

# R-502 3 Band Parametric Equalizer (9 Center Frequencies)

**ARREL**  
**AUDIO**

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-502 3 Band Parametric Equalizer

The **ARREL Audio R-502** is an advanced single-channel parametric equalizer conceived to offer to the 500 series user the superior audio performance of the ARREL audio high level products. The R-502 is characterized by high reliability, rugged design, outstanding audio quality, versatility and ease of use typical of the tradition of ARREL Audio products.

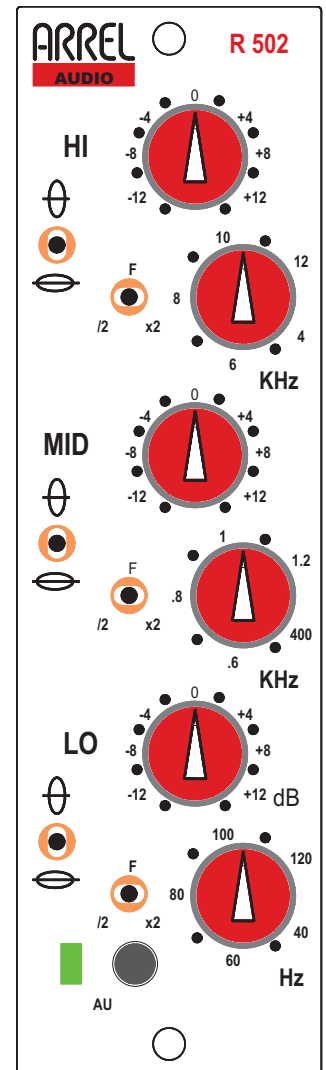
The R-502 equalizer is based on the Livio Agentini's "Single-Stage Parallel Configuration" patented design. This innovative phase coherent EQ design offers the lowest distortion/noise specifications, not available in other products.

The R-502 filtering section offers three band LO, MID, HI controls (bell shape). The emphasis/de-emphasis control range is  $\pm 14$  dB, the three primary bands become nine by using three central frequency switches. The Q control value (narrow, mid, large) is selected by three switches (one for each band). A bypass button is used for a true analog by-pass function (LED).

R-502 is the most performing equalizer in the ARREL 500 series (the other models are R-503, R-504, R-505) in order to give to the user the best choice for its application.

The R-502, offers a very cool satin finish stainless steel or 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-502 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.



# R-502 Technical Specifications



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Number of Channels:	1
Power Supply	± 16 VDC, very low power supply currents with respect to the 500 series standard
Line Input	Electronically Balanced, Impedance 20KΩ, Input Level +4dBu, Max +20 dBu.
Output	Electronically Balanced, Level +4 dBu, Max +28 dBu, Output Impedance 100 Ω
Bandwidth	6 - 300 KHz 0/-1dB, perfect square wave up to 50 KHz
Distortion + Noise	<0.003% ( typical 0.001 %).
Front Panel Controls	True By-Pass button (LED), Gain (Emphasis/De-Emphasis) rotary control with center detent (3 controls), Range ± 14 dB, Center Frequency: rotary control (3 controls), Frequency band control; three positions switch (Frequency/2 , Frequency x 1, Frequency x 2 (3 controls), Q control: three positions switch (narrow , medium, wide (3 controls).
Frequency Bands	Controlled by 3 positions switches: LO: Bell shape 20/60 Hz (F/2), 40/120 Hz (F x 1) or 80/240 Hz (Fx2), MID: Bell shape 200/600 Hz (F/2), 400/1200 Hz (F x 1) or 800/2400 Hz (Fx2), HI: Bell shape 2.000/6.000 Hz (F/2) , 4.000/12.000 Hz (F x 1) or 8.000/24.000 Hz (Fx2).
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 module.
Dimensions	Series 500 compatible module
Weight	500 g

The information contained in this document has been carefully checked and we believed is accurate at the time of publication.  
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