bel canto

S300i™

e.One™ Series

Two Channel Integrated
Audio Amplifier

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Thank you for purchasing the Bel Canto Design S300i. Your S300i sets a benchmark for design, quality and sonic performance, continuing Bel Canto's heritage of musicality and realism.

S300i™

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 your S300i

S300i box contents include the following:

1 (one) - S300i Integrated Amplifier

1 (one) - S300i 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 S300i is preset for the proper power 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!
Never change cable connections on this product without first removing power to the unit! Damage resulting from connecting or removing cables while the unit has power connected is not covered under the Warranty.

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

Placement and Initial Setup

Because the S300i runs cool it can be placed in many system locations without compromise. We do not recommend placing weights or other objects directly on the S300i. This may mar or scratch the chassis finish. Do not use harsh chemicals when cleaning the outside of your S300i.

IMPORTANT: Make all connections before powering your unit.

Design Features

The Bel Canto S300i represents a powerful statement in high performance audio integrated amplifiers. Its superb audio performance and transparency renders it a modern standard in integrated amplifier design:

• All analog, low noise, low distortion architecture for controlling up to five (5) 2-channel inputs
• Optional USB DAC or MM Phono input modules are available
• 4-layer PC board design for superior signal routing, grounding and power supply routing
• Latest generation of low-noise, low-distortion high speed audio level controls provide superb measured and subjective audio quality
• Multi-stage power supplies for precise power to the sensitive analog circuitry

• Home Theater Bypass mode on Input 4
• Digitally controlled analog volume control for optimum signal architecture.
• Single-Knob user interface provides simple, intuitive control function
• Dual Mono amplifier architecture with independent regulated switching power supplies insures rock solid bass and sonic imaging
• Low-Distortion, Wide Dynamic range fully balanced switching amplifier architecture insures that you hear all of the musical signal

Front Panel Control Knob:

The control knob is a continuously rotating control with a push-switch function.

Standby Mode:

Pressing and holding the control knob for 2 seconds will take the S300i out of Standby and in to operating mode. The unit will come up in a soft mute mode. The operating input will be indicated for several seconds and then it will go to the volume control mode. To place the S300i in Standby mode press and hold the control knob for 2 seconds.

Volume Control Mode:

The S300i default operating mode allows you to change volume level by rotating the knob. The volume down function (counter-clockwise rotation) is very rapid and allows quick changes in the volume level. Volume up (clockwise rotation) functions rapidly up to a displayed volume level of 50.0. There is a pause at 50.0 until the display dims then the volume up function continues more slowly to a displayed value of 60.0 and then slower yet above 60.0. This operation makes it difficult to accidentally set a volume level that is too high.

Input Selection Mode:

Pressing the control knob in briefly will toggle into the input selection mode. The selected input will be displayed for 5 seconds. During this time you can rotate the control knob to scroll to the desired input. Pressing the knob again will select the indicated input. The volume level will automatically ramp down and up during this selection process. If the control knob is not pressed for 5 seconds, the indicated input will automatically be selected and the S300i will return to the default volume control mode.

Home Theater Bypass Operation:

Input 4 can be set to a home theater bypass mode (htb) that is used to pass the front left/right outputs from a multi-channel processor output through the S300i to the main L/R power amplifiers. ***This mode must be used with a preamp output which has volume control function as the S300i volume and mute controls will not function while the S300i remains in the htb unity gain setting.*** When in the Input Selection Mode, Input 4 can be toggled between the normal operating mode (In 4) and the bypass mode for (htb4) by pressing the control knob 2 times. You will note that the Input display will toggle between htb4 and In 4. The display simply reads htb (home theater bypass) when the bypass mode is active.

Mute: (available only on the remote)

The S300i 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, indicated by 2 decimal points on the volume display (i.e. 50.0.). Pressing MUTE again rapidly will fully MUTE the outputs. Full mute is indicated by 4 decimal points in the volume display (i.e. .5.0.0.).

Pre In:

This is used to toggle through the inputs. When initially pressed it will indicate the currently selected input.

Standby:

Used to toggle the S300i into and out of standby mode. Standby hard mutes the outputs while keeping all circuitry running, maintaining optimum circuit performance. Before unplugging the S300i from mains power it is recommended to place it in standby first. Standby is indicated by the presence of 2 dashes on the display - - .

Do not make cable changes to or from the S300i while the unit is in standby. Always unplug the S300i before making any cabling changes. Damage caused by not following this procedure is not covered under warranty!
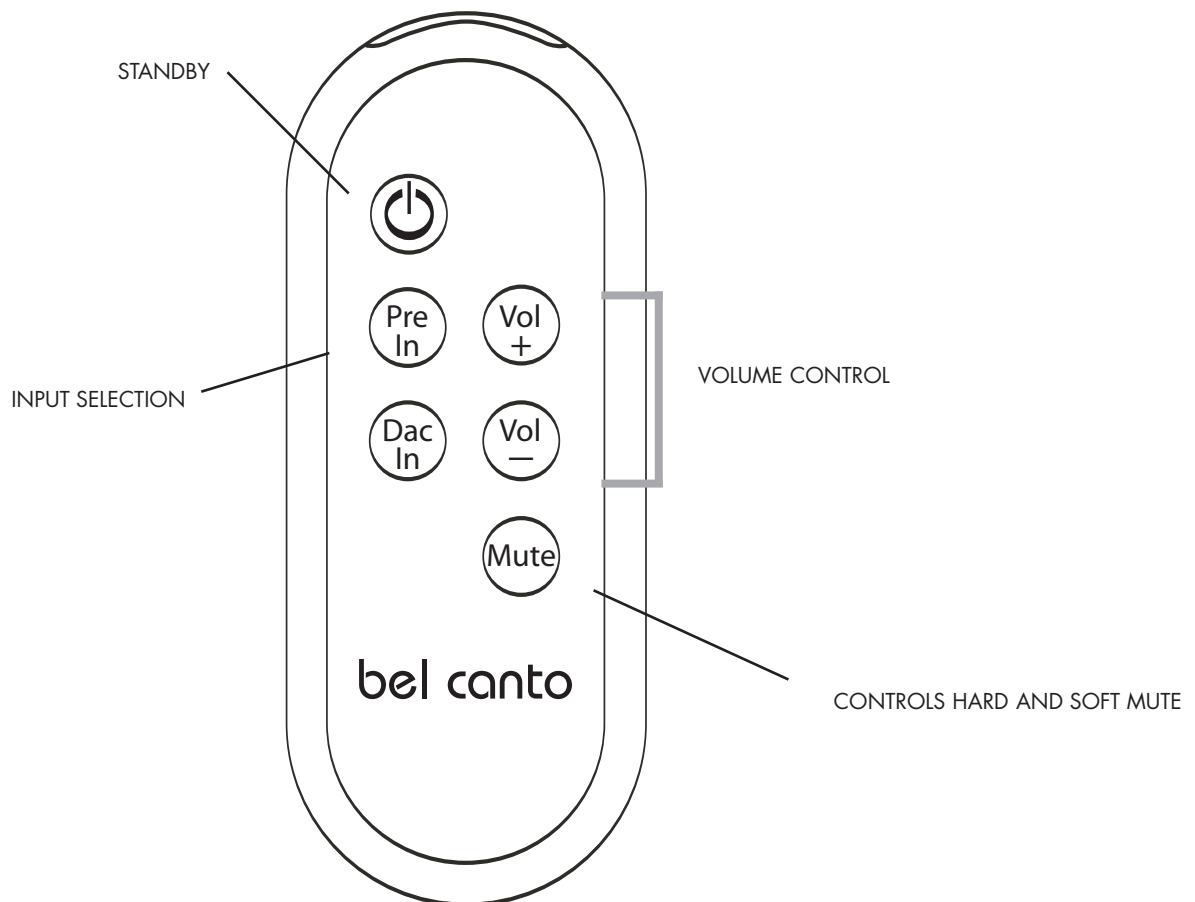
Volume Up:

Increases the output level in
0.5 Decibel (dB) steps over a range
of 0.0 to 100.0.

Volume Down:

Decreases the output level.

STANDBY

INPUT SELECTION

VOLUME CONTROL

CONTROLS HARD AND SOFT MUTE

Pre In

Vol +

Dac In

Vol −

Mute

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Conditioning

The S300i's sonic performance will
start to stabilize after 100 hours of
continuous power up.

S300i Rear Panel

Never Connect Either the Positive or Negative Speaker Output to Any Ground Contact! Always remove power before changing any cable connections to or from this product!

Connecting any Speaker Output on the S300i to Ground will cause the amplifier to go into protection and could damage the amplifier and void the warranty.

Inputs 1-4 accept standard line level RCA signal from any signal source. Input 5 is an optional USB DAC or MM Phono input module.

Line Out can be used to drive a powered sub-woofer or second amplifier. It is controlled by the front panel volume control.

Record Out is a fixed level pass-through of whatever input is selected.

Speaker Output Connections: Attach your loudspeakers to the output connectors. Insure that the polarity of each speaker is correct and the same for both speakers.

IEC power cord jack: Connect a heavy-gauge power cord from this jack to the wall power supply. Note the power setting indicated on the back of the integrated amplifier before connecting the power.

When all connections to and from the amplifier have been made double check everything before plugging the S300i into the power souce. The S300i will come up in standby, indicated by a pair of dashes on the front panel (- -).

What to do if there is hum or ground noise

The design of the S300i integrated Amplifier reduces the chance for ground loop induced hum and noise but we still recommend that you use shorter interconnect cables to the S300i inputs and connect all power cables to a common outlet box or power conditioner unit to reduce the possibility for ground current noise being induced into the audio signal path.

Fuses and Protection Circuitry

There is an internal 1A (1 ampere) fast blow 5mmX20mm fuse for each amplifier board. If any speaker output contacts the chassis or any system ground while the amplifier is powered, a fuse will open up to protect the amplifier. In this case there will be noise on the amplifier output and that channel will not function correctly. You will need to remove the amplifier from the system and have the fuse replaced.

Insure that all signal and power connections to the amplifier are removed before opening the chassis. This should be done by a dealer or experienced technician.

The fuse is changed by opening the top cover on the chassis using a Phillips type screwdriver to remove the 6 screws on the sides of the amplifier that hold the top cover on. The fuses are located on a small daughter board near the front of the amplifier. There is 1 fuse per power amplifier board. Confirm that the fuse is blown by inspecting it or measuring the resistance. Replace the fuse with an IDENTICAL 1A fast blow 5mmX20mm fuse. DO NOT CHANGE THIS FUSE TYPE OR VALUE. Using the wrong fuse type or value will invalidate your warranty.

No signal current flows through this fuse. It is used only to protect the amplifier in case of a short circuit to ground.

S300i Specifications

Preamplifier Section:

Bandwidth • DC-200KHz
Volume setting for unity gain • 80.0
Signal to Noise Ratio @ 2 Volt RMS • >95 dB A weighted, 20Hz-20kHz
Input overload • 10 V RMS
Output Impedance • 500 Ohms Single Ended,
Input Impedance • 10K Ohms Single Ended
Maximum Gain • 20dB/10X
Maximum Preamp Output Level • 9.5 V RMS

Amplifier Section:

Power Output • 150W/channel 8 ohms, 300W/channel 4 ohms
Minimum rated load impedance • 4 ohms
Frequency Response • 20Hz-20kHz, +/- 0.5dB
THD+N • 0.01%, 1W, 1KHz, 4 ohms
IMD (CCIF) • 0.002%, 1W, 14:15KHz, 4 ohms
Output Noise • 90uV A-weighted 20Hz-20KHz
Voltage Gain • 27dB
Damping Factor • >1000
Output Impedance • <8 milliohms
Dynamic Range • 111dB
Output Connection • 2 sets Safety 5-way Binding Posts

Idle power draw • 15 Watts
Power Requirements • 100-120 VAC 50-60 Hz or 220-240 VAC 50-60 Hz
Dimensions • 8.5" W x 12.5" D x 3" H (216 mm x 318 mm x 75 mm)
Weight: • 12lbs. (5.5 kg)