

**Brunetti**<sup>®</sup>

*Tube amplification*

# USER'S MANUAL

# *Star-T-rack*

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*

**Brunetti**<sup>®</sup>  
*Star-T-rack*  
20/50 W stereo head

To me complexity does not always represent the best opportunity for the guitarist.

The market is full of high technology amplifier units that offer more and more options in terms of features. However, the reality is that as musicians we are quickly tired of "technology" for its own sake and instead look for the marriage of basic principles and genuine technological insight.

Star-T-Rack is an amplifier that respects the true "tube" tradition. It is the first to offer a stereo head with 2 levels of operation: 20W in class A, or 50W in class AB, per channel. This flexibility is not obtained by the use of artificial electronic simulations but by a completely new circuit model: the ACIA ( Automatic Current Impedance Adaptor ), which allows this flexibility through simple switching. These developments have meant a small revolution in my approach and development of amplifier design. In order that the true dynamics and clarity of Brunetti can operate within this radical "dual power" design I have chosen 6L6GC tubes for this amplifier model.

The preamplifier section needs no elaborate introduction: 4 channels that range from the totally transparent to the totally driven all enjoying a whole world of tonal variation within a minimal number of control centres.

The effects loop is all tube with separate L and R mixing. In this way both L and R signals can retain their total independence. 20W class A on one channel and 50 A/B on another. If you want it Star-T-Rack can do it.

Following in the tradition of all Brunetti products construction is of the very highest quality. Knobs in turned aluminium, satinized and galvanized grilles plus chromium footswitches are just some of the extraordinary details of this amplifier. As ever all assembly is strictly by hand and is carried out by people with the outstanding knowledge and care to build a true classic.

Ultimately Star-T-Rack is the creation of a new reference point in amplifier design. My work, my passion and my fulfilment is to provide you, the artist, with groundbreaking designs that unify the best of the past with the promise of the future.

Marco Brunetti

**Brunetti**<sup>®</sup>

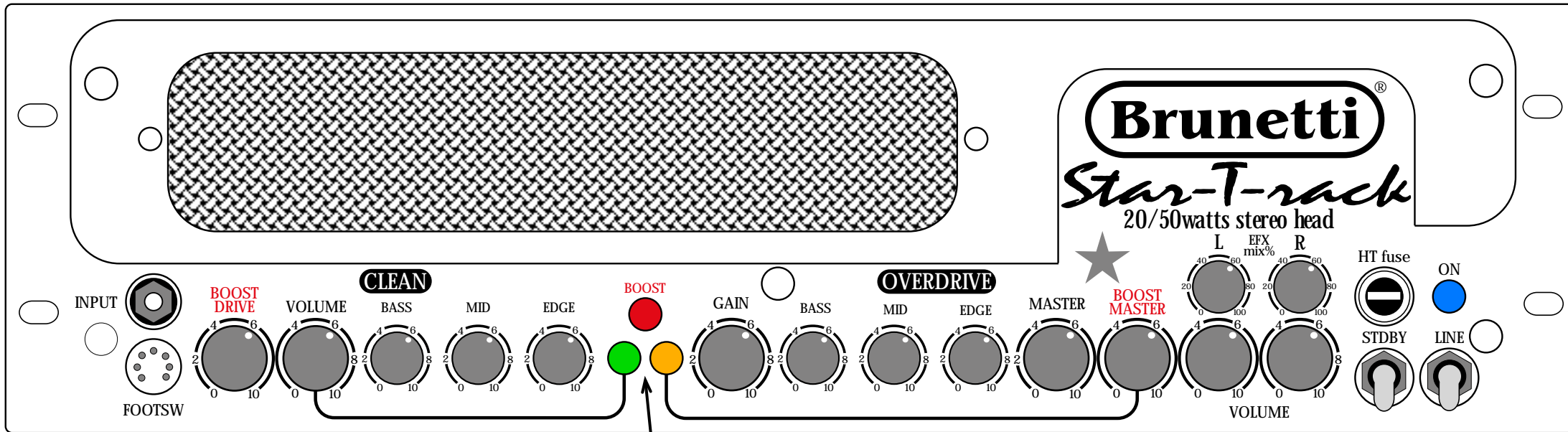
*Star-T-rack*  
20/50 W stereo head

### Technical specifications

- **TPOLOGY** only tubes signal path 5x12AX7A + 4x6L6GC
- **PREAMP** 2+2 channels CLEAN/OVERDRIVE/CLEAN BOOST/OVERDRIVE BOOST
- **POWER AMP** 20+20 "A" class or 50+50W "AB" class @ 8/16  $\Omega$  (switchable) with ACIA power dimension system
- **AUXILIARY CONTROLS** DEPTH controls for L & R power channels
- **LOOP** serial/parallel with separated variable controls Mix% L & R  
Send level max: 0,85Vrms Clean/2,2Vrms Other  
Return level L & R for max power out ( 50W/ch): 1,9 Vrms
- **SWITCHING** Manual / foot (supplied) / Midi (128 preset)
- **POWER SUPPLY** 117 / 240V +/- 5% 380/400VA max
- **DIMENSIONS** W 585xD 310xH 240
- **WEIGHT** 18Kg

**REMEMBER!** Don't obstruct the fans air flux. Damage can occur!

# Star-T-rack



FOOTSWITCH socket  
**WARNING!!!**  
 Don't connect any MIDI system. The sockets for the MIDI controller are located on the rear panel

The **CLEAN** channel is controlled by VOLUME, BASS, MID & EDGE. You can add the **BOOST** function to control with the **BOOST DRIVE** the armonics quantity

The channel switching can be: manual (push buttons), or by footswitch (supplied), or MIDI. All the three systems can be used at the same time.

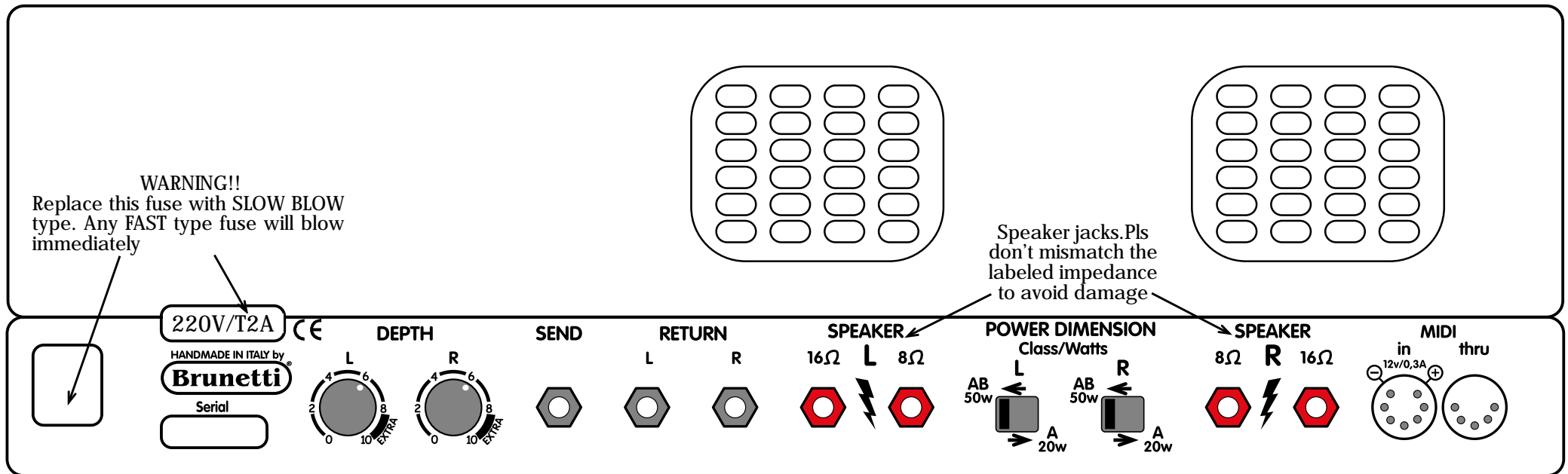
The **OVERDRIVE** channel is controlled by GAIN, BASS, MID, EDGE & MASTER. You can add the **BOOST** function to have more drive and with **BOOST MASTER** you'll be able to have a different master volume.

VOLUME L / R control the power output. For the best signal /noise ratio pls set these controls between 6 and 8.

**WARNING!!**  
 The HT fuse must be replace with a SB ( Slow Blow ) type. The trip value must be 630mA

# Star-T-rack

## Rear panel



WARNING!!  
Replace this fuse with SLOW BLOW type. Any FAST type fuse will blow immediately

Speaker jacks. Pls don't mismatch the labeled impedance to avoid damage

DEPTH makes a thicker sound until "8". From 8 to 10 the amp will work in real no feedback

Jacks for effect connections. SEND level is set by the MASTER volume of the two channels. With no jacks the loop is bypassed

These switches select the two power/classes of the amp. AB class delivers 50W with a modern style sound, while A class delivers 20W with a vintage and compressed dynamic

The MIDI system receives the program change in OMNI channel.  
To store a preset:  
1) Select the preset number on the footcontroller (1-128)  
2) Select the channel on the Star, with or without BOOST function  
3) Keep pushed the channel switch for about 5/6 sec, until the leds will blink

# Brunetti®

## Star-T-rack

### Suggestions for loop effects use

The Star loop is tubes stereo loop  
**Pls use hi-level rack effects only.** Pedals or lo-level equipments can affect to the Star sound quality!

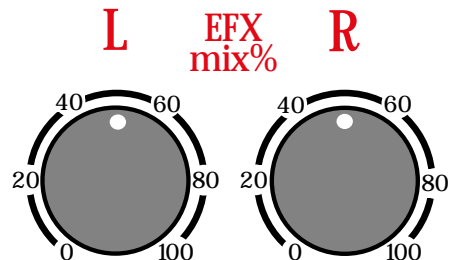
#### PARALLEL USE

Program the effect killing the direct signal (DRY) from the MIX page. Set the efx level (WET) to max. Use the mono input of the efx (L/mono)  
Set the two EFX mix% pots until you'll find the correct balance between the direct sound and the effect sound. The 0% position means only direct sound, while 100% position means only effect sound ( Serial)

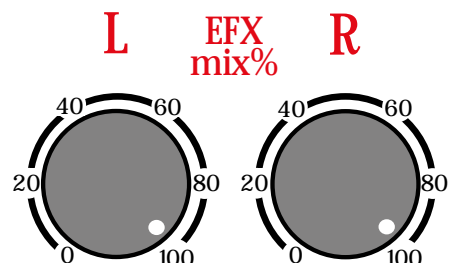
#### SERIAL USE

Use the effect preset without changing, and set the EFX mix% pots to 100%. In this way , the loop works in SERIAL mode and the direct/effect balance will be controlled by the efx itself

Es: parallel use with  
**50%DRY+50%WET**  
mixing

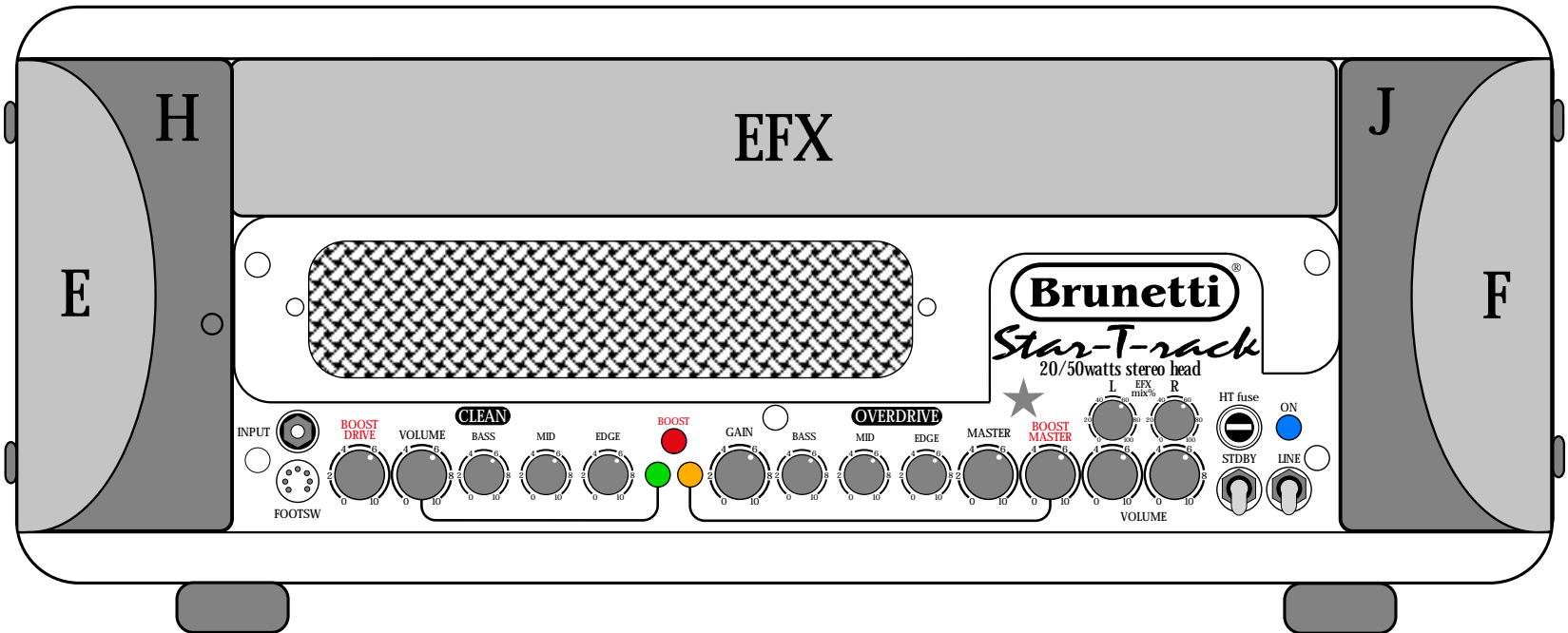
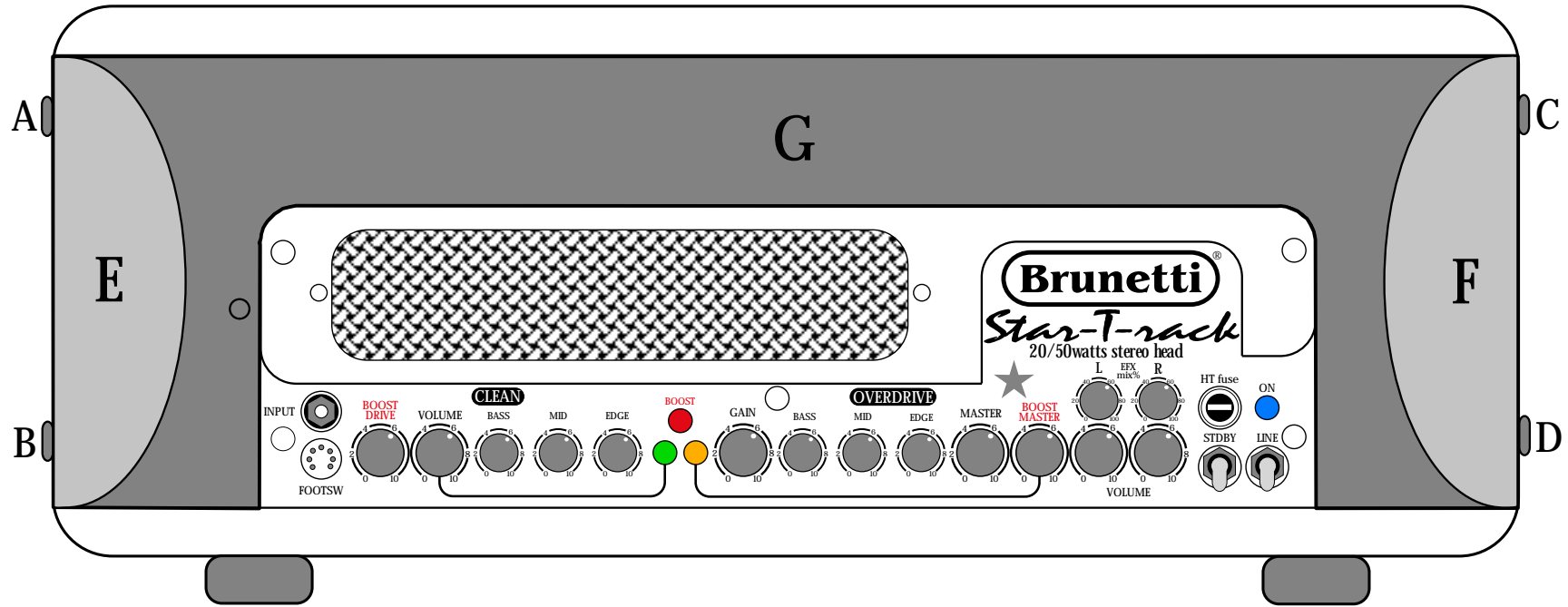


Es: serial use with  
**0% DRY+100% WET**  
mixing



# 1U rack mounting instructions

- 1) Unscrew the four A,B,C,D
- 2) Remove aluminium corners (E ed F)
- 3) Remove G panel
- 4) Fix the efx to the rack rails
- 5) Cover the rack rails with the two black blockets (H e J, founded into the packing)
- 6) Fix the corner (E, F) with the four screws (A,B,C,D)



# OVERDRIVE SETTING

**CLEAN** **OVERDRIVE**

**Rock**

BOOST DRIVE, VOLUME, BASS, MID, EDGE, BOOST, GAIN, BASS, MID, EDGE, MASTER, BOOST MASTER, L EFX mix%, R, STDBY, ON, LINE, VOLUME

Detailed description: This panel shows the 'Rock' tone setting. The 'CLEAN' mode is selected. The 'BOOST DRIVE' knob is at 6. The 'VOLUME' knob is at 10. The 'BASS' knob is at 4, 'MID' is at 6, and 'EDGE' is at 8. The 'BOOST' knob is at 10. The 'OVERDRIVE' mode is selected. The 'GAIN' knob is at 6, 'BASS' is at 4, 'MID' is at 6, and 'EDGE' is at 8. The 'MASTER' knob is at 10. The 'BOOST MASTER' knob is at 6. The 'L EFX mix%' knob is at 40 and the 'R' knob is at 60. The 'STDBY' switch is in the 'ON' position and the 'LINE' switch is in the 'LINE' position.

**CLEAN** **OVERDRIVE**

**Modern**

BOOST DRIVE, VOLUME, BASS, MID, EDGE, BOOST, GAIN, BASS, MID, EDGE, MASTER, BOOST MASTER, L EFX mix%, R, STDBY, ON, LINE, VOLUME

Detailed description: This panel shows the 'Modern' tone setting. The 'CLEAN' mode is selected. The 'BOOST DRIVE' knob is at 6. The 'VOLUME' knob is at 10. The 'BASS' knob is at 4, 'MID' is at 6, and 'EDGE' is at 8. The 'BOOST' knob is at 10. The 'OVERDRIVE' mode is selected. The 'GAIN' knob is at 6, 'BASS' is at 4, 'MID' is at 6, and 'EDGE' is at 8. The 'MASTER' knob is at 10. The 'BOOST MASTER' knob is at 6. The 'L EFX mix%' knob is at 40 and the 'R' knob is at 60. The 'STDBY' switch is in the 'ON' position and the 'LINE' switch is in the 'LINE' position.

**CLEAN** **OVERDRIVE**

**Solo**

BOOST DRIVE, VOLUME, BASS, MID, EDGE, BOOST, GAIN, BASS, MID, EDGE, MASTER, BOOST MASTER, L EFX mix%, R, STDBY, ON, LINE, VOLUME

Detailed description: This panel shows the 'Solo' tone setting. The 'CLEAN' mode is selected. The 'BOOST DRIVE' knob is at 6. The 'VOLUME' knob is at 10. The 'BASS' knob is at 4, 'MID' is at 6, and 'EDGE' is at 8. The 'BOOST' knob is at 10. The 'OVERDRIVE' mode is selected. The 'GAIN' knob is at 6, 'BASS' is at 4, 'MID' is at 6, and 'EDGE' is at 8. The 'MASTER' knob is at 10. The 'BOOST MASTER' knob is at 6. The 'L EFX mix%' knob is at 40 and the 'R' knob is at 60. The 'STDBY' switch is in the 'ON' position and the 'LINE' switch is in the 'LINE' position.

**CLEAN** **OVERDRIVE**

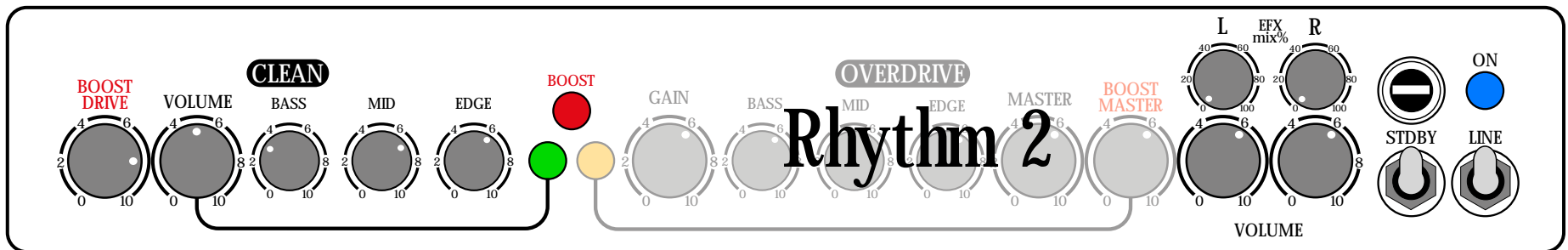
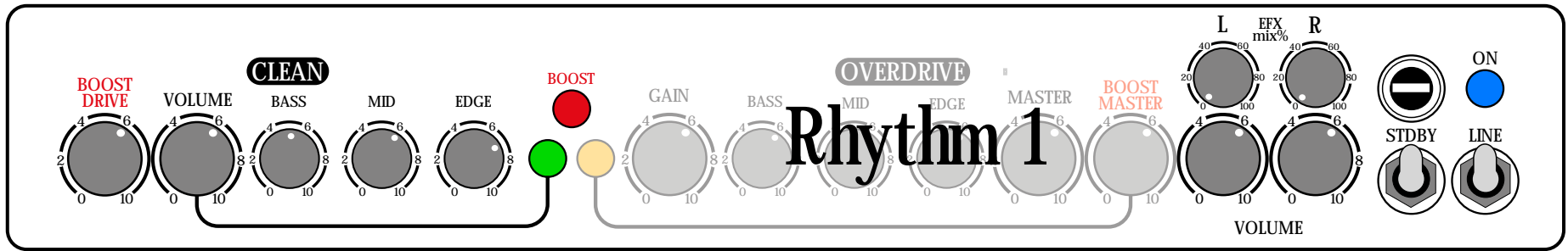
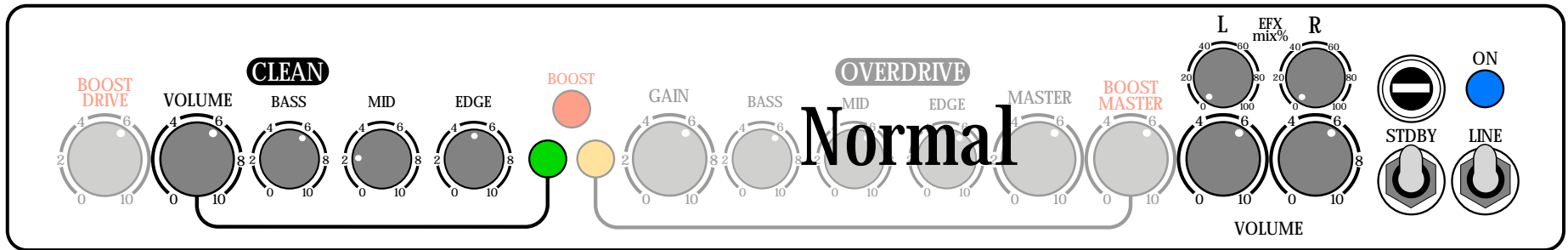
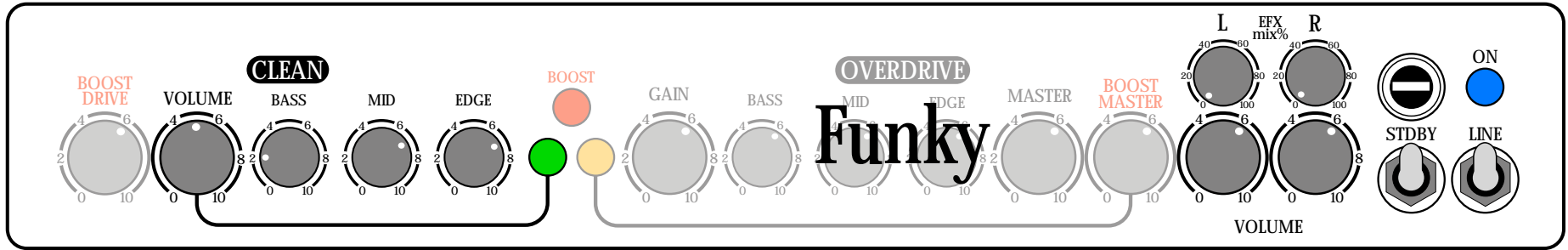
**Heavy**

BOOST DRIVE, VOLUME, BASS, MID, EDGE, BOOST, GAIN, BASS, MID, EDGE, MASTER, BOOST MASTER, L EFX mix%, R, STDBY, ON, LINE, VOLUME

Detailed description: This panel shows the 'Heavy' tone setting. The 'CLEAN' mode is selected. The 'BOOST DRIVE' knob is at 6. The 'VOLUME' knob is at 10. The 'BASS' knob is at 4, 'MID' is at 6, and 'EDGE' is at 8. The 'BOOST' knob is at 10. The 'OVERDRIVE' mode is selected. The 'GAIN' knob is at 6, 'BASS' is at 4, 'MID' is at 6, and 'EDGE' is at 8. The 'MASTER' knob is at 10. The 'BOOST MASTER' knob is at 6. The 'L EFX mix%' knob is at 40 and the 'R' knob is at 60. The 'STDBY' switch is in the 'ON' position and the 'LINE' switch is in the 'LINE' position.



# CLEAN SETTING



### 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.

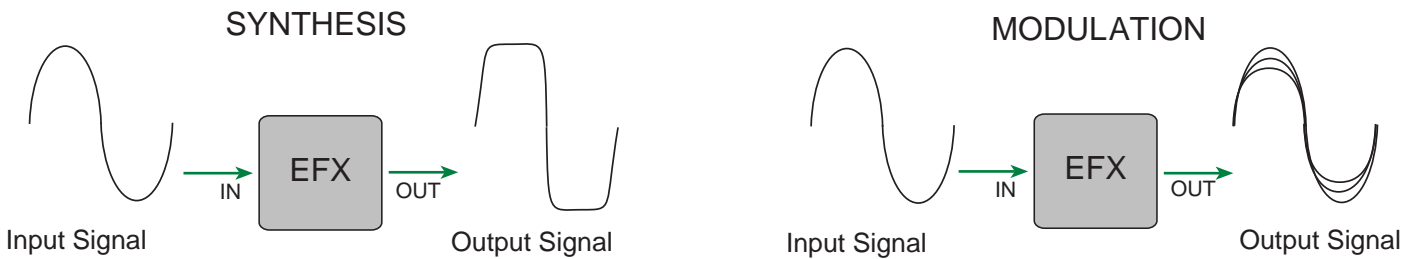
## SYNTHESIS EFFECTS

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.

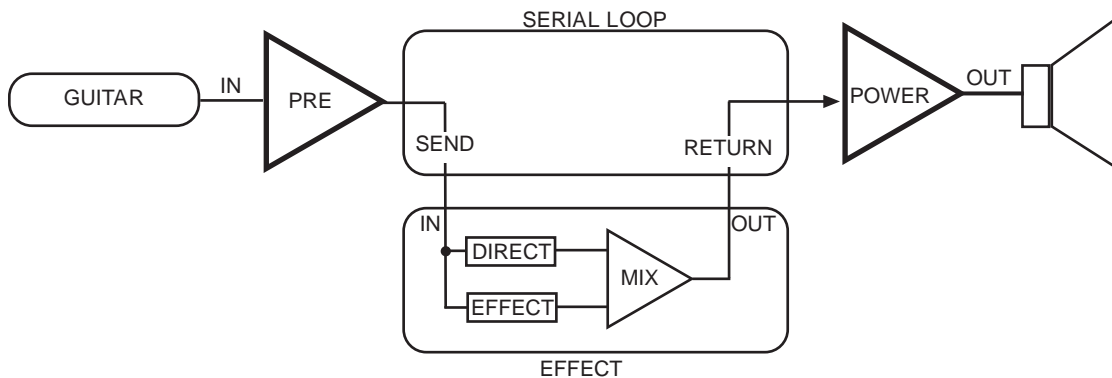
## MODULATION EFFECTS

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.



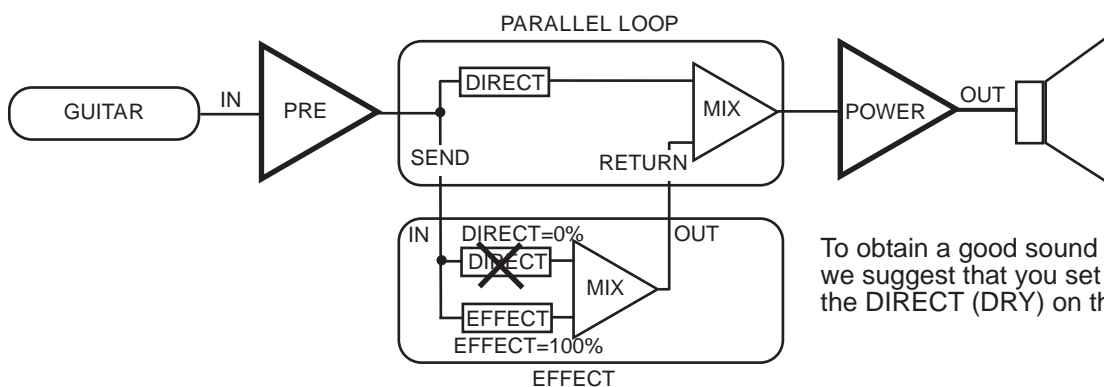
## SERIAL LOOP

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).



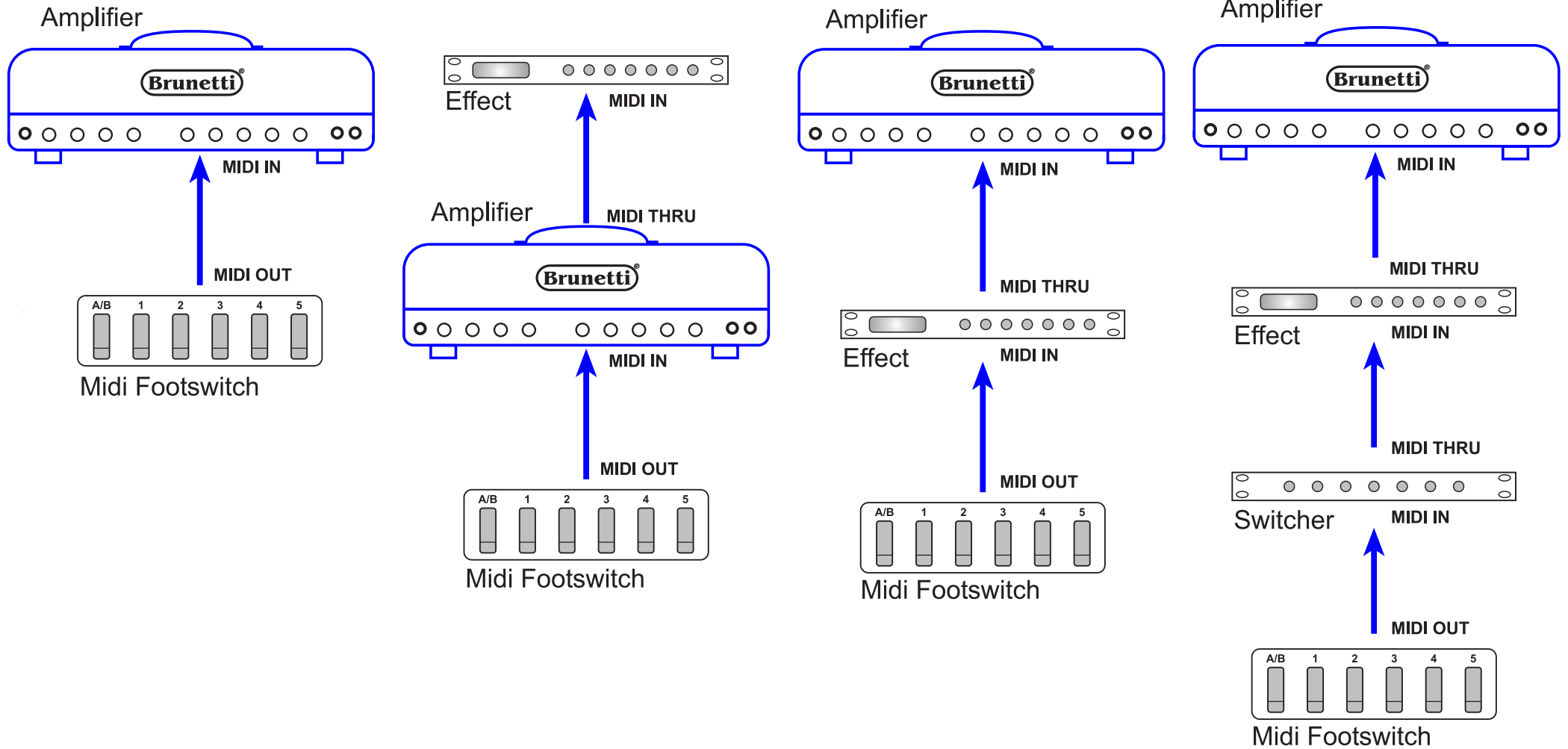
## PARALLEL LOOP

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).

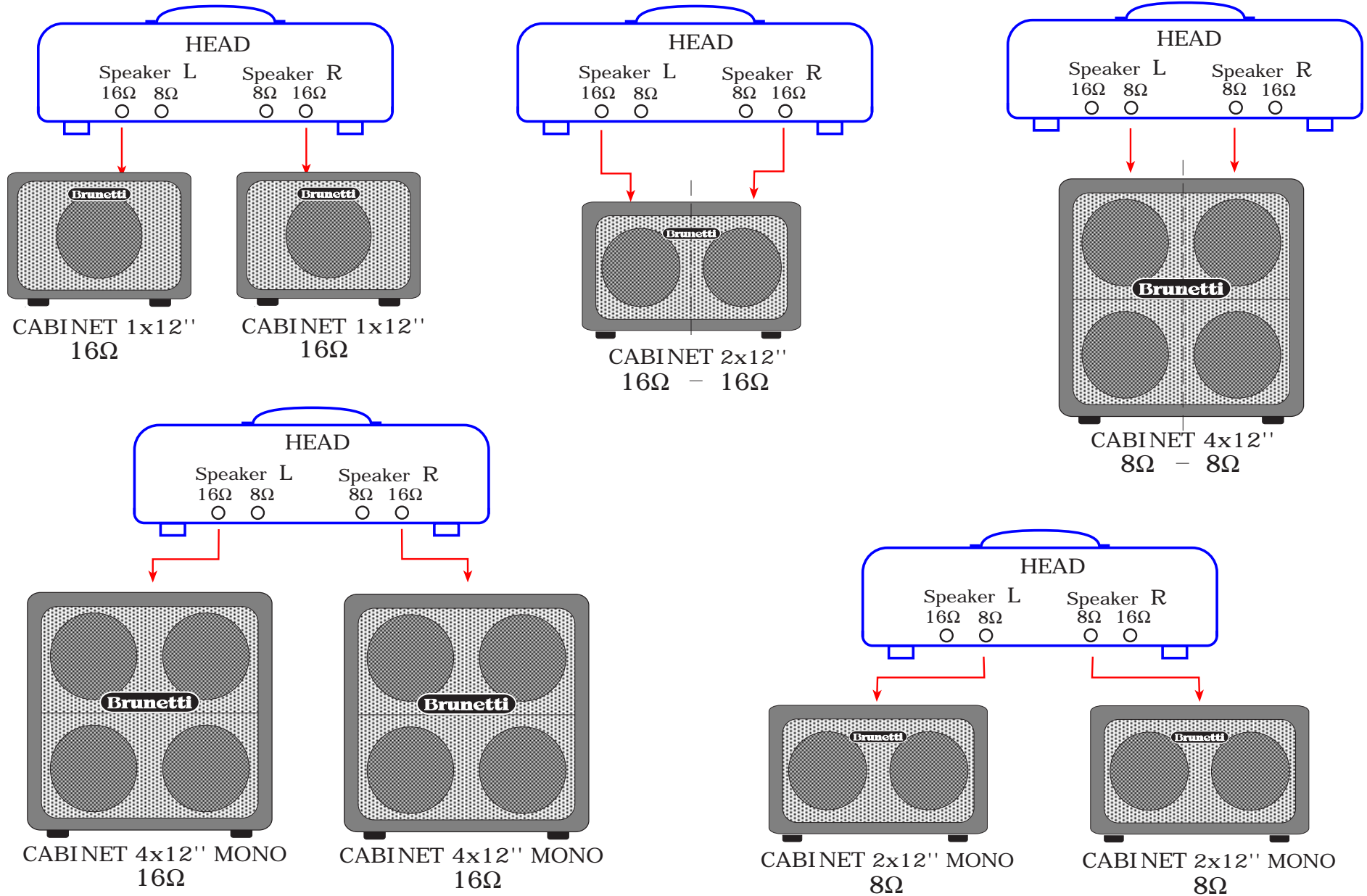


To obtain a good sound we suggest that you set on zero "0" the DIRECT (DRY) on the effect.

MIDI CONNECTIONS



**CABINET CONNECTIONS**



### 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**

Via Dei Bonomini, 25/27

I - 41100 MODENA - ITALIA

Phone number : +39 059 / 243404

<http://www.brunetti.it>

e-mail : [info@brunetti.it](mailto:info@brunetti.it)

e-mail : [support@brunetti.it](mailto:support@brunetti.it)

commercial info

technical info