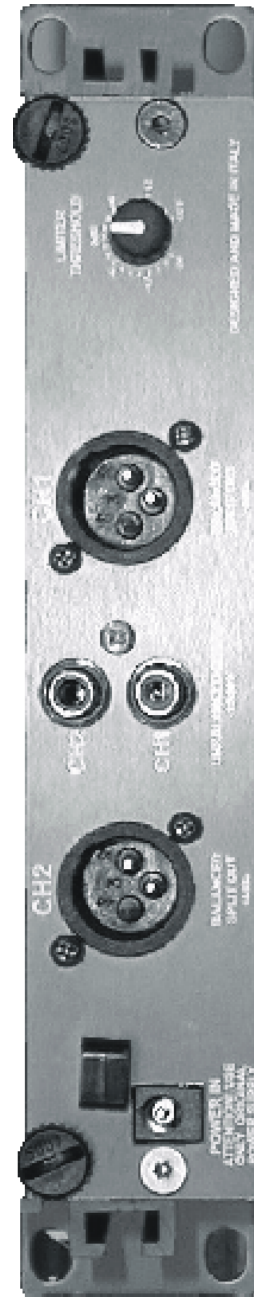


WIN PRE

PROFESSIONAL 2 CHANNEL SOLID-STATE MIC / LINE PREAMPLIFIER

Mr Tube

PROFESSIONAL 2 CHANNEL TUBE MIC / LINE PREAMPLIFIER



ENGLISH

USER'S MANUAL

REV.01 11/2001

SAFETY INSTRUCTIONS



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Read the manual.

Detailed Safety and Operation Instructions:

All the operation instructions and safety should be read before the machine is operated.

Follow instructions:

All operation and user instructions should be followed by the user or the installer.

Retain Instructions:

The safety and operating instructions should be carefully retained for future reference.

Heed Warnings:

All warnings on the machine and in the operating instructions should be adhered to.

Water and Moisture:

The machine should not be used near water or in place full of moisture.

Ventilation:

The machine should be placed so that its location does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, carpet, or similar surface that may create an obstacle for the ventilation openings: or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air around the machine.

Heat:

The machine should be situated far away from heat sources such as heat registers, radiators, stoves, or other machines (including amplifiers) that produce heat.

Power Source:

The machine should be connected to a power supply only of the type described in the operating instructions or as marked on the external power transformer.

Power-Cord Protection:

Power supply cord should be routed so that it is not likely to be walked on or pinched by items placed upon or against it, paying particular attention to cords, power transformer and plugs and the point where they exit from the appliance.

Cleaning:

The machine should be cleaned only as recommended by the manufacturer.

Non-use Periods:

The external power transformer should be unplugged from the outlet when left unused for a medium or long period of time.

Object and Liquid Entry:

Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings, do not leave bottles or cans upon the unit.

Damages that Require Service:

The unit should be serviced by qualified service personnel in the following cases:

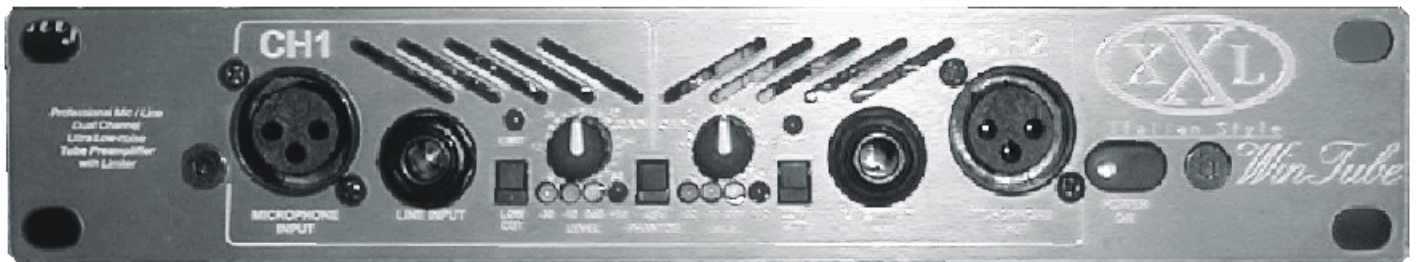
1. The external power transformer, power supply cord or the plug has been damaged.
2. The enclosure of the unit has been damaged.
3. The unit has been exposed to water or moisture.
4. The unit does not appear to operate normally or exhibits a marked change in performance.
5. Objects have fallen, or liquid has been spilled into the unit.

Servicing:

The user should not attempt to service the unit beyond what is described in the Operating Instructions. All other servicing should be referred to qualified and authorized service personnel.

WIN PRE / WIN TUBE

PROFESSIONAL DUAL CHANNEL MIC / LINE PREAMPLIFIER



- ✓ High Grade Microphone and Line Preamplifier.
- ✓ WIN TUBE employs high quality Vacuum Tubes for outstanding Audio quality.
- ✓ Output adjustable Limiter to prevent clipping.
- ✓ Ultra low distortion and noise at any output level.
- ✓ Low cut filter for anti-pop function on microphones.
- ✓ RCA and balanced XLR connectors for multi-standard wiring.
- ✓ Servo-balanced Inputs and Outputs to avoid noise problems
- ✓ Ultra-low noise 4580 audio op-amps for outstanding sound performance
- ✓ High-quality potentiometers and illuminated switches
- ✓ High-quality, low tolerance components for highest results.
- ✓ Full Aluminium rugged construction ensures long life and durability
- ✓ External power supply design for professional applications
- ✓ Battery use possibility with external dedicated battery pack

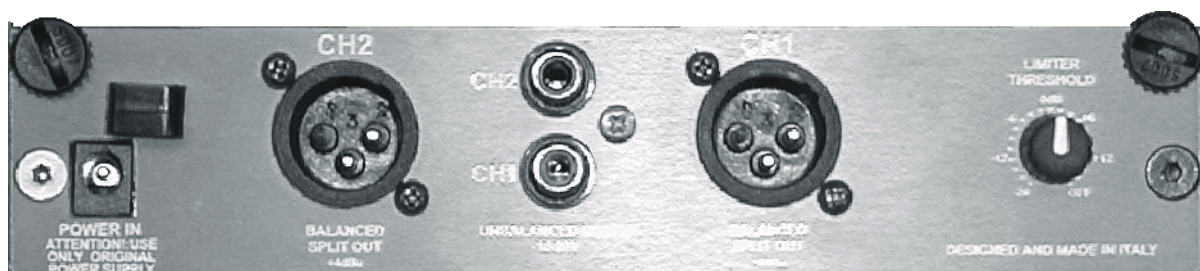


TABLE OF CONTENT

1. INTRODUCTION	p. 4
1.1 High Technology	p. 4
2. THE DESIGN	p. 4
2.1 The GAIN control	p. 5
2.2 The LOW CUT switch	p. 5
2.3 The 48V PHANTOM switch	p. 5
3. INSTALLATION	p. 6
3.1 Packaging	p. 6
3.2 Rack mounting	p. 6
3.3 Mains voltage	p. 6
3.4 Audio connections	p. 6
<i>Fig. 3.1: Different Connector Types and Wiring</i>	<i>p. 7</i>
<i>Fig. 3.1: Different Connector Types and Wiring</i>	<i>p. 8</i>
4. CONTROLS	p. 9
<i>Fig.4.1 Front panel controls</i>	<i>p. 9</i>
<i>Fig. 4.2 Back panel connections</i>	<i>p. 10</i>
5. APPLICATIONS	p. 11
5.1 During Recording	p. 11
5.2 Live Situations	p. 11
<i>Fig. 5.1 Studio Recording application</i>	<i>p. 12</i>
<i>Fig. 5.2 Live application</i>	<i>p. 12</i>
6. TECHNICAL SPECIFICATIONS	p. 13

1. INTRODUCTION

The XXL WIN TUBE and WIN PRE are the perfect choice as first ring of your audio chain both for Live and Studio applications. These ultra-low noise high-grade two channel mic/line preamplifiers will support you to record the most complex of instrumental and vocal tracks with even more detail and resolution. The WIN TUBE it is able to add that warm, musical sound that can only come from real tube. You can connect these units directly to your mixing console, direct to disk recorder, DAT or sampler. In the WIN TUBE we integrated a selected 12AX7 vacuum tube in the preamplifier, fusing tradition and innovation, further developing traditional tube circuitry and adapting it to blend with modern professional audio technology. Our input circuit technology for preamplifier input stage allows minimizing common mode noise, also with ultra low level signals. An over fast, smooth limiter stage ensure to prevent clipping all every kind of units connected to the output of the WIN TUBE (i.e.: Analog to Digital converters). The limiter threshold is adjustable from the back side of the module. Two accurate Led bar meters ensure you good check possibility for input signal levels. Two LEDs on the front panel indicate the activity of the limiter section. The exclusive XXL BluAl Full Aluminium ultra-light Half Rack Frame allows you to save drastically space and weight and to fit your unit, very easily, both in standard 19" Rack and in new generation 9.5" Rack.

1.1 High Technology

Our experience in the field of professional studios drove us to design the WIN PRE and WIN TUBE, two incredible small size dual channel preamplifiers that are able to give answer to all the demands in Studio, Live, broadcast and TV applications. All the electronics is assembled directly on PCB with no wires use, it means less possibility of malfunction. All the internal IC are 4580, ultra High quality Operational Amplifier that allow high current output with very low noise threshold. All the output are protected in order to guarantee safe operating conditions in every situation. All the inputs are balanced, in this way you can have the best matching conditions with the other machines. The choice of having the external power supply ensure professional features with minimum noise, and allow you to drive the unit also with an external optional battery pack to use the unit also without the presence of main AC power.

2. THE DESIGN

2.1 The GAIN control

The GAIN potentiometer allows setting the proper level of the input signal in order to not overdrive the internal stages of the unit. Verify on the VU meter that the level is correct (around 0 dB) otherwise adjust the level using the GAIN potentiometer.

2.3 The LOW CUT switch.

The LOW CUT switch, when pressed allows routing of the input signal to a high pass filter stage that provides to cut out all the extra low frequencies (under 100 Hz); this is very useful to avoid the “pop” effect of the most part of the vocal microphones and the low frequency wind noise in outdoor use of the most part of microphones.

2.4 The 48V PHANTOM switch.

Pushing this switch you give power to the inside Phantom Power generator stage that is able to provide over clean and noiseless 48V power on both the two microphones input of the device. This function is to be used to feed almost every kind of condenser microphones and every other device that need phantom power to work. Do not press this switch if you connect to one or both mic inputs a device that can be damaged by the presence of phantom power.

3. INSTALLATION

3.1 Packaging

XXL carefully pack in the factory all its units and the packaging was designed to protect the unit from rough handling. Nevertheless, we recommend that you carefully examine the packaging and its contents for any signs of physical damage, which may have occurred in transit.

ATTENTION!

If the unit is damaged, please do not return it to us, but notify your dealer and the shipping company immediately, otherwise claims for damage or replacement may not be granted. Shipping claims must be made by the consignee.

3.2 Rack mounting

The unit fits into one new standard "half rack" unit of space (1 3/4"). Please allow at least an additional 4" depth for the connectors on the back panel. Be sure that there is enough air space around the unit for cooling and please do not place the unit on high temperature devices such as power amplifiers to avoid overheating. It is also possible to fit the unit into one standard rack unit of space (1 3/4") using the optional RK100 rack adapter that you can buy from your Dealer.

3.3 Mains voltage

Before you connect your unit to the mains AC socket, please make sure that your local voltage matches the voltage required by the external power supply of your unit! In case that the label of your Unit transformer require a voltage different from the one that you have in your Country do not connect it to mains and contact your Dealer.

3.4 Audio connections

The jack inputs of the unit are fully balanced. If possible, connect the unit to other devices in a balanced configuration to allow for maximum interference immunity.

Please ensure that only qualified persons install and operate the unit. During installation and operation the user must have sufficient electrical contact to earth. Electro-static charges might affect the operation of the unit!

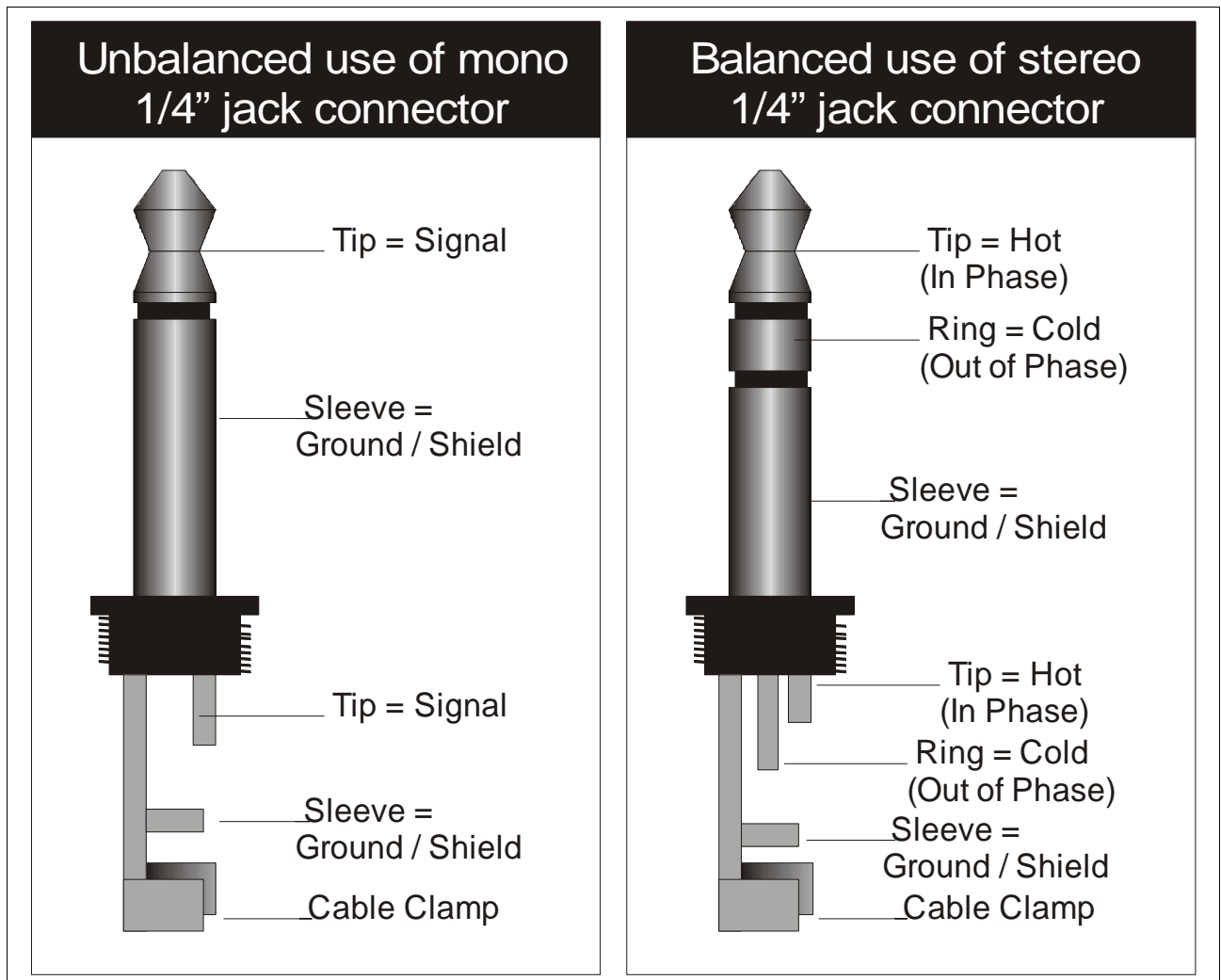


Fig. 3.1: Different Connector Types and Wiring

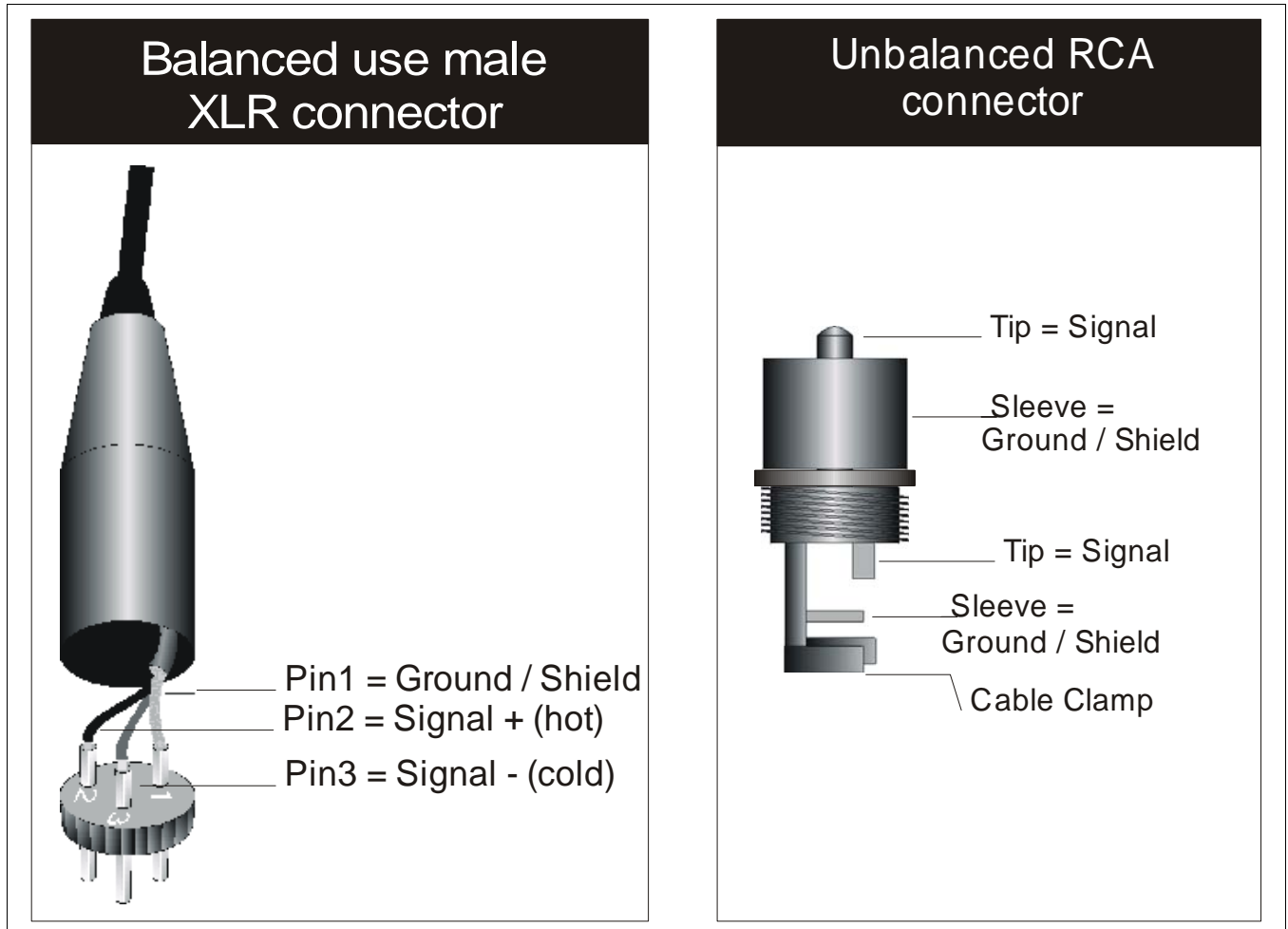


Fig. 3.2: Different Connector Types and Wiring

4.1 CONTROLS

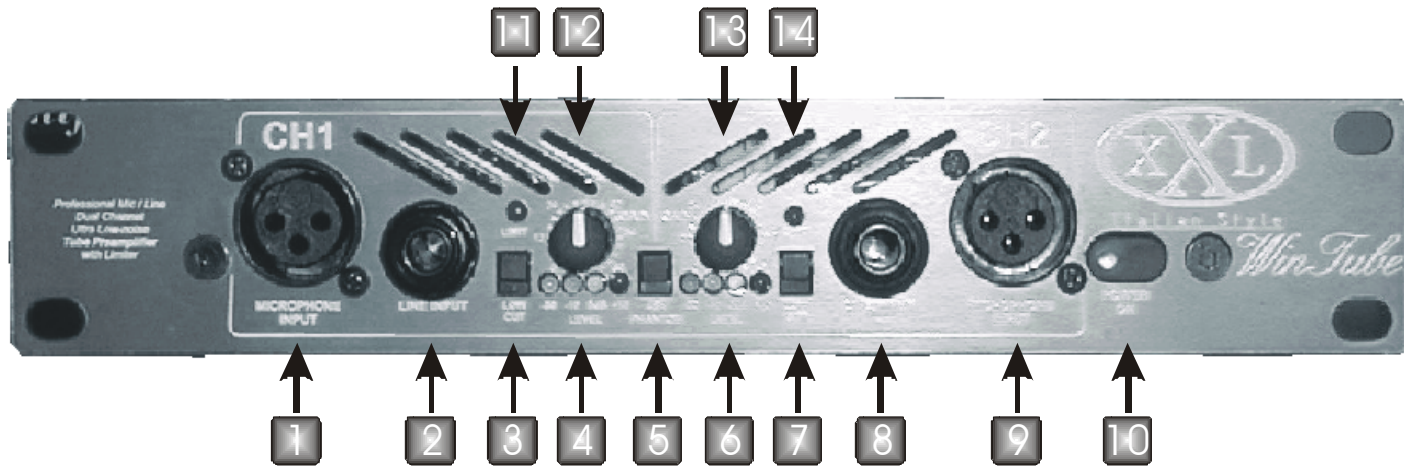


Fig.4.1 Front panel controls

- 1) MICROPHONE INPUT of CH1 allows connecting to the first channel almost every kind of microphones or DI box.
- 2) This is the balanced LINE INPUT of the CH1 you can directly plug in Guitars, basses, keyboards, midi-machines and so on.
- 3) The LOW CUT switch of CH1 cuts out over bass from the signal of this channel.
- 4) The LEVEL meter of CH1 allows continuous monitoring of the input level of this Channel.
- 5) The 48V PHANTOM power switch if pressed give phantom to both the Mic inputs.
- 6) The LEVEL meter of CH2 allows continuous monitoring of the input level of this Channel.
- 7) The LOW CUT switch of CH1 cuts out over bass from the signal of this channel.
- 8) This is the balanced LINE INPUT of the CH1 you can directly plug in Guitars, basses, keyboards, midi-machines and so on.
- 9) MICROPHONE INPUT of CH2 allows connecting to the first channel almost every kind of microphones or DI box.
- 10) The POWER ON switch is the main power switch and allows you switching on /off the device.
- 11) LIMIT LED shows that the Limiter of the CH1 is working, this means that the input signal is over passing the set Threshold (see Fig. 4.2)
- 12) The GAIN control of the CH1 allows the right setting of the input level of the signal of this channel.
- 13) The GAIN control of the CH2 allows the right setting of the input level of the signal of this channel.
- 14) LIMIT LED shows that the Limiter of the CH2 is working, this means that the input signal is over passing the set Threshold (see Fig. 4.2)

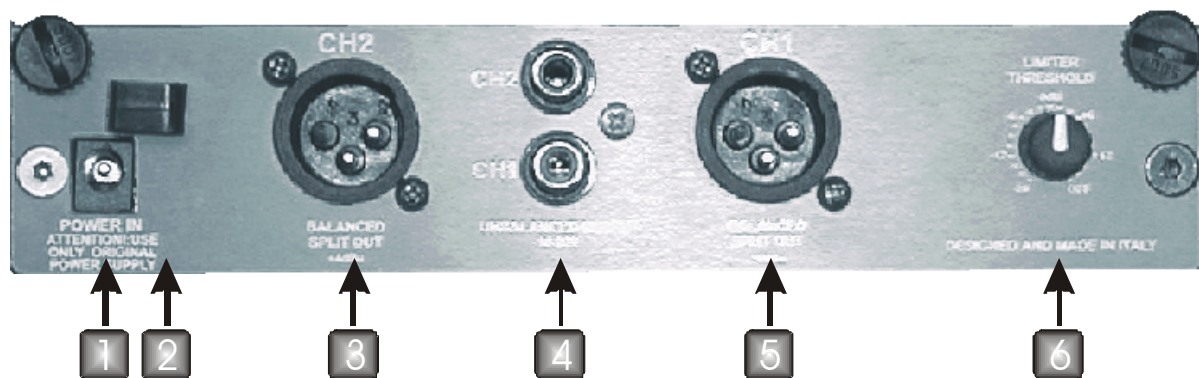


Fig. 4.2 Back panel connections

- 1) MAIN POWER SUPPLY SOCKET. Use only original power supply. Read carefully the SAFETY INSTRUCTIONS before connecting the device.
- 2) This clip is the holder for the power supply cord, fix the cable to avoid undesired unplugging.
- 3) The CH2 BALANCED SPLIT OUT is the +4 dBu XLR output of the CH2. It is possible to connect both in balanced and in unbalanced mode this output.
- 4) This are the unbalanced outputs of the device. Their standard level is -10 dBV.
- 5) The CH1 BALANCED SPLIT OUT is the +4 dBu XLR output of the CH2. It is possible to connect both in balanced and in unbalanced mode this output.
- 6) The LIMITER THRESHOLD control allows setting the threshold level of the limiter stage of the device. One set every audio signal that will over-pass the threshold will be padded. If the Limiter is not desired set the Limiter Threshold control to max.

5. APPLICATIONS

5.1 During recording.

Every time you are recording your goal is to achieve a natural sound image of high quality in the first place. Any reverb, chorus, delay or other effects can be add later during the mixdown, without affecting the recorded material. First of all set a gain level that suits the input material by moving the GAIN control of the desired channel. Than be sure to take all measures that enable you to achieve the best sound possible: verify the microphone position in the room to match the result you need in consideration to the room acoustic. Than, if required, set the Limiter Threshold control on the back panel of the device to prevent recorder clipping. Now you can start recording.

5.2 Live situations.

Of course both WIN-TUBE and WIN-PRE are the perfect choice as the first ring of your audio chain also in live performances. In this case you can in fact improve the quality of the sound of your microphone or of your acoustic instrument by the use of these preamplifiers before the input of your mixer. Follow the some suggestions sow for recording setting in chapter 5.1 concerning Gain and Limiter Threshold setting.

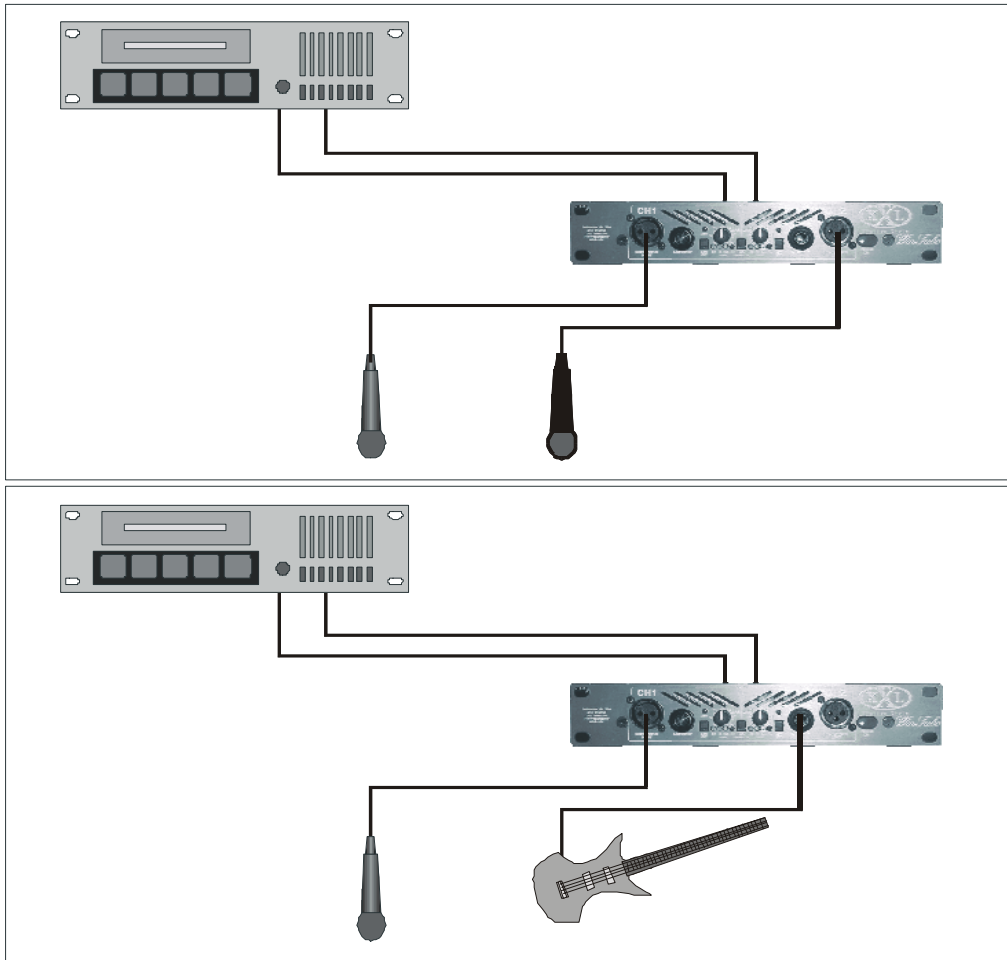


Fig.5.1 Studio recording application

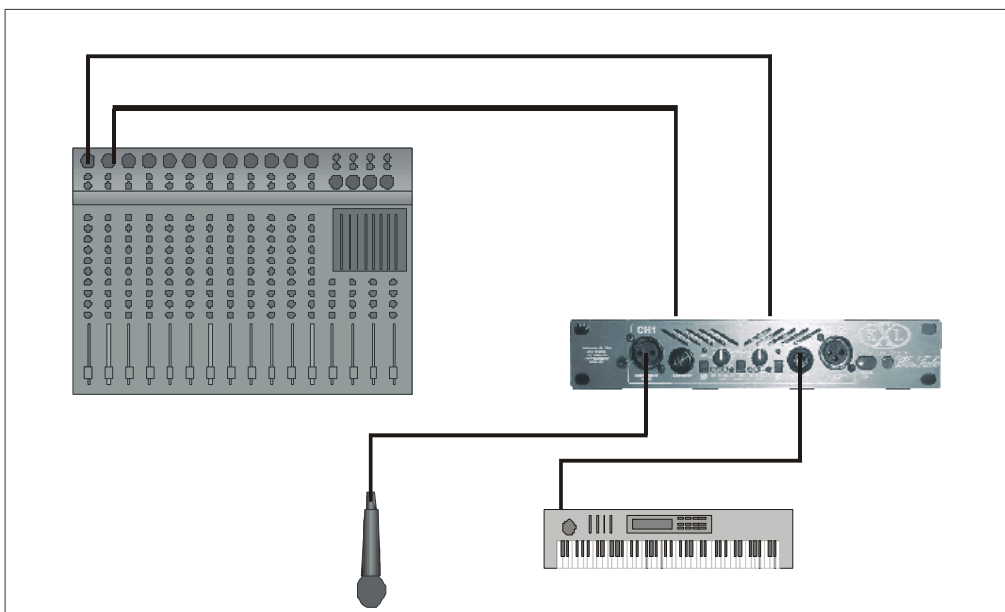


Fig.5.2 Live application



6. TECHNICAL SPECIFICATIONS

AUDIO INPUT

Connectors XLR Type RF filtered, servo-balanced input
Impedance 2 kOhms balanced, 1 kOhm unbalanced
Max. Input Level +4dBu balanced and unbalanced CMRR typ. 40dB, >55dB @ 1 kHz

1/4" jack

AUDIO OUTPUT

Connectors XLR and 1/4" jack
Type Electronically servo-balanced output stage (optional transformer-balanced).
Automatic
level correction for unbalanced use (6 dB).
Impedance 60 Ohms balanced, 30 Ohm unbalanced
Max. Output Level +21dBu, +20dBm balanced and unbalanced

SYSTEM SPECIFICATIONS

Bandwidth 18 Hz to 30 kHz, +/-3dB
Signal-to-noise ratio >100dB, unweighted, 22 Hz to 22 kHz
THD 0.008 % typ. @ +4dBu, 1 kHz, Gain 1
0.04 % typ. @ +20dBu, 1 kHz, Gain 1
IMD 0.01 % typ. SMPTE
Crosstalk <-100dB, 22 Hz to 22 kHz

POWER SUPPLY

30VAC by dedicated adapter or 24 VDC by dedicated battery pack

ADAPTER

Mains voltages USA/Canada ~ 120 V AC, 60 Hz
U.K./Australia ~ 240 V AC, 50 Hz
Europe ~ 230 V AC, 50 Hz
General Export Model ~ 100-120 V AC, ~ 200-240 V AC, 50-60 Hz
Power consumption 10 Watts

PHISICAL

Dimension HALF RACK STANDARD 240mm x 44 mm x 110 mm
Net weight 1 kg around
Shipping weight 2 kg around

NOTES:





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Present XXL Systems may differ in some respects from those presented in this brochure.*

