User's Guide be conto



eVo2i™

Two Channel Integrated Audio Amplifier

Bel Canto Design, LTD. 212 Third Avenue North Minneapolis, MN 55401 Phone: (612) 317.4550 Fax: (612) 359.9358 www.belcantodesign.com Info@belcantodesign.com ©2002-2004 Bel Canto Design, LTD Thank you for purchasing the Bel Canto Design eVo2i. Your eVo2i is designed to maintain very high value, setting the benchmark for design, quality and sonic performance while maintaining our heritage of musicality and realism.



Two-Channel Integrated Audio 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

eVo2i box contents include the following:

- 1 (one) eVo2i Integrated Amplifier
- 1 (one) eVo2i User's Guide
- 1 (one) Power cord
- 1 (one) Remote Control

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 eVo2i 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 integrated amplifier, 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 eVo2i runs cool it can be placed in many system locations without compromise. We do not recommend placing weights or other objects directly on the eVo2i. This may mar or scratch the chassis finish. Do not use harsh chemicals when cleaning the outside of your eVo2i. Single Ended RCA and Balanced XLR connectors are available. XLR jacks allow balanced hookup using the standard pin configuration:

Pin 1 Ground Pin 2 Input + Pin 3 Input -



IMPORTANT: Make all connections before powering your unit.

Design Features

- The elegant simplicity of the signal path and gain stage allows the eVo2i to preserve audio signal quality. Audio Grade decoupling capacitors and resistors, star grounding and careful signal routing insure that low-level signals are preserved.
- Input processing provides one balanced XLR connection, three RCA jack connections and Tape In. Tape Output is an RCA output with an active audio-grade buffer to isolate the internal signal bus from the tape output. Line out RCA connection offers flexibility of use with a sub woofer, external amplifier for bi-amping or outboard signal processor.
- The volume control is a precision analog stepped attenuator controlled by a microcontroller. This device provides extremely low noise and distortion coupled with high accuracy. The sonic quality is superior to the best potentiometers and insures no wear.
- High efficiency Digital Power Processing eVo power amplifier.

- Efficiency >90% insures cool operation.
- THD and IMD <0.05%
- Damping Factor >100
- High thermal stability in all stages
- Fully regulated, low noise supplies for all analog stages
- Soft clipping with uncompromised low level distortion performance
- Ultra-low power dissipation for 'green' amplification
- Protection circuitry outside signal path
- Programmable features allow you to disable (except TAPE), name and set volume for listening and soft mute levels for ALL inputs individually
- The eVo2i powers on in Soft Mute Mode. Soft Mute Mode is a fully adjustable setting that also can be selected as a muting option during regular listening.

Conditioning

The eVo2i'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 0.0 to 100.0.

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 eVo2i starts up in Soft Mute. This level is 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 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 eVo2i will quickly ramp down the volume, switch inputs, then quickly ramp back up to the programmed volume setting.



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TAPE:

On both the remote and the front panel, the TAPE select between the active main input or the tape input

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.



Inputs 1 to 4

Standard line level inputs. Input 1 is balanced and may be used with unbalanced sources using an RCA to XLR adapter.

Tape In/Tape Out

Tape loop function: Tape In selected routes the Tape In jacks to the main outputs. The main input 1-4 selected with the Main input selector is be routed to the buffered Tape Output.

Line Out

Line Out is a buffered preamplifier output which tracks the volume setting on the front panel. This can be used to drive the line level input on a subwoofer, for example.

Loudspeaker Connection

Connect loudspeakers to the outputs of the eVo amplifier using the 5-way binding posts located the rear of the amplifier. The red or black center plug in the output post can be removed for use with banana type connectors (all non CE countries). Do not connect speaker terminals to a ground connection.

The Anti-Phase operation of the outputs

would result in one of the red (positive) outputs being connected to ground and cause the amplifier to go into protection mode and shut itself off.

Make certain that no connection from the output terminals is made to a chassis or earth ground.

Setup Menu Options

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 -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.

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Setup Menu Options

B) 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 eVo2i.

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

C) 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.

Specifications

Power output per channel into 8 ohms • 120 watts <1% THD+N Power output per channel into 4 ohms • 200 watts <1% THD+N Bandwidth: +/- 3dB •1Hz-80KHz Volume setting for unity gain • 84.0 (Inputs to Line output) Input for full output with volume set to 84.0 • 1.9V RMS Signal to Noise Ratio @ 1 watt out • >96 dB A weighted, 20 kHz Distortion @ 1 watt/1kHz • <0.05% Damping Factor • >100 Input configuration and impedance, single-ended/balanced • 10 Kohm/20 Kohm Gain • 16 dB Preamplifier section, 23 dB Amplifier section Standby power • 15 Watts Maximum power • 500 Watts Input Overload, Single Ended/Balanced • 10V RMS Power Requirements • 100-120 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 • 37 lbs. (13 kg)

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