

User's Guide

bel canto



# PRe2<sup>TM</sup> PRe2P<sup>TM</sup>

Two Channel Analog  
Pre-Amplifier

Bel Canto Design, LTD.  
212 Third Avenue North  
Minneapolis, MN 55401  
Phone: (612) 317.4550  
Fax: (612) 359.9358  
[www.belcantodesign.com](http://www.belcantodesign.com)  
[Info@belcantodesign.com](mailto:Info@belcantodesign.com)  
©2002-2004 Bel Canto Design, LTD

Thank you for purchasing the Bel Canto Design PRe2. Your PRe2 is designed to maintain very high value, setting the benchmark for design, quality and sonic performance while maintaining our heritage of musicality and realism.

# PRe2 & PRe2P<sup>TM</sup>

## Two-Channel Analog Pre-Amplifier

### T A B L E O F C O N T E N T S

Unpacking . . . . .	3
Power Connection . . . . .	4
Initial Setup and Placement . . . . .	4
Design Features . . . . .	4
Conditioning . . . . .	5
Front Panel & Remote Control . . . . .	5-7
Back Panel Configuration . . . . .	7
Setup and Options . . . . .	8-10
Input Configuration . . . . .	8
Offset Configuration . . . . .	9
Specifications . . . . .	10

## 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 PRe2/P

PRe2/P box contents include the following:

- 1 (one) - PRe2/P Analog Preamplifier
- 1 (one) - PRe2/P User's Guide
- 1 (one) - Power cord [6.6' - 2 meters long]
- 1 (one) - Remote Control
- 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 PRe2/P 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 PRe2/P runs cool it can be placed in many system locations without compromise. We do not recommend placing weights or other objects directly on the PRe2/P. This may mar or scratch the chassis finish. Do not use harsh chemicals when cleaning the outside of your PRe2/P.

Single Ended RCA and Balanced XLR connectors are available. XLR jacks allow balanced hookup using the standard North American pin configuration:

Pin 1	Ground
Pin 2	Input +
Pin 3	Input -



**IMPORTANT:** Make all connections before powering your unit.

## Design Features

The Bel Canto PRe2/P represents a powerful statement in high performance audio control preamplifiers. Its superb audio performance and transparency renders it a modern standard in control and RIAA preamplifier design:

- All analog, low noise, low distortion architecture for controlling up to seven 2-channel inputs including 1-balanced input
- Fully balanced XLR outputs for optimum interface to the power amplifier
- Programmable options for all inputs: Function (stereo, disable), Name, Main level, and Soft Mute level
- 4-layer PC board design for superior signal routing, grounding and power supply routing
- Latest generation of active audio buffers, level controls and output drivers provide superb measured and subjective audio quality
- Independent digital and analog trans-

formers and multi-stage power supplies for precise power of sensitive analog circuitry

- Precision resistors and no capacitors in the audio signal path
- Ultra low noise second stage regulation for the analog amplifier sections
- Ultra-low noise active amplification for RIAA Phono Stage (PRe2P)
- Front panel and remote selectable Phono stage gain, resistive and capacitive loading and Mono/Stereo operation (PRe2P)
- Digitally controlled analog volume control for optimum signal architecture and no-compromise gain and balance control

## Conditioning

The PRe2/P's sonic performance will start to stabilize after 100 hours of continuous power up.

## Front Panel and Remote Controls

### Volume Up:

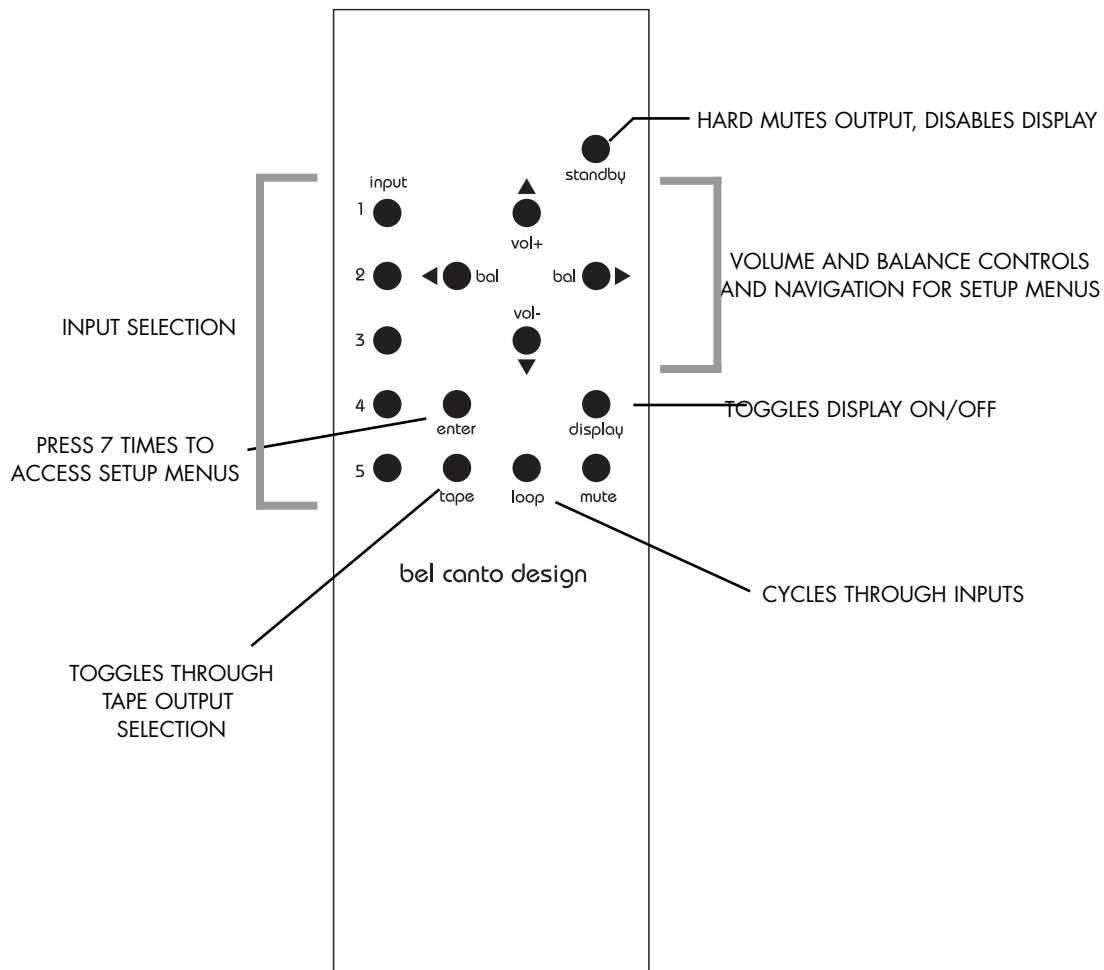
Increases the output level in 0.5 Decibel (dB) steps from 0 to 120.

### Volume Down:

Decreases the output level.

**Balance Left:** (available from the remote only)

Shifts balance left in 0.5dB steps. It is also used to scroll left in the setup menu.



**Balance Right:** (available from the remote only)

Shifts balance right in 0.5dB steps. It is also used to scroll right in the setup menu.

**MUTE:**

The PRe2/P starts up in Soft Mute. This level is 40 units (20dB) below the displayed volume level. When MUTE is first pressed it goes to the Soft state, pressing MUTE again within 3 seconds will fully MUTE the outputs.

**ENTER:**

This control button is pressed and held on the front panel or pressed 7 times on the remote to enter into the menu setting functions described below. It is also used to enter into specific modes within the menu system.

**MAIN:**

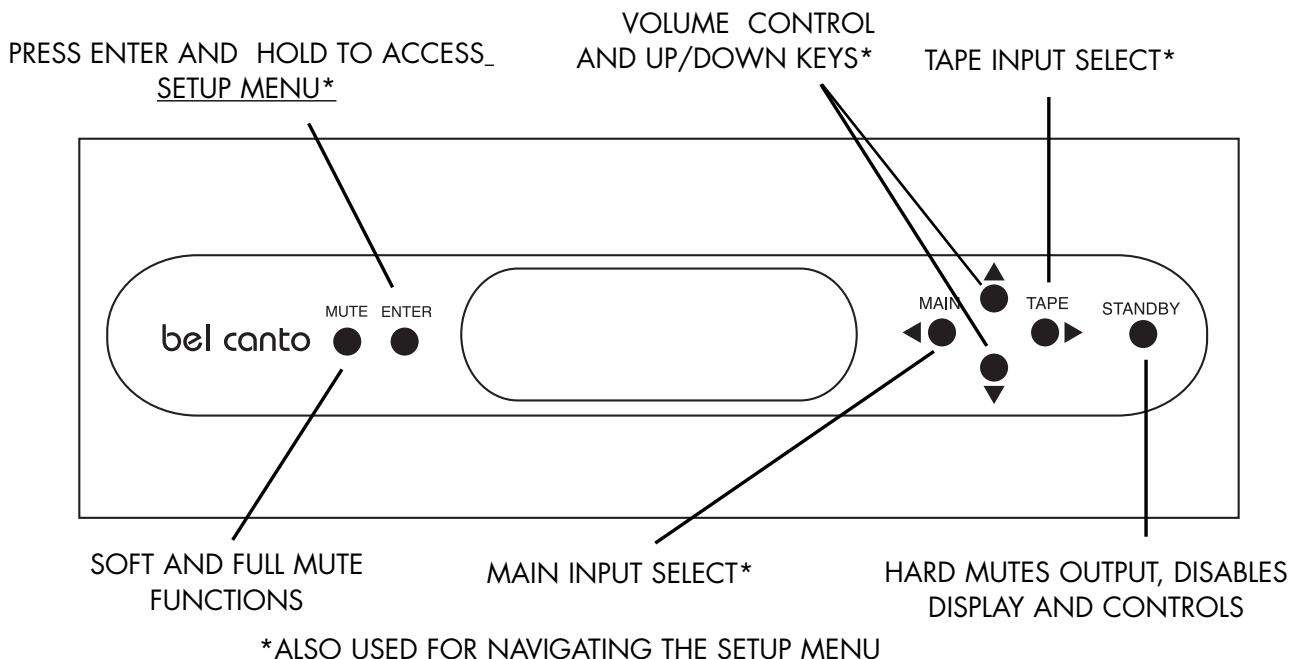
Cycles through the main inputs. It is also used to scroll to the left in the setup menu.

**LOOP:** (available from the remote only)

This is used to cycle through the inputs.

**INPUT:**

On the remote the Numbered Buttons (1-5) allow you to select between the 1st five active inputs. From the remote, you can cycle through inputs using the LOOP button. From the front panel, you can cycle through inputs by pressing the MAIN button. When switching between inputs, the PRe2/P will quickly ramp down the volume, switch inputs, then quickly ramp back up to the programmed volume setting.



## TAPE:

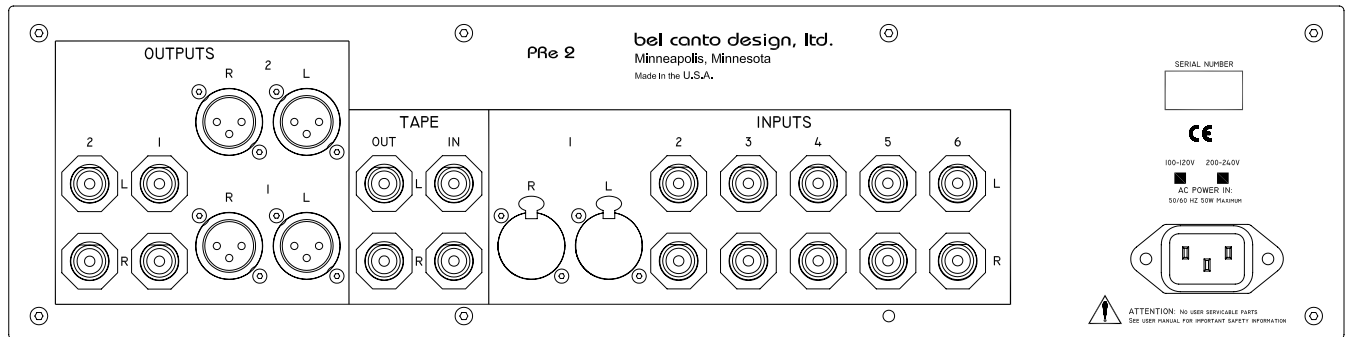
On both the remote and the front panel, the TAPE button will cycle through the input to be routed to the Tape Out jacks and a Tape Out Off setting.

It is also used to scroll to the right in the setup menu.

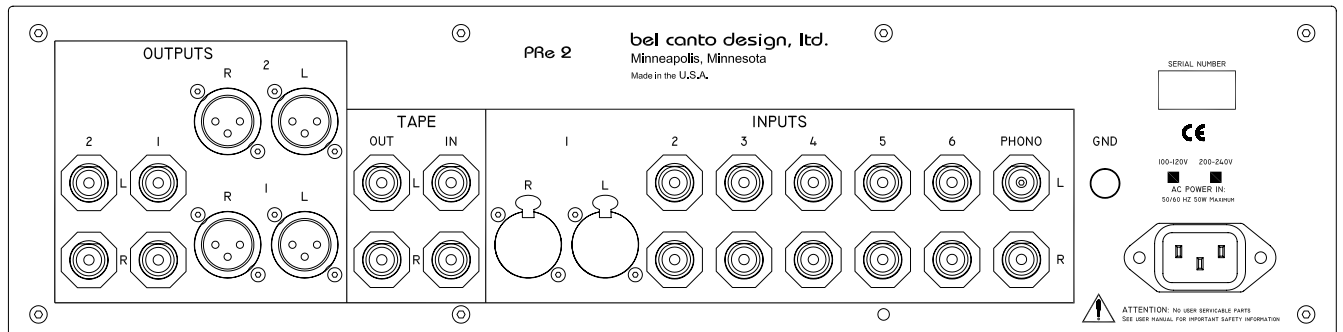
## STANDBY:

When in STANDBY mode the red LED is engaged, the display is off and the outputs are muted. The unit remains warmed up and ready for use when taken out of standby.

### PRe2 Back Panel



### PRe2P Back Panel



## Pre2/P Setup and Options

### Pre2/P MENU FUNCTIONS

#### A) INPUTS CONFIGURATION Menu

This menu is used to customize the input options.

It is used to set:

- 1) Input Function
- 2) Input Name
- 3) Initial Volume level
- 4) Soft Mute level

1) The first level of this menu is used to set the INPUT FUNCTION. The options are Stereo or Disabled.

Change these settings by scrolling left or right to the desired input and pressing ENTER to change the setting. Use the UP/DOWN keys to scroll through the setting options. Disable unused inputs.

Press ENTER to exit this menu mode.

2) The second level of this menu is used for changing the Name of a given input.

To change an input name press ENTER and you will see an under-bar indicator for each of the 8 characters that can be used for naming the input. Scroll the indicator left or right using the LEFT/RIGHT keys and use the UP/DOWN keys to scroll through capital and lower case letter, numbers 0-9 and a SPACE.

You can use the SPACE to separate words and numbers or to center short names like CD. Press Enter to exit this menu mode.

3) The third menu level is used to set the Initial Volume level.

Press ENTER and use the UP/DOWN keys to set the default level when coming out of STANDBY. Press ENTER to exit this menu mode

4) The fourth menu level is used to set the Soft Mute Level.

This is preset to -40 units or -20 dB. This is generally a good soft mute level.

If you wish to change this for a given input then press ENTER and use the UP/DOWN keys to scroll to a different setting.

Press Enter to exit this menu mode.

#### B) OFFSETS CONFIGURATION Menu

This menu is used to set the 0dB gain setting for the Pre2/P.

This is important for optimizing the gain control range for systems with different amplifier gain, input levels and loud-speaker efficiencies.

For example: if you find that the volume level is too loud even if the indicated volume is at or near 0 then you need to increase the 0dB gain setting from the default of 100 to 110, 120 or higher.

This will allow you to set the volume level lower before reaching the 0 limit on the display.

To change this setting, press ENTER and use the UP/DOWN controls to set the desired number.

Press ENTER to exit this menu mode.



### **C) SAVE CONFIG ? Menu**

This is used to Save the Setup Changes made in the menu system.

Be sure to use this to store the changes when you are satisfied with your setup. Use the UP/DOWN keys to toggle between YES or NO and save the menu settings.

Saving the settings will insure that your changes are active even if power is removed from the Pre2/P.

Press ENTER to save your configuration and exit this menu mode.

### **D) ERASE CONFIG ? Menu**

This is used to **Restore the Factory Default** menu settings.

Use the UP/DOWN keys to toggle to YES or NO.

Press ENTER to erase your configuration and restore the factory settings.

Warning: This operation resets all of your custom settings.

## **PRe2P Phono Stage Setup**

### **A\*) PRe2P Phono Configuration Menu**

This menu is used for setting up the Phono Section of the PRe2P. It is the first active menu only in the PRe2P and is not used in the PRe2.

1) Mono/Stereo mode is set by pressing ENTER and using the UP/DOWN button to select the mode.

2) Resistive Input loading. This may be adjusted by pressing ENTER and scroll-

ing through the loading options.

3) Capacitive Input loading may be set the same way.

4) Gain is set between 40 dB at 1KHz and 60 dB at 1 KHz. We suggest that you use 60 dB for cartridges with outputs rated below 1-2 mV.

Press ENTER to exit each menu mode and use the SAVE CONFIG ? menu to save your setup.

## Specifications

### **PRe2/P Line Stage Specifications:**

Bandwidth • DC-200KHz  
Volume setting for unity gain • 100 (factory default setting)  
Signal to Noise Ratio @ 2 Volt RMS • >100 dB A weighted, 20Hz-20kHz  
Distortion @ 2 Volt RMS/ 1kHz <0.003%  
Input overload: 10 V RMS  
Output Impedance: 50 Ohms  
Input Impedance: 10K Ohms  
Maximum Gain: 16dB  
Maximum Output Level: 10 V RMS

### **PRe2P Phono Specifications:**

Gain @1KHz • 40dB or 60 dB  
Input Resistive Load • 47Kohms to 30 Ohms selectable in 16 steps  
Input Capacitive Load • 150 pF to 950 pF selectable in 8 steps  
RIAA Accuracy • +/-0.2 dB 20Hz to 20 KHz  
Noise Ratio re: 5 mV in at 40 dB gain: >80dB A-weighted  
Noise Ratio re: 0.5 mV in at 60 dB gain: >60dB A-weighted

Idle power draw • 21 Watts  
Power Requirements • 110-120 VAC 50-60 Hz or 220-240 VAC 50-60 Hz  
Dimensions • 17.5" W x 14.5" D x 4.5" H (445 mm x 368 mm x 114 mm)  
Weight: 24lbs. (13 kg)



Bel Canto Design, LTD.  
212 Third Avenue North  
Minneapolis, MN 55401  
Phone: (612) 317.4550  
Fax: (612) 359.9358  
[www.belcantodesign.com](http://www.belcantodesign.com)  
[Info@belcantodesign.com](mailto:Info@belcantodesign.com)

©2002-2004 Bel Canto Design, LTD  
PRe2™ is a trademark of Bel Canto Design, LTD