



# MAC **SUB** **615**

## **USER'S MANUAL**

*COMPACT ACTIVE SUBWOOFER  
600 W RMS MOSFET POWER AMPLIFIER  
ELECTRONIC STEREO CROSSOVER  
AUDIO PROCESSOR  
ELECTRONIC LIMITER*

**DIGITAL VOICE RESEARCH**

---

*CODEM MUSIC S.r.l. - Via Del Vallo, 110 - 61100 PESARO - ITALY  
Tel. +39 0721 204357- Fax +39 0721 203554  
<http://www.codemmusic.com> - E-mail: [info@codemmusic.com](mailto:info@codemmusic.com)*

## **DESCRIPTION**

The **MACSUB 615** is a very compact and innovative subwoofer that can ensure an absolute sound quality in any use conditions.

It incorporates a powerful and reliable **600 Wrms** power amplifier with **MOS-FET** technology designed for making a dynamic and clear sound, along with a music quality without equal.

The dynamics of trasducer is maximized by the **AUDIO SIGNAL PROCESSOR** and the **ELECTRONIC LIMITER** and it at the same time protected from signal peaks and distorsion wich could compromise its lenght.

Thanks to the trasducers quality, the high technological content of its incorporated power amplifier, the **MACSUB 615** meet the strict demand of PA system as bass frequency reinforcement system.

On the top of the cabinet there is a top hat on which insert a standard stand for acoustic speaker.

## **USE OF BALANCED INPUTS**

**MACSUB 615** inputs are **BALANCED 3 poles XLR CANNON** type.

Balanced connection is studied to have a better rejection against the noise that wires (if very long) takes from external interferences.

Most of professional audio equipment have balanced outputs, you can use however non balanced connection with **mono JACK** (or **3 poles CANNON** with **pin 3** connected to **pin 1**) the **MACSUB 615** will work normally, but it will be more sensitive to external interferences.

**LINK outputs** are paralleled with inputs, so they are balanced/sbalanced like the inputs.

**XOVER outputs** are always **BALANCED** type.

## **USE OF CROSSOVER AND LINK / XOVER OUPUTS**

Internal crossover can be utilized in **STEREO mode**; connecting the two inputs L - R and their outputs, or in **MONO mode**; connecting only the R (MONO) input and its relative outputs (see fig. 1).

The crossover outputs can be **LINK** or **XOVER** types;

- **LINK OUTPUT** is nothing else that the paralleled input signal, it can be used to give the save signal to another speaker system.

It can be used to have a reinforcement on bass frequency, the speaker system connected to the **LINK output** will reproduce the full range of frequency. If the speaker system does not can handle bass frequency or you hear dangerous distorsions, is preferred to use **XOVER** output.

- **XOVER OUTPUT** allows to exclude from the output signal all bass frequency range (< **125 Hz**).

It can be used to have the best sound clearness and an higher sound pressure in the mid/high frequency. The sound system connected to the **XOVER** ouput will reproduce only the mid/high frequency range (> **125 Hz**).

To have an higher sound pressure in bass frequency, is preferred to use **LINK** output.

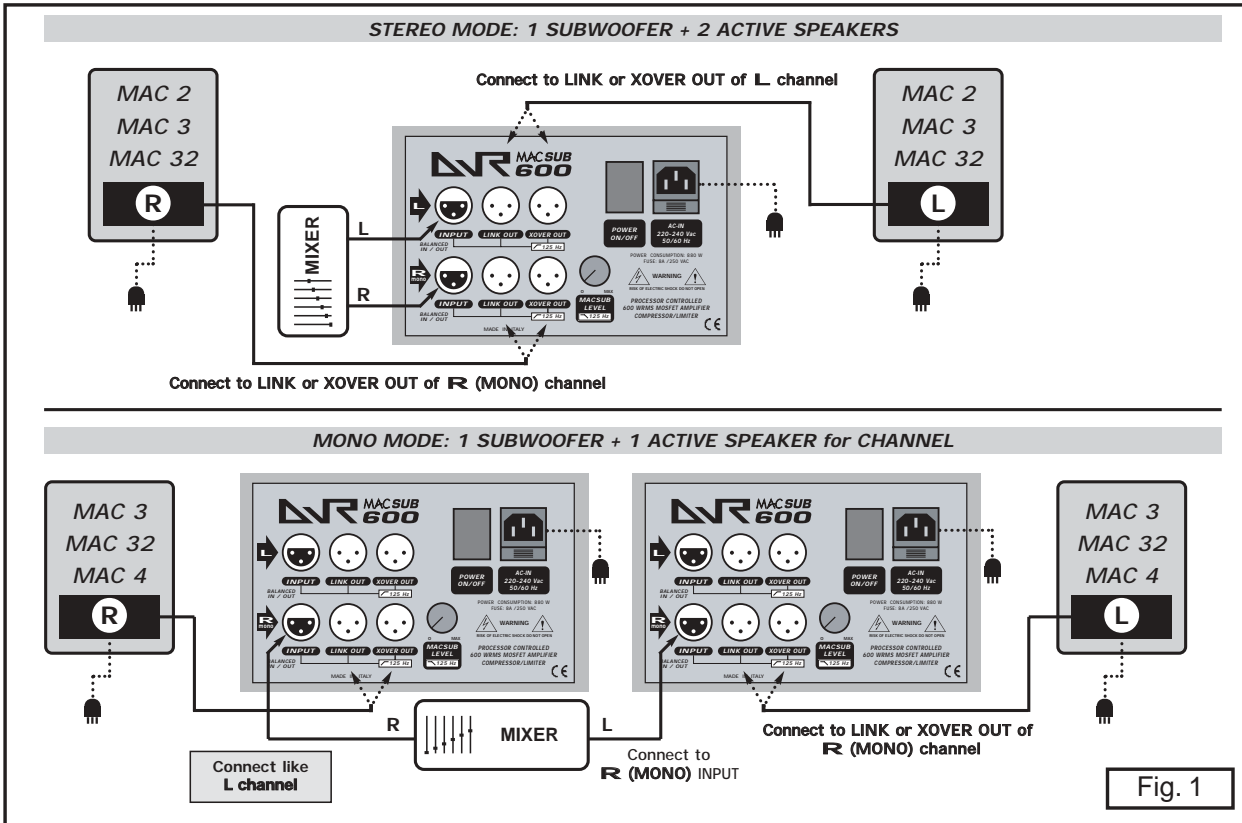
## **USE OF INPUTS LEVEL**

Volume knob adjust the input level of the two inputs and control only the subwoofer level, the volume of **LINK** and **XOVER** outputs are unchanged.

Is preferred to use this control to have the right compromise between the bass frequency generated from subwoofer and the rest of sound system.

The sound level can vary, it depend of the type of sound systems and connections (balanced/sbalanced - link/xover).

The internal electronic limiter will always protect the loudspeaker and the amplifier from dangerous input signal levels.



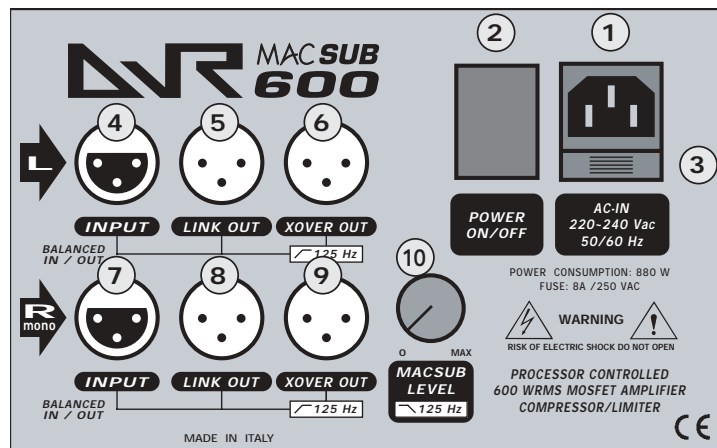
## DESCRIPTION OF REAR PANEL AND CONNECTIONS

- 1) Power supply 220/240 Vac 50/60 Hz
- 2) Power switch with lamp (0-1)
- 3) Protection fuse
- 4) Balanced line input LEFT
- 5) Balanced line output LEFT - LINK (without crossover cut)
- 6) Balanced line output LEFT - XOVER (with crossover cut)
- 7) Balanced line input RIGHT or MONO
- 8) Balanced line output RIGHT - LINK (without crossover cut)
- 9) Balanced line output RIGHT - XOVER (with crossover cut)
- 10) Input level adjustment (L+R)

**NOTE:** In case of internal amplifier overheating, the heat-protection turn off the system, when the temperature return to normal level, automatically the protection turn on again the system.

If the input signal level is higher than +10 dB the electronic limiter lose his effect.

Input level higher than +10 dB can damage the speaker system.



Rear panel

### **TECHNICAL SPECIFICATION**

Type: Active subwoofer - bass reflex  
Loudspeaker type: 380 mm (15") - high efficiency  
Frequency response: 34 - 125 Hz  
Sensitivity (1W/1m): 99 dB  
Dimensions : Cm 64,5 x 44,5 x 44,5 (H - L - W)  
Weight: Kg. 40

### **TECHNICAL SPECIFICATION AMPLIFIER *MacPower 6***

Type: AB class mosfet with audio signal processor  
Output power: 600 W R.M.S. / 4 Ohm  
THD < 0,1 % a 1 KHz  
Frequency response: 20 - 50.000 Hz  
Sensibilità d'ingresso: 0 dB / -7 dB max  
Input impedance: 10 KOhm  
Protections: Electronic limiter on the input signal (max +10 db)  
Protection fuse on power supply (1 x 8AF)  
Double protection fuse on power amplifier (2 x 10AF)  
Self-resetting thermal fuse on transformer and power amplifier

### **TECHNICAL SPECIFICATION STEREO CROSSOVER**

Type: Electronic - low noise - stereo  
Cut frequency: 125 Hz - 24 dB/oct.  
Inputs: Balanced - 2 x XLR (stereo/mono)  
Outputs: Balanced - 2 x XLR Flat + 2 x XLR Xover 125 Hz

