



MAC ***SUB*** **512**

USER'S MANUAL

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

 **DIGITAL VOICE RESEARCH**

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DESCRIPTION

The **MACSUB 512** is a very compact and innovative subwoofer that can ensure an absolute sound quality in any use conditions.

It incorporates a powerful and reliable **500 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 512** 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 512 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 512** 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.

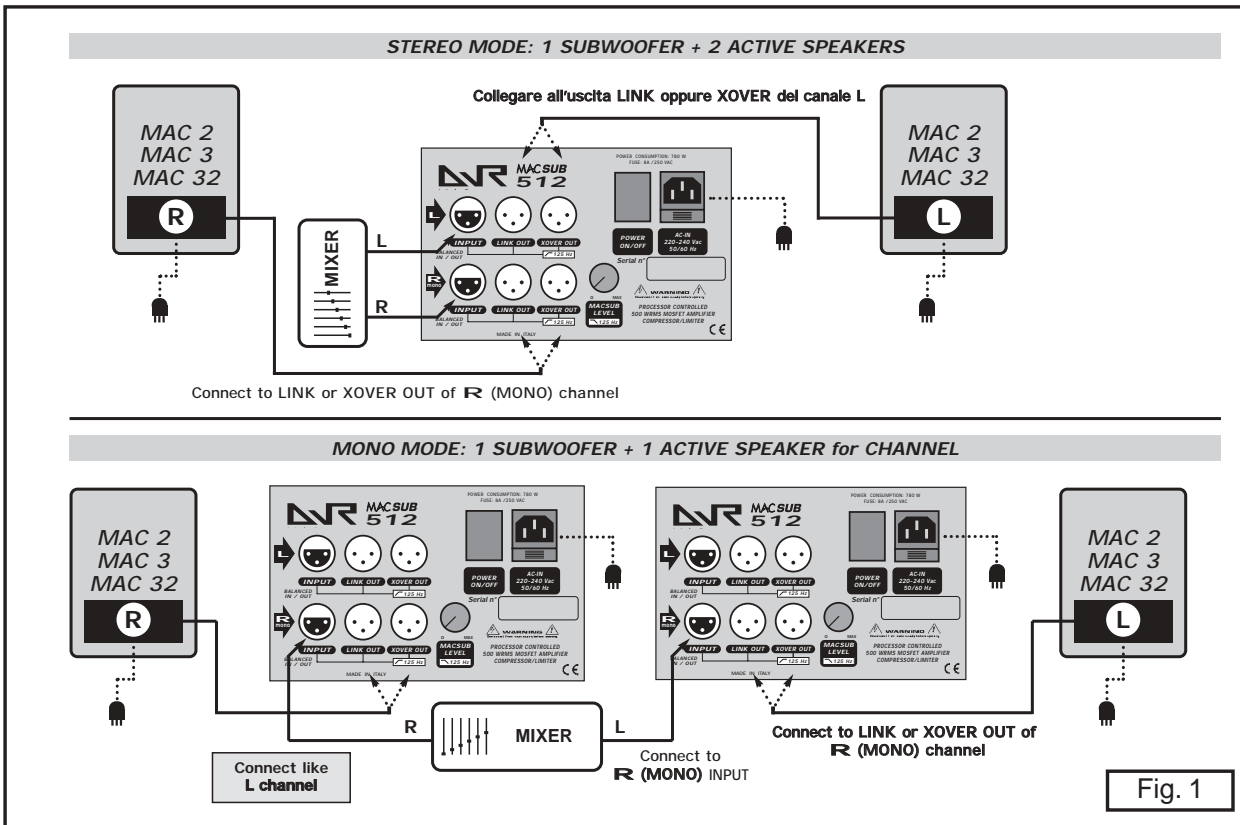


Fig. 1

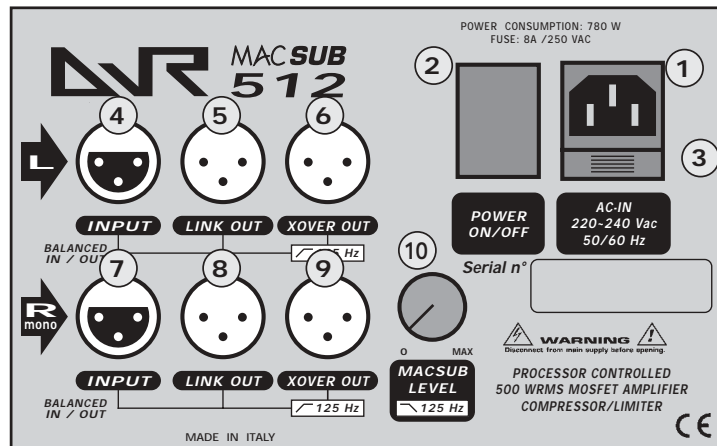
DESCRIPTION OF REAR PANEL AND CONNECTIONS

- 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 adjutment (L+R)

NOTE: In case of internal amplifier over-heating, 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.



Pannello posteriore

TECHNICAL SPECIFICATION

Type	Active subwoofer - bass reflex
Loudspeaker type:	320 mm (12") high efficiency
Frequency response:	38 - 125 Hz
Sensitivity (1W/1m):	96 dB
Dimensions :	Cm 47,5 x 40 x 40 (H - L - W)
Weight:	Kg. 26

TECHNICAL SPECIFICATION AMPLIFIER *MacPower 5*

Type:	AB class mosfet with audio signal processor
Output power:	500 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

