

# CL-123 Channel Strip

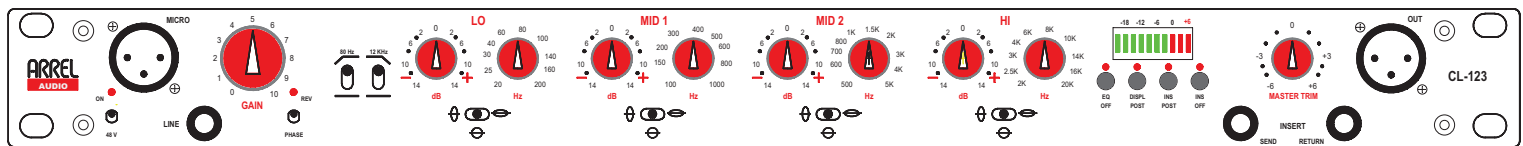


## ARREL Audio Overview

**ARREL Audio** products, conceived for the professional user, combine 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.

## CL-123 Channel Strip



The **ARREL Audio CL-123** channel strip unit, is composed by a high quality mic-line preamplifier, a four band parametric equalizer, a level metering system and a flexible insert return. The preamplifier architecture is based on two high dynamic range gain stages to avoid any saturation and the best possible linearity. The CL-123 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. The Line Input (unbalanced) is easily accessible from the front panel by a 1/4" TRS jack. The insertion of the Line In jack disconnects the mic input.

The channel strip contains a special circuit that allows the connection of microphones even if the unit is turned on with the Phantom Power activated (in any case we do not recommend this practice in order to protect your microphones).

CL-123 also provides a four band fully parametric EQ with High-Cut/Low-Cut filters at fixed cut-off frequencies (80 Hz / 12 kHz) which can be activated by a switch. Each filter stage is completely excluded from the main circuit if not in use.

The emphasis/de-emphasis adjustment is based on a special circuit topology that guarantees a very linear and accurate control.

The flexibility of the CL-123 channel strip is increased by a level meter (mic-line out or equalizer out measurements) and an insert point (send and return electronically balanced) available both on the front panel and on the back panel. The insert point can be configured either as pre eq. or post eq. The insert jacks on the front panel deselect the outboard connected on the back panel. In this way the user can permanently connect the most used outboard to the insert/return connectors on the back panel and, when a new outboard is required, it can be connected by using the front panel connectors disconnecting automatically the back connected outboard. In this way additional outboards can be easily connected with no access on the back panel.

Differently from other channel strips, the CL-123 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.

# CL-123 Technical Specifications



**REAL Innovation**

Number of Channels:	1
Power Supply	Linear Regulator $\pm$ 18 VDC (Balanced C-Core Transformer)
Operating Voltage	220V 50 Hz, (110V 60 Hz version available)
Power Consumption	20 W
Microphone Input	Electronically balanced
Microphone Gain	66 dB range with rotary knob control Max input level +20 dBu (internally limited to +12 dBu)
Line Input	Unbalanced, Impedance 22 K $\Omega$ , (this input can be also used as EQ input)
Line Gain	30 dB range with rotary knob control Level 0/-30 dBu. Max +23 dBu
Bandwidth	5 - 200.000 Hz -1dB, perfect square wave up to 20 KHz
Distortion + Noise	<0.003% ( typical 0.001%)
Low Cut Filter	80 Hz, 12 dB / Oct
High Cut Filter	8 KHz, 12 dB / Oct
Parametric EQ	4 band with overlapping frequencies: 20 - 200 Hz, 100 - 1.0 Hz, 500 - 5.0 Hz, 2.0 - 20.000 Hz Three Q settings – narrow, normal, wide $\pm$ 14 dB gain range for emphasis/de-emphasis
Output	Electronically Balanced Level +4 dBu. Max +28 dBu, external load > 600 $\Omega$
Insert send	Electronically Balanced, lev +4 dBu, max. +28 dBu, external load > 600 $\Omega$
Insert return	Electronically Balanced, lev +4 dBu, max. +23 dBu, Input impedance > 10 K $\Omega$
Front Panel Controls	Gain rotary knobs (min gain and level gain), 48V Phantom Power switch Lo-Cut and Hi-Cut switches, Phase Reverse switch "3-way Q settings" toggle switch (each band), $\pm$ 14 dB range for boost/cut Central Frequency rotary knob, 4x push-button for EQ off Pre/Post EQ, Display mode: Pre/Post Insert, Insert off Output level rotary knob
Front Panel Connectors	1/4" TRS jack for kine input Balanced XLR female for microphone input 2x 1/4" TRS jacks for insert connections (Send/Return) Balanced XLR male output
Front Panel Indicators	Level Indicator 10-LED Bargraph (7x green, 3x red). 1.5 dB step, 4x red LEDs (48V Phantom Power, Hi-Cut, Lo-Cut, Phase).
Rear Panel Input Connectors	Balanced XLR female input Balanced XLR male output Balanced XLR female/male for Insert (Send/Return)
AC mains	IEC C13 16 A connector, AC mains cord with IEC Schuko 16A
Construction	19" 1U rack mount metal box
Dimensions	W 483 mm / 19", H 44.45 mm/1.75" (1 U), D 225 mm / 8.86"
Weight	2.5 kg

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