

R-50-ELITE Mic-Line Preamplifier



REAL Innovation

ARREL Audio Overview

ARREL Audio products, conceived for the professional user, combines high reliability, rugged design, audio quality, versatility and ease of use. They are perfect for recording every kind of music in all the situations where the maximum sound quality is needed especially for actual digital recording 24bit/192kHz environments where superior performance is required.

They are based on the use of the latest circuit topologies, characterized by very low distortion, ultra-low noise and very wide frequency response. ARREL Audio systems are designed and hand-assembled in Italy with minimum cabling to obtain the best mechanical performances and the minimum degradation of the audio signal.

ARREL audio devices are designed utilizing mostly through-hole technology which provides better performances when compared to surface mount technology.

Moreover, no custom electronic components are used in ARREL Audio units.

Our aim is to transfer technology emerging from research in advanced innovative products.

R-501 Mic-Line Preamplifier

ARREL Audio R-501 Elite Mic-Line Preamplifier has been conceived to offer to the 500 series user the superior audio performance of the ARREL audio higher level product lines. The unit offers to the 500 user high reliability, rugged design, outstanding audio quality, versatility and ease of use typical of the tradition of ARREL Audio products.

R-501 Elite is based on the use of the latest circuit topologies, characterized by very low distortion, ultra-low noise and very wide frequency response. The R-501 Elite extended input dynamic range avoids the necessity of the input pad and the gain is controlled by a single large knob. The absence of the input pad means better sonic performances. In fact the pad degrades sound quality and affects signal to noise ratio.

The R-501 Elite is powered at +/-16 VDC as the traditional 500 Series units but internally the power supply is increased to +/-24 VDC providing 32 dBu of maximum output level avoiding any output saturation.

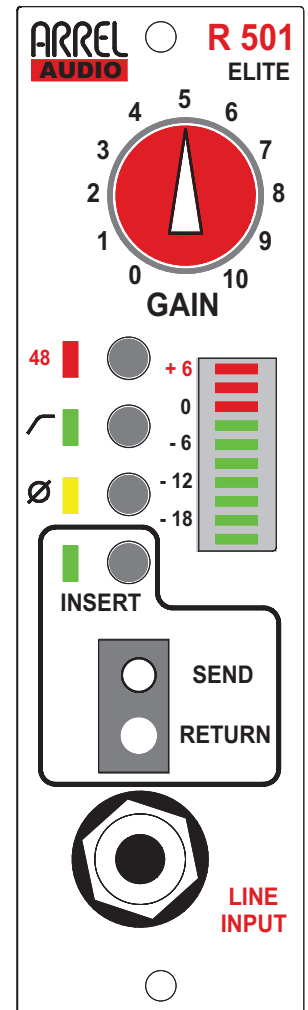
The Line Input (unbalanced) is easily accessible from the front panel by a 1/4" TRS jack, the jack insertion excludes the mic input. If a balanced line is connected to the Line Input, it will be automatically unbalanced (cold connected to ground).

The two bantam connectors on the front panel provide a balanced insert point (push button) that is extremely useful permitting the "on the fly" connection of out-board units without accessing the back panel.

To obtain an outstanding audio quality, no servo amplifiers are used in the R-501 Elite

Four illuminated buttons are provided for Phantom Power, Phase inversion, LO-CUT filtering and Insert control.

A LED bargraph (10 LEDs) is used to display the output level. The R-501 Elite, offers a milk white-painted (RAL 9001) front panel and a semi closed stainless steel enclosure and has been designed to be compliant with the 500-series standard. R-501 Elite is dedicated (due to his absolute sonic level quality) to high professional vocal recordings, classical instruments, high dynamic range instruments such as drums and percussions. ARREL Audio products are designed and manufactured in Italy.



R-501-ELITE

Technical Specifications



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Number of Channels:	1
Power Supply	± 24 V DC (a special circuit increases the 500 power supply to ± 24 V), 48 V DC, very low power supply currents with respect to the 500 series standard
Microphone Input	Electronically Balanced, Phantom Power switch (LED), Input Level +10 dBu/-56 dBu, Max input level +24 dBu (internal limited to +20 dBu), Input Impedance 4 K Ω
Microphone Gain	70 dB range
Line Input	Unbalanced, Impedance 47 K Ω , Line level 8/-38 dBu, Max +20 dBu.
Line Gain	30 dB range
Bandwidth	5 - 150 KHz \pm 1 dB, perfect square wave up to 20 KHz
Distortion + Noise	<0.003% (typical 0.001%).
Low Cut Filter	80 Hz. 12 dB /Oct., selected by a button (LED)
Output Level	Electronically Balanced, Level +4 dBu, Max +25 dBu.
Front Panel Controls	48V Phantom Power button, Lo-Cut button, Phase Reverse button.
Front Panel Input Connectors	1/4" TRS jack, Line-Mic switch by line jack insertion Send and Return Bantam Jacks
Front Panel Indicators	Level Indicator 10-LED Bargraph (7x green, 3x red), 1.5 dB step, Range +6/-21 dBu, 3 x red LEDs (48V Phantom Power, Lo-Cut, Phase).
Rear Panel Input Connectors	Series 500 compatible connector
Construction	Compliant 500-series rack with PSU and external audio connections, Single 500-series rack slot required for each R-501 ELITE module.
Dimensions	Series 500 compatible module
Weight	500 g

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