

# R-509

## Single Band

### VCA Compressor



#### 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.

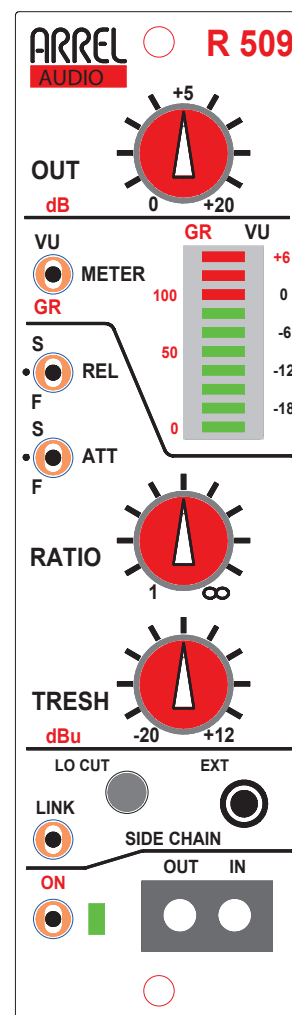
Our aim is to transfer technology emerging from research in advanced innovative products.

#### R-509 VCA Compressor

The **ARREL Audio R-509** is a single band VCA compressor conceived to offer to the 500 series user the superior audio performance of the ARREL audio high level products. The R-509 is characterized by high reliability, rugged design, outstanding audio quality, versatility and ease of use typical of the tradition of ARREL Audio products. It includes the following features: high audio quality input and output buffers, new topology for the envelope detector and VCA, Attack and Release three position switches, LO cut switch on the side chain, Compression Ratio and Threshold knobs, Flexible metering system (Gain Reduction, output level), Side Chain External input, Side chain stereo link, True by-pass function and front panel BANTAM connectors.

Due to the IN and OUT BANTAM connectors the R-509 can be easily "patched" with other modules of the R-500 series (R-501 ELITE, R-503, or other units) without the need to access to the back panel.

R-509 is the one of the ARREL 500 series modules (the other models are R-501, R-502 ELITE, R-502, R-503, R-504, R-505, R-507) designed to give to the professional user the best audio tools for its application. To obtain an outstanding audio quality, no servo amplifiers are used in the R-509. R-509 is suitable for professional recordings of voice, classical instruments, high dynamic range instruments such as drums and percussions.



# R-509 Technical Specifications



REAL Innovation

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 +24 dBu.
Output Level	Electronically Balanced, Level +4 dBu, Max +28 dBu, Output Impedance 100 Ω
Bandwidth	5 - 150 KHz ±1 dB, perfect square wave up to 20 KHz
Distortion + Noise	<0.003% ( typical 0.001%).
Front Panel Controls	True By-Pass switch (LED), OUT level knob Ratio knob from 1:1 to ∞:1 (limiter) Threshold knob – 20 dBu, +12 dBu Attack switch: three positions (slow, mid, high) Release switch: three positions (slow, mid, high) Metering selection switch: two positions (GR Gain Reduction, Output level) Side chain LO-CUT switch
Front panel connectors	3.5 mm SIDE mono/stereo jack IN and OUT Bantam connectors
Rear Panel Input Connectors	500 series 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 standard
Weight	500 g

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