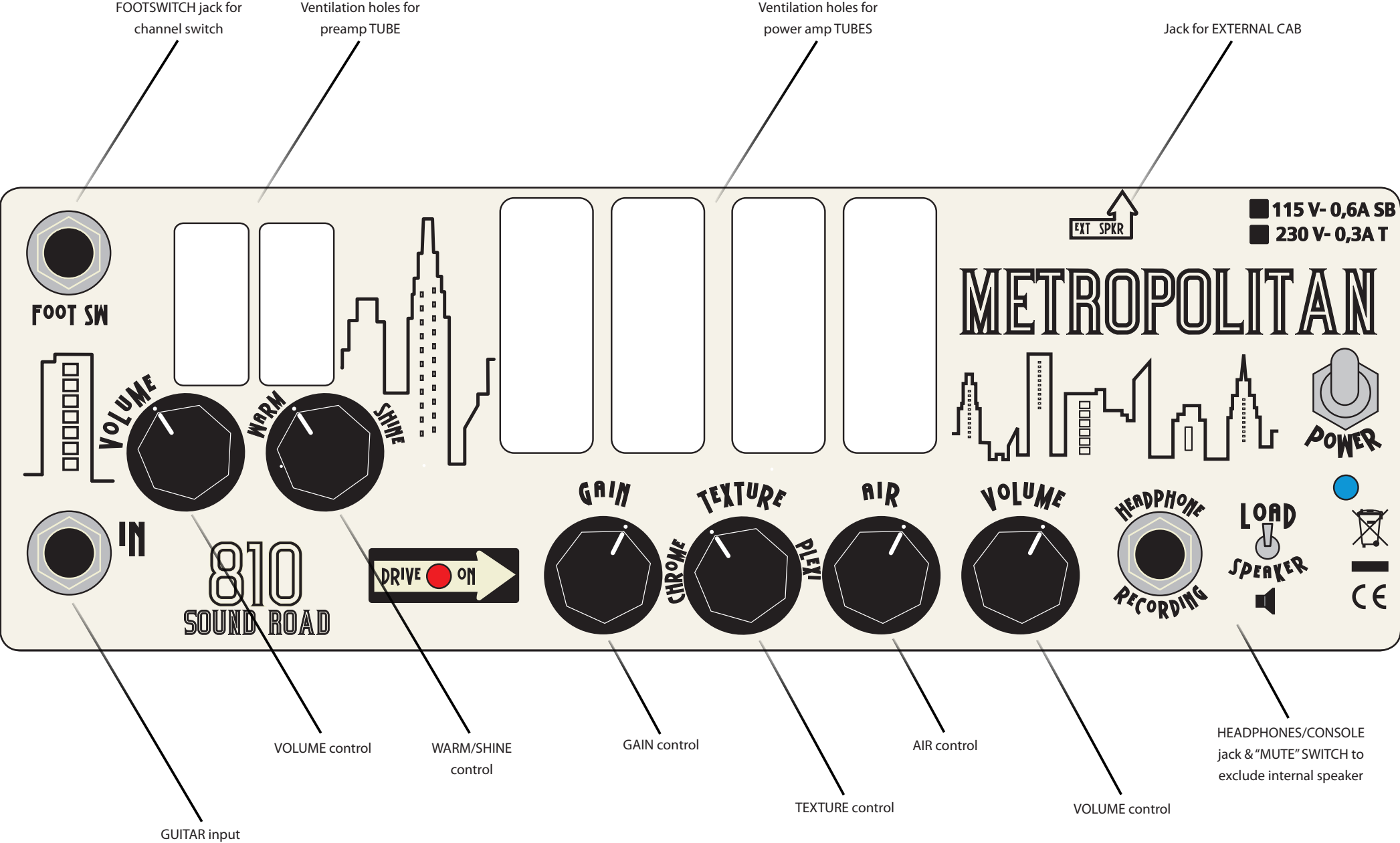
The tube 12AX7/ECC83 is long-lasting. Replace it only if necessary and with identical or equal models and choose only high quality products (SINO China, TAD, Tung-Sol)

### WARNING!!

Power Tubes EL84 FUSE is inside the amp  
Refer to the manufacturer for support

### WARNING!!

**Please refer to the manufacturer for all repairs and tubes replacement to insure the correct working of the preamplifier. It does not exist service centres licensed by Brunetti Marco & C. The manufacturer declines all responsibility for malfunctioning due to assistance not provided or authorized by Brunetti & C.**



FOOTSWITCH jack for channel switch

Ventilation holes for preamp TUBE

Ventilation holes for power amp TUBES

Jack for EXTERNAL CAB

FOOT SW

VOLUME

WARM

SHINE

IN

810  
SOUND ROAD

DRIVE ON

GAIN

TEXTURE

AIR

VOLUME

HEADPHONE  
RECORDING

LOAD  
SPEAKER

POWER

METROPOLITAN

115 V- 0,6A SB  
230 V- 0,3A T

CE

VOLUME control

WARM/SHINE control

GAIN control

TEXTURE control

AIR control

VOLUME control

HEADPHONES/CONSOLE jack & "MUTE" SWITCH to exclude internal speaker

GUITAR input

## INFO ON PREAMP TUBES

Tubes used to preamplify signal hardly wears out and are long-lasting. Problems are connected mostly to microphonics and noise.

Microphonic is the skill of the tube to reproduce the signal and external vibrations. This is clearer on high gain stages as distorted channels of modern guitar amplifiers. When the amp on and the load correctly connected try a gentle pattering on the glass of tubes. You will hear a noise and a "bump" through the speaker. It is normal.

Microphonic is obvious because you could hear annoying high frequencies (buzzing and triggers) and sometimes a distortion of the sound. The first tube (V1) is tending to reproduce this noise more than the others, and it is normal because it is the first on the preamp chain.

Furthermore tubes have an intrinsic quality of background noise due to functioning. During life of tubes the noise could increase a lot causing crackling, buzzing etc. Once you detect the faulty tube you have to replace it with a new one.

Preamp tubes do not require to be electrically selected (this is made by manufacturer) but they must be high quality tubes.

## INFO ON POWER AMP TUBES

Final stage tubes are the last stage of amplification (before output transformer and speakers) and they are subject to more wearing out than preamp tubes. They last an average of 800/1000 hours operating in class AB and depending on volumes you reach when playing. On an amp of the same power operating in class A they could last 600/800 hours. These tubes are subject to a greater stress.

### WHEN TO REPLACE TUBES

It is possible to acknowledge a worn-out tube when you notice a general loss of power, and volumes, sound is not so strong and you can detect a loss of low frequencies.

Troubles of this type of tubes are:

- A tube internal short circuit which makes the high voltage fuse to burn;
- The tube doesn't light. This is easily detectable by looking at the internal filament of the tube;
- Tube becomes white-hot. The background sound of the amp increases too much (hum) and looking at the internal filament will confirm the fault.

In all cases it is necessary to replace the faulty tube. If your tube is not a new one, at least one year old, we recommend to replace all tubes. This is to improve the performance of your amp. Otherwise you can replace just the faulty one.

### **WARNING!!**

**Place only balanced tubes (couple or quartet) with the same selection quality that you can find on the label "Matching Reference" on the tube itself. All tubes placed on your amp must have this quality; if you place tubes of different matching reference you have to adjust BIAS. This could be made only by skilled technical staff!**

## GENERAL INFO ON EFFECTS AND LOOP

### FILTER EFFECTS

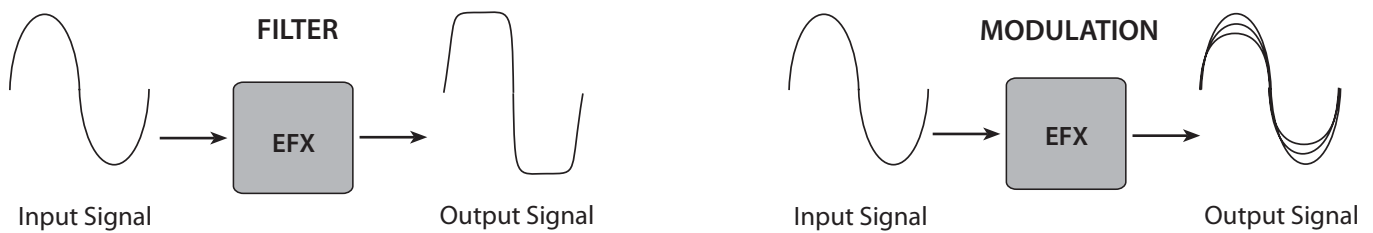
The filter effects main feature is the physical alteration of the signal wave, as a fuzz, overdrive or distortion pedal does.

This family of effects finds its best place between guitar and preamp input.

### MODULATION EFFECTS

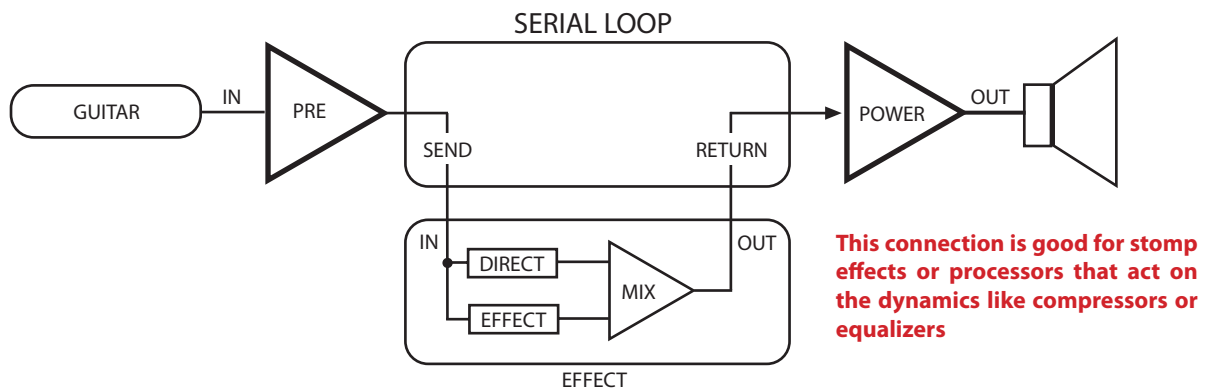
The modulation effects main feature (see example) is the addition or the overlapping of other curves or waves to the input signal.

This family of effects finds its best place in connection to the effects loop, i.e. between preamp and power amp.



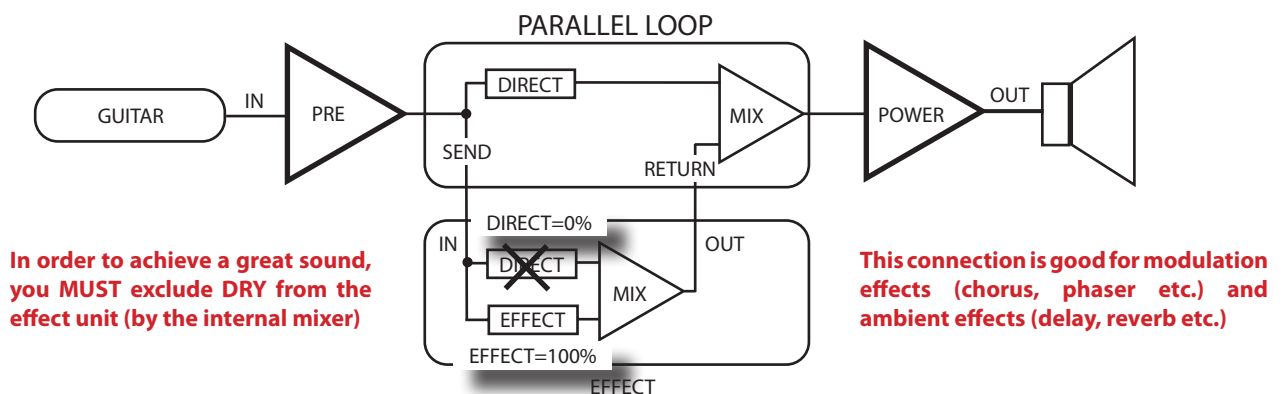
### SERIAL LOOP

In the serial loop all the signal getting out of the preamp passes through the effects chain of the loop. During the setting of the effect you have to consider that the sound is composed by a share of the original sound, called DRY and a share of the processed sound, called WET. They both come from the original sound and are mixed in the effect before being sent to the outputs.



### PARALLEL LOOP

In a parallel loop a share of the signal getting out of the preamp passes unaltered through the loop circuit (DRY) and a share reaches directly the SEND. The latter is processed by the effects, sent to the RETURN and then mixed with the DRY. The effect quality is less important here than in the serial loop because the original DRY signal will be not "coloured" when it passes through the loop or the effect and the WET signal will be pleasantly added to the DRY signal.



## GENERAL INFO & WARNINGS

### **WARNING!!**

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

### IMPORTANT INFO

- Check that power supply electricity in use is the one indicated on the sticker on the rear panel of the appliance;
- The appliance must be earthed in conformity to the national provisions in force;
- 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, especially on serigraphy;
- 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 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 leave the appliance exposed to sun, rain, humidity ecc..
- Do not allow children or incompetents to use the appliance;
- Do not leave inflammable materials near the appliance;
- The appliance repair may be done during the warranty period only by the manufacturer in our laboratory, or by authorized staff, in conformity to the national provisions 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.

Please, fill out the warranty form you find on

**www.brunetti.it**

to validate your warranty

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