

User's Guide

bel canto



Phono3TM

e.OneTM Series

Two Channel Analog
RIAA MM/MC Pre-Amplifier

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Thank you for purchasing the Bel Canto Design Phono3. Your Phono3 sets a benchmark for design, quality and sonic performance, continuing Bel Canto's heritage of musicality and realism.

Phono3

Two-Channel Analog Pre-Amplifier

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Warranty Information

Please take a moment to fill out your warranty registration sheet. Returning this registration validates your warranty. This information will not be sold or released outside Bel Canto. Your comments and suggestions help us continue to improve upon our products and services.

Bel Canto products are automatically covered by a 90 day factory warranty. With no additional cost, you have the option to extend your warranty by completing and returning the enclosed warranty registration form within 30 days of purchase, along with a copy of the original sales receipt from an authorized Bel Canto dealer. This will ensure prompt warranty coverage. This warranty is only valid to the original

owner who has returned the warranty sheet along with a copy of the original sales receipt, covering all internal parts and workmanship. This warranty is void if damage is due to abuse, neglect, or unauthorized modification. The cost associated with the return of this unit is the sole responsibility of the owner.

Bel Canto products are uniquely identified with a serial number on the back panel of each unit. This number is required to validate your warranty. Please reference the serial number if service is required. If you have any questions, comments, or if we can be of service, please contact us Monday through Friday 9:00 a.m. - 5:00 p.m. CT/USA.

Unpacking your Phono3

Phono3 box contents include the following:

- 1 (one) - Phono3 Preamplifier
- 1 (one) - Phono3 User's Guide
- 1 (one) - Power cord [6.6' - 2 meters long]
- 1 (one) - Warranty Sheet

Carefully unpack each piece and check for shipping damage. If there is any damage, or if anything is missing, please contact your dealer, distributor or Bel Canto Design.



IMPORTANT: Save all packing materials as the packing is specially designed to protect the unit during transportation or shipping. If the packaging becomes lost or damaged, please contact your dealer, distributor or Bel Canto before attempting to transport your unit.

Power Connection

The power supply on the Phono3 is preset for the proper national voltage. The power cable should have the correct plug for your local power system. If you believe this to not be true, please contact your dealer immediately.



Warning !

Do not connect power to this preamplifier yet!

This preamplifier, like any electrical component, can be dangerous and cause injury unless correct handling procedures are observed and used. Before powering this preamplifier it is necessary to read and follow proper setup and procedures.

Placement and Initial Setup

Because the Phono3 runs cool it can be placed in many system locations without compromise. We do not recommend placing weights or other objects directly on the Phono3. This may mar or scratch the chassis finish. Do not use harsh chemicals when cleaning the outside of your Phono3.

Single Ended RCA input and output connections are available. You can place the Phono3 close to the turntable and minimize the length of the low level interconnect from your cartridge. When power is applied the front panel Blue LED will light.



IMPORTANT: Make all connections and settings before powering your unit.

Design Features

The Bel Canto Phono3 is designed to provide low noise operation for moving coil and moving magnet phono cartridges and high accuracy audio RIAA equalization:

- All analog, low noise, low distortion Class A integrated circuit architecture.
- High Current output buffer for driving any load.
- 4-layer PC board design for superior signal routing, grounding and power supply routing.
- Latest generation of low-noise, low-distortion high speed audio amplifiers, and output drivers provide superb measured and subjective audio quality.
- Multi-stage power supplies for precise power to the sensitive analog circuitry
- Precision audio grade resistors and precision metal foil film capacitors in the audio signal path.
- Ultra low noise second stage dual independent regulation for the analog amplifier sections.
- Single-stage amplifier and classA operation to insure minimal signal degradation and maximum dynamic performance.
- Rear Panel gain and load switching using precision sealed double wiping gold contact switches.

Switch Settings

A set of 9 switches are available next to each RCA input. These are used to setup the optimum Gain, Resistive Load and Capacitive Load for your cartridge. Please refer to the manual for your cartridge for optimum gain and RC loading recommendations.

Note that you should Mute or Disconnect the Phono3 from your preamplifier before making any changes to the rear panel switches.

We recommend using a small flat tip screwdriver such as used for attaching your cartridge to a tonearm or a similar tool to change the switch positions.

Gain Setting Switches:

The Phono3 default gain setting will be for typical high output cartridges, from 2mV to 5mV nominal output levels the 40 dB gain setting will be best. If you are using a low output Moving Coil cartridge then switch each channel to the 60 dB setting by pressing the Gain Switches to the DOWN position.

Insure that the power to the Phono3 is disconnected and/or the preamplifier is muted before changing this setting to prevent a large transient from damaging your loudspeakers or power amplifiers!

Input Resistor Load Setting Switches:

The default input resistance is 47,000 (47K) ohms when all switches are in the UP position. When a switch is set in the DOWN position the corresponding resistor value is placed in parallel to the 47K resistor, resulting in a lower input resistance. This means that a large range of effective input resistance values can be selected by selecting different parallel combinations of resistance value. The table on the following page can be used to determine the switch positions for different input resistance values.

Input Capacitor Load Setting Switches:

The default input capacitance value when all capacitance switches are in the UP is 150 picofarads (150pF). Additional capacitance can be added to this by selecting one of the capacitance values by placing the corresponding switch in the DOWN position: 100pF, 220pF or 390pF. These values will add to the total input loading capacitance. The table on the following page can be used in setting the switches to achieve the desired input capacitance.

Insure that both channels have the same switch settings!

NOTE: The 2nd Switch next to the gain switch is not used and can remain in the UP position.

Phono3 Setup

Resistance Switch in Down Position

Effective Load Resistance (ohms)

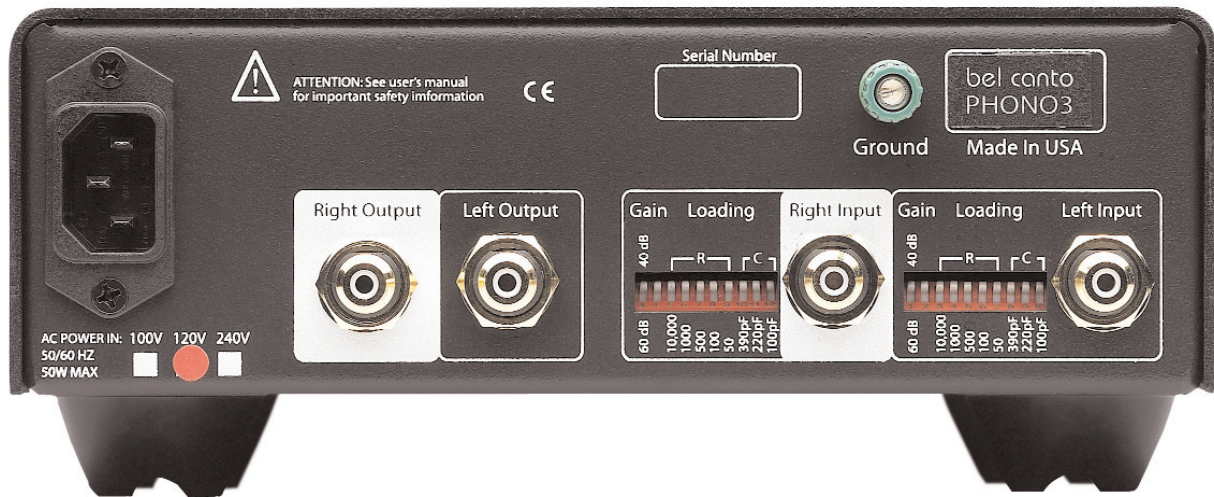
10000	1000	500	100	50	
X					8250
	X				980
		X			495
			X		100
				X	50
X	X				891
	X	X			331
	X		X		91
		X	X		83
		X		X	45
	X	X	X		77
		X	X	X	31
X	X	X	X	X	24

Selected Capacitor(s)

Total Load Capacitance

None	150 pF
100 pF	250 pF
220 pF	370 pF
390 pF	540 pF
100 + 220 pF	470 pF
100 + 390 pF	640 pF
220 + 390 pF	760 pF
100 + 220 + 390 pF	860 pF

Phono3 Back Panel



Conditioning

The Phono3's sonic performance will start to stabilize after 100 hours of continuous power up. For optimum per-

formance keep the Phono3 powered up at all times.

Phono3 Specifications

Bandwidth • 1Hz-50KHz

RIAA Accuracy • 20Hz-20KHz +/- 0.2 dB

Signal to Noise Ratio 40 dB gain • >80 dB A weighted, re 5mV RMS in

Distortion @ 2 Volt RMS/1kHz • <0.01%

Maximum Output Level • 9.5 V RMS

Output Impedance • 100 Ohms Single Ended

Input Impedance • 47K Ohms Nominal (all Resistor Switches UP)

Gain Level Options • 40 dB (100X) and 60 dB (1000X)

Idle power draw • 10 Watts

Dimensions • 8.5" W x 12.5" D x 3" H (216 mm x 318 mm x 75 mm)

Weight: • 10lbs. (4.5 kg)

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