LSR4300
Control Center Software

User's Guide

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Introduction

LSR4300 Control Center Software is a useful system set-up utility that allows you to access any of the functions of your LSR4300 speakers using a computer. Without leaving your mix position, LSR4300 Control Center Software gives you the ability to modify system settings, and also view multiple speaker parameters at once in an easy-to-understand, user-configurable graphic display.

In addition, the Control Center Software provides a number of advanced capabilities not available from the speaker's front panel or remote control:

• Custom EQ presets can be created and stored in the connected speakers or memory on disk. EQ settings can also be downloaded from speakers or loaded from disk.

• LF and HF corner frequencies for the EQ can be changed.

• Independent fine speaker Level Trim controls in 0.25 dB increments are provided, from +3 dB to -10 dB.

• Independent speaker muting and soloing as well as overall system Mute and Dim.

• You can view all filter and delay settings created for each speaker during RMC calibration. Delay settings can be displayed in feet, meters, or milliseconds.

• Complete system configurations (including system volume, EQ presets, input selection, and other settings) can be saved to and loaded from your computer.

In the following pages, we'll take you through all the necessary procedures to install and run your LSR Control Center Software, and explain all screen displays and functions. We'll
assume that you are already familiar with basic computer operations such as launching applications and using a mouse to select parameters and navigate through screens and menus. If not, consult the documentation provided with your computer.

◀ Throughout this manual, important tips and cautions will be presented like this.

System Requirements

Hard Drive: 100 MB space available

RAM: 128 MB minimum required by this application, over and above the memory required by other applications running simutaneously.

Operating System: Windows 2000, Windows XP

CPU: Pentium III 750 MHz or higher

Installation

1. Insert the CD-ROM in an available CD-ROM drive.

2. From the Start Menu, click RUN.

3. Click BROWSE.

4. Locate the JBL CD containing LSR4300 Control Center Software.

5. Click on the file named dotnetfx.exe to install the .NET framework required by the application. An installer will automatically install the file in the correct location on your computer.

6. When dotnetfx installation is complete, click on the file named LSR4300ControlCenter.exe (lableled a "Setup Launcher" in Windows XP). An installer will appear. Follow the prompts to complete the installation. There is no need to restart your computer.

Launching The Software

1. Following installation, a shortcut to the LSR4300 Control Center Software is placed on your desktop and in your computer's Start menu.

Double-click on the desktop icon (or single-click on the Start menu icon) to launch the software. See the Reference section below for details about all LSR4300 Control Center display and menu options.

2. If no speakers are connected to your computer, the LSR4300 Control Center Software will launch in "Demo" mode, which allows you to explore its features and learn about LSR4300 capabilities. However, there is no communication between the software and your speakers in Demo mode, so if you want the software to be fully functional, first make sure that all speakers are networked together properly and that their DIP switches are correctly set.
(Refer to the LSR4300 Owner's Manual for more information.) Then use the supplied USB cable to make a connection between your computer and the LSR4300 speaker labeled "Left" (LEFT DIP switch up). Finally, press the "Left" speaker Power button so that the JBL logo is glowing brightly. All networked speakers should power up at the same time.

3.

◀ If no LSR4300 Series studio monitors are connected to your computer via the supplied USB cable, the Control Center Software will automatically start up in Demo mode.

Reference

Main Screen
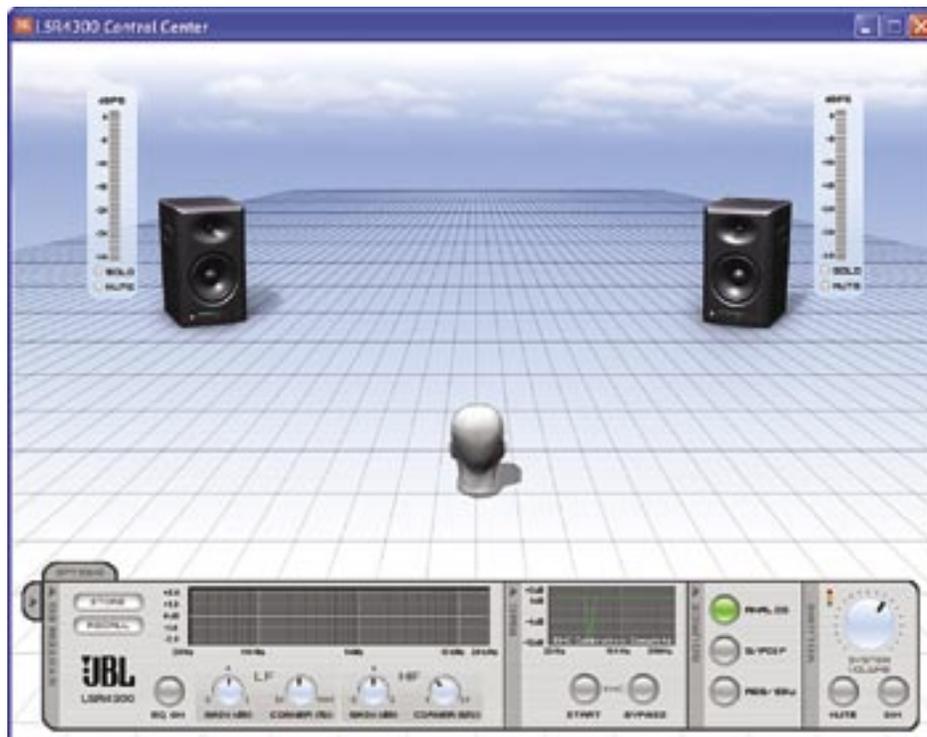
Whenever you first launch the LSR4300 Control Center Software, you will be shown the main screen, which consists of two sections:

- A Room View, which allows you to view settings and make changes to individual speakers

- A Control Panel, which allows you to make global changes to your entire LSR4300 system.
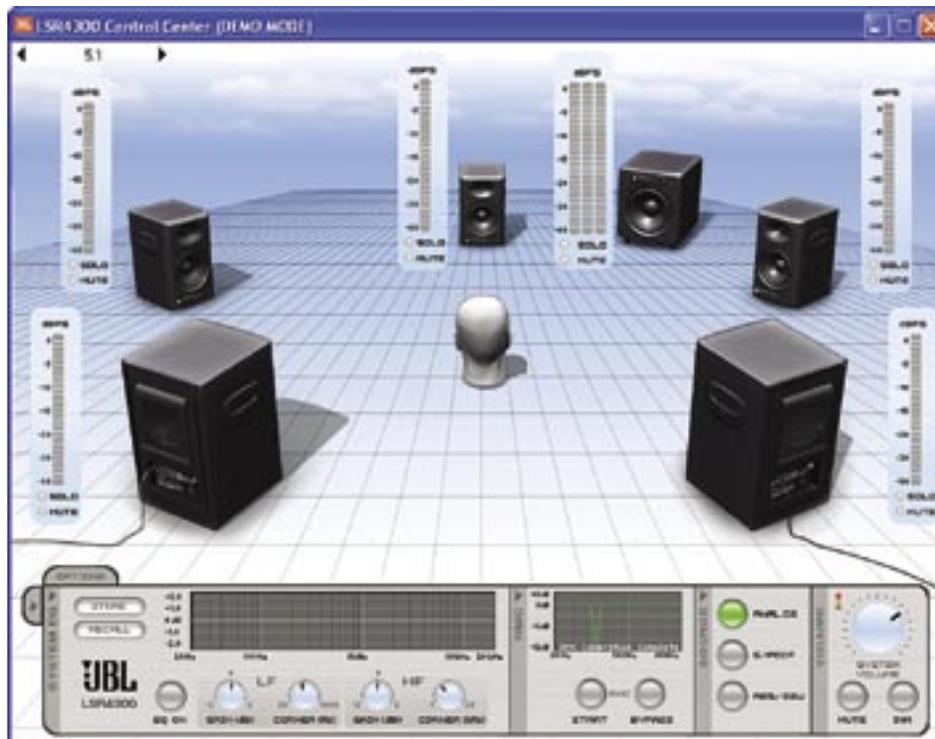
Room View

The upper area of the Main Screen is the "Room View." It provides a graphic display showing all the connected LSR4300 speakers in your network, along with meters for each.

When audio signal is actively passing through the speakers, the meters in the Room View are active and show the continuous output level of each speaker, same as the meters on the front panels of the speakers themselves. By clicking on the "Solo" and "Mute" buttons in each meter, you can selectively solo or mute individual speakers within your network. Simply click on them a second time to un-solo or un-mute the speaker(s).

◀ All front-panel buttons on connected LSR4300 speakers and wireless remote control buttons remain fully functional even when the Control Center Software is running. Thus, you can, for example, Solo a speaker from your computer and un-solo it by pressing the speaker's SOLO button, or vice versa.

The Room View can show configurations of up to eight LSR4328P or LSR4326P speakers (and up to two LSR4312SP subwoofers) that range from a single mono speaker on its own to a full-fledged eight-speaker surround system with two subwoofers. You can view systems other than the connected system using the Demo mode. (See Options Menu, page 17) The illustration below shows the Room View display for a standard 5.1 surround system:

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Rolling the mouse over any speaker in the Room View (sometimes called a "mouse-over") and pausing for a moment causes a small informational window to pop up which shows the designation of the speaker (as set by its rear panel DIP switch) and the amount of delay that has been applied by RMC calibration.* The delay time can be displayed in feet, meters, or milliseconds. See "Options Tab" below.
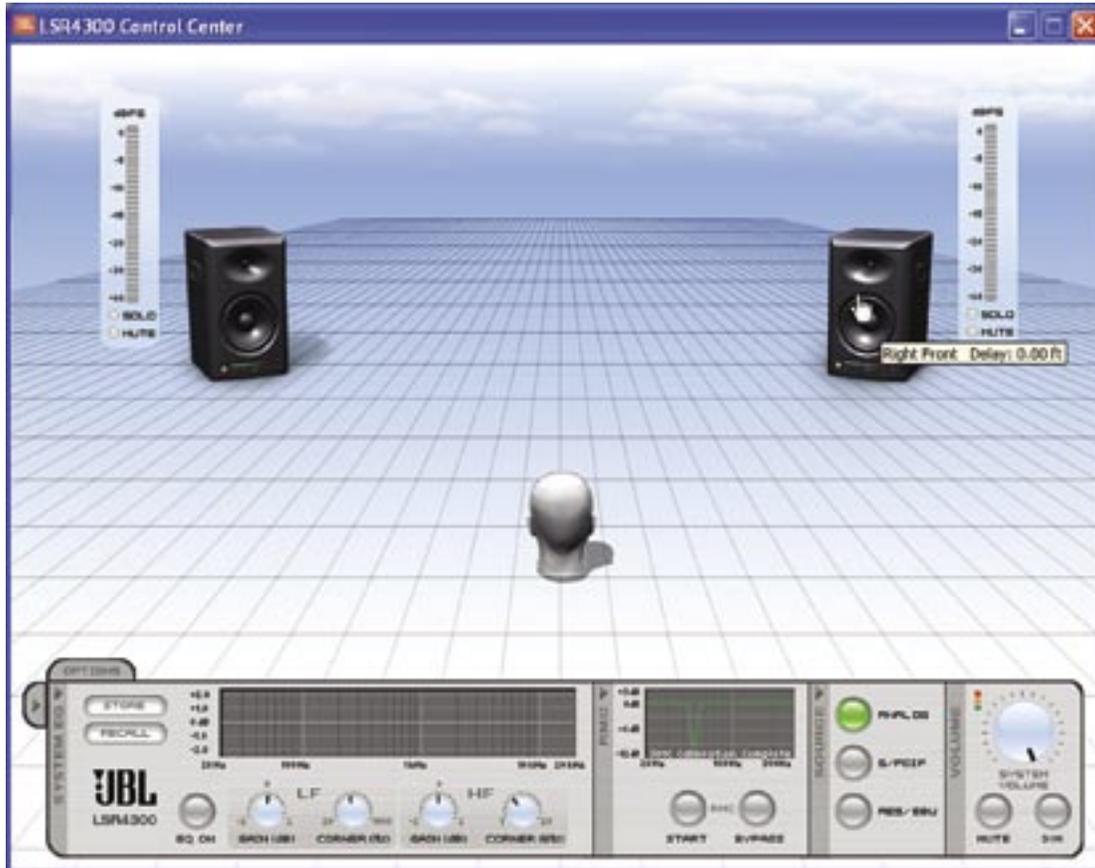

The "head" in the Room View is an icon which represents the listener at the mix position if all speakers are positioned correctly. (See the LSR4300 Owner's Manual for hints and tips about speaker positioning.) The appearance of this "listener" as well as the overall appearance of the Room View can be changed if desired. See "Options Tab" below.

In LSR4300 firmware version 1.1, delay for all speakers is set to 0. Delay will be enabled in future firmware releases to enhance functionality for surround sound production.

Speaker Pop-Up Window

Double-clicking on any speaker in the Room View causes a pop-up window to appear, as follows:
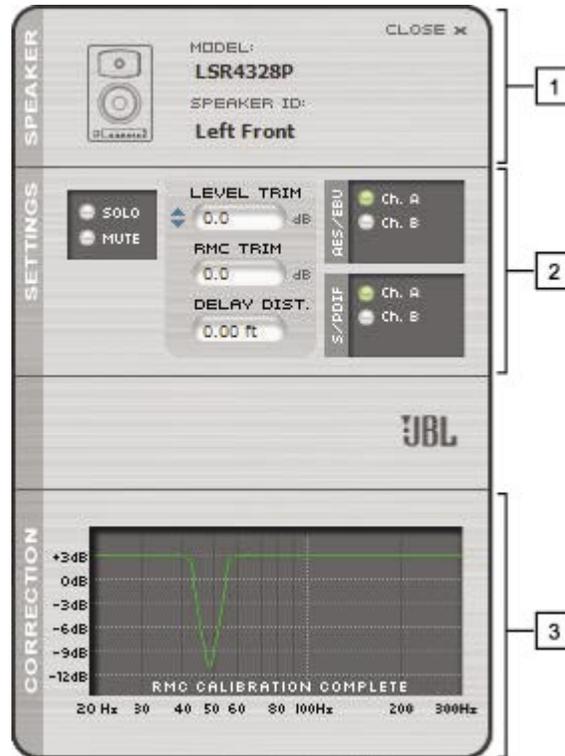

This window is divided into three sections and provides the following important information about each individual speaker:

1. The "Speaker" section presents information about each speaker's model and ID (i.e., Left, Right, Center, Left Surround, Right Surround, etc.)

2. The "Settings" section allows you to Solo and Mute individual speakers and also enables you to set a "Level Trim" for each speaker, adjustable in 0.25 increments, from -10 to + 3 dB. Level Trim is a fine control that gives you the ability to manually compensate for perceived level differences which may occur if your listening position is not equidistant from all speakers. Other displays in this section show whether the speaker is carrying the left ("Ch A") or right ("Ch B") signal if connected to a digital signal source and the amount of level adjustment and delay (RMC Trim and RMC Delay) that has been applied by RMC calibration. For more information about input selection and RMC calibration, refer to the LSR4300 Owner's Manual.

3. The "Correction" section shows a simulated graph representing the effect of filters applied by RMC calibration. Double-click on the simulated RMC graph to view the actual NUMERIC RMC settings for all connected speakers. For more information about RMC calibration, refer to the LSR4300 Owner's Manual.

◀ Each time you double-click on a different speaker, a new pop-up Speaker window is generated, but it will be overlaid directly on top of the previous one. To have multiple Speaker pop-up windows open at the same time, simply move each new one by clicking on the dark gray vertical area at the far left and dragging it to a new location.
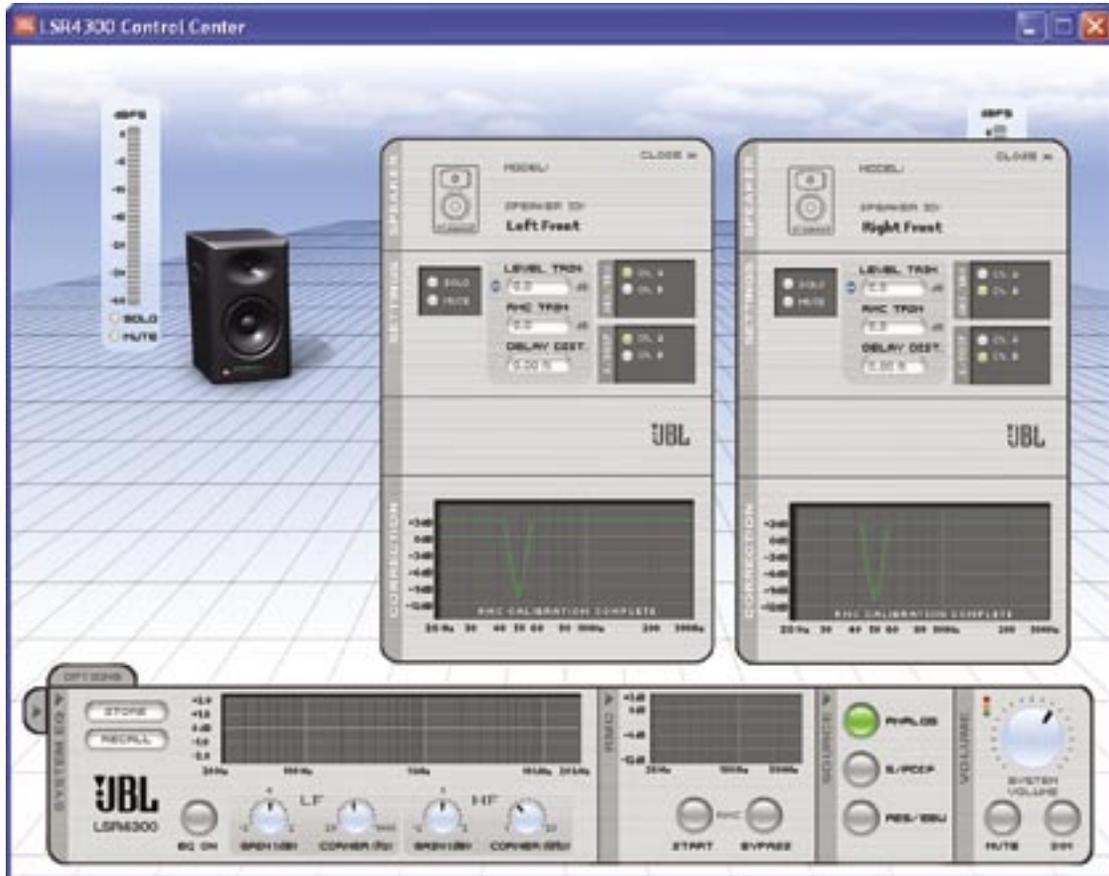
Control Panel

The bottom area of the Main Screen houses the Control Panel, which allows you to make global changes to all LSR4300 speakers in your network.
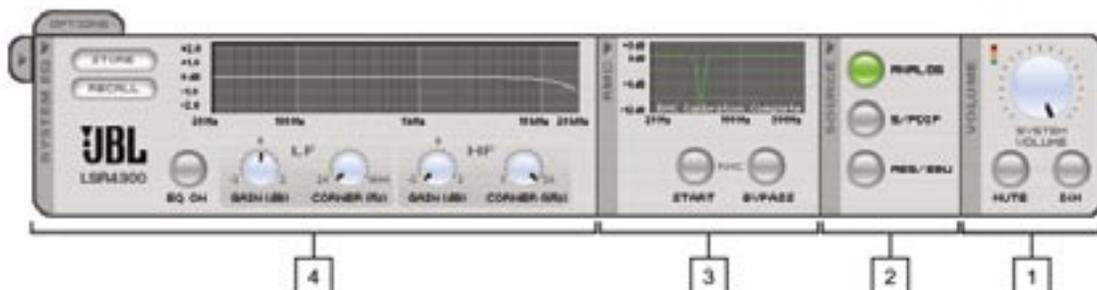
The Control Panel is divided into the following four sub-panels, from right to left:

1. **Volume** – enables you to change the overall volume (simply click on the onscreen dial and drag it), instantly mute the entire system, or DIM (partially reduce) system volume. (When the system is set to full volume, and DIM is selected, the amount of attenuation is -12 dB). For best results, click directly on the black indicator of the knob and apply a circular motion.

> ◀ Rapid movement of the onscreen volume control can cause a delayed response in the speaker system. This is normal. This delayed response can be alleviated by slowing your movement of the volume control, or by using the supplied remote control.

System volume settings are stored when using the Save Configuration function in the Options Menu. Using a calibrated signal and the Save Configuration function, it is possible to store and recall calibrated volume settings for the system. For more information, see Appendix E in the LSR4300 Owner's Manual.
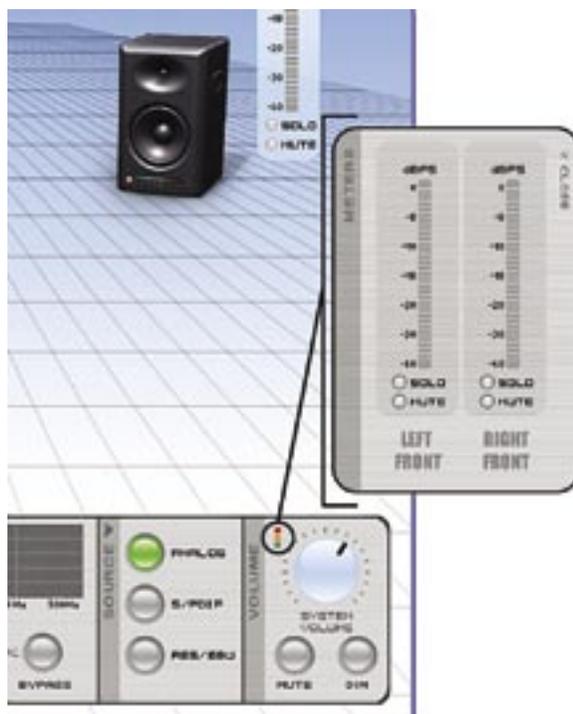
Clicking on the red, amber and green squares above the volume control reveals a set of meters that you can position on your desktop. These remain in view even when the LSR Control Center Software is minimized.

2. **Source** – displays the currently selected input source, and allows you to change it.


◀   When changing input selection, signal is muted in all connected LSR4300 speakers for approximately 3 seconds to allow you to confirm your selection. The 3-second wait time can be bypassed and selection can be initiated immediately by pressing the INPUT button on the remote control or the speaker itself.

3. **RMC** – enables you to initiate a new RMC calibration or bypass the existing one. The graph in the RMC section of the control panel is a simulated graph. After performing an RMC calibration, text at the bottom of the graph indicates the RMC calibration has been performed. Lack of text indicates RMC calibration has not been performed.

Double-clicking on the graph opens up an RMC window, which displays the precise frequency of the filter applied in each speaker by the RMC system, as well as its "Q" (bandwidth) and amount of gain reduction.
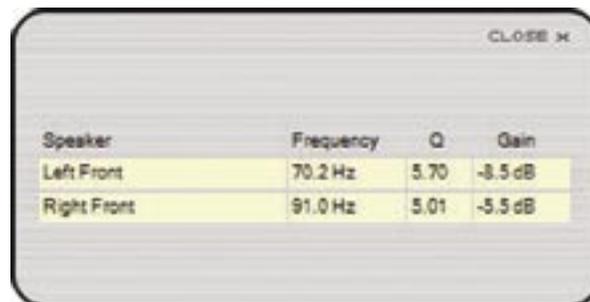

For more information about RMC, refer to the LSR4300 Owner's Manual.

◀ The RMC window can be moved anywhere onscreen by clicking and dragging.

4. **System EQ** - allows you to switch equalization on or off and make changes to the equalization of all networked speakers. User settings can then be saved to disk or uploaded to any speaker Preset. For more information, see the section entitled "Equalization Controls" below.
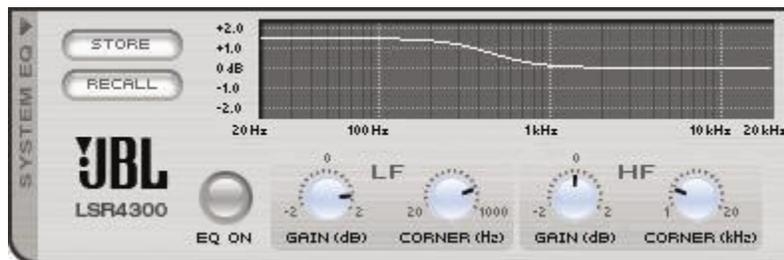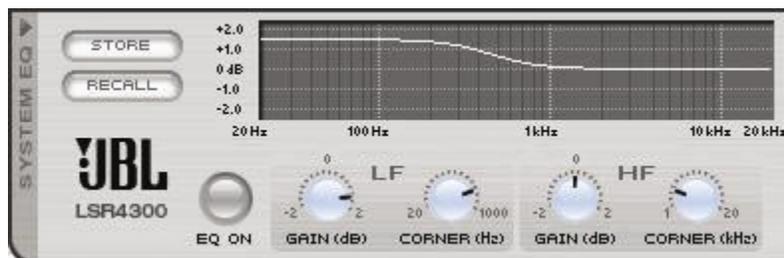

For convenience, you can "collapse" individual sub-panels you aren't using (except the Volume sub-panel, which must always remain open), simply by clicking on the right-facing arrow above each sub-panel name. To collapse the System EQ, RMC, and Source sub-panels all at once, click on the right-facing arrow tab at the far left:

To open up any or all of the sub-panels again, simply click on the left-facing arrow(s).

Equalization Controls

The System EQ sub-panel provides one of the Control Center Software's most powerful "value-added" features in that it significantly expands on the capabilities offered by the speaker itself. From this sub-panel, you can create custom equalization settings – even change the corner frequency of the speaker's onboard LF and HF shelf equalizers (something that is not possible from the speaker itself) – and save them to disk or upload them directly to the speakers.

 To change equalization settings, simply use your mouse to "grab" any of the four controls – LF Gain, LF Corner, HF Gain, or HF Corner – and then move the onscreen knob by moving it in a circular clockwise or counter clockwise motion, to increment or decrement the value, respectively. As you do so, the onscreen graph will change to reflect your new settings. For best results, click on the black indicator of the control and apply circular motion.

◀   Rapid movement of the EQ Gain and Frequency controls can cause a delayed response in the speaker system. This is normal. This can be alleviated by slowing your movement of the controls.

◀   The EQ "on" button in the System Equalization sub-panel will automatically turn on (light green) whenever you begin altering any onscreen EQ settings. To compare your custom settings with the unequalized (flat) response, simply click on the EQ button again to turn it off and bypass all EQ settings.

As you make onscreen changes, they are automatically uploaded to a temporary memory area in your connected LSR4300 speakers and so become instantly active. These settings will remain active in the speakers even if they are powered off. However, because they reside only in a temporary "edit buffer," they will be lost when an EQ Preset is called up unless you have first stored them.

Storing EQ Settings:

To store your custom EQ settings, click on the "Store" button in the upper left-hand corner of the System Equalization sub-panel. The following Store dialog will appear:
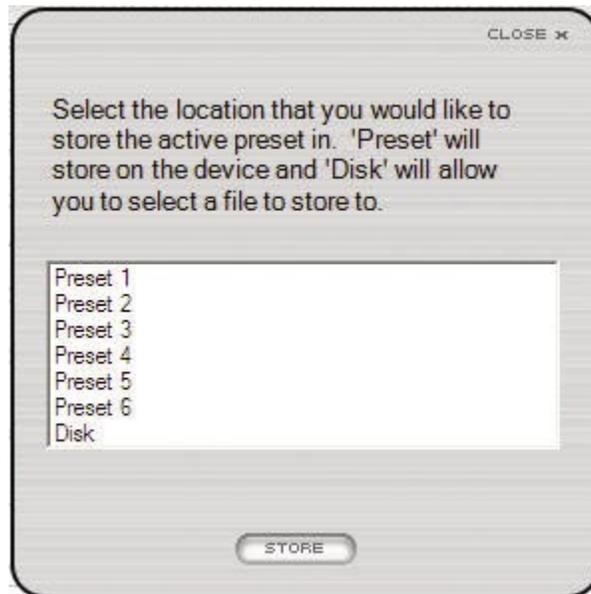
This dialog gives you the option of storing your custom settings in any of the six EQ Presets in your speakers' memory, or on disk. Storing to a Preset will overwrite the data currently in that Preset, so be sure to select one that you do not use frequently.

◀ When an EQ Preset is stored, it is loaded into the speaker that has the "LEFT" DIP switch setting. The LEFT speaker then issues the EQ settings to all other speakers in the network. As a result, when speakers are disconnected from the network, only the LEFT speaker retains the custom presets.

NOTE: You can restore factory settings in any speaker (including the equalization data in all six Presets) using this simple procedure, as described in the LSR4300 Owner's Manual:

1. Turn the speaker off and disconnect its power cable.

2. Set all eight DIP switches to the ON position.

3. Re-connect the power cable, wait for the speaker logo to dim, and turn the speaker back on. All front panel controls will blink and the LED display will flash a left-right pattern to show that memory settings are being recalled.

4. Reset all DIP switches to the desired positions for network operation.

5. Perform this procedure for each speaker that requires it.

Recalling EQ Settings:

You can also upload Preset EQ data from connected speakers to the Control Center Software by pressing the "Recall" button in the System Equalization sub-panel. The following Recall dialog will appear:
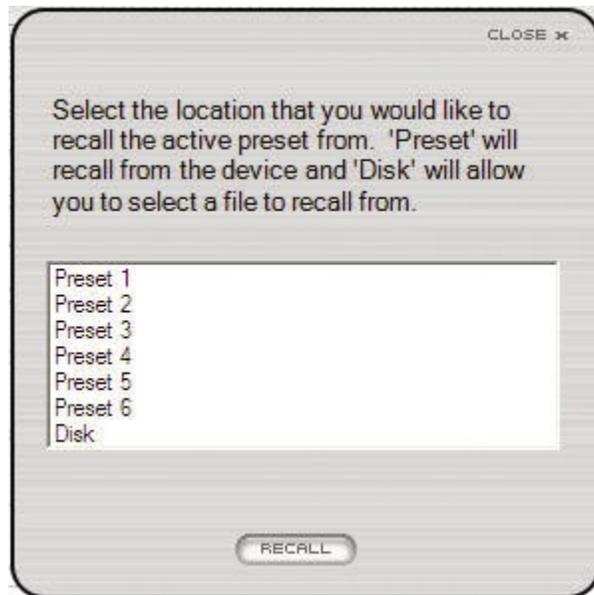

To upload data from a Preset in your speakers, simply select the Preset number and click on "Recall." The data will be placed in a temporary memory area ("edit buffer") in the Control Center Software and the EQ settings will appear onscreen and be reflected in the graph. If you wish to make changes to that Preset and save those changes, remember to Store it back to the same Preset number (using the "Store" procedure described above) before powering the system down.

The "Recall" dialog also allows you to load equalization data previously stored to disk. Simply select "Disk," then click on "Recall," and a standard Windows dialog will allow you to select the location and name of the file you wish to load. Data recalled from disk becomes immediately active.

Options Menu

Clicking on the Options Tab in the upper left-hand corner of the Control Panel brings up the following Options menu, which allows you to change various miscellaneous parameters:
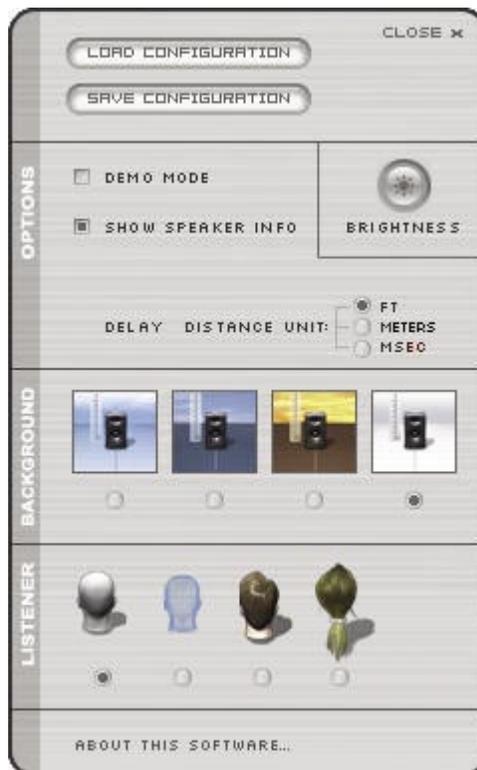
◀ The Options menu can be moved anywhere onscreen by clicking on the vertical gray area on the right and then dragging it.

The "Save Configuration" and "Load Configuration" buttons, respectively, allow you to store and recall complete system configurations to and from disk. Configuration files contain the following data:

• Equalization settings for all six Presets

• Input source

• System volume

• System mute and dim status

• All other settings in the Options menu (see below)

◄ Configuration files do NOT contain parameters set during RMC calibration such as frequency, Q, gain, RMC level trim, and delay.

The Brightness control allows you to set the illumination level of the buttons and display meter in all connected speakers. Clicking on the control brings up a "mini" front panel, with the buttons and LEDs illuminated to reflect the current setting.
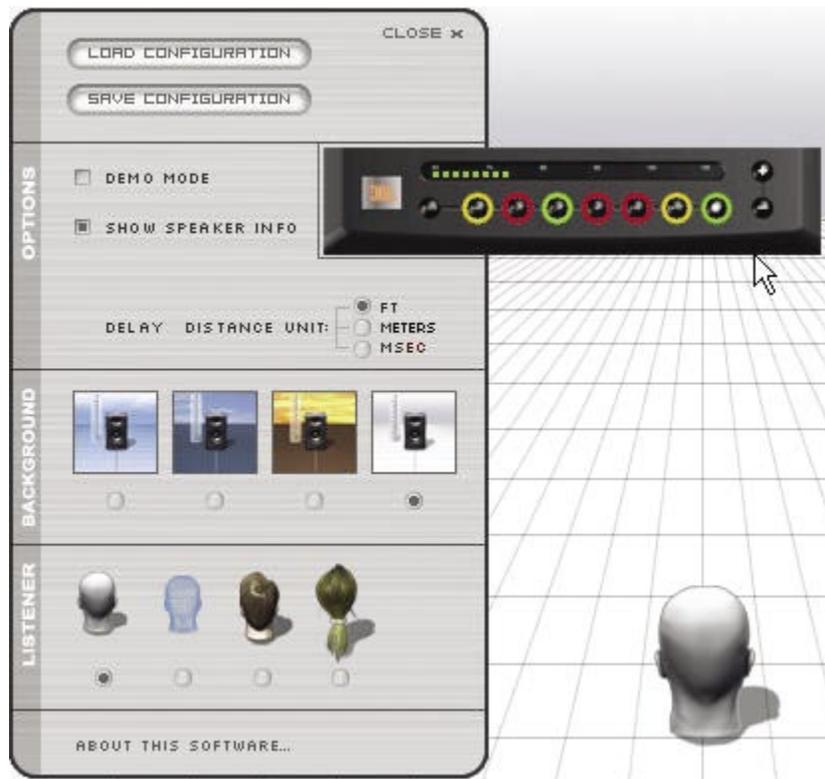

Click on the +/- buttons on the right side of the display to increase or decrease the illumination settings. Changes made here are instantly reflected in all connected speakers. Move the mouse anywhere outside of this display to close it.

The "Options" area provides two important buttons that set communications parameters.

• To place the Control Center Software in Demo mode, click on the Demo button. In this mode, you can view and explore alternate system configurations by clicking on the left-right arrows at the upper left-hand corner of the screen.
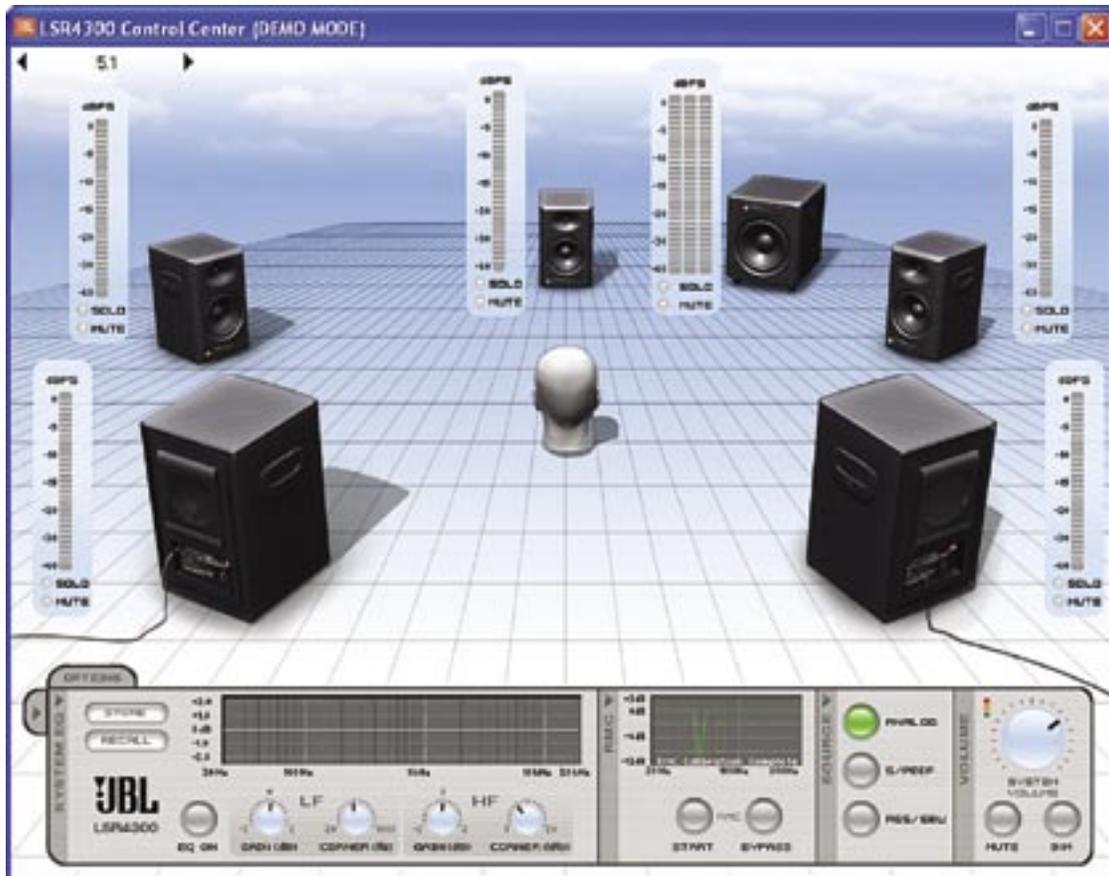
All onscreen buttons and switches work in Demo mode; however, there is no communication with connected speakers so parameter changes are not implemented.

• To enable the Control Center Software to display the RMC delay in connected speakers when you "mouse-over" them, click on the Show Speaker Info button.

• The third function in the "Options" area allows you to display delay time in feet, meters, or milliseconds.

The "Background" and "Listener" sections of the Options menu allow you to change the appearance of the Room View. Choose from among daylight, dusk, or sunset backgrounds (or go for stark white if you prefer), and select any of four "listener" heads.

Finally, double-click on the "About This Software" section at the bottom of the Options menu to view the version number of the software currently installed. This dialog also provides a hot-link to the JBL Pro website in order to enable you to get technical support information.

Technical Support

For technical support in the USA, contact JBL Customer Service

Monday through Friday, 8:00am - 5:00pm Pacific Coast Time

Call (800) 8JBLPRO (800-852-5776)

or go to our website at www.jblproservice.com

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