Lexicon®

RV-5 Receiver

User Guide

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when a power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
16. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
17. The MAINS cord is intended to be the safety disconnect device for this apparatus and shall remain readily operable at all times.
18. Do not expose batteries to excessive heat, such as sunshine, fire, or the like.
19. This product shall be connected to a MAINS socket outlet with a protective earthing connection.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and radiates radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ television technician for help.

Caution
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada
This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Lexicon

A Harman International Company

Lexicon Inc.
3 Oak Park
Bedford, MA 01730-1413 USA
Tel 781-280-0300
Fax 781-280-0490
www.harmanspecialtygroup.com

Customer Service
Telephone: 781-280-0300
Sales Fax: 781-280-0495
Service Fax: 781-280-0499

Part No. 070-18144 | Rev 0 | 1/07

DOCUMENTATION CONVENTIONS

This document contains general safety, installation and operation instructions for the RV-8 Receiver. It is important to read this user guide before attempting to use the product. Pay particular attention to safety instructions.

The following symbols are used in the document:

Appears on the component to indicate the presence of uninsulated, dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.

Appears on the component to indicate important operating and maintenance instructions in the accompanying literature.

WARNING Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in injury or death.

CAUTION! Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in damage or destruction to part or all of the product.

Note: Calls attention to information that is essential to highlight.

SETUP ▸ **INPUTS** ▸ **DVD1** ▸ **NAME** ▸ **EDIT INPUT NAME**

Represents a menu path. The menu items in gray boxes must be selected with the remote control Menu ▸ arrow to access the menu or menu item in the black box. For example, the SETUP, INPUTS, and DVD1 menu items must be selected to open the DVD1 INPUT SETUP menu.

The DVD1 INPUT SETUP menu is used here as an example and will continue to be used as an example throughout this document. Whenever it appears, any other INPUT SETUP menu may be substituted. Likewise, whenever the DVD1 input appears as a step in a menu path, any other input may be substituted.

This document uses the term DTS(-ES) to indicate that DTS-ES encoding may or may not be present in the input source.

1

Getting Started

About the RV-8 1-2
Highlights 1-4
Product Registration 1-5
Installation Considerations 1-5
Remote Control Battery Installation 1-6

ABOUT THE RV-5

Thank you for purchasing the RV-5 Receiver, an 8-channel audio and video control center with independent zone monitoring that provides control of audio and video source selection in three zones at the same time. The RV-5 includes eight configurable inputs, each of which can be assigned to its built-in tuner, eight digital audio, eight analog audio, phono, five composite video, five S-Video or three component video input connectors. The analog connectors can be configured for up to two 5.1-channel sources.

The RV-5 features an integrated 7-channel power amplifier that is designed to achieve high levels of power and performance. Equipped with a toroidal power transformer, the amplifier also provides thermal and DC protection.

The RV-5 AM/FM stereo radio tuner features four tuning regions, allows for the automatic or manual storing of up to 40 preset stations, can receive elements of the Radio Data System (RDS) broadcasts, and is fully configurable for ease of operation. The RV-5 also includes a phono input.

Inside and out, the RV-5 is designed for possible future developments. The rear panel houses one RS-232 connector capable of performing configuration downloads and flash memory software upgrades, and another capable of supporting future developments. The rear panel also includes one removable access panel to accommodate connectors for emerging technologies.

More than just an audio and video control center, the RV-5 features the latest version of Lexicon's critically acclaimed Logic 7® decoding, which creates 7.1-channel output from stereo, and 5.1-and 6.1-channel sources. Unlike other decoders, Logic 7 is compatible with all input sources and requires no special encoding. Because the improvement it provides is clearly audible, Logic 7 decoding is widely regarded as the finest available. A Logic 7-encoded downmix of multichannel source material is available when using the Headphone listening mode. If a stereo source is present, the HEADPHONE L7 listening mode processes it using LOGIC7, then uses Head Related Transfer Functions to create a headphone output that introduces a subtle sense of surround sound, while preserving the original stereo image.

In addition to Logic 7, the RV-5 offers Dolby Digital Surround EX, Dolby Pro Logic IIx, Dolby Pro Logic, DTS 96/24, DTS neo:6, and DTS-ES.

The RV-5 is one of the most advanced audio and video control centers available. High-precision 24-bit/96kHz A/D converters can be used to convert stereo analog audio input signals to digital signals, allowing the RV-5 to provide the benefits of precise digital signal processing without sacrificing signal integrity. 24-bit/192kHZ D/A converters are available for all output channels. Alternatively, 5.1-channel and stereo analog signals can bypass A/D conversion and internal processing, following a pure signal path directly to the output connectors.

Digital audio input signals are processed through a two-stage phase lock loop for extremely low intrinsic jitter and high rejection. Lexicon's proprietary auto azimuth technology corrects timing and level imbalances in stereo sources, ensuring exceptionally accurate playback of surround-encoded sources. A digital audio pass-through output is available for recording digital signals with a CD recorder or a similar component.

Complementing its audio performance, the RV-5 features broadcast-quality video switchers. An ultrawide-bandwidth component video switcher accepts analog component or RGB video signals, while a composite and S-Video switcher accepts high-

quality NTSC, PAL or SECAM video signals. Composite and S-Video sources can be converted to 480i NTSC (576i PAL) component video. The component video switcher can pass high-definition TV (HDTV) signals and standard-definition (SD) TV signals. Both switchers are designed to pass video signals without alteration or degradation.

Built to professional standards, the RV-5 is designed to serve as the control center in any high-quality home theater. Even the most demanding enthusiast will be impressed with its unique combination of power, performance, flexibility and technological sophistication. With extensive expansion capabilities, the RV-5 represents a solid investment that will retain its value in the face of rapidly emerging technologies.

Based on the decoding platform of the Lexicon processor line, the RV-8 Receiver is an exceptional addition to any home theater system. AM/FM tuner, powerful amplifier, three independent zones, impressive digital processor – the RV-8 is truly two separate products seamlessly integrated into an incredibly flexible, high-performance, and sophisticated amplifier/processor system.

The RV-8 has enough raw power available to drive a 7-channel system with room to spare thanks to a prodigious 140 watts per channel. Even more impressive, it is capable of driving, difficult speaker loads while retaining exceptional transparency, wide dynamic range, and sonic neutrality.

Flexibility is a necessity in today's home theater and the RV-8 delivers. The RV-8 can process all major formats from Dolby and DTS, and features THX Ultra2 enhancements. These formats are programmed into the RV-8 software as selectable preferred listening modes. The listener can also program the RV-8 to a specific listening mode by the input source selected, making favorite settings simple and automatic. The AM/FM tuner also features the Radio Data Systems (RDS) information, where available.

The RV-8 features Lexicon's LOGIC 7 decoding. This technology is based on decades of scientific research into how we hear and the study of room acoustics. Lexicon Logic 7 processing intelligently derives up to 7 channels from any 2-channel, 5.1-channel, or 6.1-channel input source. LIVE, a unique system that transforms any listening room into an ideal acoustic space, is also utilized in the RV-8 receiver.

The RV-8 also features Bass Enhancement, another Lexicon proprietary technology developed specifically for surround systems. During a live musical performance, bass envelops the listener; however, when listening to the same performance from recorded media in your home theater, the bass has more of an "in your head" quality, instead of surrounding you. This phenomenon results from low frequency sound waves and their interaction with the natural acoustics of the room. The Lexicon Bass Enhancement system is designed to reproduce the sense of bass envelopment that exists during live performances.

Highly flexible, the RV-8 has three separate audio zones. Since all three zones are wholly independent, it's possible to watch a DVD in the home theater while listening to a CD in the office and watching satellite TV in the kitchen. These additional zones can be controlled by IR or RS-232 based control systems.

With enormous flexibility, a powerful amplifier, superior processing, and phenomenal sound quality, the RV-8 is truly in a class of its own and would make a fine addition to any home theater. Contact your local authorized Lexicon dealer to transform your listening experience today.

HIGHLIGHTS

- Eight channels
- Eight configurable inputs
- Three independent zones
- Integrated 7-channel amplifier with thermal and DC protection and toroidal power transformer
- Compatible with 2Ω speaker impedances
- AM/FM stereo radio tuner
- RDS
- Phono input with 2-channel analog bypass path
- Up to two 5.1-channel analog audio input connectors
- Analog bypass option for 5.1 analog stereo audio input connectors
- Auto switching between digital and analog audio input connectors
- Headphone output with LOGIC7 processing
- Two 32-bit DSP engines for custom processing
- Separate DSP engine for decoding compressed audio sources
- Four S/PDIF coaxial and four S/PDIF optical (Toslink) digital audio input connectors
- One S/PDIF coaxial and one S/PDIF optical (Toslink) digital audio output connectors
- 24-Bit/192kHz D/A converters for all audio channels
- Two sets of analog A/V Zone 2 outputs; one fixed, one variable
- Broadcast-quality video switching
- Video up conversion from S-video/ composite to component video
- Automatic and manual calibration of speaker distances and output levels
- Three component video input connectors with full HDTV compatibility
- Five composite video input connectors
- Five S-Video input connectors
- One component video output
- Logic 7 decoding
- Two 32-bit DSP engines
-
- Dolby Digital Surround EX, Dolby Pro Logic IIx, and Dolby Pro Logic decoding
- DTS 96/24, DTS NEO:6, and DTS-ES (discrete and matrix) decoding
- RS-232 control
- Two trigger output connectors
- Rear-panel IR input connector
- Two microphone input connectors
- Two internal expansion slots
- Removable access panel
- Flash memory software upgrade capabilities
- Optional 19-inch rack-mount kit
- IR preprogrammed/learning remote control with LCD display
- Maximum volume level

PRODUCT REGISTRATION

Please register the RV-5 Receiver within 15 days of purchase. Register online at www.lexicon.com or complete and return the product registration card attached to the back cover of this user guide. Retain the sales receipt as proof of warranty coverage.

INSTALLATION CONSIDERATIONS

The RV-5 requires special care during installation to ensure optimal performance. Pay particular attention to instructions below and to other precautions that appear throughout this user guide.

Do install the RV-5 on a solid, flat, level surface such as a table or shelf. The RV-5 can also be installed in a standard 19-inch equipment rack using an optional rack-mount kit available from an authorized Lexicon dealer.

Do select a dry, well-ventilated location out of direct sunlight.

Do Not expose the RV-5 to high temperatures, humidity, steam, smoke, dampness or excessive dust. Avoid installing the RV-5 near radiators or stacking the RV-5 over other heat-producing equipment such as a power amplifier.

Do Not install the RV-5 near unshielded TV or FM antennas, cable TV decoders, or other RF-emitting devices that might cause interference.

Do Not place the RV-5 on a thick rug or carpet, or cover the RV-8 with a cloth, as this might prevent proper cooling.

Do Not place the RV-5 on a windowsill or any location exposed to direct sunlight.

Do Not obstruct the front-panel IR receiver window. The remote control must be in line of sight with the IR receiver for proper operation.

Do Not install the RV-5 on a surface that is unstable or unable to support all four feet.

CAUTION!

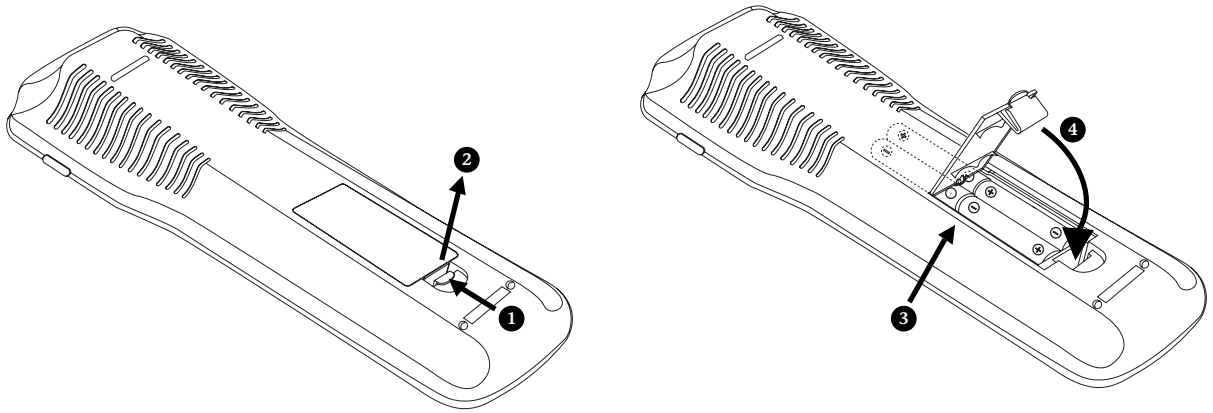
Before moving the RV-5, power the unit off using the rear-panel power switch and unplug the power cord from the wall outlet.

REMOTE CONTROL BATTERY INSTALLATION

The remote control requires four AAA batteries. The batteries should be replaced as needed. Alkaline batteries, which last longer without leaking, are recommended. When battery power is low, the remote control enters a low-voltage condition, preventing it from operating the RV-5. When this occurs, replace the batteries. Normal operation will resume when new batteries are installed.

To replace the remote control batteries:

1. Locate the battery compartment on the back of the remote control. Press the tab (1) and lift the cover (2) away from the remote control.
2. Remove old batteries (if applicable).
3. Observing the proper polarity, insert four AAA batteries (3).
4. Align the cover over the battery compartment and gently press down until it snaps back into place (4).
5. Dispose of the old batteries (if applicable).



2

Basic Operation

Front-Panel Overview 2-2
Rear-Panel Overview 2-6
Tuner Overview 2-10
- Selecting a Station 2-10
- Direct Station Access 2-10
- Tune/Seek Access 2-10
- Scan Mode 2-11
- Loading Presets 2-11
- Saving Presets 2-11
- Editing Presets 2-12
- Autoload 2-12

Amplifier Overview 2-12
- Amplifier Channel Status 2-13
- Making Connections With the Amplifier Output 2-13

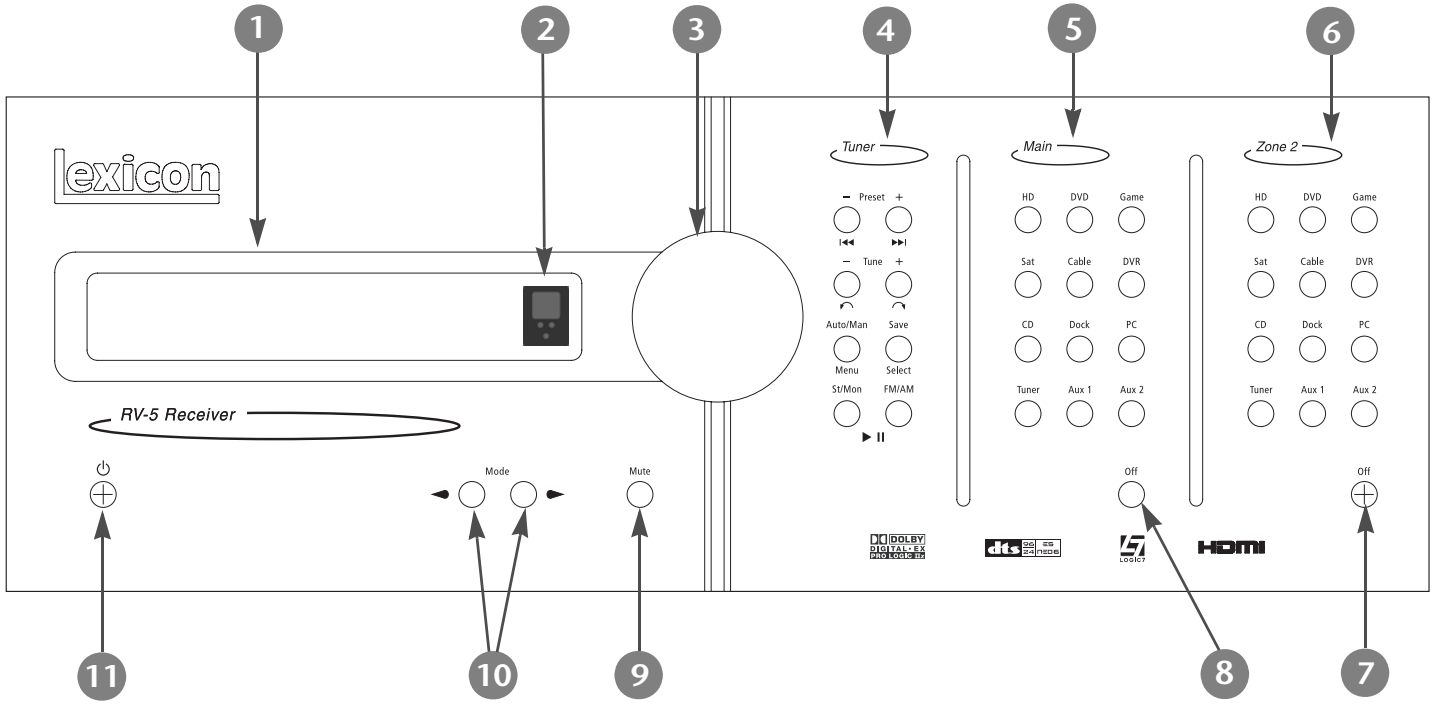
Headphone Overview 2-13
Remote Control Overview 2-14
- Operation Considerations 2-14
- MAIN Menu 2-14
- Menu Navigation 2-14
- Menu Item Selection 2-15
- Remote Control Buttons 2-17
- Command Matrix 2-18

Understanding the Zones 2-28
Two-Line Status 2-28
STATUS Menus 2-29
- STATUS Menu Parameter Descriptions 2-34

STATUS Menu Level Meters 2-35

FRONT-PANEL OVERVIEW

The RV-5 is shown below. The numbers in the front-panel illustrations correspond with the numbered items in the text.



1. Front Panel Display
2. IR Receiver
3. Volume Knob
4. Tuner
5. Main Zone Input Selection Buttons
6. Zone 2 Input Selection Buttons
7. Zone 2 Off Button
8. Main Zone Off Button
9. Mute Button
10. Mode ◂ and ▸ Buttons
11. Standby Button

1 FRONT-PANEL DISPLAY

Use the front-panel display to view the current input, listening mode, input source and volume level. If the built-in tuner is active, the display will show the frequency, band, listening mode and volume level. The 2 x 20 character display also functions as a display for messages and menus, one line at a time.

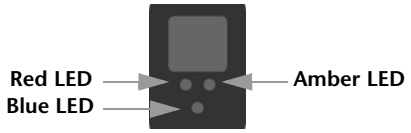
Note:

Power is still supplied to the RV-5 when standby mode is activated.

2 IR RECEIVER

The IR receiver receives infrared commands from the RV-5 remote control. There are three associated LEDs.

- The amber LED blinks when a remote control command is received.
- The red LED lights when the A/D converters are overloading.
- The blue LED lights when the RV-5 is powered on and activated – even if the FRONT PANEL DISPLAY menu STATUS parameter is set to ALWAYS OFF.



3 VOLUME KNOB

Use the volume knob to adjust volume level in all Zones.

To adjust the Main Zone volume level:

Rotate the volume knob clockwise to increase or counterclockwise to decrease volume level in 1dB increments. A horizontal bar graph indicating the current Main Zone volume level is displayed in the on-screen and front-panel displays. The Main Zone volume range is –80 to +12dB.

To adjust the Zone 2 volume level:

1. Press and hold the front-panel Zone 2 input selection button that corresponds with the current input source. For instance, if the current input source is using the DVD1 input, press and hold the DVD1 input selection button in the desired zone.
2. While holding the desired zone input selection button, rotate the volume knob clockwise to increase or counterclockwise to decrease volume level in 1dB increments. The corresponding horizontal graph appears in the on-screen and front-panel displays, and indicates the position at which the current Zone 2 volume level falls within the –80 to +12dB volume range.

3. Release the selected Zone 2 input selection button when Zone 2 volume level has been set.

4 TUNER SELECTION BUTTONS

Tuner selection buttons allow for direct entry of station frequencies, selection of AM or FM broadcast bands and the saving/recalling of presets. See “Tuner Overview” on page 2-9 for additional information.

FRONT-PANEL OVERVIEW *(continued)*

5 MAIN ZONE INPUT SELECTION BUTTONS

Selects the corresponding input in the Main Zone. When an input is selected, a blue LED lights on the corresponding input selection button. When the Main Zone is deactivated, pressing a Main Zone input selection button activates the corresponding input in the Main Zone. Zone 2 remains deactivated until a Zone 2 input is selected.

6 ZONE 2 INPUT SELECTION BUTTONS

Selects the corresponding input in Zone 2. When an input is selected, an amber LED lights on the corresponding input selection button. When Zone 2 is deactivated, pressing a Zone 2 input selection button activates the corresponding input in Zone 2. The Main Zone remains deactivated until a Main Zone input is selected.

7 STANDBY BUTTON

Toggles the RV-5 between on and standby. When the RV-5 is powered on, pressing this button places the RV-5 into standby and lights the red LED on the button. Power is supplied to the RV-5 when in standby. When the RV-5 is in standby, pressing the button turns the unit on and activates all zones that were active in the previous operating session.

In the event of a power outage, the RV-5 will display a BROWN OUT!! PRESS STANDBY message. To turn the unit on, use the STANDBY button. For more information, see "POWER MANAGEMENT" on page 3-3.

8 MODE ◂ and ▸ BUTTONS

Use the Mode buttons to scroll to the previous (◂) or next (▸) available listening mode. Scrolling occurs in the order shown in the MODE ADJUST menu. Refer to "Listening Mode Activation" on page 6-2 for more information.

9 MUTE BUTTON

Mutes or restores the RV-5 Main Zone volume to its original level. Press the **Mute** button to mute volume level; "MUTE ON" appears in the on-screen and front-panel displays. Press the **Mute** button again to restore the volume to its original level. The VOLUME CONTROL SETUP and MUTE LEVEL parameter can be used to set mute levels.

Mute may be activated automatically or manually. For example, the RV-5 briefly activates mute when changing input sources or listening modes. The amber Mute button LED lights whenever mute is activated.

10 MAIN ZONE OFF BUTTON

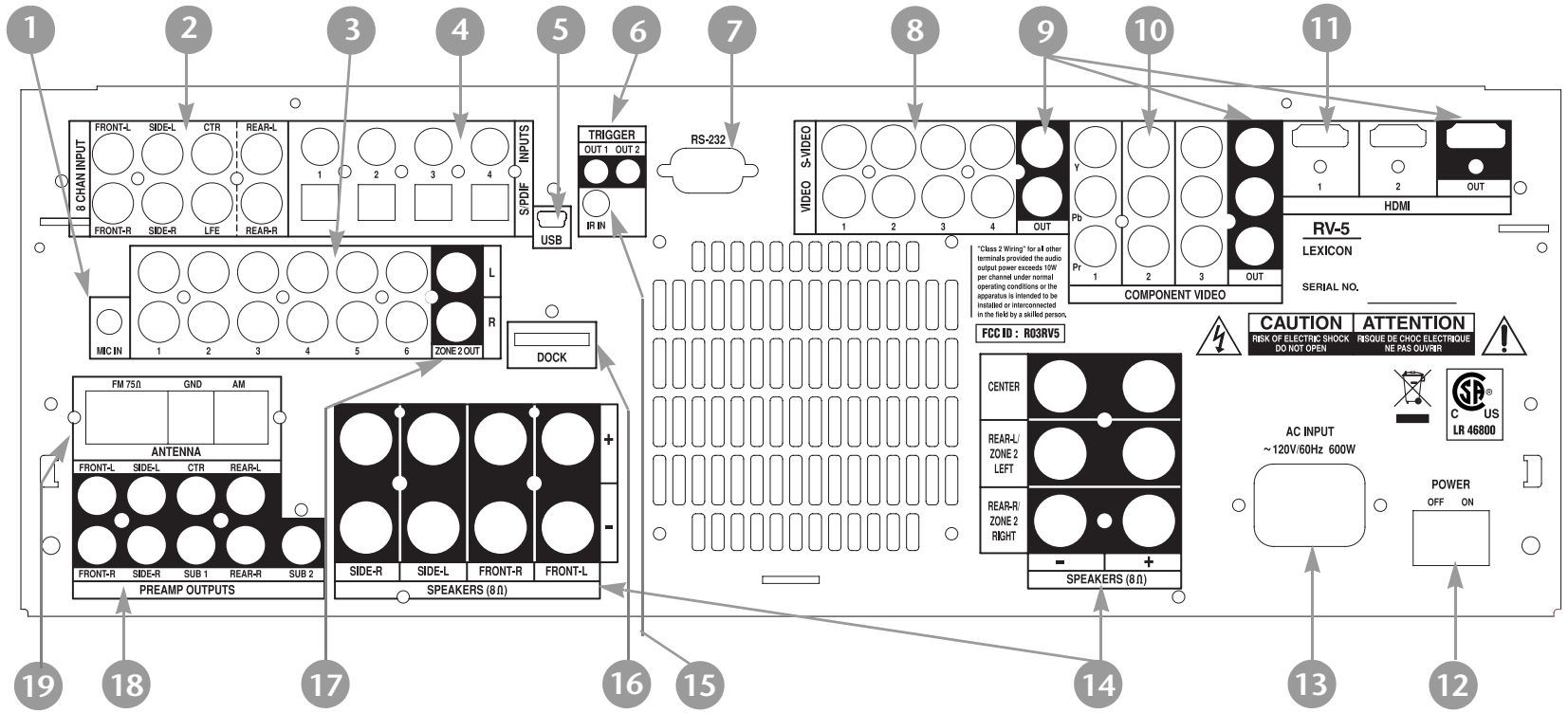
Deactivates the Main Zone.

11 ZONE 2 OFF BUTTON

Deactivates Zone 2.

REAR-PANEL OVERVIEW

The RV-5 rear panel is shown below. The numbers in the rear-panel illustrations correspond with the numbered items in the text.



1. Microphone Input Connectors
2. Analog Audio Input Connectors
3. Main Zone Audio Output Connectors
4. Digital Input Connectors
5. USB Connector Port
6. Trigger Output Connectors
7. RS-232 Connector
8. Video Input Connectors
9. Main Zone Video Ouput Connectors
10. Component Video Input Connectors
11. HDMI Input Connectors
12. Power Switch
13. AC Input Connector
14. Amplifier Outputs
15. IR In Connector
16. Dock Connector
17. Zone 2 Digital Audio Output Connectors
18. Preamplifier Outputs
19. Tuner Antenna Connectors

REAR-PANEL OVERVIEW *(continued)*

CAUTION! Never make or break connections to the RV-5 unless the RV-5 and all associated components are powered off.

1 MICROPHONE INPUT CONNECTOR

Provides a microphone input for speaker calibration.

2 ANALOG AUDIO INPUT CONNECTORS

Provides analog audio inputs. Eight connectors labeled Front L/R, Center, LFE, Side L/R and Rear L/R are available.

3 MAIN ZONE AUDIO OUTPUT CONNECTORS

Provides analog audio outputs in the Main Zone. Six stereo analog audio input connectors labeled 1 to 6 are available.

4 DIGITAL AUDIO INPUT CONNECTORS

Provides digital audio input in the Main Zone. Four S/PDIF coaxial and four S/PDIF optical (Toslink) input connectors are available. Connectors are compatible with PCM (44.1, 48, 88.2 and 96kHz), Dolby Digital, and DTS(-ES) sources. Connectors are not compatible with MPEG (MP3) sources.

5 USB CONNECTOR PORT

Provides a USB port to connect to a compatible computer running Windows® 2000, Windows® XP, or higher with the latest service packs installed to listen to audio from the computer through the RV-5. The USB connector port is a "Mini B" connector and can also be used to connect a compatible computer to the RV-5 for firmware upgrades, when available. See page xxxx for more information on playback of computer audio.

6 TRIGGER OUTPUT CONNECTORS

Provide 12V DC output to control connected components. Two trigger output connectors are available on a removable terminal block. The PWR connector (the power trigger output connector) is not configurable. It is activated when the RV-5 is powered on, and deactivated when the RV-5 is powered off from the rear panel or by putting the RV-5 into standby. The trigger output connector (labeled 1) can be configured for remote or program operation. See "Trigger Setup" on page 3-70 for more information.

7 RS-232 CONNECTOR

The RS-232 serial connector provides serial control and is used to perform configuration downloads and flash memory software upgrades.

8 VIDEO INPUT CONNECTORS

Provides the Main Zone video inputs. Four composite video connectors labeled 1 to 4 and four S-Video connectors labeled 1 to 4 are available.

9 MAIN ZONE VIDEO OUTPUT CONNECTORS

Provides the Main Zone video outputs. One composite video connector, one S-Video connector, one component video connector, and one HDMI video connector are available.

10 COMPONENT VIDEO INPUT CONNECTORS

Provides inputs that can be used with any source device that is equipped with analog Y/Pr/Pb or RGB component video outputs. Three inputs, labeled Component Video 1 to 3, are supplied.

11 HDMI INPUT CONNECTORS

Provides two HDMI inputs for devices such as DVD player or HDTV tuner.

12 POWER SWITCH

Use the Power switch to connect or disconnect power from the AC Input connector to the RV-5. The **I** and **O** positions represent "on" and "off" status, respectively. When the RV-5 is powered on, the front-panel Standby button or remote control **On** button can be used to activate and deactivate standby mode. When the RV-5 is powered off, standby mode is not available.

In the event of a power outage, the RV-5 will display a BROWNOUT, CYCLE POWER message. To turn the unit back on, use the rear-panel power switch. In this instance, the front-panel StandBy switch has no effect.

13 AC INPUT CONNECTOR

Provides power to the RV-5 through the supplied power cord.

14 AMPLIFIER OUTPUTS

Provide audio outputs to the speakers. Channels are labeled for Front, Center, and Rear speakers to facilitate surround system setup. Normally, the REAR Left & RIGHT speakers are used in the Main Zone for 7.1 surround sound systems, but they can also be used as the left and right outputs for Zone 2.

The amplifier binding posts accommodate the following connectors:

- standard 0.75-inch banana plugs
- size 10-12 gauge spade connectors
- up to 10-gauge bare wire

See the next page for additional amplifier information.

15 IR IN CONNECTOR

Accepts input of IR signals from infrared distribution equipment. One 3.5mm jack that accepts a stereo plug (Tip/Ring/Sleeve connection) or mono plug (Tip/Sleeve connection) is available.

REAR-PANEL OVERVIEW *(continued)*

16 DOCK CONNECTOR

Provides an input port for an iPod®, which can then be accessed through the RV-5. To use this feature, the D-1 Dock option must be installed to the DOCK connector. With a compatible iPod connected to the RV-5, selecting the DOCK input allows you to play audio programming from the iPod. You can navigate the iPod using the RV-5 remote and view any of the iPod menus through the RV-5 front panel and any video monitor connected to the RV-5.

For more information on the D-1 Dock option and how to use your RV-5 with an iPod, refer to page xxx.

17 ZONE 2 DIGITAL AUDIO OUTPUT CONNECTORS

Provides digital audio output in Zone 2. Two outputs are available, marked LEFT and RIGHT.

18 PREAMPLIFIER OUTPUTS

Provides outputs for an optional, external power amplifier for applications where higher power is desired.

19 TUNER ANTENNA CONNECTORS

Provides two antenna connections for the AM/FM stereo radio tuner.

AMPLIFIER OVERVIEW

The RV-5 features a 9-channel power amplifier with 140W per channel. Heavy duty gold plated 5-way binding posts are provided for speaker connections.

The amplifiers feature advanced thermal current and DC protection for each channel. Thermal protection monitors the temperature of the chassis and heatsinks and automatically deactivates the specific channel(s) when they exceed their normal safe operating temperature. Current protection ensures that the output transistors are protected by limiting the current capability which is determined by the output voltage, while DC protection prevents DC and frequencies below 10Hz from reaching the speakers.

The amplifiers are designed to meet the highest standards of performance and sound quality.

MAKING CONNECTIONS WITH THE AMPLIFIER OUTPUT

The amplifier output connectors can accept bare speaker wires, banana plug connectors or certain spade connectors. When using bare speaker wires, loosen the connector, insert the wire into the top of the receptacle, then tighten the connector. The same procedure should be used for spade connectors. Banana plugs should be inserted into the outward-facing receptacle.

Use heavy-gauge speaker cable to ensure low-impedance connections between the amplifier and the speakers. Observe correct speaker polarity.

CAUTION! Do not connect the outputs of one channel to the outputs of other channels or to other amplifiers.

TUNER OVERVIEW

The RV-5 features an AM/FM stereo radio tuner. The front panel displays the currently selected frequency, band, listening mode and volume. Forty presets can store AM or FM frequencies, identified by the preset number/name and station frequency/band. For example: WABC/90.90 FM or Preset 02/10.30 AM. Two antennas are supplied with the RV-5: one for AM and one for FM stereo. At a minimum, use of the supplied antennas is recommended to ensure consistent tuner performance.

The tuner can be setup to receive elements of the Radio Data System (RDS) broadcasts. Originated in Europe and now with limited availability in the US, the RDS is a standard for broadcasting digital data along with an FM radio broadcast. When the RDS option is active and RDS data is received, the RV-5 tuner displays the identity of the broadcast station, receipt of alternate station frequencies and any additional text (referred to as RT or Radio Text) that the station broadcasts. For more information on RDS features, see "Tuner Setup" on page 3-72.

SELECTING A STATION

Begin selecting a radio station by activating the built-in tuner input. To activate the tuner input, press the front-panel **TUNER** button or select the TUNER option from the remote-control MAIN screen. See the "Tuner Setup" on page 3-72 for more information.

Next, determine if the desired frequency band is active by pushing the front-panel or remote-control AM/FM button to toggle between the AM and FM frequency bands.

Once the frequency band is set, there are several ways to select a radio station: direct station access, tune/seek access, scan mode and presets.

DIRECT STATION ACCESS

To access a specific frequency, use the numeric buttons on either the front panel or remote control to enter the desired station frequency.

To directly access a station from the front panel or remote control:

1. Press the AM/FM button to select the desired band.
2. Enter the three or four digit station frequency. For example, to load FM station 90.9, press 9-0-9. To load AM station 1030, press the AM/FM button to select the AM band, then press 1-0-3-0.

Note:

When digits are first entered, a "Loading Preset" status message appears in the front-panel (and on-screen) display. When a third digit is entered, the RV-5 senses a frequency is being entered and changes the status message to "Setting Frequency."

TUNE/SEEK ACCESS

Press one of the Tune/Seek buttons on the front panel (◂ / ▸) or remote control (◂◂ / ▸▸) to navigate to the next available frequency. For example, if the currently loaded frequency is 101.7FM, press the Tune/Seek ▸ button to load 101.9FM. Press the Tune/Seek ▸ button again to load 102.1FM, and so on.

Press one of the Tune/Seek buttons on the front panel (◂ / ▸) or remote control (◂◂ / ▸▸) for 2 seconds to activate seek mode. Seek mode searches for the next available radio station. If the tuner is having difficulty locating stations, raise the sensitivity level. See "SCAN SENS" on 3-73 for more information.

TUNER OVERVIEW *(continued)*

SCAN MODE

Scan Mode scans through all available stations, pausing for two seconds on each station before scanning to the next one.

To enter Scan Mode:

Press and hold the front-panel (◂ / ▸) or remote-control (◂◂ / ▸▸) **Tune/Seek** buttons until ◂ SCAN or SCAN ▸ is displayed.

To stop scanning:

Press either **Tune/Seek** button.

LOADING PRESETS

To load a preset:

Enter a preset (number between 1 and 40) using the front-panel or remote-control number buttons.

A "Loading Preset" status message appears in the front-panel (and on-screen) display. If a third digit is entered, the tuner switches over to Direct Station Access mode and the front-panel status message changes to "Setting Frequency."

To skip through available presets in order:

Press the remote-control ⏮ or ⏭ button. For example, if preset 1 is loaded and the ⏭ button is pressed, the RV-5 will load preset 2 (or the next available preset). If preset 1 is loaded and the ⏮ button is pressed, the RV-5 will load preset 40 (or the next available preset).

Note:

This feature is only accessible via the remote control.

SAVING PRESETS

The RV-5 has 40 presets available for storing AM or FM stations. The presets are divided into four banks with ten presets per bank. It is possible to store a combination of AM and FM stations in each bank. Storing presets on the RV-5 can be accomplished from either the front panel or the remote control. The operation is identical.

To save a station as a preset on the RV-5:

1. Press the front-panel or remote-control **SAVE** button. A status message displaying "Saving Preset" appears in the front-panel (and on-screen) display.
2. Enter a number between 1 and 40 to save the currently loaded frequency as the corresponding preset.

   For example, if the tuner is currently playing 101.7FM, press the **SAVE** button, then the 1 button to save 101.7FM as preset number 1.

   Press the 1 button followed by the 5 button to save as preset number 15. Pressing more than two numbers resets the preset number to the third digit entered.

Pressing the **SAVE** button a second time cancels the saving process.

NAMING PRESETS

Preset stations use a naming system based on the RDS system. In the US, each preset channel is identified by the station's call letters, or what the broadcast information identifies as the call letters. In Europe and Japan, each preset channel is identified by the station's Program

Service (PS) name.

If the RDS information is not available, the preset name defaults to PresetXX, where XX is the listed number position in the Preset menu. For example, if Preset #01 is FM 90.90 and the call letters are WABC, then the name for that position is WABC. If Preset #23 does not broadcast their call letters, then that location is identified as Preset23 in the menu.

EDITING PRESETS

It is possible to customize the name of each preset on the RV-5.

To edit the preset name:

1. Select TUNER PRESETS from the MAIN MENU. The TUNER PRESETS menu contains a list of preset pages. PAGE 1 contains presets 1 through 10, PAGE 2 contains presets 11 through 20, etc.
2. Select the page containing the desired preset.

   A list of presets appears.
3. Select the desired preset.

   The EDIT PRESET menu opens and displays the preset call letters (or PS), frequency, and band.

The EDIT PRESET menu options are as follows:

- Select LISTEN TO PRESET to load the preset frequency.
- Select NAME to customize the preset name. The preset name can be up to eight characters long.
- Select CLEAR PRESET to clear the frequency and band information from the preset.

See “Tuner Presets” on page 5-2 for additional information.

AUTOLOAD

The RV-5 can automatically scan and store presets. This can be accomplished only from the remote control. See “Tuner Setup (continued)” on page 3-74 for additional information.

To start autoloading:

1. Select AUTOLOAD from the MAIN MENU : SETUP : TUNER SETUP menu.
2. Press menu ▸ to start AUTOLOAD.

REMOTE CONTROL OVERVIEW

The RV-5 remote control provides full operation of the RV-5, including commands, such as menu navigation, that are not available from the front panel. It is also designed to provide control for the entire home theater system. This section provides a brief overview of the remote control. For detailed operation/ programming instructions and manufacturing codes, refer to Appendix C.

OPERATION CONSIDERATIONS

The following factors can improve or impede remote control operation.

Note the following before operating the RV-5 remote control:

- The remote control must be in line-of-sight with the front-panel IR receiver. Eliminate obstructions between the remote control and the IR receiver. The remote control may become unreliable if strong sunlight or fluorescent light shines on the IR receiver.
- For optimal performance, position the remote control at a 30-degree angle no more than 40 to 60 feet (12.2m to 18.3m) from the RV-5. Placing the RV-5 inside a smoked glass cabinet will reduce the remote control range.
- Remote controls for different components can interfere with one another. Avoid using remote controls for different components at the same time.
- Remote-control batteries should be replaced as needed.

MAIN MENU

Use the MAIN MENU to open the four main menu branches: MODE ADJUST, AUDIO CONTROLS, TUNER PRESETS and SETUP.

MENU NAVIGATION

Use the remote-control arrow buttons to navigate the extensive menu structure starting on page B-2. The table below indicates the navigation commands that the remote-control buttons perform when the Main Zone command bank is activated.

Note:

The DVD1 device has been preprogrammed to control the Lexicon RT-10 and RT-20 disc players.

MENU ITEM SELECTION

Use the remote-control Menu arrows to navigate menus and to select menu items.

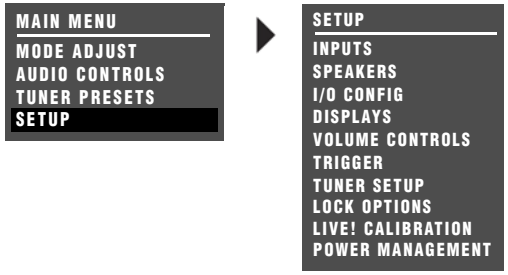
To select a menu item on the open menu:

1. Press the remote-control ▲ and ▼ arrows to highlight the desired menu item.
2. When the desired menu item is highlighted, press the Menu ▶

Arrow	Navigation Functions
▶	• When a menu is open, press the remote-control Menu ▶ arrow to select the highlighted menu item. • When no menus are open, press the Menu ▶ arrow to open the MAIN MENU.
◀	• When a menu is open, press the Menu ◀ arrow to close the menu and, in most cases, open the previous menu. Subsequent presses continue to close the current menu and open the previous menu until the MAIN MENU is closed. When the MAIN MENU is closed, the menu structure is also closed. • When no menus are open, pressing the Menu ◀ arrow button performs no function. • When a drop-down menu is open, press the Menu ◀ arrow to select the current setting and close the drop-down menu.
▲ ▼	• When a menu is open, press the Menu ▲ and ▼ arrow buttons to scroll upward and downward through the complete list of menu items. The highlighted menu item appears in the front-panel display. All menu items appear in the on-screen display. A scroll bar appears in the left side of the on-screen display when menu items exceed the on-screen display's top and bottom margins. The cursor automatically wraps to the next menu item when the first or last menu item is passed.

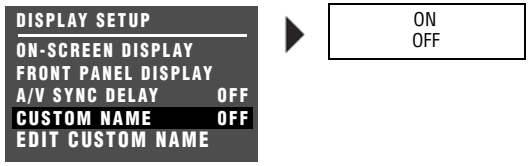
MENU OPTIONS

Selecting a menu option opens another menu within the menu structure. For example, selecting SETUP from the MAIN MENU opens the SETUP menu.



PARAMETER DROP-DOWN MENUS

Selecting some menu options opens a drop-down menu that contains a list of available parameter settings. For example, selecting the CUSTOM NAME parameter from the DISPLAY SETUP menu opens a drop-down menu which is used to select the ON or OFF setting.



To select a setting in a parameter drop-down menu:

1. When the drop-down menu opens, press the remote-control ▲ and ▼ arrows to scroll upward and downward through the complete list of available settings. The current setting is displayed beneath the parameter name in the on-screen and front-panel displays.
2. When the desired setting appears beneath the parameter name, press the ◀ arrow to accept the setting and close the drop-down menu.

HORIZONTAL BAR GRAPHS

Selecting some menu parameters opens a horizontal bar graph. The bar graph indicates the position at which the current parameter setting falls within the entire parameter range.

For example, selecting the A/V SYNC DELAY parameter from the DISPLAY SETUP menu opens the horizontal bar graph shown below, which is used to adjust the amount of audio delay.

To adjust a parameter setting with a horizontal bar graph:

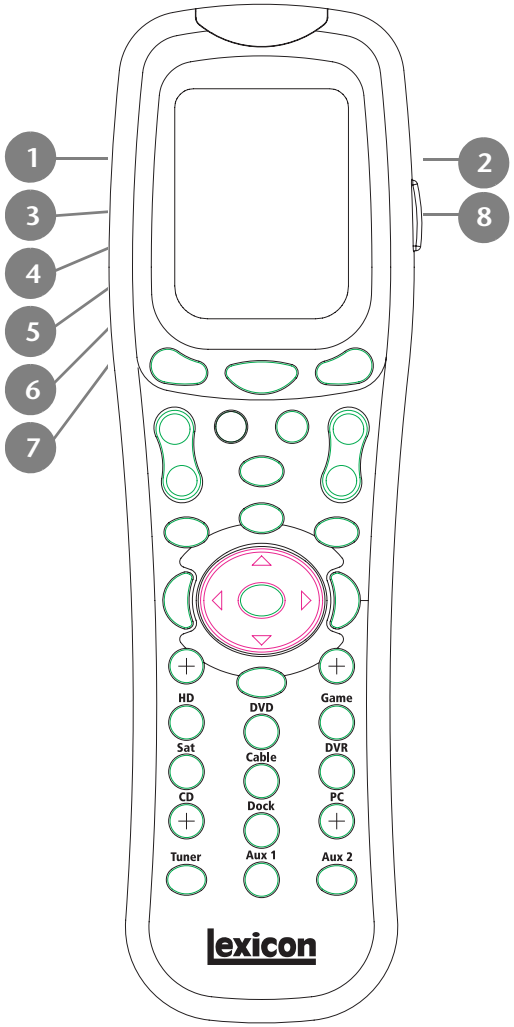
1. When the horizontal bar graph appears, press the remote-control ▲ and ▼ arrows to increase or decrease the setting in the designated increments. The setting appears to the right of the parameter name in the on-screen and front-panel displays.
2. When the desired adjustments have been made, press the ◀ arrow to select the setting and close the horizontal bar graph.

Note:

Menu item selection instructions differ for certain menus. These instances are noted throughout this user guide.

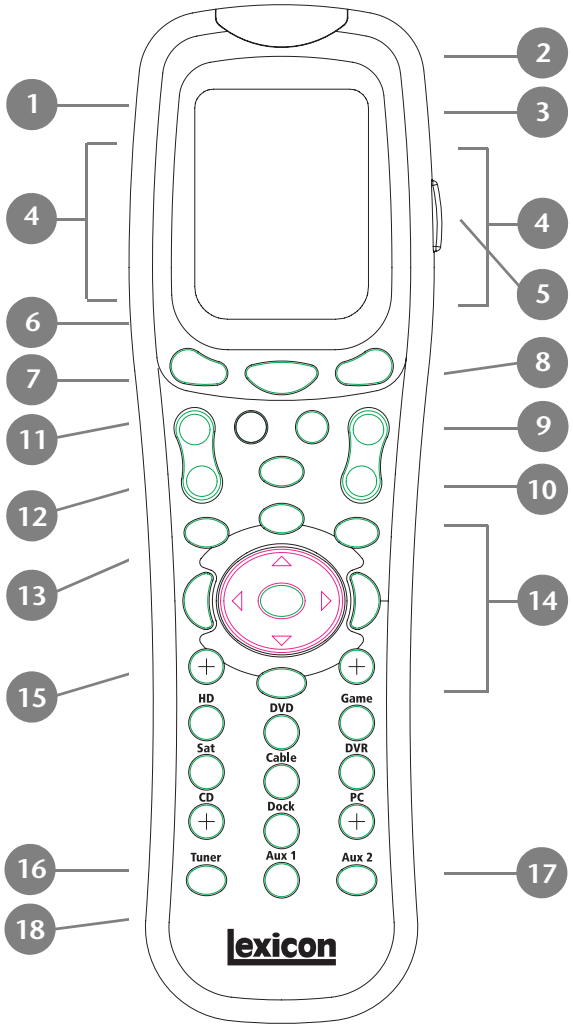
COMMAND MATRIX

The command matrix describes the commands that the remote control buttons perform when each command bank is active.



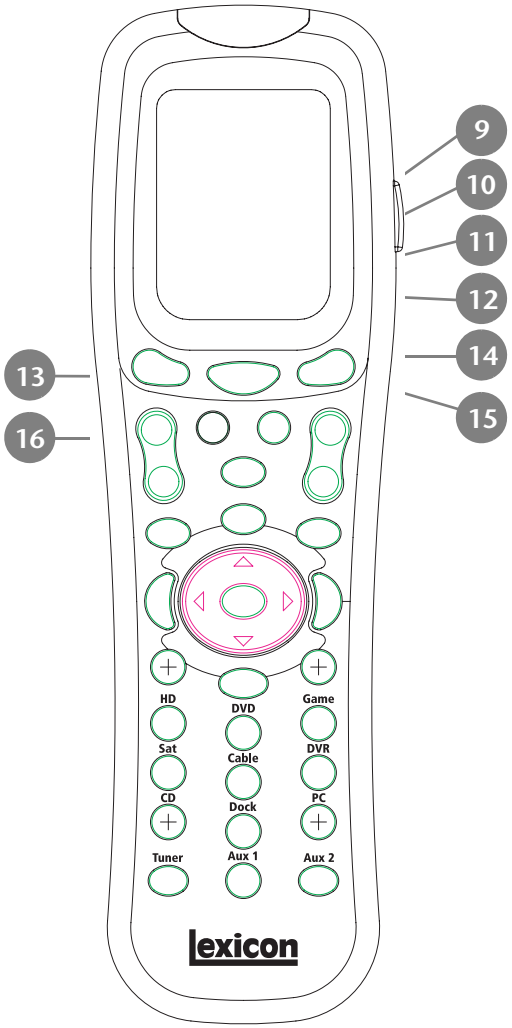
BUTTON	HOME	MAIN PAGE1	MAIN PAGE2	ZONE2 PAGE1	ZONE2 PAGE2
1	Enters RV-5 standby mode.				
2	Activates the RV-5.				
3	Displays the MAIN Zone command bank, which includes commands that control the Main Zone.	Displays the Main Zone Status.	Selects the Dolby Digital listening mode family.	Displays the Zone 2 Status.	Toggles RV8 between 5 speaker and 7 speaker modes.
4	Displays the Zone 2 command bank, which includes commands that control Zone 2.	Deactivates the Main Zone.	Selects the DTS listening mode family.	Deactivates Zone 2.	Adjusts the AUDIO CONTROLS menu Main Zone BALANCE to the left.
5	Displays the Zone 3 command bank, which includes commands that control Zone 3.	Selects the Tuner input for the Main Zone.	Selects the THX listening mode family.	Selects the Tuner input for Zone 2.	Sets the Main Zone Volume level to -15dB.
6	Displays the DVD1 command bank, which includes commands that control DVD1.	Selects the DVD1 input for the Main Zone.	Toggles between the current listening mode and the 2-CHANNEL listening mode.	Selects the DVD1 input for Zone 2.	Shows status menu for current Main Zone input stream. STAT2 button: see page 2-28 for more information.
7	Displays the DVD2 command bank, which includes commands that control DVD2.	Selects the DVD2 input for the Main Zone.	Analog Bypass Toggle.	Selects the DVD1 input for Zone 2.	Activates the RV-5.

BUTTON	HOME	MAIN PAGE1	MAIN PAGE2	ZONE2 PAGE1	ZONE2 PAGE2
8	Displays the SAT command bank, which includes commands that control the Satellite box.	Selects the SAT input for the Main Zone.	Selects the L7 FILM listening mode.	Selects the Satellite input for Zone 2.	Reserved for future expansion.



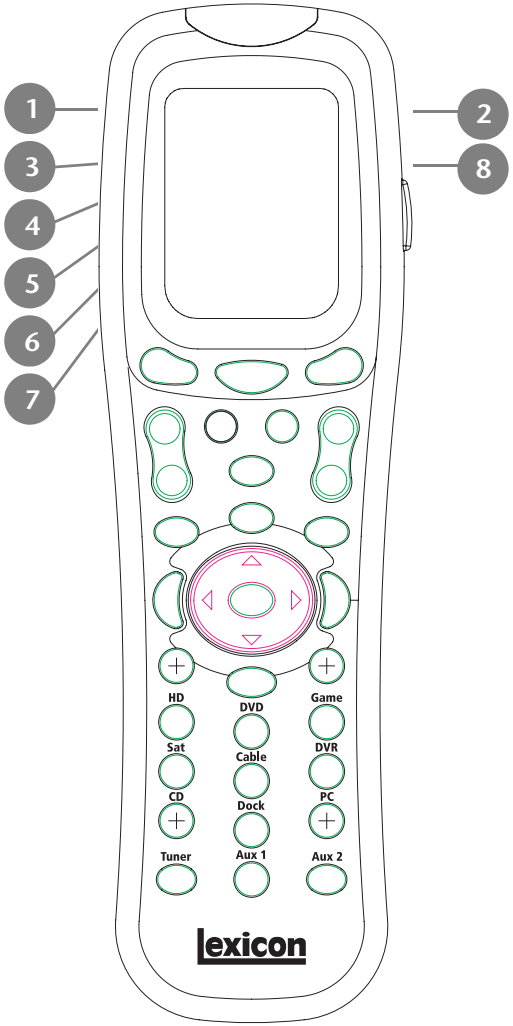
REMOTE CONTROL BUTTONS

1. SYSTEM POWER OFF
2. Displays the name of the selected device.
3. POWER ON
4. Device and function buttons
5. Light
6. Displays page number/currently selected device
7. LCD page change
8. FAVORITE
9. HOME menu
10. CHANNEL/Listening Mode (+/-)
11. Previous channel
12. VOLUME (+/-)
13. MUTE
14. TRANSPORT functions (PLAY, STOP, REWIND, PAUSE, REC, SKIP and FF) for VCR, DVD and CD
15. JOYSTICK (left, right, up, down and center press)
16. DISPLAY/AM/FM
17. ENTER/SAVE
18. MACRO buttons

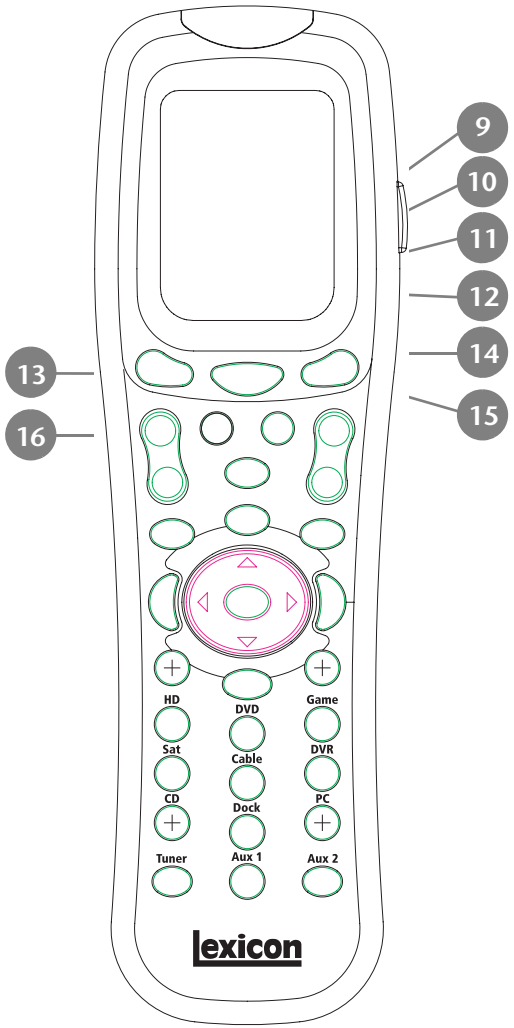


BUTTON	HOME	MAIN PAGE1	MAIN PAGE2	ZONE2 PAGE1	ZONE2 PAGE2
9	Selects the VCR command bank, which includes commands that control the VCR.	Selects the VCR input for the Main Zone.	Selects the L7 Music listening mode.	Selects the VCR input for Zone 2.	Adjusts the Audio Controls menu Main Zone BALANCE parameter to the right.
10	Selects the TV command bank, which includes commands that control the TV.	Selects the TV input for the Main Zone.	Selects the L7 TV listening mode.	Selects the TV input for Zone 2.	Sets the Main Zone volume level to -30dB.
11	Selects the CD command bank, which includes commands that control the CD player.	Selects the CD input for the Main Zone.	Selects the L7 Music Surround listening mode.	Selects the CD input for Zone 2.	Toggles the Setup ON SCREEN DISPLAY parameter.
12	Selects the Phono command bank, which includes commands that control the associated device.	Selects the Phono input for the Main Zone.	Toggles between setting the input to auto, analog or digital.	Selects the Phono input for Zone 2.	Deactivates the RV-5.
13	N/A	Selects Page 2 of the Main Zone command bank.	Selects Page 1 of the Main Zone command bank.	Selects Page 2 of the Zone 2 command bank.	Selects Page 1 of the Zone 2 command bank.
14	Selects the Home command bank.				
15	Scrolls through Favorite Channel pages.				
16	History-dependent*	Increases the Main Zone volume level in 1dB increments.		Increases the Zone 2 volume level in 1dB increments.	

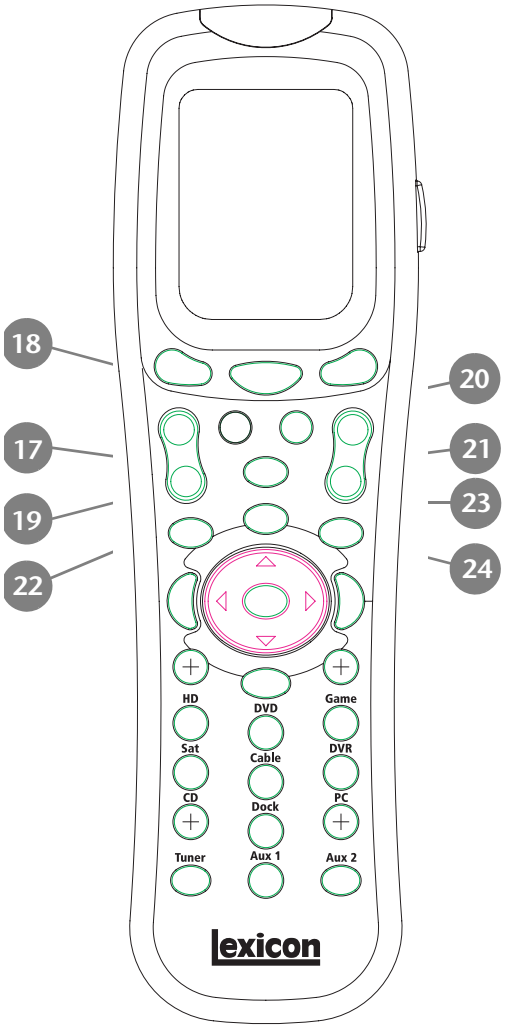
** History-dependent buttons perform different functions, depending on the Zone or device that is currently being controlled. Check the bottom of the LCD for the currently controlled device.*



BUTTON	ZONE3 PAGE1	ZONE3 PAGE2	DVD1 PAGE1	DVD1 PAGE2
1	Enters RV-5 standby mode.		Reserved for future expansion.	
2	Activates the RV-5.		Toggles RT-10 or RT-20 power.	
3	Displays the Status of Zone 3.	Resets the AUDIO CONTROLS menu BASS, TREBLE, and TILT EQ parameter to +0.0dB.	Opens and closes the RT-10 or RT-20 disc tray.	
4	Deactivates Zone 3.	Decreases the AUDIO CONTROLS menu Main Zone BASS parameter in.5dB increments.	Opens the RT-10 or RT-20 Top menu.	Opens and closes the RT-10 or RT-20 Video Adjust bar.
5	Selects the TUNER input for Zone 3.	Decreases the AUDIO CONTROLS menu Main Zone TREBLE parameter in.5dB increments.	Activates RT-10 or RT-20 random playback.	Opens the RT-10 or RT-20 Angle bar.
6	Selects the DVD1 input for Zone 3.	Decreases the AUDIO CONTROLS menu Main Zone TILT EQ parameter in.2dB increments.	Activates RT-10 or RT-20 repeat playback.	Activates the RT-10 or RT-20 condition memory mode.
7	Selects the DVD2 input for Zone 3.	Deactivates AUDIO CONTROLS menu Main Zone LOUDNESS parameter.	Activates RT-10 or RT-20 A-B repeat playback.	Activates the RT-10 or RT-20 last memory playback.
8	Selects the Satellite input for Zone 3.	Reserved for future expansion.	Opens the RT-10 or RT-20 Setup menu.	Creates up to five shortcuts for frequently adjusted RT-10 or RT-20 Setup menu parameters.

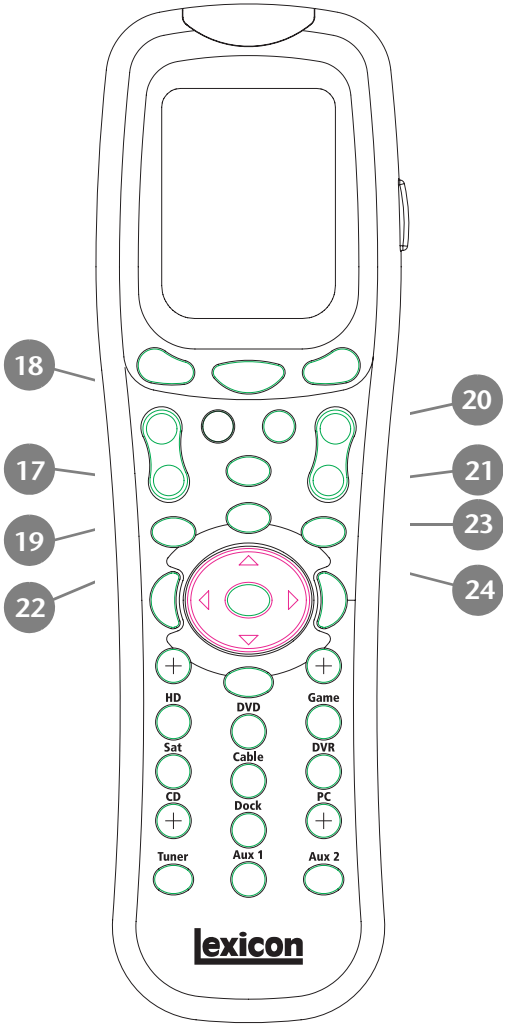


BUTTON	ZONE3 PAGE1	ZONE3 PAGE2	DVD1 PAGE1	DVD1 PAGE2
9	Selects the VCR input for Zone 3.	Increases the AUDIO CONTROLS menu BASS parameter in .5dB increments.	Closes certain Setup menus without saving the changes.	Activates and deactivates the RT-10 or RT-20 rear- panel video output connectors.
10	Selects the TV input for Zone 3.	Increases the AUDIO CONTROLS menu TREBLE parameter in .5dB increments.	Activates the RT-10 or RT-20 display mode.	Controls the brightness of front-panel display characters.
11	Selects the CD input for Zone 3.	Increases the AUDIO CONTROLS menu Main Zone TILT EQ parameter level in .2dB increments.	Opens the RT-10 or RT-20 Subtitle bar.	Activates the RT-10 or RT-20 search mode.
12	Selects the Phono input for Zone 3.	Activates the AUDIO CONTROLS menu Main Zone LOUDNESS parameter.	Opens the RT-10 or RT-20 Audio bar.	Activates the RT-10 or RT-20 program mode.
13	Displays Zone 3 Page 2 command bank.	Displays Zone 3 Page 1 command bank.	Displays DVD1 Page 2 command bank.	Displays DVD1 Page 1 command bank.
14	Displays the Home command bank.			
15	Scrolls through Favorite Channel pages.			
16	Increases Zone 3 volume level in 1dB increments		Increases RV-5 Main volume level in 1dB increments	

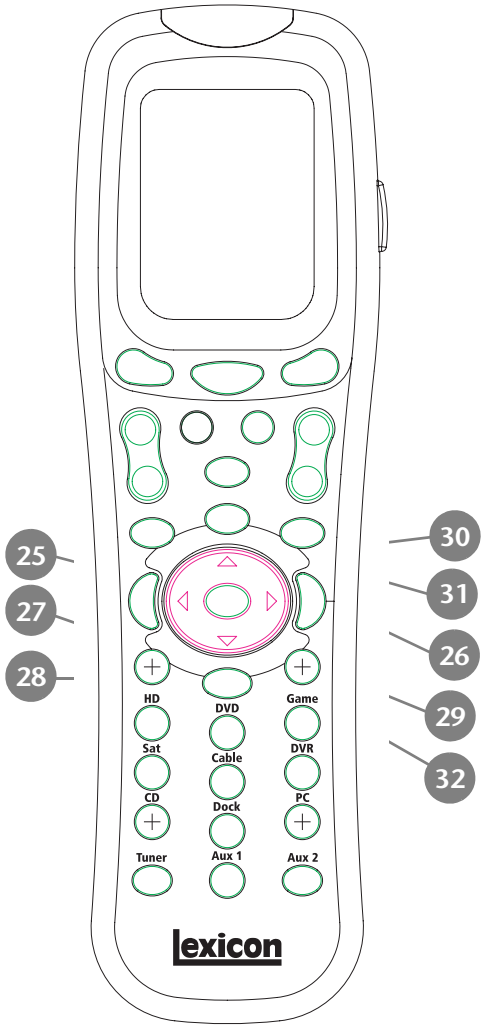


BUTTON	HOME	MAIN PAGE1	MAIN PAGE2	ZONE2 PAGE1	ZONE2 PAGE2
17	History-dependent*	Decreases Main Zone volume level in 1dB increments.		Decreases Zone2 volume level in 1dB increments.	
18	History-dependent*	Toggles between fully muting Main Zone volume level and restoring Main Zone volume level to its original level.		Centers the AUDIO CONTROLS menu BALANCE and FADER parameters.	
19	History-dependent*	Toggles between muting Main Zone volume level and restoring Main Zone volume level to its original level.		Toggles between fully muting Zone 2 volume level and restoring Zone 2 volume level to its original level.	
20	History-dependent*	Scrolls upward through listening modes.		Adjusts the AUDIO CONTROLS menu Main Zone FADER parameter towards the front.	
21	History-dependent*	Scrolls downward through listening modes.		Adjusts the AUDIO CONTROLS menu Main Zone FADER parameter towards the back.	
22	History-dependent*	If the RV-5's built-in tuner is the currently selected input, press ⏮ to skip back to next available preset.			
23	History-dependent*	Activates the Trigger output connector labeled 1.			
24	History-dependent*	If the RV-5's but-in tuner is the currently selected input, press ⏭ to skip forward to next available preset.			

** History-dependent buttons perform different functions, depending on the Zone or device that is currently being controlled. Check the bottom of the LCD for the currently controlled device.*

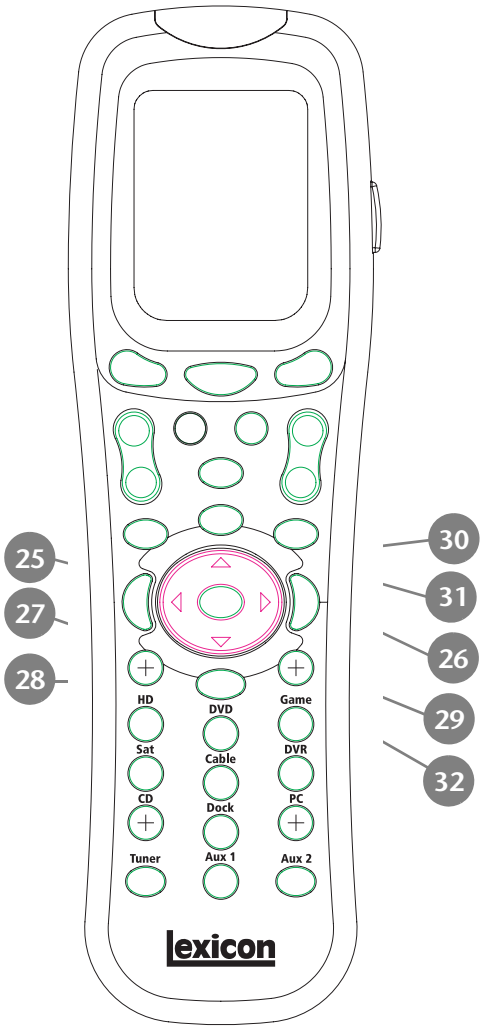


BUTTON	ZONE3 PAGE1	ZONE3 PAGE2	DVD1 PAGE1	DVD1 PAGE2
17	Decreases Zone 3 volume level in.1dB increments.		Decreases Main Zone volume level in.1dB increments.	
18	Activates the 5.1 THX, 5.1 THX Ultra2 or the THX SurEX listening mode when a 5.1-channel THX source is present. Activates Dolby PLIIx+THX when a stereo source is present.		Toggles between fully muting the RV-5 Main Zone volume level and restoring Main Zone volume level to its original level.	
19	Toggles between fully muting Zone 3 volume level and restoring Zone 3 volume to its original level.		Toggles between muting the RV-5 Main Zone volume level and restoring Main Zone volume level to its original level.	
20	Increases Subwoofer output in 1dB increments.		Scrolls upward through RV-5 listening modes.	
21	Decreases Subwoofer output in 1dB increments.		Scrolls downward through RV-5 listening modes.	
22	If the RV-5's built-in tuner is the currently selected input, press ⏮ to skip back to the next available preset.		Skips to the beginning of the current chapter or track. Subsequent presses skip to the beginning of the previous chapter or track.	
23	Activates the output connector labeled Trigger 1.		Activates playback of the loaded disc at regular playback speed.	
24	If the RV-5's built-in tuner is the currently selected input, press ⏭ to skip forward to the next available preset.		Skips to the beginning of the next chapter or track. Subsequent presses skip to the beginning of the next chapter or track.	

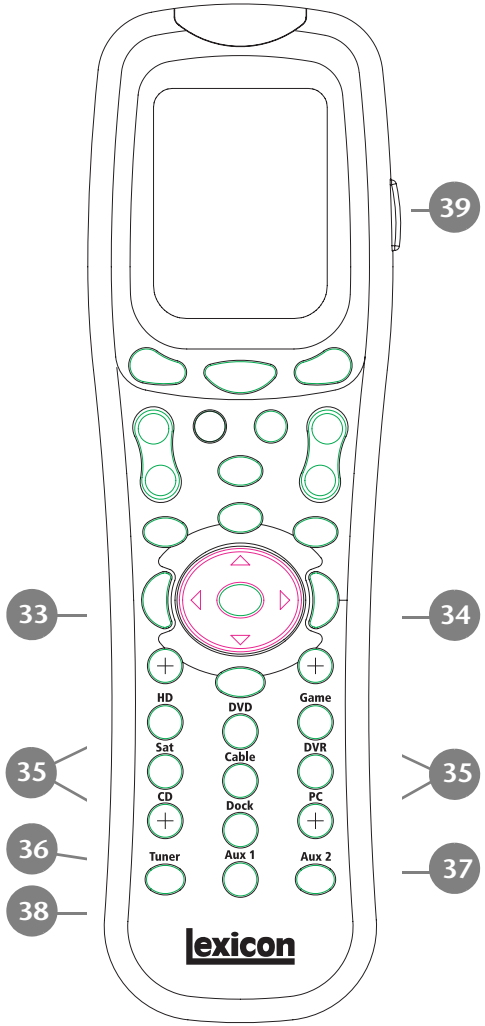


BUTTON	HOME	MAIN PAGE1	MAIN PAGE2	ZONE2 PAGE1	ZONE2 PAGE2
25	History-dependent*	If the RV-5's built-in tuner is the currently selected input, press ◀◀ once to tune to the next available tuner frequency. Pressing for 2 seconds activates seek mode, which searches for the next available radio station. To enter Scan Mode, press and hold until the display shows ◀ SCAN or SCAN ▶.			
26	History-dependent*				
27	History-dependent*	When a DTS(-ES) source is present, toggles the ES decoding parameter, cycling through the AUTO, ON, and OFF settings.			
28	History-dependent*	Deactivates the output connector labeled Trigger 1.			
29	History-dependent*	Activates the Dolby DIGITAL EX or Dolby DIGITAL listening mode when a 5.1- channel Dolby Digital source is present.			
30	History-dependent*	When a menu is open, scrolls upward through menu items.			
31	History-dependent*	Opens the menu structure and selects the highlighted menu item, which opens another menu, opens a parameter drop-down menu, or selects the highlighted parameter setting.			
32	History-dependent*	When a menu is open, scrolls downward through menu items.			

** History-dependent buttons perform different functions, depending on the Zone or device that is currently being controlled. Check the bottom of the LCD for the currently controlled device.*

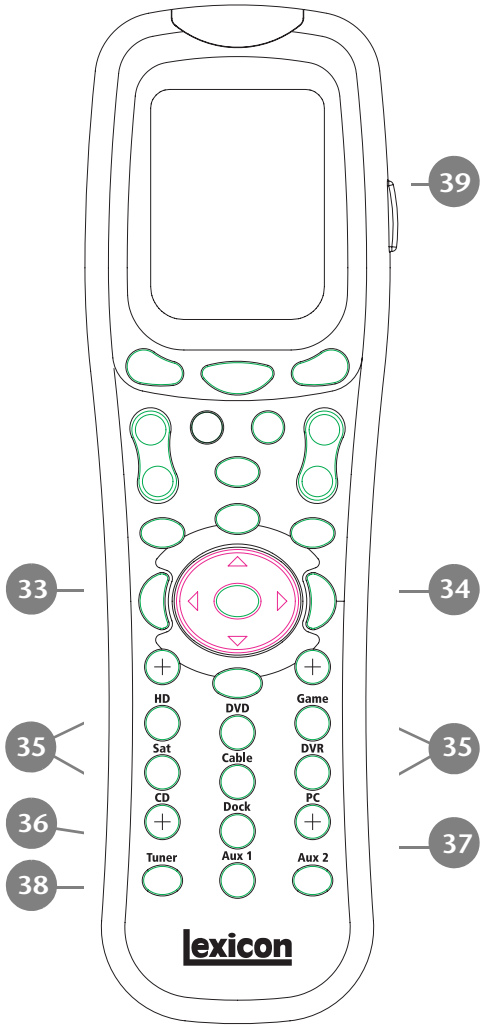


BUTTON	ZONE3 PAGE1	ZONE3 PAGE2	DVD1 PAGE1	DVD1 PAGE2
25	If the RV-5's built-in tuner is the currently selected input, press ◀◀ once to tune to the next available tuner frequency. Pressing for 2 seconds activates seek mode, which searches for the next available radio station. To enter Scan Mode, press and hold until the display shows ◀ SCAN or SCAN ▶.		When RT-10 or RT-20 playback is activated, scans through the disc in reverse direction.	
26			When RT-10 or RT-20 playback is activated, scans through the disc in forward direction.	
27	When a DTS(-ES) source is present, toggles the ES decoding parameter, cycling through the AUTO, ON and OFF settings.		Opens the RT-10 or RT-20 disc menu.	
28	Deactivates the output connector labeled Trigger 1.		Stops playback of the loaded disc.	
29	Activates the Dolby DIGITAL EX or Dolby DIGITAL listening mode when a 5.1-channel Dolby Digital source is present. Activates Dolby PLIIx Movie when a stereo source is present.		Activates RT-10 or RT-20 pause mode.	
30	When a menu is open, scrolls upward through menu items.			
31	Opens the menu structure and selects the highlighted item. When no menu is open, opens the MAIN MENU.		Navigates to the right in the RT-10 or RT-20 menu structure.	
32	When a menu is open, scrolls downward through menu items.			



BUTTON	HOME	MAIN PAGE1	MAIN PAGE2	ZONE2 PAGE1	ZONE2 PAGE2
33	History-dependent*	When a menu is open, closes the menu and (in most cases), opens the previous menu. Subsequent presses continue to close the current menu and open the previous menu until the MAIN MENU is closed. When no menus are open, shows the two-line status.			
34	History-dependent*	When a menu is open, closes the menu structure. When no menus are open, shows the 2-line status.			
35	History-dependent*	Numbers 0 to 9, are used to enter the frequency of radio stations or to save/load presets when the RV-5's built-in tuner is the currently selected input.			
36	History-dependent*	If the RV-5's built-in tuner is the currently selected input, toggles between AM/FM frequency bands.			
37	History-dependent*	If the RV-5's built-in tuner is the currently selected input, pressing this button will save the currently selected tuner frequency into a preset slot. Also use this button when programming the remote. See page C-4 for additional information.			
38	History-dependent*	Macro Buttons: M1 is for Macro 1, M2 is for Macro 2 and M3 is for Macro 3. See page C-9 for additional information on how to use and program macros.			
39	History-dependent*	Activates the remote control backlight that illuminates the buttons and LCD screen for easier visibility.			

** History-dependent buttons perform different functions, depending on the Zone or device that is currently being controlled. Check the bottom of the LCD for the currently controlled device.*



BUTTON	ZONE3 PAGE1	ZONE3 PAGE2	DVD1 PAGE1	DVD1 PAGE2
33	When a menu is open, closes the menu and, in most cases, opens the previous menu. Subsequent presses continue to close the current menu and open the previous menu until the MAIN MENU is closed. When no menus are open, this button performs no function.		Navigates to the left in the RT-10 or RT-20 menu structure.	
34	When a menu is open, closes the menu structure. When no menus are open, shows the two-line status.		Selects the highlighted RT-10 or RT-20 menu item.	
35	Numbers 0 to 9 are used to enter the frequency of radio stations or to save/load presets when the RV-5's built-in tuner is the currently selected input.		Direct RT-10 or RT-20 title, chapter, group or track number selection.	
36	If the RV-5 built-in tuner is the currently selected input, toggles between AM/FM frequency bands.		Enters values 10 and above on the RT-10 or RT-20. Press once for numbers in the teens, twice for numbers in the twenties, and so on. Then press a number button (0 to 9) to enter a second digit.	
37	If the RV-5's built-in tuner is the currently selected input, saves the currently selected tuner frequency as a preset. Also used to program the remote. See page C-4 for additional information.		Deletes entries when RT-10 or RT-20 search modes and certain playback modes are activated.	
38	Macro Buttons: M1 is for Macro 1, M2 is for Macro 2 and M3 is for Macro 3. See page C-9 for additional information on how to use and program macros.			
39	Activates the remote-control backlight to illuminate the buttons and LCD screen for easier visibility.			

UNDERSTANDING THE ZONES

The RV-5 features two zones of operation: the Main Zone and Zone 2. The Main Zone controls audio and video signals in the primary listening space. Zone 2 controls digital and analog audio and composite or S-Video signals for a second zone or recording device.

The following are exceptions to independent zone operation:

1. The same Dolby Digital or DTS(-ES) input source can be simultaneously selected for the Main Zone and Zone 2. However, different Dolby Digital or DTS(-ES) input sources cannot be present in the Main Zone and Zone 2.
2. Zone 2 can provide a 2-channel downmix of Main Zone multichannel audio when all of the following conditions are met:
   - The same input must be selected in the Main Zone and Zone 2.
   - A Dolby Digital, DTS(-ES) or 5.1a input source must be present in the Main Zone.
   - The INPUT SETUP menu ZONE2 IN parameter must be set to DMIX. See "ZONE2 in Parameter Settings" on page 3-22 for more information.
3. The Zone 2 audio output connectors will receive Front L/R when a 5.1a source is present in the Main Zone and the ZONE2 IN parameter is set to ANLG.
4. When 5.1a BYPASS or 2-CH BYPASS is selected, a downmix to Zone 2 is not available.

TWO-LINE STATUS

The two-line status opens in the on-screen and front-panel displays whenever the RV-5 detects a change in input source or listening mode. The Main Zone two-line status appears when the RV-5 detects a Main Zone change, and the Zone 2 (or Zone 3) two-line status appears when a Zone 2 (or Zone 3) status change is detected.

The ON-SCREEN DISPLAY menu STATUS parameter is used to control the length of time the two-line status appears in the on-screen display. The ON-SCREEN DISPLAY menu POSITION parameter is used to control the vertical alignment of the two-line status in the display device screen.

Note:

When the display device is connected to a component video output connector and the MAIN ADV menu COMPONENT OSD parameter is set to OFF, the on-screen display does not appear on the associated display.

MAIN ZONE TWO-LINE STATUS

Opens in the on-screen and front-panel displays whenever the RV-5 detects a Main Zone status change. The Main Zone two-line status indicates the current input, input source, listening mode and volume level selected in the Main Zone.

ZONE 2 TWO-LINE STATUS

Opens in the on-screen and front-panel displays whenever the RV-5 detects a Zone 2 status change. The Zone 2 two-line status indicates the current input, input source and volume level selected in Zone 2.

TUNER STATUS

The Tuner status indicates the current frequency, band, listening mode and volume level. The Tuner status takes the place of the two-line status display for inputs using the built-in tuner.

STATUS MENUS

Pressing the remote control STAT2 button opens the STATUS menu for the current input source of the Main Zone, which contains parameters that provide information about the current input source and listening mode. STATUS menus are available for 2-channel, Dolby Digital, DTS(-ES) and 5.1 analog input sources. Unlike most other menus, STATUS menus cannot be opened through the selection of menu options. Rather, the remote control STAT2 button must be pressed.

To open and navigate the STATUS menu for the current input source:

1. Under Zone 2 page 2, press "STAT2." The first page of the STATUS menu for the current input source appears in the on-screen and front-panel displays.

   If the STATUS menu includes a second page, the PG1 indicator appears in the top-right corner of the menu. Press the STAT2 button to open the second page. If the STATUS menu does not include a second page, pressing the STAT2 button closes the menu. If this occurs, begin again with step 1.
2. When the desired STATUS menu page has been opened, press the remote-control Menu ▲ and ▼ arrows to scroll upward and downward through the complete list of available parameters.

Note:

STATUS menu parameters provide information about the current input source and listening mode. These parameters cannot be adjusted.

3. Press the STAT2 button or the Menu ◀ arrow to close the STATUS menu. If the second page of the STATUS menu opens, press the STAT2 button or the Menu ▶ arrow again to close the STATUS menu.

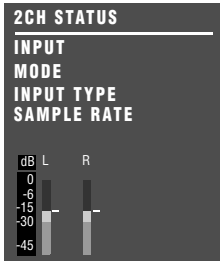
   STATUS menu descriptions begin on the next page. The table beneath each description lists the default and possible settings for each parameter. STATUS menu parameter descriptions begin on page 2-33. STATUS menu level meters are described on page 2-34.

2CH STATUS

Provides information about 2-channel input sources. Features L and R level meters.

Parameter	Possible Settings
INPUT	The current input
MODE	The current listening mode
INPUT TYPE	ANLG, PCM
SAMPLE RATE	44.1kHz, 48kHz, 88.2kHz, 96kHz

See "STATUS Menu Parameter Descriptions" on page 2-33 for detailed information.

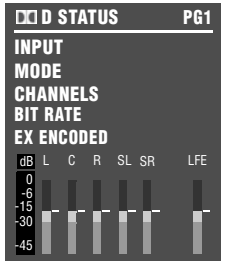


D STATUS

Provides information about Dolby Digital input sources. Features L, C, R, SL, SR and LFE level meters.

Parameter	Possible Settings
INPUT	The current input
MODE	The current listening mode
CHANNELS	3/2.1, 3/2, 3/1, 2/2, 2/1, 2/0, 1/0
BIT RATE	32 to 640kbps
EX ENCODED	MATRIX, NONE
SAMPLE RATE	48kHz
2.0 ENCODING	MATRIX, NONE
DIALOG OFFSET	–27 to +4dB
MIX ROOM	SMALL, LARGE
CENTER MIX LVL	–3.0dB, –4.5dB, –6.0dB
SURR MIX LVL	+0.0dB, –3.0dB, –6.0dB

See "STATUS Menu Parameter Descriptions" on page 2-33 for detailed information.

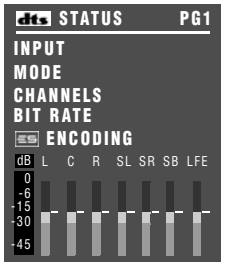


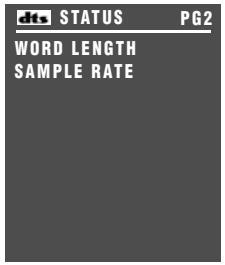
dts STATUS

Provides information about DTS(-ES) input sources. Includes L, C, R, SL, SR, SB and LFE level meters. The SB level meter appears when a 6.1-channel input source is present, or when a 5.1-channel input source is present and the ES DECODING parameter is set to ON.

Parameter	Possible Settings
INPUT	The current input
MODE	The current listening mode
CHANNELS	3/3.1, 3/2.1
BIT RATE	754.5 to 1509.7 kbps
ES ENCODING	DISCRETE, MATRIX, OFF
WORD LENGTH	16 bits, 20 bits, 24 bits
SAMPLE RATE	44.1kHz, 48kHz, 88.2kHz, 96kHz

See "STATUS Menu Parameter Descriptions" on page 2-33 for detailed information.



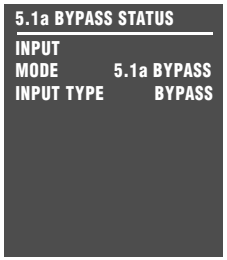


5.1a BYPASS STATUS

Provides information about 5.1-channel analog input sources when the MAIN ADV menu ANALOG BYPASS parameter is set to ON.

Parameter	Possible Settings
INPUT	The current input
MODE	5.1a BYPASS
INPUT TYPE	BYPASS

See "STATUS Menu Parameter Descriptions" on page 2-33 for detailed information.

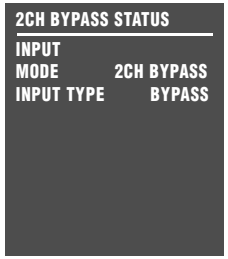


2CH BYPASS STATUS

Provides information about 2-channel analog input sources when the MAIN ADV menu 2-CH ANLG BYP parameter is set to ON.

Parameter	Possible Settings
INPUT	The current input
MODE	2CH BYPASS
INPUT TYPE	BYPASS

See "STATUS Menu Parameter Descriptions" on page 2-33 for detailed information.

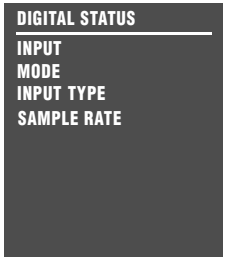


DIGITAL STATUS

Provides information about digital input sources for which a sample rate is detected, but no audio is present in the input signal.

Parameter	Possible Settings
INPUT	The current input
MODE	The current listening mode
INPUT TYPE	---
SAMPLE RATE	44.1kHz, 48kHz, 88.2kHz, 96kHz

See "STATUS Menu Parameter Descriptions" on page 2-33 for detailed information.

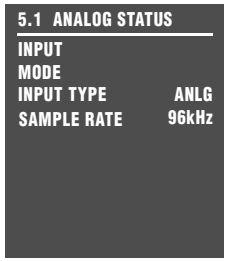


5.1 ANALOG STATUS

Provides information about 5.1-channel analog input sources.

Parameter	Possible Settings
INPUT	The current input
MODE	The current listening mode
INPUT TYPE	ANLG
SAMPLE RATE	96kHz

See "STATUS Menu Parameter Descriptions" on page 2-33 for detailed information.

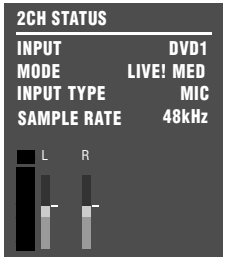


LIVE! STATUS

Provides information about LIVE! input sources. Features L and R level meters.

Parameter	Possible Settings
INPUT	The current input
MODE	The current listening mode
INPUT TYPE	MIC
SAMPLE RATE	48kHz

See "STATUS Menu Parameter Descriptions" on page 2-33 for detailed information.



STATUS MENU PARAMETER DESCRIPTIONS

2.0 ENCODING MATRIX, NONE

Indicates whether or not a matrix-encoded source is detected. When the parameter setting is MATRIX, a matrix-encoded source is detected. When the parameter setting is NONE, a matrix-encoded source is not detected. The RV-5 cannot automatically detect matrix encoding in non-flagged input sources.

BIT RATE 32 to 640 kbps or 754 to 1509.7kbps

Indicates the rate at which the input signal is encoded. A higher bit rate indicates that less compression was used during the encoding process. Possible settings for Dolby Digital sources range from 32 to 640 kbps. Possible settings for DTS(-ES) sources range from 754 to 1509.7 kbps.

CENTER MIX LVL –3.0dB, –4.5dB, –6.0dB

Indicates the relative level of the center channel that was used during the mixing process.

CHANNELS 3/3.1, 3/2.1, 3/2, 3/1, 2/2, 2/1, 2/0, 1/0

Indicates the number of channels present in the input source. The first digit indicates the number of front channels present. The digit after the slash indicates the number of surround channels present. The digit after the decimal point indicates the presence of LFE (low-frequency effects) information. For instance, if the parameter setting is 3/2.1, an input source with three front channels, two surround channels and LFE information is present. LFE information is sent to the Main Zone audio output connector labeled Sub.

Possible settings for Dolby Digital input sources include 3/2.1, 3/2, 3/1, 2/2, 2/1, 2/0 and 1/0. Possible settings for DTS(-ES) input sources include 3/3.1 and 3/2.1.

DIALOG OFFSET –27 to +4dB

Indicates the dialog normalization value applied to the input signal. Dolby Digital input sources reproduce dialog at 27 decibels below full-scale (–27dBFS). When the dialog normalization value of the incoming signal is higher or lower, the DIALOG OFFSET parameter indicates the amount of adjustment the RV-5 makes to normalize dialog to –27dBFS.

ES ENCODING DISCRETE, MATRIX, OFF

Indicates whether or not a DTS-ES-encoded source is detected. When the parameter setting is DISCRETE, a discrete 6.1-channel DTS-ES source is detected. When the parameter setting is MATRIX, a 5.1-channel DTS-ES source with a surround-encoded back channel is detected. When the parameter setting is NONE, a standard DTS source with no DTS-ES encoding is detected.

EX ENCODING MATRIX, NONE

Indicates whether or not a Dolby Digital Surround EX-encoded source is detected. When the parameter setting is MATRIX, a 5.1-channel Dolby Digital source recorded with Dolby Digital Surround EX is detected. When the parameter setting is NONE, a standard 5.1-channel Dolby Digital source recorded without Dolby Digital Surround EX encoding is detected. The RV-5 cannot automatically detect Dolby Digital Surround EX encoding in non-flagged input sources.

INPUT

Indicates the selected input (e.g., DVD1).

INPUT TYPE ANLG, BYP, PCM, MIC, ---

Indicates the input source that is present. When the parameter setting is ANLG, a 2-channel analog audio source is present and the MAIN ADV menu 2-CH ANLG BYP parameter is set to OFF. When the parameter setting is BYP (Bypass), a 2-channel analog audio source is present and the 2-CH ANLG BYP parameter is set to ON. When the parameter setting is PCM, a 2-channel digital audio source is present. When the parameter is set to MIC, a microphone source is present. When the parameter setting is ---, an unknown digital audio source is present.

MIX ROOM SMALL, LARGE

Indicates the size of the mixing room that was used during the mixing process. When the parameter setting is LARGE, setting the RE-EQUALIZATION parameter to ON for THX listening modes is recommended.

MODE

Indicates the activated listening mode (e.g., L7 FILM).

SAMPLE RATE 44.1kHz, 48kHz, 88.2kHz, 96kHz

Indicates the sample rate of the input source that is present.

SURR MIX LVL +0.0dB, –3.0dB, –6.0dB

Indicates the relative surround channel level that was used during the mixing process.

WORD LENGTH 16 bits, 20 bits, 24 bits

Indicates the word length of the audio data present in the input signal.

STATUS MENU LEVEL METERS

Most STATUS menus contain level meters that indicate fluctuating input levels in the front left (L), center (C), front right (R), surround left (SL), surround right (SR), surround back (SB) and subwoofer (SUB) channels. These level meters indicate input levels for both analog and digital input sources. For instance, the level meters indicate digital audio input levels when a digital audio source is present.

Different combinations of level meters appear on each STATUS menu, depending on the source that is present. The SB level meter appears when a 6.1-channel source is present, or when a 5.1-channel source is present and the ES DECODING parameter is set to ON.

Level meters appear in combinations of green, yellow and red when the on-screen display is configured for a blue-screen background. Green indicates low levels, yellow indicates normal levels, and red indicates high levels and the onset of overload. Level meters appear in white when the on-screen display is not configured for a blue-screen background.

3

Setup

Setup 3-2

Input Setup 3-4

- Changing Input Names 3-5
- Assigning Audio and Video Input Connectors 3-7
- Selecting Preferred Listening Modes 3-12
- Configuring Advanced Input Settings 3-17
- INPUT SELECT Parameter Settings 3-19
- ZONE2 in Parameter Settings 3-22

Speaker Setup 3-25

- Setting Crossover Points 3-25
- Speaker Setup Parameters 3-29
- Automatic Calibration 3-36
- Manual Calibration 3-53

I/O Config 3-60

Display Setup 3-63

- On-Screen Display Setup 3-64
- Front-panel Display Setup 3-66

Volume Control Setup 3-68

Trigger Setup 3-70

Tuner Setup 3-72

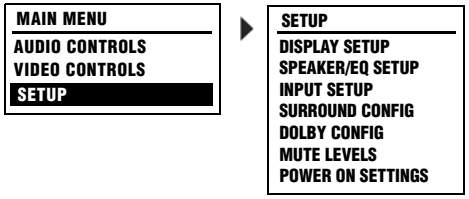
- Tuner Region Band Limit And Increments 3-73

Lock Options 3-79

LIVE! CALIBRATION 3-80

SETUP

Selecting SETUP from the MAIN MENU opens the SETUP menu.



DISPLAY SETUP

SETUP ▶ **DISPLAY SETUP**

Opens the DISPLAY SETUP menu, which is used to customize the on-screen and front-panel displays, identify display connection types, and set the aspect ratio. See "DISPLAY SETUP" on page 3-5 for more information.

INPUT SETUP

SETUP ▶ **INPUT SETUP**

Opens the INPUT SETUP menu, which is used to change input names, assign audio and video input connectors, select preferred listening modes and configure Main Zone and Zone 2 input settings. See "INPUT SETUP" on page 3-5 for more information.

SURROUND CONFIG

SETUP ▶ **SURROUND CONFIG**

Opens the DISPLAY SETUP menu, which is used to customize the on-screen and front-panel displays, restore audio/video synchronization, and create and activate a custom unit name. See "DISPLAY SETUP" on page 3-63 for more information.

DOLBY CONFIG

SETUP ▶ **DOLBY CONFIG**

Opens the VOLUME CONTROL SETUP menu, which is used to configure Main Zone, Mute, Zone 2, Zone 3 and Headphone volume levels. See "VOLUME CONTROL SETUP" on page 3-68 for more information.

SPEAKER/EQ SETUP

SETUP ▶ **SPEAKER/EQ SETUP**

Opens the SPEAKER SETUP menu, which is used to configure the Main Zone audio output connectors for the desired speaker setup, set speaker distances and calibrate output levels. See "SPEAKER SETUP" on page 3-23 for more information.

POWER ON SETTINGS

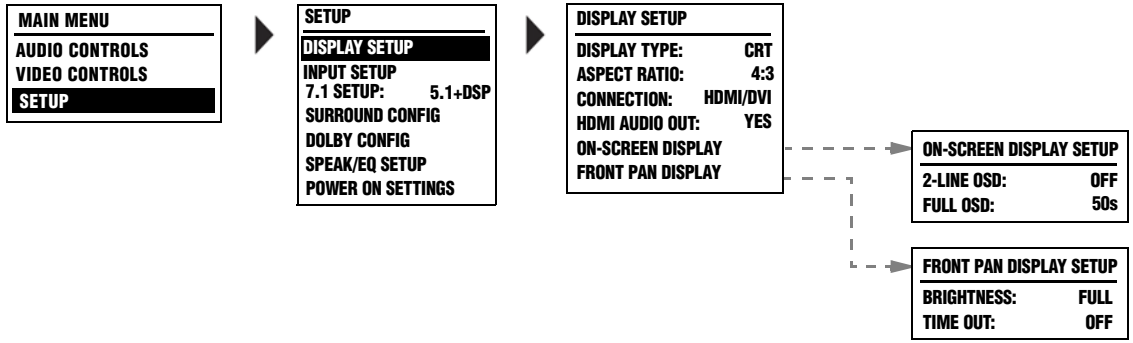
SETUP ▶ **POWER ON SETTINGS**

Opens the TUNER SETUP menu, which is used to configure the AM/FM tuner. See "TUNER SETUP" on page 3-72 for more information.

DISPLAY SETUP

SETUP ▸ DISPLAY SETUP

Selecting the SETUP menu DISPLAY SETUP option opens the DISPLAY SETUP menu, which is used to customize the on-screen and front-panel displays, restore audio/video synchronization, and activate and create a custom unit name.



DISPLAY TYPE CRT, DLP, F-PRJ, LCD, PLASMA, R-PRJ

SETUP ▸ DISPLAY SETUP ▸ DISPLAY TYPE

Opens the DISPLAY TYPE menu, which is used to assign the appropriate video display type.

ASPECT RATIO 4:3, 16:9

SETUP ▸ DISPLAY SETUP ▸ ASPECT RATIO

Opens the ASPECT RATIO menu, which is used to assign the appropriate aspect ratio. The 4:3 aspect ratio is almost square and most commonly used for television. The 16:9 aspect ratio, also referred to as *Widescreen*, is almost twice as wide as it is high.

CONNECTION ANALOG, HDMI/DVI

SETUP ▸ DISPLAY SETUP ▸ CONNECTION

Opens the CONNECTION menu, which identifies the type of video signal that is input to the display.

HDMI AUDIO OUT YES, NO

SETUP ▸ DISPLAY SETUP ▸ HDMI AUDIO OUT

Opens the ASPECT RATIO menu, which is used to assign the appropriate aspect ratio. The 4:3 aspect ratio is almost square and most commonly used for television. The 16:9 aspect ratio, also referred to as *Widescreen*, is almost twice as wide as it is high.

2-LINE OSD OFF, 3 TO 6 SECONDS

SETUP ▸ **DISPLAY SETUP** ▸ **ON-SCREEN DISPLAY** ▸ **2-LINE OSD**

Opens the 2-LINE OSD menu, which is used to set the time that the 2-Line status display is visible. The OFF setting ensures that the display is always visible. The 2-Line OSD can be set to turn off in 3 to 6 seconds, selectable in 1-second increments.

FULL OSD 30, 40, 50, 60 SECONDS

SETUP ▸ **DISPLAY SETUP** ▸ **ON-SCREEN DISPLAY** ▸ **FULL OSD**

Opens the FULL OSD menu, which is used to set the time that the on-screen status display is visible. The OFF setting ensures that the display is always visible. The FULL OSD can be set to turn off in 30 to 60 seconds, selectable in 10-second increments.

BRIGHTNESS FULL, HALF, OFF

SETUP ▸ **DISPLAY SETUP** ▸ **FRONT PAN DISPLAY** ▸ **BRIGHTNESS**

Opens the BRIGHTNESS menu, which is allows the user to set the brightness level of the RV-5 front display.

TIME OUT OFF, 1 TO 10 SECONDS

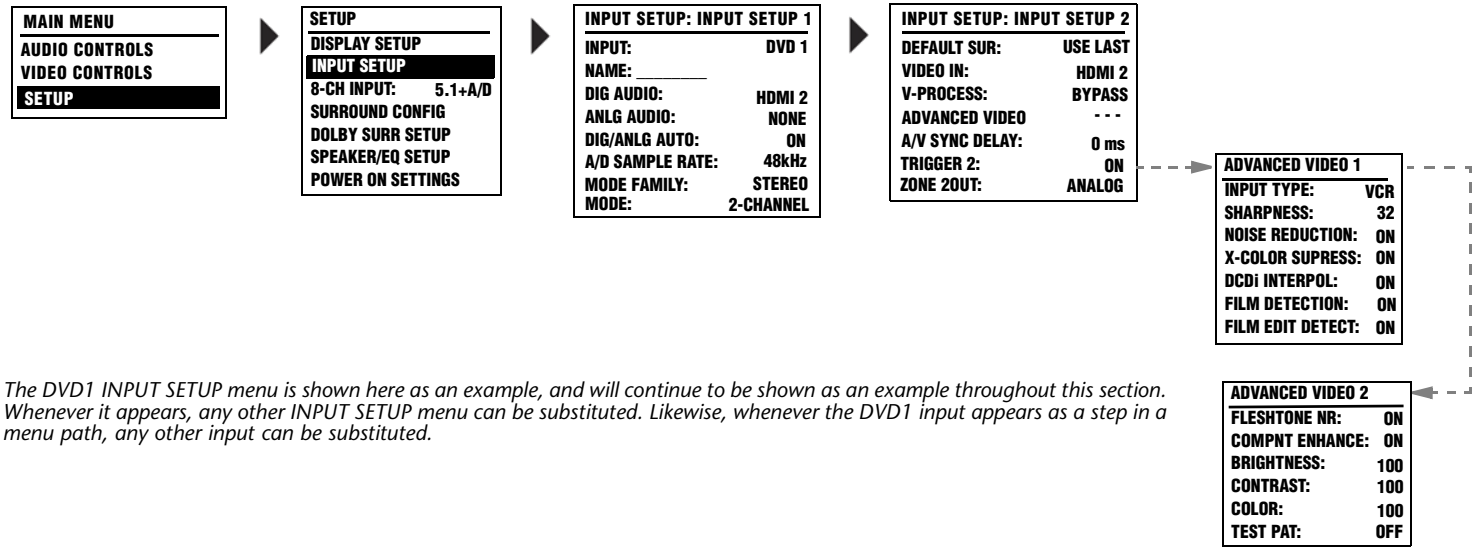
SETUP ▸ **DISPLAY SETUP** ▸ **FRONT PAN DISPLAY** ▸ **TIME OUT**

Opens the TIME OUT menu, which allows the user to set the time out period or to disable the time out feature. The time delay parameters are 1 to 10 seconds, selectable in 1-second increments.

INPUT SETUP

SETUP ▸ INPUT SETUP

Selecting the SETUP menu INPUT SETUP option opens the INPUT SETUP menu, a two-screen menu which sets up the input type and name, the digital and analog inputs for both audio and video, the listening mode, speaker configuration, and other advanced input settings.



The DVD1 INPUT SETUP menu is shown here as an example, and will continue to be shown as an example throughout this section. Whenever it appears, any other INPUT SETUP menu can be substituted. Likewise, whenever the DVD1 input appears as a step in a menu path, any other input can be substituted.

All INPUT SETUP menus are shown in the Appendix on page A-6. The parameters on the left side of the INPUT SETUP menus are identical, regardless of which input is selected. The parameter settings on the right side are adjustable. Default parameter settings differ from input to input. The INPUT SETUP menus shown in the Appendix indicate factory-default parameter settings for each input.

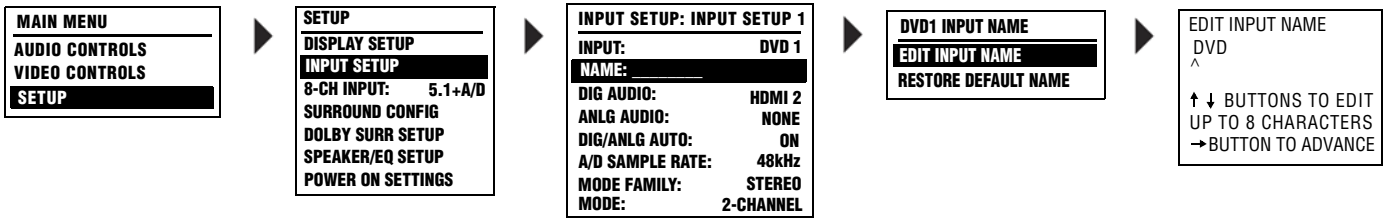
INPUT HD, DVD, GAME, SAT, CABLE, DVR, CD, DOCK, PC, TUNER, AUX 1, AUX 2

SETUP ▸ INPUT SETUP ▸ INPUT

Opens the INPUT menu, which is used to assign the appropriate input type.

CHANGING INPUT NAMES

Selecting the INPUT SETUP menu NAME parameter opens the INPUT NAME menu, which is used to customize or restore the factory-default name of the selected input. Factory-default input names correspond to front-panel and remote-control input selection button labels.



EDIT INPUT NAME

SETUP ▸ **INPUT SETUP** ▸ **NAME** ▸ **EDIT INPUT NAME**

Opens the EDIT INPUT NAME drop-down menu, which is used to customize the name of the selected input. Custom input names can include up to eight characters.

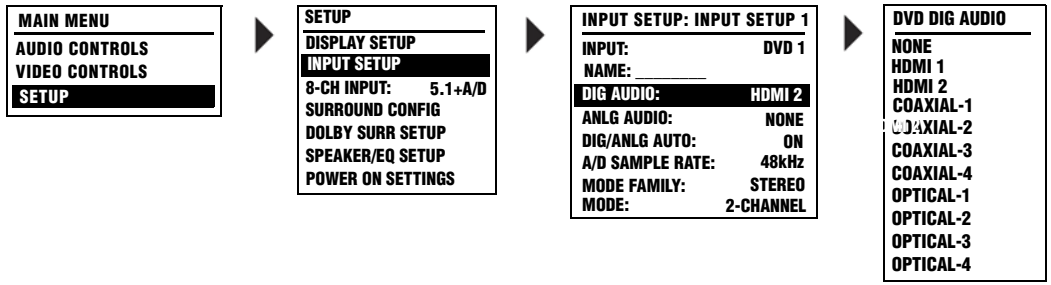
To customize the name of the selected input:

1. Follow the EDIT INPUT NAME menu path to open the EDIT INPUT NAME drop-down menu.
2. When the EDIT INPUT NAME menu opens, the current input name appears on the second line. Using the remote-control ▲ and ▼ arrow buttons, change the character above the cursor (^).
3. When the desired character has been changed, press the ▸ arrow button to advance to the next character space. The cursor will automatically wrap to the first character space when the last character space is passed.
4. Repeat steps 2 and 3 to enter all characters in the new name.
5. When the desired input name has been entered, press the ◂ arrow button to close the menu and return to the INPUT NAME menu.

The custom input name appears in the on-screen and front-panel displays. Both the custom and factory-default input names appear in the INPUT SETUP menu. The custom input name appears against the left margin of the on-screen display, and the factory-default input name appears in parentheses against the right margin.

ASSIGNING AUDIO and VIDEO INPUT CONNECTORS

The RV-5 has eight configurable inputs, each of which can be assigned to its ten digital audio, eight analog audio, the built-in tuner, the phono input, two HDMI video, four composite video, four S-Video or three component video input connectors.



The table below indicates the INPUT SETUP menu parameters that can be used to assign audio and video input connectors.

Parameter	Possible Settings
DIG AUDIO	COAX-1 to 4, HDMI-1, HDMI-2, OPTICAL-1 to 4, NONE
ANLG AUDIO	ANALOG-1 to 6, 7.1 CHANNEL, TUNER, NONE
VIDEO IN	COMPONENT-1 to 3, COMPOSITE-1 to 4, HDMI-1, HDMI-2, S-VIDEO-1 to 4

Note:
The digital audio input connectors are compatible with PCM (44.1, 48, 88.2 and 96kHz), Dolby Digital and DTS (-ES) sources. The digital audio input connectors are also compatible with MPEG or MP3 sources through the DOCK input.

DIG AUDIO

COAXIAL-1 to 4, HDMI-1, HDMI-2, OPTICAL-1 to 4, NONE

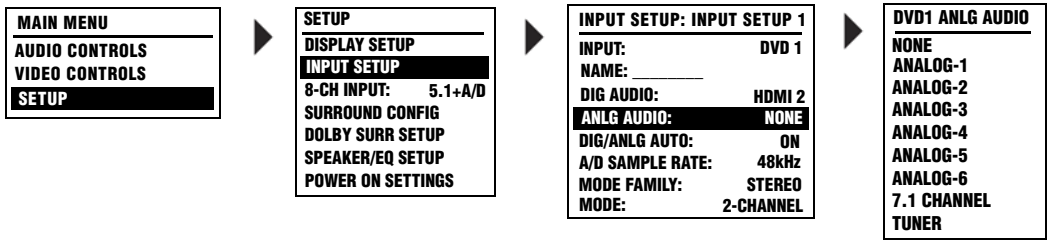
SETUP ▶ INPUT ▶ DIG AUDIO

Opens the DIG AUDIO menu, which is used to assign a digital audio input connector for the selected input. The RV-5 has ten configurable inputs, each of which can be assigned to any of its ten digital audio input connectors.

Please note the following:

- When no digital audio input connector is assigned, the RV-5 will automatically set the MAIN ADV menu INPUT SELECT parameter to ANALOG (see page 3-15).
- A digital audio input connector must be assigned when no analog audio input connector is assigned. Refer to the next page for information about assigning an analog audio input connector.

ASSIGNING AUDIO and VIDEO INPUT CONNECTORS *(continued)*



ANALOG IN

ANALOG-1 to 6, 7.1 CHANNEL, TUNER, NONE

SETUP ▶ **INPUT** ▶ **ANLG AUDIO**

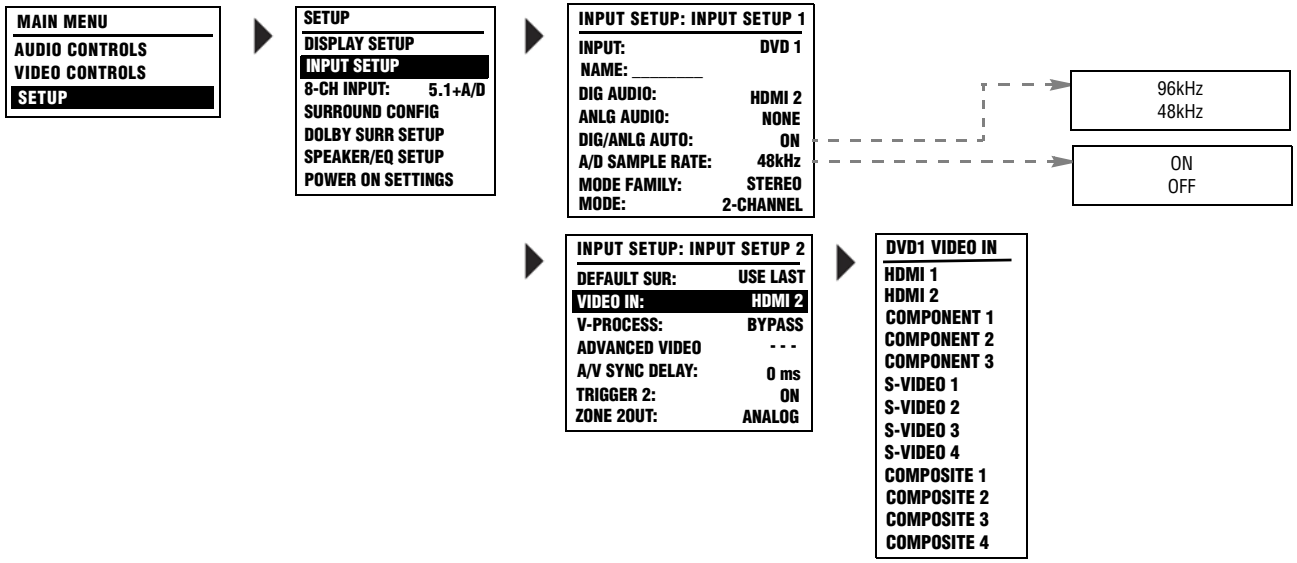
Opens the ANLG AUDIO menu, which is used to assign an analog audio input connector for the selected input. The RV-5 has eight configurable inputs, each of which can be assigned to any of its eight analog audio input connectors.

The appearance of the ANLG AUDIO menu depends on the configuration of the analog audio input connectors.

- The ANALOG IN menu (A above) appears when the I/O CONFIG menu 8 STEREO INPUTS option is selected (see page 3-60).
- The ANALOG IN menu (B above) appears when the I/O CONFIG menu 5 ST. & 5.1 ANLG option is selected (see page 3-61).
- The ANALOG IN menu (C above) appears when the I/O CONFIG menu 2 ST. & (2) 5.1 ANLG option is selected (see page 3-61).

Please note the following:

- When no analog audio input connector is assigned, the RV-5 automatically sets the MAIN ADV menu INPUT SELECT parameter to DIGITAL (see page 3-15).
- An analog audio input connector must be assigned when no digital audio input connector is assigned. Refer to the previous page for information about assigning a digital audio input connector.
- The TUNER input corresponds with the internal AM/FM radio tuner.



DIG/ANLG AUTO — ON, OFF

SETUP ▸ **INPUT SETUP** ▸ **INPUT** ▸ **DIG/ANLG AUTO**

Opens the DIG/ANLG AUTO menu, which ...

A/D SAMPLE RATE — 48kHz, 96kHz

SETUP ▸ **INPUT SETUP** ▸ **INPUT** ▸ **A/D SAMPLE RATE**

Opens the A/D SAMPLE RATE menu, which...

VIDEO IN — HDMI-1, HDMI-2, COMPONENT-1 to 3, S-VIDEO-1 to 4, COMPOSITE-1 to 4

SETUP ▸ **INPUT SETUP** ▸ **INPUT** ▸ **VIDEO IN**

Opens the VIDEO IN menu, which is used to assign the input connector for the selected input. The RV-5 has thirteen configurable video inputs, each of which can be assigned to any of its two HDMI, four component, four S-Video, or four composite input connectors.

Note:

Composite video output connectors are available when a composite or S-Video source is present. S-Video output connectors are available when an S-Video source is present. The HDMI output connectors are available when there is an HDMI source present.

SELECTING PREFERRED LISTENING MODES

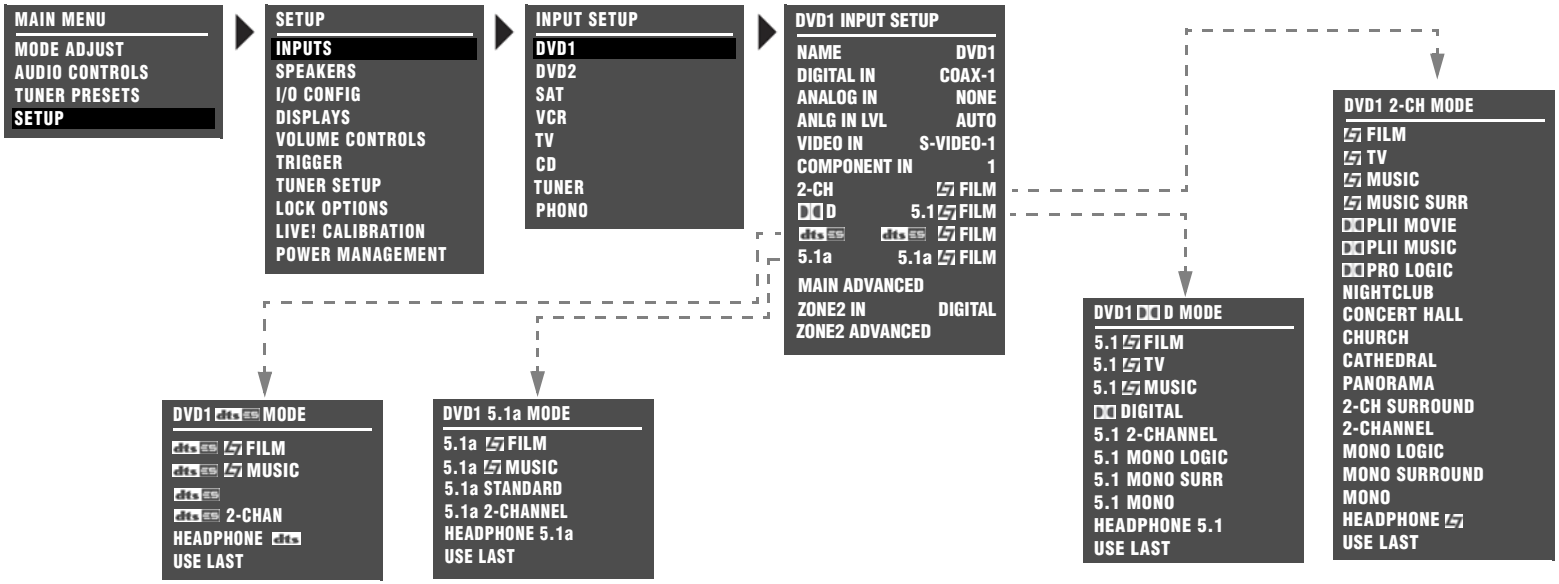
Preferred listening modes can be pre-selected so that when a particular type of input source is played, the pre-selected listening mode is activated.

The RV-5 allows five preferred listening modes for each Main Zone input: one listening mode each for 2-channel, Dolby Digital, DTS(-ES), 5.1a and MIC (LIVE!) sources. The table to the right indicates the INPUT SETUP menu parameters that can be used to select preferred listening modes.

Preferred Listening Mode Selection Parameters

2-CH	Selects a preferred listening mode for 2-channel sources
DD D	Selects a preferred listening mode for Dolby Digital sources
dts ES	Selects a preferred listening mode for DTS(-ES) sources
5.1a	Selects a preferred listening mode for 5.1 analog sources
MIC	Selects a preferred listening mode for microphone sources (LIVE!)

Menus showing DVD1 parameters selected as preferred listening modes.



When a preferred listening mode is selected, that listening mode is automatically activated whenever a new input is selected or an appropriate input source is present. For example, the following can occur when a preferred listening mode is activated (also refer to the corresponding menus on 3-10):

If the DVD1 input is selected and a 2-channel source is played, the L7 FILM listening mode is activated. If a Dolby Digital source is played, the 5.1 L7 FILM listening mode is activated. If a DTS(-ES) source is played, the DTS(-ES) L7 FILM listening mode is activated.

Dynamic Listening Modes

Dynamic listening modes are only available under certain conditions. For example, many of the dynamic modes are only available when the RV-5 is configured for seven main output channels and source material with specific encoding is played. All Dynamic Listening Modes are available through the remote control or front panel Mode button. The dynamic listening modes are listed in the table below.

Dynamic modes		
2-Channel	**Dolby Digital**	**DTS**
Dolby PLIIx + THX	Dolby Digital or Dolby Digital EX	DTS THX or DTS THX UL2Cin or DTS ES THX
Dolby PLIIx MOV	THX or THX UL2Cin or THX SurEX	DTS or DTS ES MATRIX or DTS ES DISCR
Dolby PLIIx MUS	THX MUSIC	DTS THX MUSIC
DTS NEO:6 + THX	5.1 PLIIx MOV	DTS L7 FILM or DTS ES L7 FILM
DTS NEO:6 CIN	5.1 PLIIx MUS	DTS L7 MUSIC or DTS ES L7 MUSIC
DTS NEO:6 MUSIC		DTS 2-CHAN or DTS ES 2-CHAN

Modes that Do Not Appear in the Input Setup Menu

The RV-5 features the ability to assign preferred listening modes for each input and incoming audio format. However, not all listening modes will appear in the Input Setup Menu. Listening modes that do not appear in the Input Setup menu as preferred listening modes under any circumstances are listed in the table below.

Modes that do not appear in the Input Setup menu		
2-Channel	**Dolby Digital**	**DTS**
Dolby PLIIx + THX	THX MUSIC	DTS THX MUSIC
Dolby PLIIx MOV	5.1 PLIIx MOV	5.1 MONO LOGIC
Dolby PLIIx MUS	5.1 PLIIx MUS	5.1 MONO SURR
DTS NEO:6 + THX		5.1 MONO
DTS NEO:6 CIN		

Modes that do not appear in the Input Setup menu		
DTS NEO:6 MUSIC		

SELECTING PREFERRED LISTENING MODES *(continued)*

The Use Last Parameter

When the RV-5 is set to use a preferred listening mode for a selected input, selecting another mode from the Mode scroll list replaces the preferred selection. However, this newly selected mode will be lost when switching between inputs.

The USE LAST parameter was designed to allow the RV-5 software to "remember" the last used listening mode for a given input source. Once selected, that mode will always be active on the corresponding input until another listening mode is selected as demonstrated in the following example:

1. Select **Main Menu ▸ SETUP ▸ INPUTS ▸ DVD1 ▸ dts ES ▸ USE LAST**.
2. Press the **MENU** button.
3. Press the **DVD-1** button.
4. Play a DTS input source.
5. Press the **MODE +** button until you reach DTS(-ES) 2-CHAN.
6. Press the **TV** button

   The RV-5 switches to the TV input and the on-screen display identifies the preferred listening mode.
7. Press the **DVD-1** button.

The on-screen display should identify that the active listening mode for the DVD1 input is still DTS(-ES) 2-CHAN. As the DTS(-ES) 2-CHAN mode is a preferred listening mode, it can also be set in the SETUP menu.

When seven speakers are selected in the SPEAKER SETUP menu, and the appropriate source material is played, the dynamic listening mode (or mode that does not appear in the input setup menu) can always be accessed using the MODE + or MODE - buttons whether or not a preferred mode is set. When a preferred listening mode is set and a dynamic listening mode (or mode that does not appear in the input setup menu) is active, the selected dynamic mode is lost when switching between inputs.

When USE LAST is selected as the preferred listening mode, and a dynamic listening mode (or mode that does not appear in the input setup menu) is active, the selected listening mode is retained when switching between inputs, even when the RV-5 is set to standby as in the following example:

1. Select **Main Menu ▸ SETUP ▸ INPUTS ▸ DVD1 ▸ 2-CH ▸ USE LAST**.
2. Press the **MENU** button.
3. Press the **DVD-1** button.
4. Play a 2-channel input source.
5. Press the **MODE +** button until you reach DD PLIIx MOV.

   DD PLIIx MOV is a dynamic listening mode.
6. Press the **TV** button

   The RV-5 switches to the TV input and the on-screen display identifies the preferred listening mode.
7. Press the **DVD-1** button.

The on-screen display should identify that the active listening mode for the DVD1 input is still DD PLIIx MOV. This is the only method of setting up a dynamic mode (or mode that does not appear in the input setup menu) to behave like a preferred listening mode.

Note:

When a dynamic mode (or mode that does not appear in the input setup menu) is set as in the above example, the setting is retained even when the RV-5 is set to standby.

2-CH

SETUP ▸ INPUTS ▸ DVD1 ▸ 2-CH

Opens the 2-CH MODE menu, which is used to select a preferred listening mode for 2-channel input sources. The RV-5 activates the selected listening mode whenever a 2-channel source is present.

When the 2-CH parameter is set to USE LAST:

The RV-5 activates the listening mode that was activated the last time a 2-channel source was present

The remote control 2 CH button toggles between the 2-CHANNEL listening mode and the previous listening mode, and ignores the USE LAST setting. Instead, it uses the listening mode (for example, L7 FILM) that was activated before the 2-CHANNEL listening mode.

The RV-5 activates a DTS NEO:6 listening mode if a DTS NEO:6 listening mode was activated the last time a 2-channel source was present, and a 44.1kHz or 48kHz PCM digital source is present. Since the DTS NEO:6 listening modes are dynamic, they cannot be selected as the preferred listening mode for 2-channel sources.

DOLBY D

SETUP ▸ INPUTS ▸ DVD1 ▸ DD D

Opens the DOLBY DIGITAL MODE menu, which is used to select a preferred listening mode for Dolby Digital input sources. The RV-5 activates the selected listening mode whenever a new input is selected or a new Dolby Digital source is present.

When the DOLBY D parameter is set to USE LAST:

The RV-5 activates the listening mode that was activated the last time a Dolby Digital source was present

The RV-5 activates the Dolby PLIIx MOV (Movie) listening mode if this listening mode was activated the last time a Dolby Digital source was present. Since Dolby PLIIx MOV is a dynamic listening mode, it cannot be selected as the preferred listening mode for Dolby Digital sources.

SELECTING PREFERRED LISTENING MODES *(continued)*

dts ES

SETUP ▸ INPUTS ▸ DVD1 ▸ dts ES

Opens the DTS(-ES) MODE menu, which is used to select a preferred listening mode for DTS(-ES) input sources. The RV-5 automatically activates the selected listening mode whenever a new input is selected or a new DTS(-ES) source is present.

When the DTS-ES parameter is set to USE LAST:

- The RV-5 activates the listening mode that was activated the last time a DTS(-ES) source was present
- The RV-5 activates the DTS THX MUSIC listening mode if it was activated the last time a DTS(-ES) source was present. Since DTS THX MUSIC is a dynamic listening mode, it cannot be selected as the preferred listening mode for DTS(-ES) sources.

5.1a

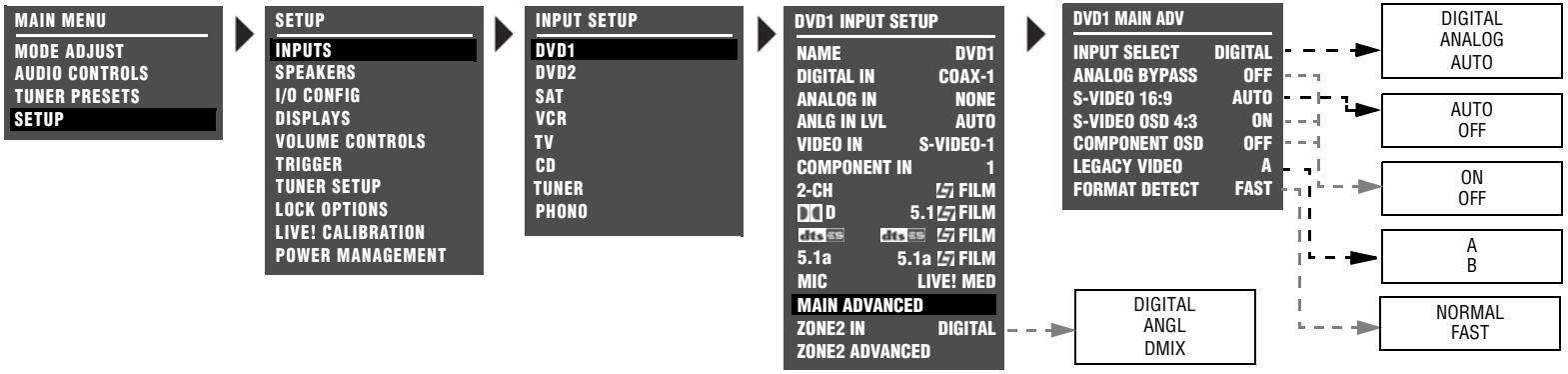
SETUP ▸ INPUTS ▸ DVD1 ▸ 5.1a

Opens the 5.1a MODE menu, which is used to select a preferred listening mode for 5.1-channel analog sources. The RV-5 automatically activates the preferred listening mode whenever a 5.1-channel analog source is present.

When the 5.1a parameter is set to USE LAST:

The RV-5 activates the 5.1-channel analog listening mode that was activated the last time a 5.1-channel analog source was present. 5.1a MUSIC cannot be selected as the preferred listening mode for 5.1-channel analog sources. However, when the 5.1a parameter is set to USE LAST, the RV-5 will activate 5.1a MUSIC if this listening mode was activated the last time a 5.1-channel analog source was present.

CONFIGURING ADVANCED VIDEO SETTINGS



MAIN ADVANCED

SETUP ▸ INPUTS ▸ DVD1 ▸ MAIN ADVANCED

Selecting the INPUT SETUP menu MAIN ADVANCED option opens the MAIN ADV menu shown above. The parameters on the left side of this menu are identical, regardless of which input is selected. The settings on the right side are adjustable. Default parameter settings differ from input to input.

Parameter	Possible Settings
INPUT SELECT	DIGITAL, ANALOG, AUTO
ANLOG BYPASS	ON, OFF
S-VIDEO 16:9	AUTO, OFF
S-VIDEO OSD 4:3	ON, OFF
COMPONENT OSD	ON, OFF
LEGACY VIDEO	A, B
FORMAT DETECT	NORMAL, FAST

INPUT SELECT DIGITAL, ANALOG, AUTO

SETUP ▸ INPUTS ▸ DVD1 ▸ MAIN ADVANCED ▸ INPUT SELECT

Controls the interaction of the digital and analog audio input connectors assigned to the current Main Zone input. The INPUT SETUP menu is used to assign one digital and one analog audio input connector for the selected input. The table on page 3-17 describes INPUT SELECT parameter settings.

Note:

When the INPUT SELECT parameter is set to AUTO, the RV-5 will not select the assigned analog audio input connector when a valid digital audio input source is present. Some DVD and CD players output digital signals (data) when the player is paused or stopped or when the player is powered on and the disc drawer is empty. When this occurs, the RV-5 automatically selects the assigned digital audio input connector.

CONFIGURING ADVANCE INPUT SETTINGS *(continued)*

ANALOG BYPASS ON, OFF

SETUP ▸ INPUTS ▸ DVD1 ▸ MAIN ADVANCED ▸ ANALOG BYPASS

When set to ON, the RV-5 passes the analog input signal to the Main Zone audio output connectors. For stereo analog sources, the input is sent to the FRONT L/R outputs. For a 5.1-channel analog source, the (L) input is sent to the FRONT L output. The (R) input is sent to the FRONT R output. The (C) input is sent to the center output. The (SUB) input is sent to the SUB output. The (LS) input is sent to the SIDE L and REAR L outputs. The (RS) input is sent to the SIDE R and REAR R outputs. When ANALOG BYPASS is set to OFF, the unit routes the analog input signal through A/D conversion. This makes it possible to utilize internal processing, including listening modes, crossovers and equalization. Neither Zone 2 nor Zone 3 provide multichannel outputs. If the 5.1-channel analog input is selected for Zone 2 or Zone 3, only the front left and right (L)/(R) inputs will be available.

When LIVE! is the selected analog input, the MAIN ADVANCED ▸ INPUT SELECT parameter is forced to ANALOG, and ANALOG BYPASS is disabled.

Note:

If the Main Zone source is 5.1 analog, only the Front L/R channels will be sent to the Zone 2 S/PDIF outputs.

S-VIDEO 16:9 AUTO, OFF

SETUP ▸ INPUTS ▸ DVD1 ▸ MAIN ADVANCED ▸ S-VIDEO 16:9

Controls the passage of anamorphic trigger signals present in some video sources. When set to AUTO, the RV-5 allows anamorphic video input signals to pass through the S-Video switcher, enabling compatible display devices to automatically switch between anamorphic and non-anamorphic display modes.

When OFF, the RV-5 prevents anamorphic video input signals from passing through the S-Video switcher, preventing compatible display devices from automatically switching between anamorphic and non-anamorphic display modes.

INPUT SELECT PARAMETER SETTINGS

DIGITAL	ANALOG	AUTO
The RV-5 sends the assigned digital audio input connector to the Main Zone audio output connectors. The RV-5 ignores the assigned analog audio input connector. **Note the following:** • The digital audio input connectors are compatible with PCM (44.1, 48, 88.2 and 96kHz), Dolby Digital and DTS(-ES) sources. • The digital audio input connectors are not compatible with MPEG or MP3 sources. If an incompatible digital audio source (e.g., MPEG or MP3) is present, the RV-5 automatically selects the assigned analog audio input connector. • The RV-5 automatically sets the INPUT SELECT parameter to DIGITAL when the ANALOG IN parameter is set to NONE. • If ANALOG IN is set to NONE, the RV-5 will mute. • The DIGITAL IN parameter can be used to assign a digital audio input connector for the selected input.	The RV-5 sends the assigned analog audio input connector to the Main Zone audio output connectors. The RV-5 ignores the digital audio input connector. **Note the following:** • The RV-5 automatically sets the INPUT SELECT parameter to ANALOG when the DIGITAL IN parameter is set to NONE. • The ANALOG IN parameter can be used to assign an analog audio input connector for the selected input.	The RV-5 toggles between sending the assigned digital and analog audio input connectors to the Main Zone audio output connectors, based on the input source that is present. **For example:** • When a 2-channel PCM, Dolby Digital or DTS(-ES) source is present, the RV-5 automatically selects the assigned digital audio input connector. • When an SACD™ source is present, the RV-5 automatically selects the assigned analog audio input connector. **Note the following:** • The RV-5 automatically sets the INPUT SELECT parameter to AUTO when both digital and analog audio input connectors are assigned. • When no compatible digital source is present, the RV-5 automatically selects the assigned analog audio input connector. • The AUTO setting is recommended for components that generate both digital and analog input signals, such as DVD/SACD players.

CONFIGURING ADVANCE INPUT SETTINGS *(continued)*

S-VIDEO OSD 4:3 ON, OFF

SETUP ▸ INPUTS ▸ DVD1 ▸ MAIN ADVANCED ▸ S-VIDEO OSD 4-3

Controls the appearance of the on-screen display when the display device is connected to an S-Video output connector. When set to ON, the display device shows the on-screen display in a 4:3 aspect ratio, regardless of the incoming signal.

Aspect ratio refers to the ratio between the height and width of the picture on the display device or to the ratio between the height and width of the display device. A 4:3 aspect ratio is almost square. A 16:9 aspect ratio, often referred to as "widescreen," is almost twice as wide as it is high.

When OFF, the display device shows the on-screen display in the same aspect ratio as the incoming video input signal.

Note:

The on-screen display appears horizontally stretched across the display device screen when all of the following conditions are present:

- *The S-VIDEO OSD 4:3 parameter is OFF.*
- *An anamorphic video input signal is present.*
- *A 16:9 display device (widescreen) is connected to an S-Video output connector.*

COMPONENT OSD ON, OFF

SETUP ▸ INPUTS ▸ DVD1 ▸ MAIN ADVANCED ▸ COMPONENT OSD

Controls the appearance of the on-screen display when the display device is connected to the component video output connector. When ON, the display device shows the on-screen display as a 480i video signal on a full blue-screen background. To minimize viewing distractions, the two-line status does not appear in the on-screen display. When OFF, the display device does not show the on-screen display, including the two-line status.

Note:

When the ON-SCREEN DISPLAY menu BACKGROUND parameter is OFF, the display device using the component video output connector will not show the on-screen display.

LEGACY VIDEO A, B

SETUP ▶ INPUTS ▶ DVD1 ▶ MAIN ADVANCED ▶ LEGACY VIDEO

When video played back from a VCR is converted to component video by the RV-5, the resulting picture quality depends on both the quality of the VCR playback and the capabilities of the component display device. The LEGACY VIDEO menu item has two selections, A and B. Use the one that gives the best picture for the Combination of the VCR and display device.

Note:

Some combinations of VCR and display device may not produce a satisfactory picture with either setting. In such cases, better results may be achieved by connecting to the display device via composite or S-video.

FORMAT DETECT NORMAL, FAST

SETUP ▶ INPUTS ▶ DVD1 ▶ MAIN ADVANCED ▶ FORMAT DETECT

Controls how the RV-5 reacts when it detects silence in the digital audio stream. Digital sources typically output a short period of silence when switching between sources.

When set to NORMAL, the RV-5 will not mute when silence is detected. This setting is appropriate for most sources.

When set to FAST, the RV-5 will mute when approximately 2ms of continuous digital silence is detected. Once valid audio is received, the RV-5 will configure its processing and deactivate mute. This prevents digital noise from occurring during digital audio signal changes. For example, when switching from Dolby Digital to DTS. Use this setting if audible noise occurs during input digital format changes.

ZONE2 IN DIGITAL, ANLG, DMIX

SETUP ▶ INPUTS ▶ DVD1 ▶ ZONE2 IN

Controls the interaction of the digital and analog audio input connectors assigned to the current Zone 2 inputs. The INPUT SETUP menu can be used to assign one digital and one analog input connector for the selected input. See page 3-7 for more information. The table on the next page describes ZONE2 IN parameter settings.

Note

When using DTS-encoded discs, set the ZONE2 IN parameter to DMIX.

When the ZONE2 IN parameter is set to DIGITAL, the unit recognizes DTS-encoded discs as audio signals (not data signals) and outputs loud digital noise from the ZONE2 analog and digital audio outputs. For maximum flexibility with Dolby Digital and DTS (-ES) sources:

1. Select a Main Zone DIGITAL IN connector.
2. Set the ZONE2 IN parameter to ANLG.
3. Connect the digital and analog outputs on the DVD player to the corresponding digital and analog inputs on the RV-5.

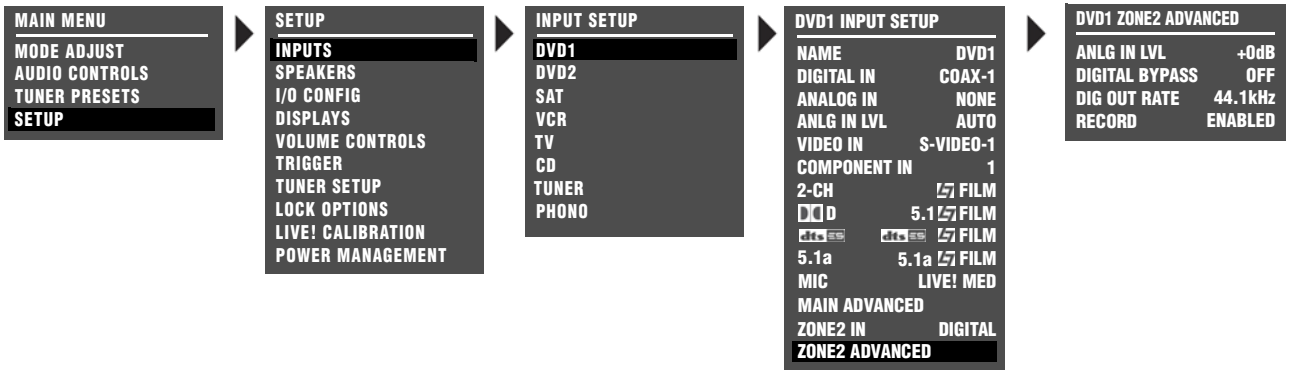
The unit will use the digital connector for the Main Zone, and the analog connectors for Zone 2.

ZONE2 IN PARAMETER SETTINGS		
DIGITAL	**ANLG (Analog)**	**DMIX (Downmix)**
• The RV-5 automatically sets the ZONE2 IN parameter to DIGITAL when the ANALOG IN parameter is set to NONE. • The RV-5 sends the assigned DIGITAL IN connector specified in the INPUT SETUP menu to the ZONE 2 ANALOG and DIGITAL AUDIO OUTPUTS. • Only PCM digital input sources are compatible with ZONE 2 analog audio outputs. Dolby Digital and DTS sources are compatible with the Zone 2 digital audio output when the DIG BYPASS parameter is set to ON. • Audio will not be available in Zone 2 analog outputs when a Dolby Digital, DTS (-ES) or unknown digital input source is present.	• The ANALOG IN connector specified in the INPUT SETUP menu is sent to the ZONE 2 ANALOG and DIGITAL AUDIO OUTPUTS. • Only Front L/R Audio will be available in Zone 2 when one of the 5.1 analog inputs is selected for the Main Zone.	• Set the ZONE2 IN parameter to DMIX to send a downmixed version of Main Zone audio to the Zone 2 audio output connectors. Downmixes can be generated for Dolby Digital, DTS(-ES) and 5.1a sources. • To generate a downmix, the same input must be selected in the Main Zone and Zone 2. Otherwise, the Zone 2 audio output connectors will mute. • Main Zone listening mode activation affects the Zone 2 audio output connectors. For instance, when the MONO listening mode is activated in the Main Zone, the Zone 2 audio output connectors will generate mono output signals. • It is recommended that you set the ZONE2 IN parameter to DMIX when recording from a DVD player without built-in Dolby Digital or DTS-ES decoding to a VCR or PVR (e.g. Tivo® or Replay TV®). • A 2-channel downmixed version of Main Zone audio is sent to the ZONE 2 ANALOG and DIGITAL AUDIO OUTPUTS. Downmixes can be generated for Dolby Digital, DTS(-ES) and 5.1 analog input sources. To generate a downmix, the input that is selected in Zone 2 must also be selected in the Main Zone (e.g., DVD1). Otherwise, the ZONE 2 ANALOG and DIGITAL AUDIO OUTPUTS will mute. Downmixes cannot be generated when the 5.1a BYPASS listening mode is selected in the Main Zone.

ZONE2 ADVANCED

SETUP ▸ INPUTS ▸ DVD1 ▸ ZONE2 ADVANCED

Opens the ZONE2 IN menu, which is used to configure advanced



Parameter	Possible Settings
ANLG IN LVL	-18dB to + 12dB
DIGITAL BYPASS	ON, OFF
DIG OUT RATE	96kHz, 88.2kHz, 48kHz, 44.1kHz
RECORD	BLOCKED, ENABLED

ANLG IN LVL -18 to +12dB

SETUP ▸ INPUTS ▸ DVD1 ▸ ZONE2 ADVANCED ▸ ANLG IN LVL

Allows adjustment of analog audio input levels for input signals sent to the Zone 2 digital audio output connectors. The RV-5 applies these adjustments to input signals before passing them to the Zone 2 digital audio output connectors. This parameter can be adjusted when an input source is present to prevent the internal A/D converter from overloading.

DIGITAL BYPASS ON, OFF

SETUP ▸ INPUTS ▸ DVD1 ▸ ZONE2 ADVANCED ▸ DIGITAL BYPASS

Allows digital sources to bypass decoding for direct digital recording. When ON is selected, the RV-5 passes digital input signals directly to the Zone 2 digital audio output connectors, preserving the original format of the input signal. This would be useful if you want to send a multichannel-encoded signal to a second device for decoding. When OFF is selected and the ZONE2 IN parameter is set to DIGITAL, Dolby Digital and DTS sources will not be passed to the Zone 2 digital audio outputs. When OFF is selected and a PCM source is present, the RV-5 will send the PCM audio to the Zone 2 digital audio output connectors. If a Dolby Digital or DTS source is present and the ZONE2 IN parameter is set to DMIX, a downmix of the source will be sent to the Zone 2 digital audio output connectors.

DIG OUT RATE 96kHz, 88.2kHz, 48kHz, 44.1kHz

SETUP ▸ INPUTS ▸ DVD1 ▸ ZONE2 ADVANCED ▸ DIG OUT RATE

Controls the sample rate of analog input signals sent to the Zone 2 digital audio output connectors.

When a value is selected, the RV-5 runs the Zone 2 A/D converters at the selected sample rate. It is recommended to set the DIG OUT RATE parameter to the appropriate value when using a recording format that operates on a single sample rate, such as CD-R format (44.1kHz).

Note:

DIG OUT RATE only affects analog input signals. It does not change the sample rate of digital input signals, or downmixed signals.

RECORD BLOCKED, ENABLED

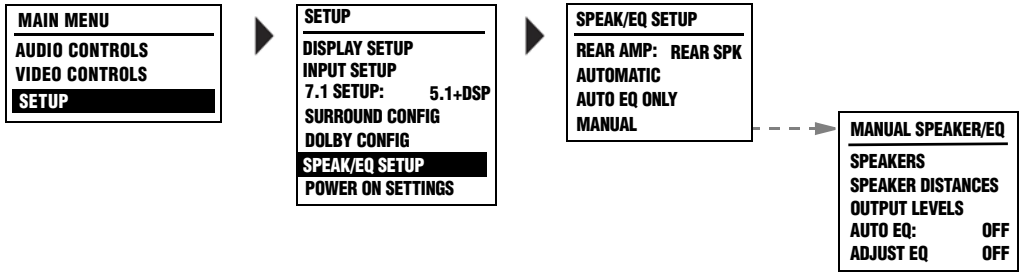
SETUP ▸ INPUTS ▸ DVD1 ▸ ZONE2 ADVANCED ▸ RECORD

Prevents recording device feedback loops. When BLOCKED is selected, the RV-5 blocks the Zone 2 audio output connectors to prevent feedback loops. However, the RV-5 still passes video input signals to the Zone 2 video output connectors. When ENABLED is selected, the RV-5 passes audio and video input signals to the Zone 2 audio and video output connectors.

SPEAKER/EQ SETUP

SETUP ▸ SPEAK/EQ SETUP

Select the SPEAKER SETUP menu to configure the Main Zone audio output connectors for the desired speaker setup. The Main Zone includes eight audio output connectors labeled Front L/R, Center, Subwoofer, Side L/R and Rear L/R.



REAR AMP

REAR SPK, ZONE 2

SETUP ▸ SPEAK/EQ SETUP ▸ REAR AMP

Selects the REAR AMP menu, which....

AUTOMATIC

SETUP ▸ SPEAK/EQ SETUP ▸ AUTOMATIC

Selects the AUTOMATIC menu, which controls the automatic selection of crossover frequencies, channel adustments, delay adjustments, and room equalization parameters.

AUTO EQ ONLY

SETUP ▸ SPEAK/EQ SETUP ▸ AUTO EQ ONLY

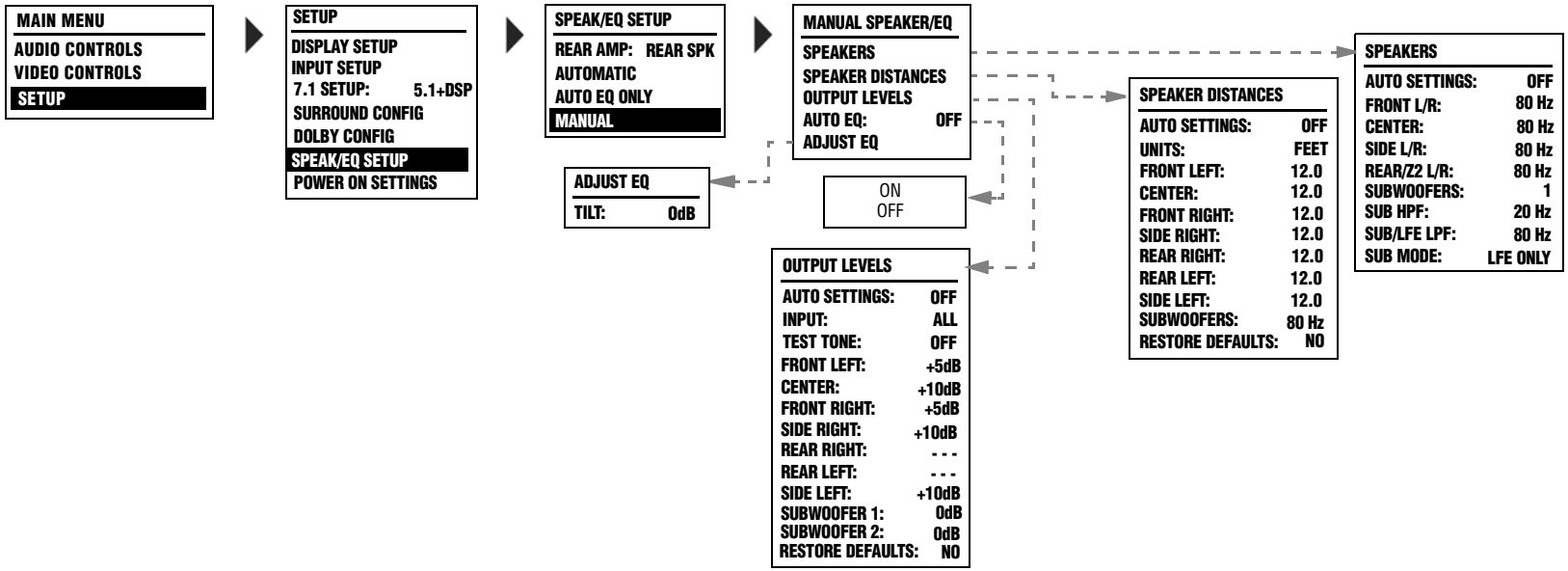
Selects the AUTO EQ ONLY menu, which controls the automatic selection of the EQ.

MANUAL

SETUP ▸ SPEAK/EQ SETUP ▸ MANUAL

Allows the user to manually make the selections for both speaker and EQ setup.

SPEAKER SETUP PARAMETERS *(continued)*



AUTO EQ OFF, ON

SETUP ▸ SPEAK/EQ SETUP ▸ MANUAL ▸ AUTO EQ

Selects the AUTO EQ menu, which controls the automatic EQ controls.

TILT -8 TO +8DB

SETUP ▸ SPEAK/EQ SETUP ▸ MANUAL ▸ ADJUST EQ ▸ TILT

Selects the TILT menu, which controls.....

Note:

It is important to set crossover points before calibrating output levels or LIVE!. Setting crossover points afterwards could invalidate calibrated output levels and will invalidate the LIVE! calibration.

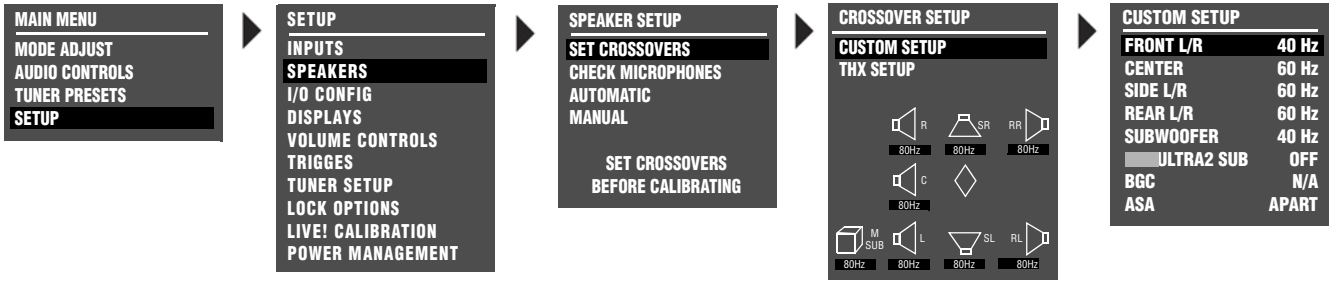
ANALOG BYPASS ON, OFF

SETUP ▸ INPUTS ▸ DVD1 ▸ MAIN ADVANCED ▸ ANALOG BYPASS

When set to ON, the RV-5 passes the analog input signal to the Main

CUSTOM SPEAKER SETUPS

Selecting the CROSSOVER SETUP menu CUSTOM SETUP option opens the CUSTOM SETUP menu, which assigns independent crossover points for each Main Zone audio output connector. Possible crossover settings include FULL, FULL + SUB, and 10Hz increments within a 30Hz to 120Hz range. The graphs shown on the next page indicate the frequency response of each crossover point.



To configure a custom speaker setup:

- Select the crossover point closest to the low frequency rating of the associated speakers. For example, set the FRONT L/R parameter to the crossover point closest to the low-frequency rating of the front speakers.

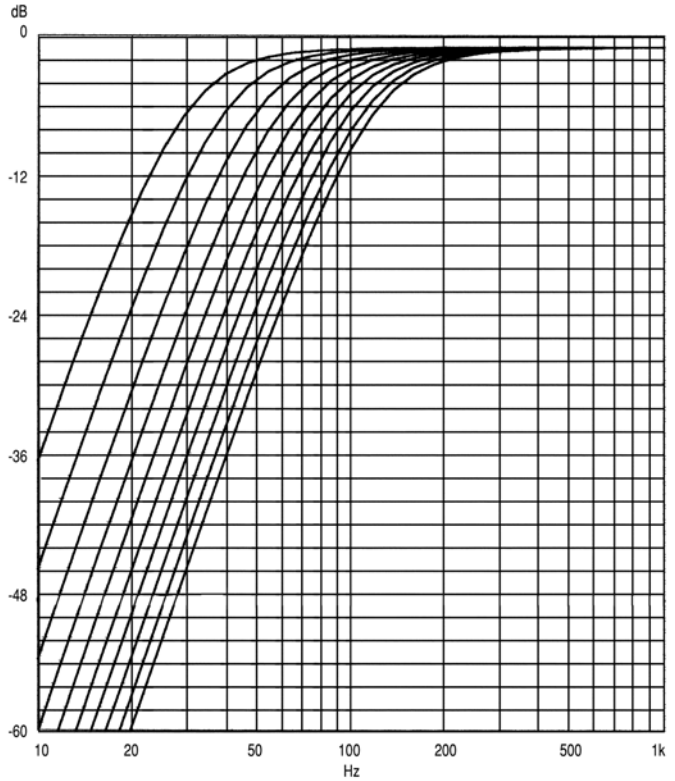
- Select the subwoofer crossover point equal to the lowest crossover point of any of the other speakers. For example, if CUSTOM SETUP menu parameters are set as shown above, set the SUBWOOFER parameter to 40Hz – the lowest crossover point of the other speakers.

In a custom setup, low frequencies are generally redirected from speakers with the highest crossover points to speakers with the lowest crossover points. Signals lower than the lowest crossover point are redirected to the subwoofer. If the lowest crossover point is FULL, low-frequency signals, excluding LFE information, are not redirected to the subwoofer.

Low frequencies between the Subwoofer and any or all of the other speaker channels can be duplicated. To do this, select the FULL + SUB crossover setting for the front, center, side or rear speakers. Making this selection can result in excessive bass.

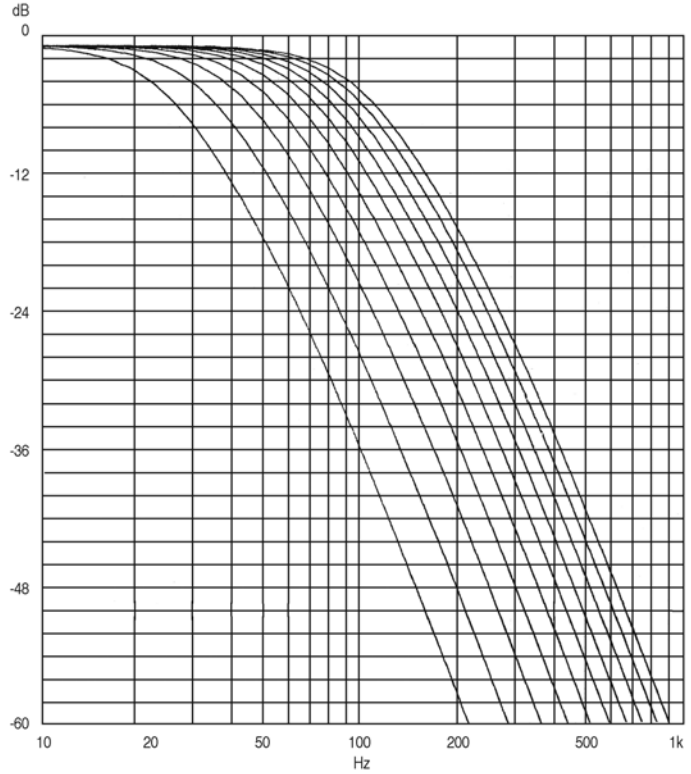
In general, low frequencies will be redirected from speakers with the highest crossover points to speakers with the lowest crossover points. Low-frequency signals lower than the lowest crossover point will be redirected to the subwoofer. If the lowest crossover point is FULL, low frequency signals, excluding LFE information, will not be redirected to the subwoofer.

High-Pass Filter



High-pass filters attenuate low frequencies at 24dB per octave. The curves in the graph above indicate the frequency response of each crossover setting. From left to right, the curves represent crossover settings from 30Hz to 120Hz. The graph above does not show the THX 80Hz crossover point, which is 12dB per octave.

Low-Pass Filter



Low-pass filters attenuate high frequencies at 24dB per octave. The curves in the graph above indicate the frequency response of each crossover setting. From left to right, the curves represent crossover settings from 30Hz to 120Hz.

SPEAKER SETUP PARAMETERS

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ *or* SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸▸

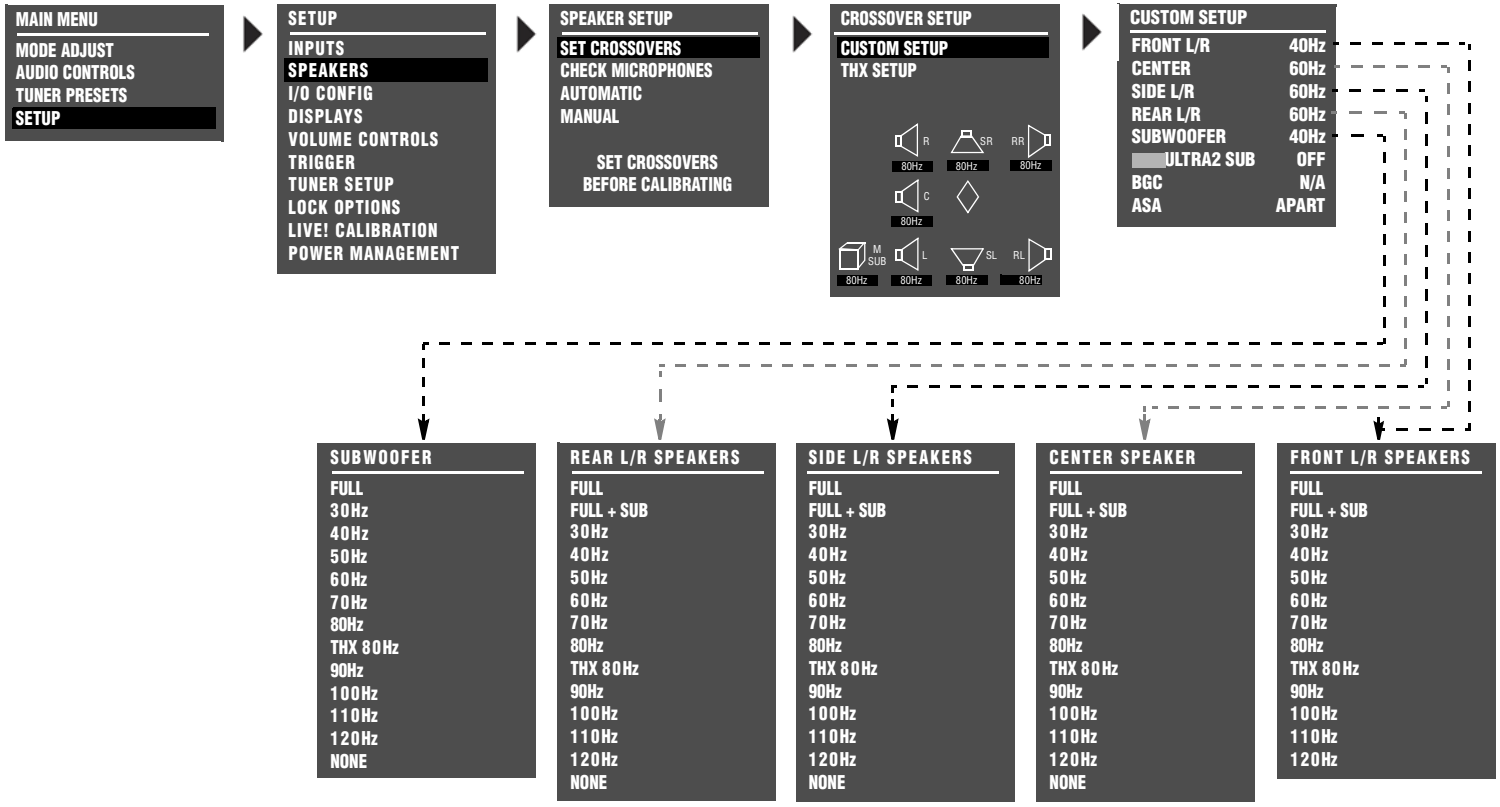
The table below indicates the speaker setup parameters for configuring the Main Zone audio output connectors for the desired speaker setup. These parameters are available in the CUSTOM SETUP and THX SETUP menus.

Speaker setup parameters perform the same function regardless of the selected speaker setup. When a parameter setting is adjusted on one menu, the corresponding parameter setting is automatically adjusted on the other menu. For example, when a THX speaker setup is selected, the crossover settings on the CUSTOM SETUP menu are set to THX 80Hz.

Parameter	CUSTOM SETUP Menu		THX SETUP Menu	
	Default Setting	Possible Settings	Default Setting	Possible Settings
FRONT L/R*	80Hz	FULL, FULL + SUB, 30 to 120Hz, THX 80Hz	THX 80Hz	THX 80Hz
CENTER*	80Hz	FULL, FULL + SUB, 30 to 120Hz, THX 80Hz, NONE	THX 80Hz	THX 80Hz
SIDE L/R*	80Hz	FULL, FULL + SUB, 30 to 120Hz, THX 80Hz, NONE	THX 80Hz	THX 80Hz
REAR L/R	80Hz	FULL, FULL + SUB, 30 to 120Hz, THX 80Hz, NONE	THX 80Hz	THX 80Hz, NONE
SUBWOOFER*	80Hz	FULL, 30 to 120Hz, THX 80Hz, NONE	THX 80Hz	THX 80Hz
THX ULTRA2 SUB	OFF	ON, OFF	OFF	ON, OFF
BGC	N/A†	ON, OFF	N/A†	ON, OFF
ASA	APART	APART, CLOSE, TOGETHER	APART	APART, CLOSE, TOGETHER

** These parameters cannot be adjusted on the THX SETUP menu.*
† When the THX ULTRA2 SUB parameter is set to OFF, the BGC parameter is not available (N/A).

SPEAKER SETUP PARAMETERS *(continued)*



FRONT L/R FULL, FULL + SUB, 30 to 120HZ, THX 80HZ

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ FRONT L/R

Assigns a crossover point for the Main Zone audio output connectors labeled Front L/R when a custom speaker setup is selected. Opens the FRONT L/R SPEAKERS menu to select a crossover point for the Front L/R output connectors.

- Select **FULL** to send a full-range signal to the front speakers. Otherwise, select the crossover point closest to the low-frequency rating of the front speakers.
- Select **FULL + SUB** to send a full-range signal to the front speakers and duplicate bass frequencies to the SUB output. (The set crossover point of the SUB parameter determines the upper range of duplicate bass.) Selecting the FULL + SUB option can result in excessive bass.

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸ ▸

When THX speaker setup is selected, a THX 80Hz crossover point is applied to the Front L/R output connectors, and the FRONT L/R parameter cannot be adjusted.

CENTER FULL, FULL + SUB, 30 to 120HZ, THX 80HZ, NONE

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ CENTER

Assigns a crossover point for the Main Zone audio output connector labeled CENTER when a custom speaker setup is selected. Opens the CENTER SPEAKER menu to select a crossover point for the CENTER output connector.

- Select **FULL** to send a full-range signal to the center speaker. Otherwise, select the crossover point closest to the low-frequency rating of the center speaker.
- Select **FULL + SUB** to send a full-range signal to the center speaker and duplicate bass frequencies to the SUB output. (The set crossover point of the SUB parameter determines the upper range of duplicate bass.) Selecting the FULL + SUB option can result in excessive bass.
- When the speaker setup does not include a center speaker, select **NONE** to redirect center channel signals to the Front L/R output connectors – unless the 5.1a BYPASS listening mode is activated. In this case, configure the speaker setup with the associated DVD-A/SACD player to redirect center channel signals.

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸ ▸

When THX speaker setup is selected, a THX 80Hz crossover point is applied to the Center output connector, and the CENTER parameter cannot be adjusted.

SPEAKER SETUP PARAMETERS *(continued)*

SIDE L/R FULL, FULL + SUB, 30 to 120Hz, THX 80Hz, NONE

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ SIDE L/R

Assigns a crossover point for the Main Zone audio output connectors labeled SIDE L/R when a custom speaker setup is selected.

- Select **FULL** to send a full-range signal to the side speakers. Otherwise, select the crossover point closest to the low-frequency rating of the side speakers.
- Select **FULL + SUB** to send a full-range signal to the side speakers and duplicate bass frequencies to the SUB output. (The set crossover point of the SUB parameter determines the upper range of duplicate bass.) Selecting the FULL + SUB option can result in excessive bass.
- When the speaker setup does not include side speakers, select **NONE** to redirect side channel signals to the Rear L/R output connectors. If the REAR L/R parameter is also set to NONE, the RV-5 will redirect surround channel signals to the Front L/R output connectors.

Note:

When the SIDE L/R parameter is set to NONE, Dolby Digital Surround EX, THX Ultra2, THX Surround EX, DTS(-ES) decoding, the ASA parameter and PLIIx modes are not available.

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸ ▸

When THX speaker setup is selected, a THX 80Hz crossover point is applied to the SIDE L/R output connectors, and the SIDE L/R parameter cannot be adjusted.

REAR L/R FULL, FULL + SUB, 30 to 120Hz, THX 80Hz, NONE

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ REAR L/R

Assigns a crossover point for the Main Zone audio output connectors labeled REAR L/R when a custom speaker setup is selected.

- Select **FULL** to send a full-range signal to the rear speakers. Otherwise, select the crossover point closest to the low-frequency rating of the rear speakers.
- Select **FULL + SUB** to send a full-range signal to the rear speakers and duplicate bass frequencies to the SUB output. (The set crossover point of the SUB parameter determines the upper range of duplicate bass.) Selecting the FULL + SUB option can result in excessive bass.
- When the speaker setup does not include rear speakers, select **NONE** to redirect rear channel signals to the Side L/R output connectors. If the SIDE L/R parameter is also set to NONE, the RV-5 redirects surround channel signals to the Front L/R output connectors.

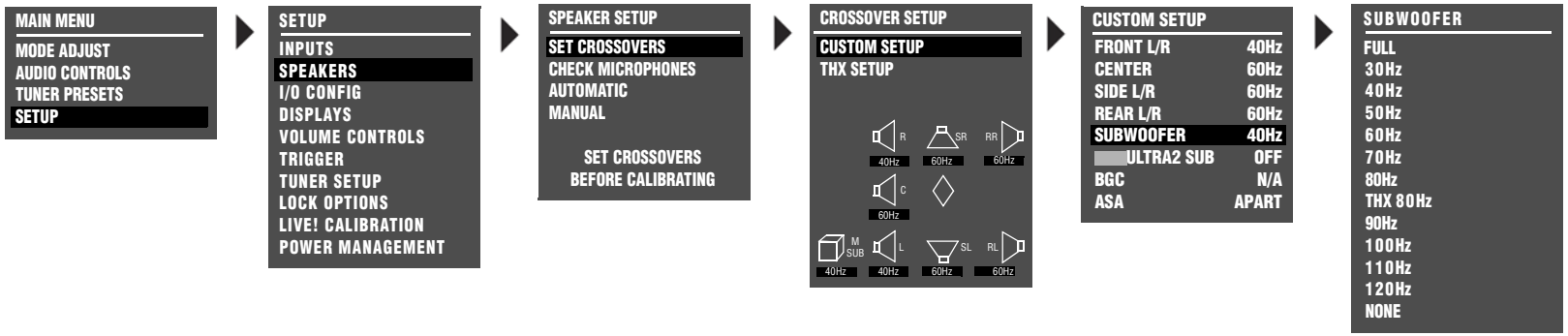
Note:

When the REAR L/R parameter is set to NONE, Dolby Digital Surround EX, THX Ultra2, THX Surround EX, PLIIx modes, DTS(-ES) decoding and the ASA parameter are not available.

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸ ▸

When THX speaker setup is selected, the THX REAR SPEAKERS menu opens which is used to activate or deactivate the REAR L/R output connectors.

To activate and configure the Rear L/R output connectors for a 7.1-channel THX speaker, setup select **THX 80Hz**. To deactivate the Rear L/R output connectors and configure the Main Zone audio output connectors for a 5.1-channel THX speaker setup, select **NONE**.



SUBWOOFER FULL, 30 TO 120 Hz, THX 80Hz, NONE

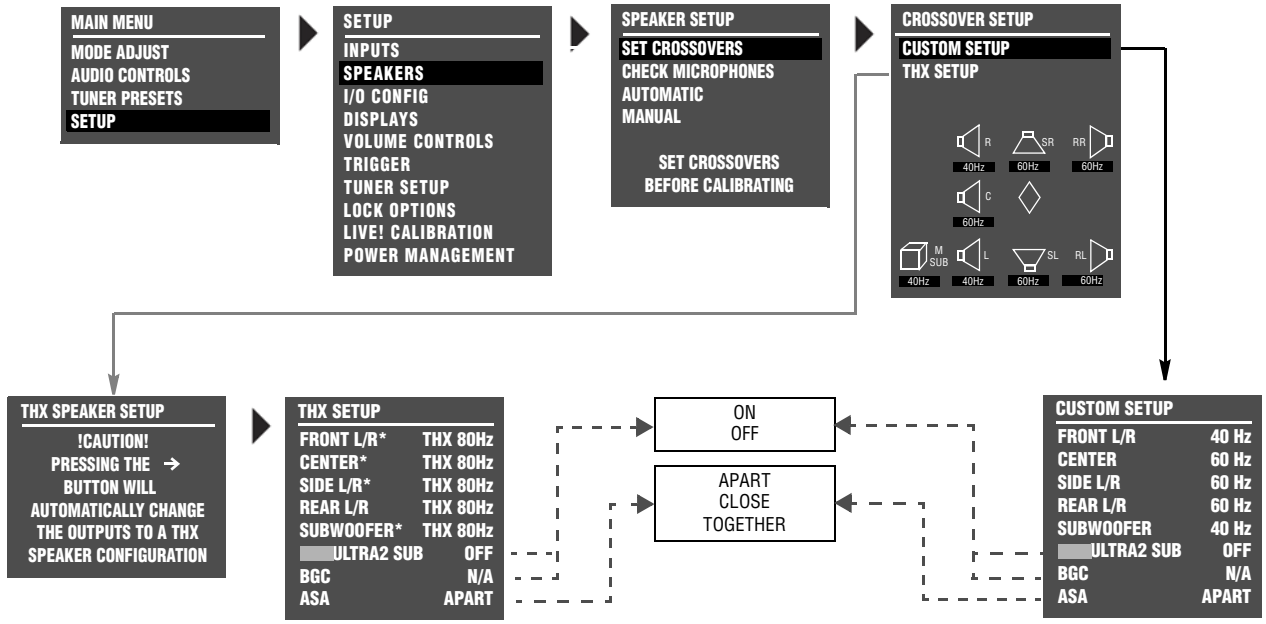
SETUP ▶ **SPEAKERS** ▶ **SET CROSSOVERS** ▶ **THX SETUP** ▶ **SUBWOOFER**

Assigns a crossover point for the Main Zone audio output connector labeled Subwoofer. When set to FULL, the RV-5 sends a full-range audio output signal to this connector. Otherwise, the RV-5 activates a crossover point at the selected setting. Choose the setting equal to the lowest setting of the other speakers.

Note:

When the SUBWOOFER parameter is set to NONE, subwoofer signals will not be redirected if the 5.1a BYPASS listening mode is activated. To redirect subwoofer signals, configure the speaker setup with the associated DVD-A/SACD player.SETUP

SPEAKER SETUP PARAMETERS *(continued)*



* *These parameters cannot be adjusted.*

THX ULTRA2 SUB

ON, OFF

SETUP ▸ SPEAKERS ▸ CUSTOM SETUP ▸ ULTRA2 SUB ***or*** SETUP ▸ SPEAKERS ▸ THX SETUP ▸▸ ULTRA2 SUB

Indicates whether or not the subwoofer connected to the Main Zone audio output connector labeled Subwoofer is Ultra2-certified. Select the ON setting if the connected subwoofer is Ultra2-certified and the OFF setting if the connected subwoofer is not Ultra2-certified. When set to ON, the CUSTOM and THX SETUP menu BGC parameter can be used to adjust boundary gain compensation. When set to OFF, the BGC parameter is not available (N/A).

BGC (BOUNDARY GAIN COMPENSATION) ON, OFF

SETUP ▸ SPEAKERS ▸ CUSTOM SETUP ▸ BGC

SETUP ▸ SPEAKERS ▸ THX SETUP ▸▸ BGC

Adjusts boundary gain compensation when the CUSTOM and THX SETUP menu THX ULTRA2 SUB parameter is set to ON. When the BGC parameter is set to ON, a highpass 55Hz filter is applied to all audio output connectors for all Main Zone listening modes. When set to OFF, no filter is applied to Main Zone listening modes and audio output connectors. When the parameter setting is N/A, the THX ULTRA2 SUB parameter is set to OFF, and boundary gain compensation cannot be adjusted.

Note:

BGC compensates for increased bass energy that is caused by the proximity of the speakers to the listening room walls.

ASA (ADVANCED SPEAKER ARRAY) APART, CLOSE, TOGETHER

SETUP ▸ SPEAKERS ▸ CUSTOM SETUP ▸ ASA

SETUP ▸ SPEAKERS ▸ THX SETUP ▸▸ ASA

A proprietary THX technology that processes signals sent to the rear speakers, optimizing the listening experience for THX Ultra2 listening modes. To maximize the effectiveness of ASA processing, it is recommended that you configure a 7-channel speaker setup in which the rear speakers are placed close together facing the center of the listening space. **The ASA parameter is not available unless the 5.1 THX ULTRA2, 5.1 THX MUSIC, DTS THX ULTRA2 or DTS THX MUSIC listening mode is activated.**

Select the TOGETHER setting if the distance between the rear speakers is less than 1 foot (0.3m). Select the CLOSE setting if the distance between the rear speakers is greater than 1 foot (0.3m), but less than 4 feet (1.2m). Select the APART setting if the distance between the rear speakers is greater than 4 feet (1.2m).

Note:

ASA processing is only available when both side and rear speakers are present.

When the remote control 7/5 button is used to toggle between 7 and 5-channel playback:

- *ASA processing is not available during 5-channel playback.*
- *The RV-5 automatically switches between the 5.1 THX ULTRA2 and 5.1 THX or DTS THX ULTRA2 and DTS THX listening modes.*

AUTOMATIC CALIBRATION

The RV-5 offers automatic calibration of speaker distances, output level, or both. The table below indicates available automatic calibration options. **A successful microphone check is required before automatic calibration can be performed.**

Automatic Options	Details
MICROPHONE CHECK	• Confirms that the microphones are properly connected and functioning. • Calculates an average level for the microphones connected to the microphone input connectors, allowing the RV-5 to compensate for individual microphone sensitivities during automatic calibration. • Ensures that microphone levels are consistent, eliminating automatic calibration errors from individual microphone levels.
DISTANCES & LEVELS	• Activates automatic calibration of speaker distances and output levels. • Offers accurate calibration with minimal interaction, automatically applying calibrated speaker distances and output levels. • Calibrates speaker distances within 0.5 foot (.15m) of the physical distance between the primary listening position and the speaker. • Calibrates individual speaker output levels within +/–0.5dB of each other and overall speaker output levels within +/–3.0dB of THX reference levels (75dB).
DISTANCES	• Activates automatic calibration of speaker distances. • Provides a comparison between original and calibrated speaker distances, allowing selection of the desired values. • Calibrates speaker distances within 0.5 foot (.15m) of the physical distance between the primary listening position and the speaker.
LEVELS	• Activates automatic calibration of output levels. • Provides a comparison between original and calibrated output levels, allowing selection of the desired values. • Calibrates individual speaker output levels within +/–0.5dB of each other and overall speaker output levels within +/–3.0dB of THX reference levels (75dB).

CONNECTING THE MICROPHONES

CAUTION!

- **The microphones included in the Lexicon Microphone Kit require careful handling. Dropping or otherwise physically abusing the microphones might cause errors during use or irreparable damage to the microphones.**
- **The microphone wires also require careful handling. Do not sharply bend the wires or place objects on them.**
- **Never make or break microphone input connections unless the RV-5 is powered off with the rear-panel power switch, OR standby mode is activated with the front-panel or remote control standby button.**

Note the following:

- Automatic calibration requires the microphones included in the Lexicon Microphone Kit, available at authorized Lexicon dealers. Performing automatic calibration with microphones other than those in the kit will produce unpredictable results.
- Proper microphone placement is essential to achieving the desired automatic calibration results. Pay particular attention to the microphone placement instructions and illustrations included in this section.
- It is important to read and observe the care and handling documentation included with the Lexicon Microphone Kit to ensure optimal microphone performance.
- If power is lost during automatic calibration of speaker levels or speaker distances, previous settings may be lost and recalibration of speaker levels and speaker distances is required.

To connect the microphones:

4. Make sure the RV-5 is powered off OR in standby mode.
5. Connect the microphones included in the Lexicon Microphone Kit to the microphone input connectors on the RV-5 rear panel. Make sure the microphone cable plug is fully inserted for a solid connection.

   During the microphone check, the microphones will be referred to as 1 or 2, based on the input connector to which the microphone is connected. You should label the microphones for troubleshooting purposes.
6. Power on the RV-5 or deactivate standby mode.

POSITIONING THE MICROPHONES FOR THE MICROPHONE CHECK

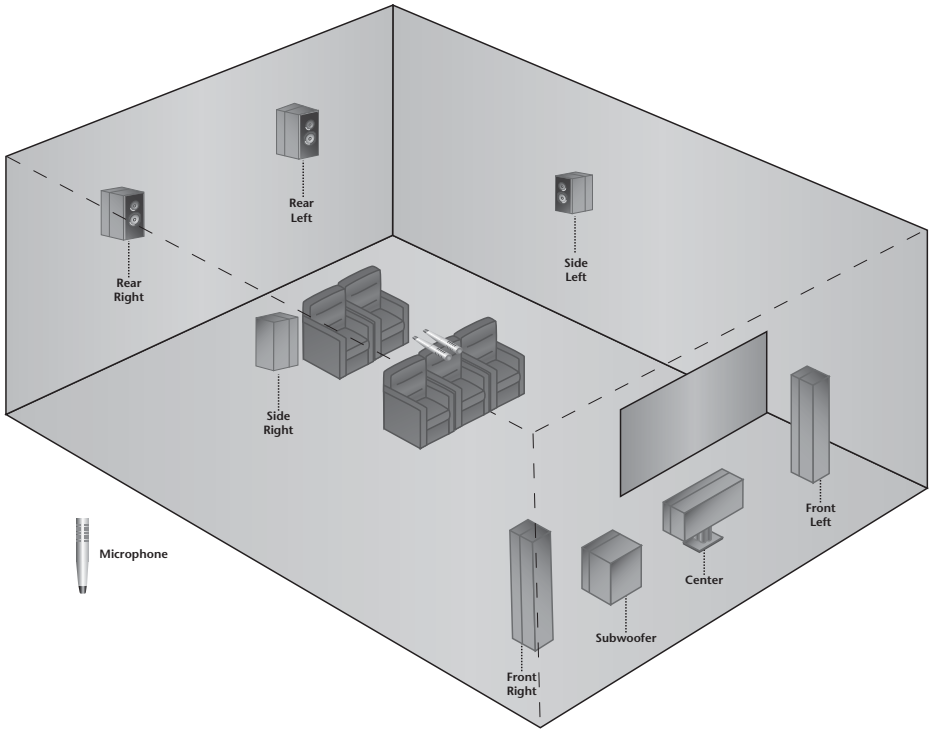
Refer to the microphone placement examples that begin below to position the microphones for the microphone check.

PROPER *microphone positioning for the microphone check*

During the microphone check, position the microphones:

- ✓ As close together as possible
- ✓ Relatively centered between and equidistant from the front left and right speakers
- ✓ In a clear line-of-sight path with the speakers
- ✓ In a location unobstructed by furniture and other fixtures, where echoes will not obscure calibration noise signals
- ✓ At least 2 feet (0.61m) from all speakers and walls, but within 30 feet (9.14m) of all speakers

The illustration to the right provides an example of proper microphone placement during the microphone check. All of the microphones are positioned as close together as possible in an unobstructed location that is equidistant from the front left and right speakers.

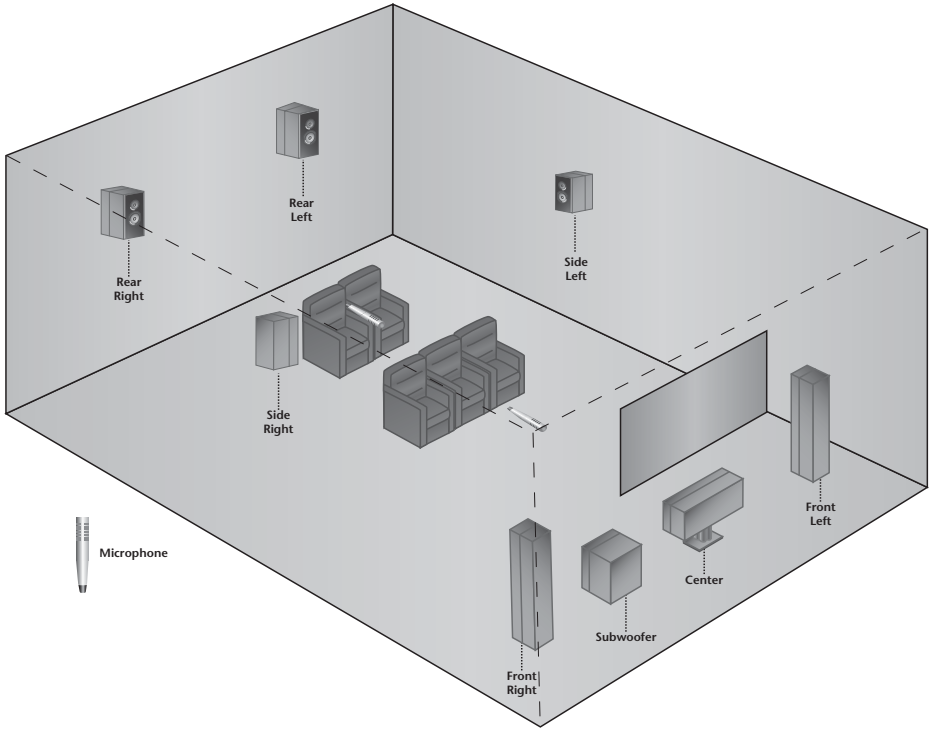


IMPROPER *microphone positioning for the microphone check*

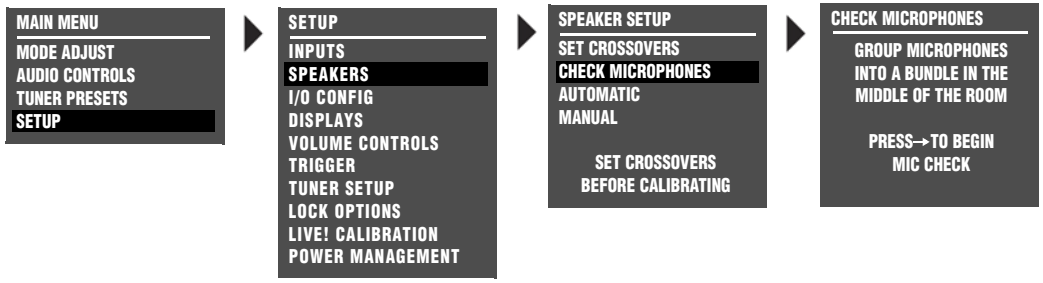
During the microphone check, DO NOT:

- ✗ Separate the microphones
- ✗ Scatter the microphones throughout the listening space
- ✗ Obstruct the line-of-sight path between the microphones and the speakers
- ✗ Position the microphones on the floor, on seat cushions, or in locations obstructed by furniture and other fixtures, where echoes might obscure calibration noise signals
- ✗ Position the microphones within 2 feet (0.61m) of speakers and walls or more than 30 feet (9.14m) from any one speaker

The illustration to the right provides an example of improper microphone placement during the microphone check. The microphones are scattered throughout the listening space rather than positioned as close together as possible in a location that is equidistant from the front left and right speakers.



CHECKING THE MICROPHONES

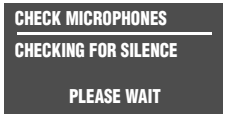


Note the following:

- The RV-5 outputs calibration noise signals between 55dB and 95dB, beginning with 55dB and increasing in 5dB increments until the microphones detect the required level. If the calibration noise signal becomes too loud, press the ◂ arrow button to cancel the microphone check.
- Although the calibration noise signal is output at a fixed volume level, you should set all volume controls for associated components (i.e., speakers, subwoofers and power amplifiers) to a reasonable level before performing automatic calibration. When the procedure is finished, the RV-5 automatically reverts to the last volume level that was selected before automatic calibration began.
- During automatic calibration, you should refer to the on-screen display instead of the front-panel display, as additional information and instructions are available in the on-screen display.

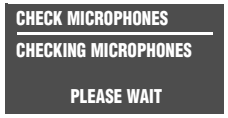
1. Select the SPEAKER SETUP menu CHECK MICROPHONES option, as shown above.
2. The first CHECK MICROPHONES screen opens in the on-screen display, indicating the importance of proper microphone placement to achieve accurate automatic calibration results.
3. Press the ▸ arrow button to begin the microphone check. The following screens appears in the on-screen display as the microphone check is performed:

CHECKING FOR SILENCE



Appears in the on-screen display while the RV-5 determines the relative noise level of the listening space and the internal noise level of the microphones. After eliminating microphones that are not detected or not functioning, the RV-5 calculates an average level for all microphones.

CHECKING MICROPHONES



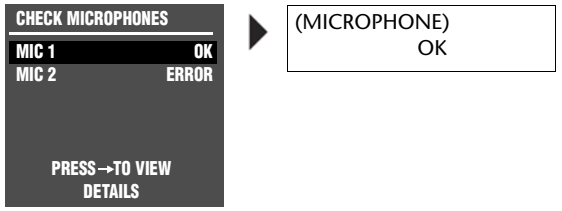
Appears in the on-screen display while the RV-5 confirms the microphone level calculated during the silence check. To do this, the RV-5 sends alternating calibration noise signals to the front left and right speakers. These signals are output between 55dB and 95dB, beginning with 55dB and increasing in 5dB increments until the microphones detect the required level. If the signal becomes too loud, press the ◂ arrow button to cancel the microphone check.

The RV-5 uses the calibration noise signal to eliminate microphones that register the signal at a level that is too low or too high. Then, the RV-5 determines the appropriate output level for the calibration noise signal used during automatic calibration.

CHECK MICROPHONES Results

Appears in the on-screen display when the RV-5 is finished checking the microphones. This display indicates the individual check results for each microphone.

- An OK result indicates that the microphone passed the microphone check.
- An ERROR result indicates that the microphone did not pass the microphone check.



4. Press the ▲ and ▼ arrow buttons to highlight the desired microphone parameter. The RV-5 refers to the microphones according to the input connector to which the microphone is connected.
5. Press the ▸ arrow button to view more detailed results for the selected microphone. A message similar to the one shown at the bottom of the previous column opens in the on-screen display. Refer to the table on the next page for information about all possible microphone check messages.

Note the following:

- The RV-5 retains the calculated microphone level until the SPEAKER SETUP menu is closed. Once this menu is closed, another microphone check is required before automatic calibration can be performed.
- Optional microphone kits that include two microphones are available. Perform automatic calibration with two microphones that have passed the microphone check.

  However, the RV-5 will perform automatic calibration as long as at least one microphone passes the microphone check. In this

circumstance, place the successfully checked microphone in the primary listening position.

- If a microphone check was successful, do not disconnect the microphones from the microphone input connectors. If the microphones are disconnected, you should perform the microphone check again before proceeding to automatic calibration.

CHECKING THE MICROPHONES (continued)

Message	Description	Troubleshooting
(MICROPHONE) OK	The microphone detected the calibration noise signal without error.	• N/A
(MICROPHONE) NOT DETECTED	The RV-5 did not detect the microphone during the silence check.	• Examine microphone input connections to ensure that the microphones are properly connected to the RV-5 and that microphone cable plugs are fully inserted for a solid connection. • The microphone may be damaged. Contact an authorized Lexicon dealer for assistance.
(MICROPHONE) SIGNAL TOO LOW	The RV-5 detected the microphone during the silence check. However, the microphone level determined during the silence check was not confirmed during the microphone check.	• Examine microphone input connections to ensure that the microphones are properly connected to the RV-5 and that microphone cable plugs are fully inserted for a solid connection. • The microphones may be positioned too far from the front speakers. Refer to the microphone placement examples that begin on page 3-37 to confirm that the microphones are appropriately positioned for the microphone check. • The microphone may be damaged. Contact an authorized Lexicon dealer for assistance.
(MICROPHONE) OUT OF RANGE	The microphone level is more than 20dB below the highest microphone level.	• Examine microphone input connections to ensure that the microphones are properly connected to the RV-5 and that microphone cable plugs are fully inserted for a solid connection. • The microphones might be positioned too far from the front speakers. Refer to the microphone placement examples that begin on page 3-37 to confirm that the microphones are appropriately positioned for the microphone check. • The microphone may be damaged. Contact an authorized Lexicon dealer for assistance.
(MICROPHONE) TOO MUCH ROOM NOISE	The microphone level could not be determined because of excessive room noise in the listening space.	• Eliminate extraneous noises in the listening space, including conversations, air conditioners and sounds that filter in through open doors and windows. • The microphone may be damaged. Contact an authorized Lexicon dealer for assistance.

POSITIONING THE MICROPHONES FOR AUTOMATIC CALIBRATION

Proper microphone placement is essential to achieving the desired automatic calibration results. Microphone placement determines whether the RV-5 calibrates optimal speaker distances and output levels for a single listening position, several listening positions in a single row, or several listening positions in the listening space.

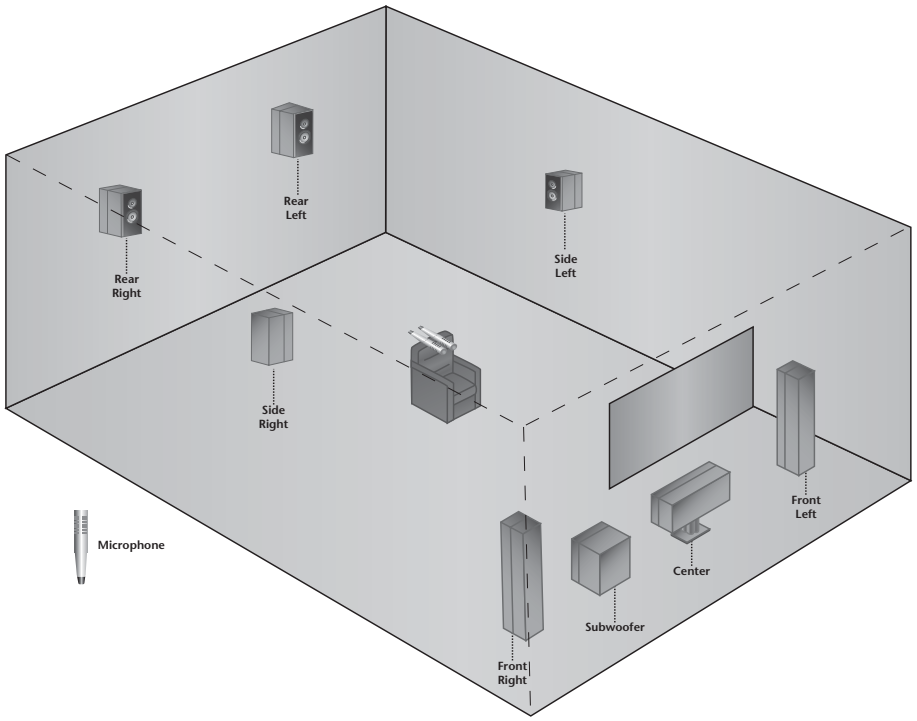
- Refer to the microphone placement examples that begin on the next page to position the microphones for automatic calibration. Select the microphone placement that best meets the needs of the listening space.

PROPER *microphone placement to achieve the best results for a single listening position*

When calibrating for a single listening position, place the microphones:

- ✓ As close together as possible in a single listening position (the primary listening position)
- ✓ At the approximate spot where the listener's head will be during listening
- ✓ In a clear line-of-sight path with the speakers
- ✓ In a location unobstructed by furniture and other fixtures, where echoes will not obscure calibration noise signals
- ✓ At least 2 feet (0.61m) from all speakers and walls, but within 30 feet (9.14m) of all speakers

The illustration to the right provides an example of proper microphone placement when calibrating for a single listening position. The microphones are positioned as close together as possible in a single listening position, allowing the RV-5 to calibrate optimal speaker distances and output levels for that position.



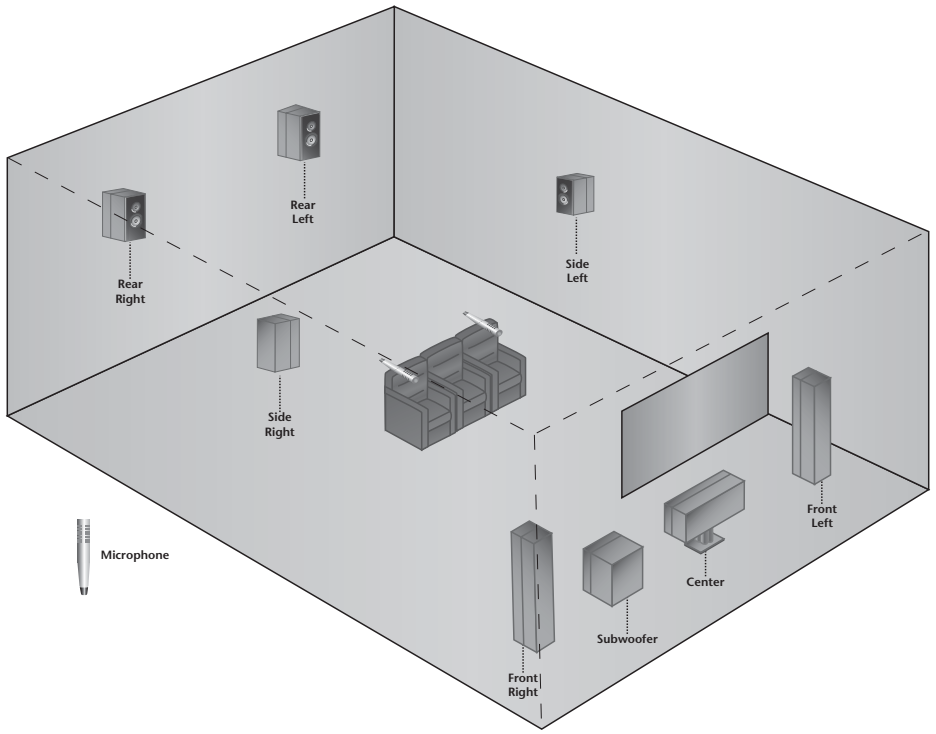
POSITIONING THE MICROPHONES FOR AUTOMATIC CALIBRATION *(continued)*

PROPER *microphone placement to achieve the best results for multiple listening positions in a single row*

When calibrating for multiple listening positions in a single row, position the microphones:

- ✓ At the approximate spot where the listener's head will be during listening
- ✓ In a clear line-of-sight path with the speakers
- ✓ In a location unobstructed by furniture and other fixtures, where echoes will not obscure calibration noise signals
- ✓ At least 2 feet (0.61m) from all speakers and walls, but within 30 feet (9.14m) of all speakers

The illustration to the right provides an example of proper microphone placement when calibrating for multiple listening positions in a single row. Each microphone is positioned in a single listening position within a single row, allowing the RV-5 to calibrate optimal speaker distances and output levels for that row at the expense of a single listening position.

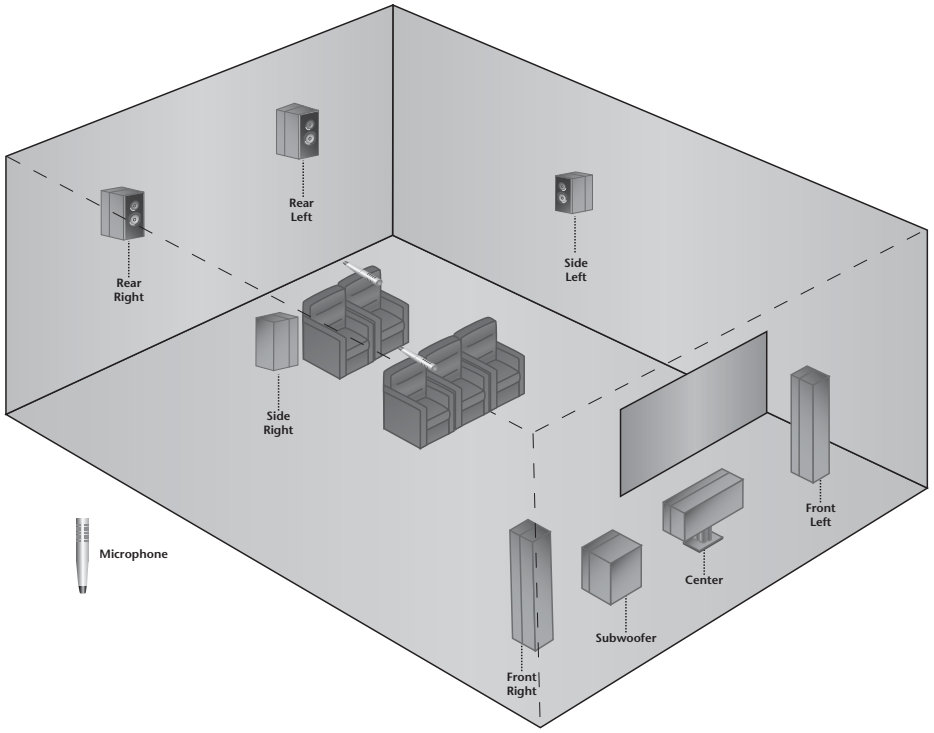


PROPER *microphone placement to achieve the best results for multiple listening positions in multiple rows*

When calibrating for multiple listening positions in multiple rows, position the microphones:

- ✓ At the approximate spot where the listener's head will be during listening
- ✓ In a clear line-of-sight path with the speakers
- ✓ In a location unobstructed by furniture and other fixtures, where echoes will not obscure calibration noise signals
- ✓ At least 2 feet (0.61m) from all speakers and walls, but within 30 feet (9.14m) of all speakers

The illustration to the right provides an example of proper microphone placement when calibrating for multiple listening positions in multiple rows. Each microphone is positioned in a single listening position within a row, allowing the RV-5 to calibrate optimal speaker distances and output levels for a larger listening area at the expense of a single listening position.



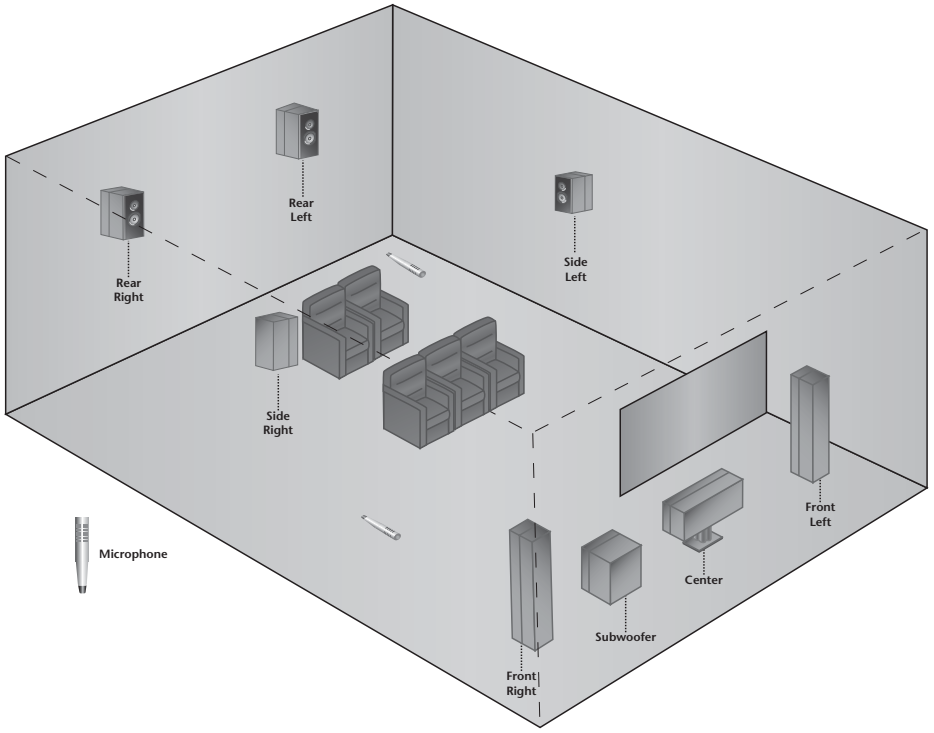
POSITIONING THE MICROPHONES FOR AUTOMATIC CALIBRATION *(continued)*

IMPROPER *microphone positioning for automatic calibration*

During the automatic calibration, do not:

- ✗ Arrange the microphones along the perimeter of the listening positions or space
- ✗ Position the microphones in spots where the listeners' heads will not be during listening
- ✗ Obstruct the line-of-sight path between the microphones and the speakers
- ✗ Position the microphones on the floor, on seat cushions, or in locations obstructed by furniture and other fixtures, where echoes might obscure calibration noise signals
- ✗ Position the microphones within 2 feet (0.61m) of speakers and walls or more than 30 feet (9.14m) from any one speaker

The illustration to the right provides an example of improper microphone placement during the microphone check. The microphones are positioned on the floor along the perimeter of the listening space, making it difficult for the RV-5 to calibrate optimal speaker distances and output levels for the actual listening positions.

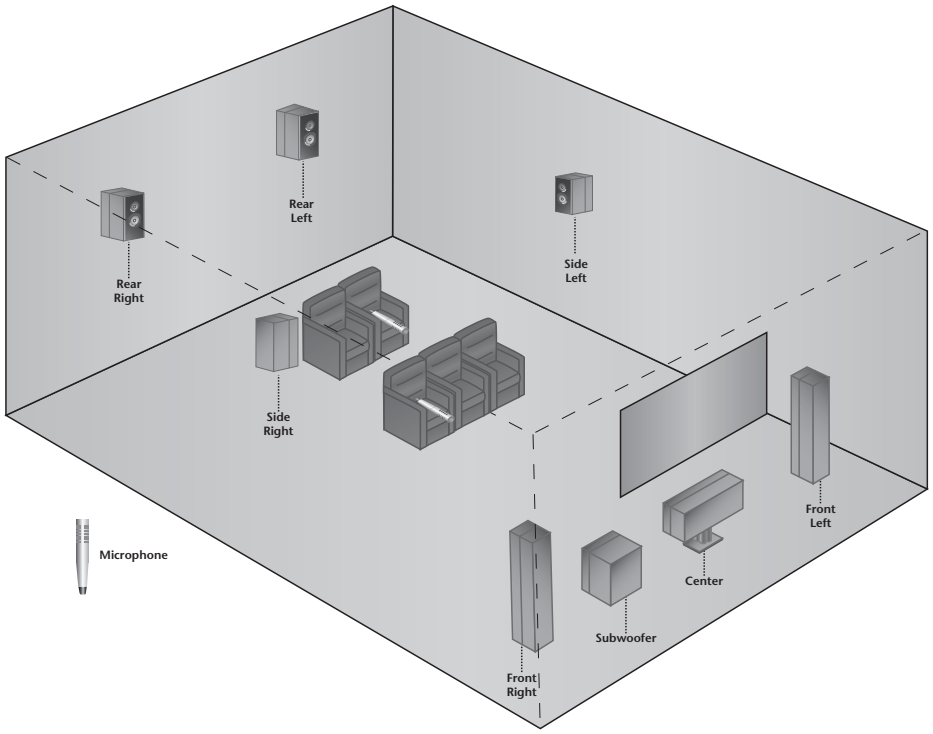


IMPROPER *microphone positioning for automatic calibration*

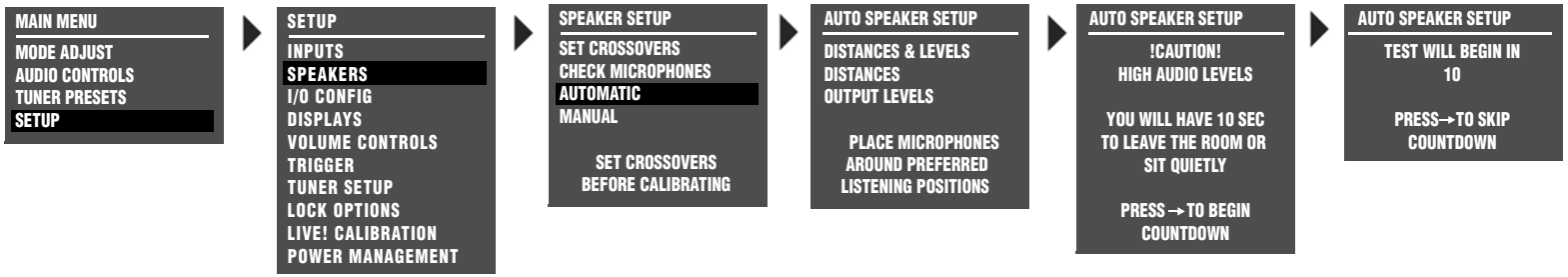
During the automatic calibration, do not:

- ✗ Arrange the microphones along the perimeter of the listening positions or space
- ✗ Position the microphones at spots where the listeners' heads will not be during listening
- ✗ Obstruct the line-of-sight path between the microphones and the speakers
- ✗ Position the microphones on the floor, on seat cushions, or in locations obstructed by furniture and other fixtures, where echoes might obscure calibration noise signals
- ✗ Position the microphones within 2 feet (0.61m) of speakers and walls or more than 30 feet (9.14m) from any one speaker

The illustration to the right provides an example of improper microphone placement during the microphone check. The microphones are positioned on seat cushions rather than in spots where the listener's heads will be during listening.

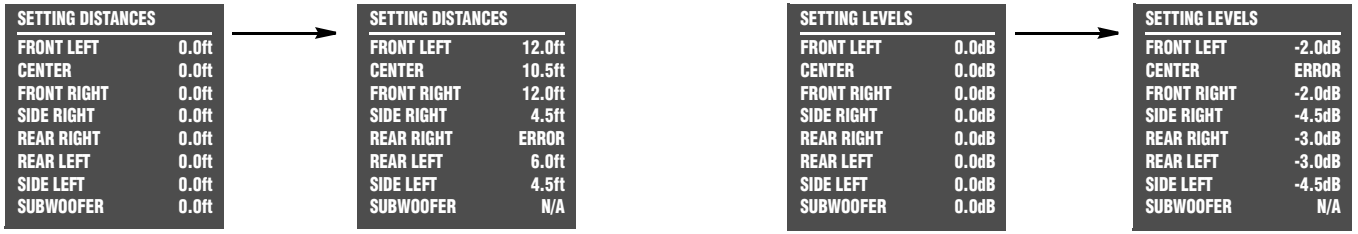


PERFORMING AUTOMATIC CALIBRATION



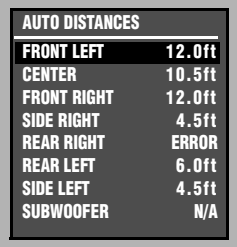
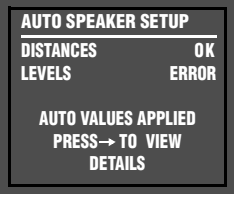
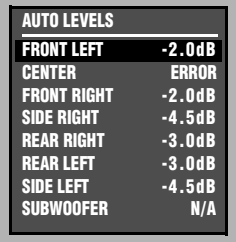
Follow the procedures in the appropriate table column for the desired type of automatic calibration.

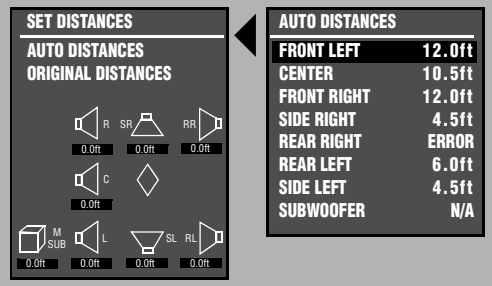
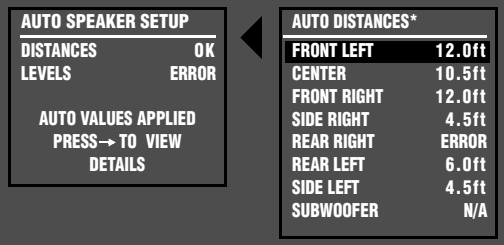
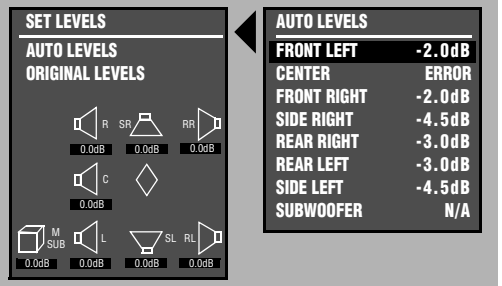
STEP	DISTANCES	DISTANCES & LEVELS	LEVELS
1	**Select the SPEAKER SETUP menu AUTOMATIC option, as shown in the menu illustration above.** • If a microphone check is successful, the AUTO SPEAKER SETUP menu appears in the on-screen display. Press the ▲ or ▼ arrow button to highlight the automatic calibration option you want. Then press the ▶ arrow button to select this option. Refer to the table on page 3-35 for more information about automatic calibration options. • If a microphone check is unsuccessful, one of the error messages shown to the right appears in the on-screen display, indicating that a successful microphone check is required before automatic calibration, and also the reason the previous check failed. If this occurs, go back to "Connecting the Microphones" on page 3-36 and work your way back to this page.		MIC CHECK REQUIRED FOR AUTO CALIBRATION NO MICROPHONE DETECTED
2	**The following AUTO SPEAKER SETUP messages are displayed before automatic calibration begins:** • The !CAUTION! HIGH AUDIO LEVELS message indicates that the RV-5 generates loud calibration noise signals during automatic calibration. If the signals become too loud, press the ◀ arrow button to cancel automatic calibration. Press the ▶ arrow button to open the next AUTO SPEAKER SETUP menu. • The countdown display notifies you that automatic calibration will begin in 10 seconds. The primary reason for the 10 second delay is to give you time to leave the listening space before automatic calibration begins. If you choose to remain in the room, your movements could affect the calibration results. If you leave the room, you can return in about 10 minutes (the calibration procedure should be completed). Press the ▶ arrow button to skip the countdown and begin automatic calibration. The RV-5 automatically activates automatic calibration when the countdown ends.		



STEP	DISTANCES	DISTANCES & LEVELS	LEVELS
3	**The SETTING DISTANCES menu is displayed when the RV-5 calibrates speaker distances.** • During speaker distance calibration, the RV-5 sends calibration noise signals to the Main Zone audio output connectors in the order shown on the SETTING DISTANCES menu. The cursor automatically scrolls downward through speaker calibration parameters, highlighting each parameter while the RV-5 calculates a distance for the corresponding speaker. As it finishes each parameter, the RV-5 enters the calibrated value or an ERROR message to the right of the parameter label. • Because of the way low-frequency signals propagate in most listening spaces, automatic speaker distance calibration often produces unreliable results for subwoofers. For this reason, the RV-5 does not send calibration noise signals to the Subwoofer connector during speaker distance calibration. Instead, the RV-5 automatically calibrates the subwoofer distance to the shortest distance of the other speakers. These distances can be manually adjusted. See "PERFORMING MANUAL SPEAKER DISTANCE CALIBRATION" on page 3-54.		This step does not occur when the AUTO SPEAKER SETUP menu LEVELS option is selected.
4	This step does not occur when the AUTO SPEAKER SETUP menu DISTANCES option is selected.	**The SETTING LEVELS menu is displayed when the RV-5 calibrates output levels.** • During speaker levels calibration, the RV-5 sends calibration noise signals to the Main Zone audio output connectors in the order shown on the SETTING LEVELS menu. The cursor automatically scrolls downward through speaker calibration parameters, highlighting each parameter while the RV-5 calculates an output level for the corresponding speaker. As it finishes each parameter, the RV-5 enters the calibrated value or an ERROR message to the right of the parameter label.	

PERFORMING AUTOMATIC CALIBRATION *(continued)*

STEP	DISTANCES	DISTANCES & LEVELS	LEVELS
5	  *Refer to the table on page 3-52 for information about all possible speaker calibration messages.*		  *Refer to the table on page 3-52 for information about all possible speaker calibration messages.*
	If there was a DISTANCES calibration error, an AUTO DISTANCES menu automatically displays. • A value indicates that no errors occurred during the calibration procedure. • An ERROR message indicates that a value was calculated, but at least one error occurred during the calibration procedure. • Press the ▲ or ▼ arrow button to highlight the speaker calibration parameter you want. Then press the ▶ button to view more detailed results for the selected speaker. A message similar to the one shown above will display. • Refer to the table on page 3-52 for information about all possible speaker calibration messages. • This menu is displayed, but not user accessible during Auto Distance Calibration or after Auto Calibration.	**When the RV-5 is finished calibrating speaker distances and output levels, if there was a calibration error, the AUTO SPEAKER SETUP screen is displayed, indicating the results for each calibration procedure.** • An OK message indicates that no errors occurred during the calibration procedure. • An ERROR message indicates that values were calculated, but at least one error occurred during calibration. • Press the ▲ or ▼ arrow button to highlight the desired calibration procedure. DISTANCES displays the AUTO DISTANCES screen shown in the left column of this table. LEVELS displays the AUTO LEVELS screen shown in the right column of this table. • Press the ▶ arrow button to select this procedure. • Refer to the instructions in the appropriate column to view more detailed results for each individual speaker. • If a speaker is highlighted in either the Distances or Levels menus, the speaker name is displayed.	**If there was a LEVELS calibration error, an AUTO LEVELS menu automatically displays.** • A value indicates that no errors occurred during the calibration procedure. • An ERROR message indicates that a value was calculated, but at least one error occurred during the calibration procedure. • Press the ▲ or ▼ arrow button to highlight the desired speaker calibration parameter. Then, press the ▶ arrow button to view more detailed results for the selected speaker. A message similar to the one shown above will display. • Refer to the table on page 3-52 for information about all possible speaker calibration messages. • This menu is displayed, but not user accessible during Auto Distance Calibration or after Auto Calibration.

STEP	DISTANCES	DISTANCES & LEVELS	LEVELS
6			
	Use the SET DISTANCES menu to select the desired speaker distances. 1 Press the ◂ arrow button to return to the SET DISTANCES menu. 2 Press the ▴ or ▾ arrow button to toggle between calibrated speaker distances (AUTO) and original speaker distances. The speaker graphics at the bottom of the menu update to indicate the selected values. 3 Press the ▸ button to apply the selected values. A confirmation message is displayed to indicate the applied values. 4 Press the ◂ button twice in succession to return to the SPEAKER SETUP menu. The AUTO DISTANCES menu is only accessible after the DISTANCES & LEVELS calibration is performed as a combined procedure.	**Use the AUTO SPEAKER SETUP menu to select speaker distances or levels.** 1 Press the ◂ arrow button to return to the AUTO SPEAKER SETUP results screen. 2 To select the other calibration procedure, follow the instructions in Step 5. Otherwise, press the ◂ button to return to the SPEAKER SETUP menu. * ***Note:*** *The AUTO DISTANCES screen is shown above as an example. The AUTO LEVELS screen can be substituted.*	**Use the SET LEVELS menu to select the desired speaker levels.** 1 Press the ◂ arrow button to return to the SET LEVELS menu. • Press the ▴ and ▾ arrow buttons to toggle between calibrated output levels (AUTO) and original output levels. The speaker graphics at the bottom of the menu update to indicate the selected values. • Press the ▸ arrow button to apply the selected values. A confirmation message is displayed to indicate the applied values. • Press the ◂ arrow button twice in succession to return to the SPEAKER SETUP menu. The AUTO LEVELS menu is only accessible after the DISTANCES & LEVELS calibration is performed as a combined procedure.

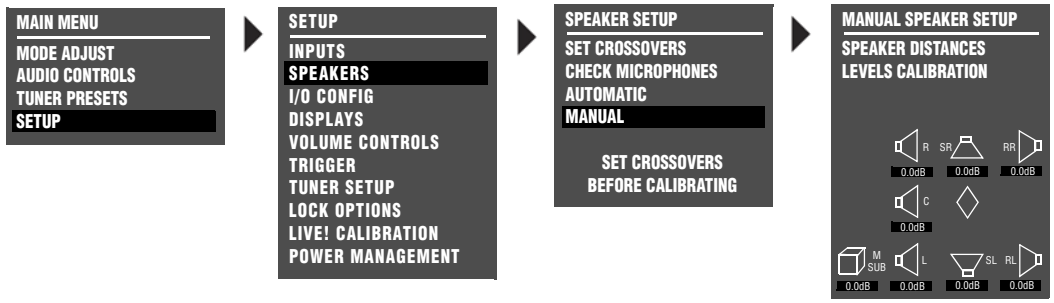
PERFORMING AUTOMATIC CALIBRATION (continued)

Message	Description	Troubleshooting
(SPEAKER) OK	The RV-5 successfully calibrated the value for the selected speaker without error.	• N/A
(SPEAKER) SPEAKER IS NOT ENABLED	The selected speaker is not present in the speaker setup.	• Set the corresponding CUSTOM or THX SETUP menu parameter to include the selected speaker in the speaker setup. (The RV-5 only calibrates values for speakers that are included in the speaker setup.)
(SPEAKER) SPEAKER OUT OF PHASE	The microphones detected out-of-phase calibration noise signals, but the calibrated value is still accurate.	• Examine speaker/associated amplifier connections to ensure that speaker wires are not crossed. • Dipolar speakers could cause this error. However, the RV-5 does not report this error unless at least half of the microphones detect out-of-phase calibration noise signals. • Reflections from room objects could cause this error. • Drivers intentionally wired out-of-phase could cause this error.
(SPEAKER) SIGNAL TOO LOW	The microphones detected calibration noise signals at an unusually low level.	• The microphones might be positioned more than 30 feet (9.14m) from the selected speaker or in a location where echoes obscure calibration noise signals. Refer to the placement examples on pages 3-40 to 3-44 to confirm that the microphones are appropriately positioned for automatic calibration. • Examine microphone input connections to ensure that the microphones are properly connected to the RV-5 and that microphone cable plugs are fully inserted for a solid connection.
(SPEAKER) UNABLE TO CALCULATE	The microphones did not detect calibration noise signals or the RV-5 could not calculate a value.	• Refer to the microphone placement examples on pages 3-41 to 3-45 to confirm that the microphones are appropriately positioned for automatic calibration. • Examine microphone input connections to ensure that the microphones are properly connected to the RV-5 and that microphone cable plugs are fully inserted for a solid connection.
(SPEAKER) MAY NOT BE ACCURATE	One or more microphones did not detect calibration noise signals at a reasonable level. The calibrated value could be inaccurate.	• Refer to the microphone placement examples on pages 3-41 to 3-45 to confirm that the microphones are appropriately positioned for automatic calibration.
(SPEAKER) SPKR OUTPUT TOO HIGH	The microphones detected calibration noise signals at an unusually high level.	• Decrease associated amplifier volume levels – including (if applicable) powered subwoofer amplifiers. • The microphones may be positioned too close (within 2 feet [0.61m]) of the selected speaker. Refer to the microphone placement examples on pages 3-41 to 3-45 to confirm that the microphones are appropriately positioned for automatic calibration.
(SPEAKER) SPKR OUTPUT TOO LOW	The microphones detected calibration noise signals at an unusually low level.	• Increase associated amplifier volume levels – including (if applicable) powered subwoofer amplifiers. • The microphones may be positioned too far away (more than 30 feet [9.14m]) from the selected speaker. See the microphone placement examples on pages 3-41 to 3-45 to confirm that the microphones are appropriately positioned for automatic calibration.

MANUAL CALIBRATION

SETUP ▶ SPEAKERS ▶ MANUAL

Selecting the SPEAKER SETUP menu MANUAL option displays the MANUAL SPEAKER SETUP menu, to manually calibrate speaker distances and output levels. The table below indicates available manual calibration options.

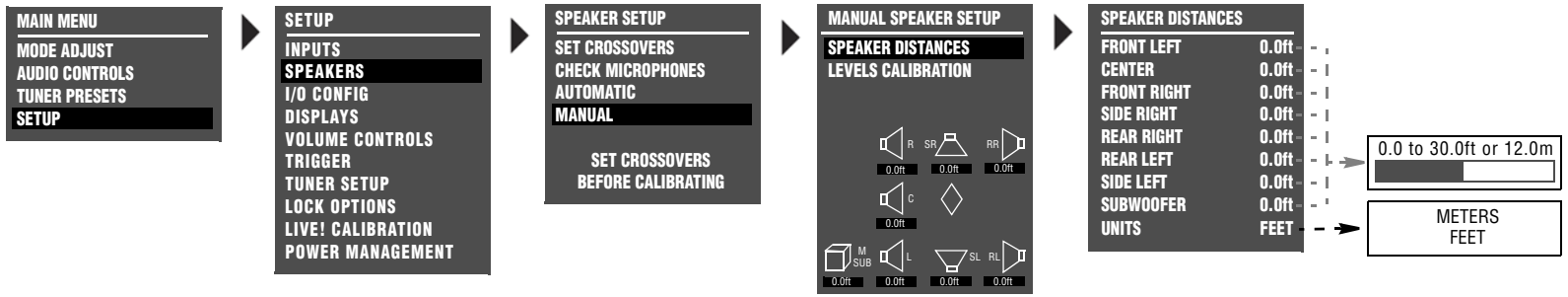


Manual Options	Details
SPEAKER DISTANCES	• Provides manual calibration and individual adjustment of speaker distances.
INTERNAL NOISE TEST	• Provides manual calibration and individual adjustment of output levels. • Automatically sends an internal calibration noise signal to each Main Zone audio output connector, allowing for simultaneous output level adjustment.
EXTERNAL NOISE TEST	• Provides manual calibration and individual adjustment of output levels. • Requires an external calibration source such as an audio calibration disc. • Activates an appropriate listening mode based on the current Main Zone input source.
BASS PEAK LIMITERS	• Provides amplitude limits for low-frequency signals sent to the Main Zone audio output connector labeled Subwoofer, and low-frequency signals redirected to other Main Zone audio output connectors. • Protects speakers against input sources that produce low-frequency signal peaks.

PERFORMING MANUAL SPEAKER DISTANCE CALIBRATION

SETUP ▸ **SPEAKERS** ▸ **MANUAL** ▸ **SPEAKER DISTANCES**

Selecting the MANUAL SPEAKER SETUP menu SPEAKER DISTANCES option displays the SPEAKER DISTANCES menu, to manually calibrate speaker distances.



To manually calibrate speaker distances:

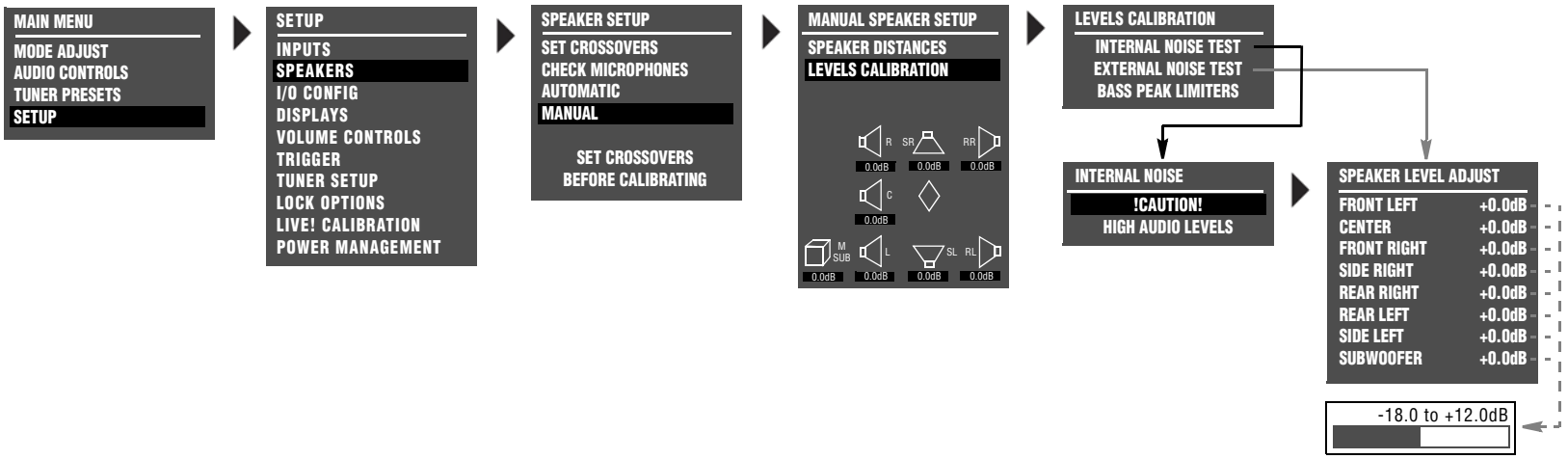
1. Follow the menu path shown above to select MANUAL SPEAKER SETUP ▸ SPEAKER DISTANCES. The SPEAKER DISTANCES menu shown above will open in the on-screen display.
2. Press the ▲ or ▼ arrow buttons to highlight the desired speaker distance parameter. Then, press the ▸ arrow button to select the highlighted speaker distance parameter.
3. To determine the appropriate speaker distance, measure the distance between the primary listening position and the front of the speaker.

   For example, when the FRONT LEFT parameter is selected, measure the distance between the primary listening position and the front of the front left speaker (connected to the Main Zone audio output connector labeled Front L).
4. When the speaker distance has been measured, press the ▲ and ▼ arrow buttons to set the parameter to the closest available value.

PERFORMING MANUAL OUTPUT LEVEL CALIBRATION

SETUP ▶ SPEAKERS ▶ MANUAL ▶ LEVELS CALIBRATION

Selecting the MANUAL SPEAKER SETUP menu LEVELS CALIBRATION option displays the LEVELS CALIBRATION menu shown below, to manually calibrate output levels.



Note the following:

- Use a Sound Pressure Level (SPL) meter to manually calibrate output levels. A SPL meter is a device that measures the relative loudness of the speakers to ensure accurate output level calibration. SPL meters are available from electronic retailers such as Radio Shack.
- Output levels should be calibrated from the primary listening position, placing the SPL meter at the approximate location where the listener's head will be during listening.
- Output levels for speakers that are not included in the speaker setup cannot be adjusted during the internal noise test. These output levels can be adjusted during the external noise test, but there is no need to do so.

INTERNAL NOISE TEST

SETUP ▸ SPEAKERS ▸ MANUAL ▸ LEVELS CALIBRATION ▸ INTERNAL NOISE TEST

Opens the INTERNAL NOISE message shown on the previous page, which indicates that the internal noise test generates loud calibration noise signals.

When the INTERNAL NOISE message opens:

- Press the ▸ arrow button to open the SPEAKER LEVEL ADJUST menu shown on the previous page. When the SPEAKER LEVEL ADJUST menu opens, the internal noise test automatically begins.
- Press the ◂ button to skip the internal noise test.

During the internal noise test, the RV-5 sends calibration noise signals to each speaker in the order shown on the SPEAKER LEVEL ADJUST menu. The cursor automatically scrolls through output level parameters, highlighting each parameter as the RV-5 sends the calibration noise signal to the corresponding speaker. The calibration noise signal is sent to each speaker for about 4 seconds.

Note:

When the internal noise test begins, the RV-5 automatically sets volume level to +0dB. Avoid adjusting the master volume level while the test is in progress, to achieve THX reference levels (75dB).

To manually calibrate output levels during the internal noise test:

1. Set the SPL meter to "C" weighting and "SLOW" response.
2. Place the SPL meter at the primary listening position.
3. Press the ▲ or ▼ arrow button to highlight the desired output level parameter. Then, quickly press the ▸ button to select this output level parameter. The horizontal bar graph shown on the previous page will open in the on-screen display and automatic scrolling will stop.

   Note:

   During the internal noise test, it is possible to select an output level parameter just as the cursor is about to automatically scroll to the next parameter, causing the RV-5 to send the calibration noise signal to both speakers. If this occurs, reselect the desired speaker.

4. When the horizontal bar graph opens, press the ▲ or ▼ button to select the output level that achieves a 75dB SPL meter reading from the primary listening position.
5. Press ◂ to close the parameter. The internal noise test will continue and automatic scrolling will resume.
6. Repeat steps 2, 3, 4 and 5 until all desired output levels have been set.

EXTERNAL NOISE TEST

SETUP ▸ SPEAKERS ▸ MANUAL ▸ LEVELS CALIBRATION ▸ EXTERNAL NOISE TEST

Selecting the LEVELS CALIBRATION menu EXTERNAL NOISE TEST option opens the SPEAKER LEVEL ADJUST menu shown on page 3-55, which manually calibrates output levels.

The external noise test requires an external calibration source such as an audio calibration disc. When the external noise test is conducted, the RV-5 activates a listening mode based on the current Main Zone input source. Refer to the table below for more information about external noise test listening mode activation.

When a listening mode is activated during the external noise test, all custom listening mode menu parameter settings are ignored. The listening mode is applied to the current Main Zone input source in its factory-default condition. When the external noise test is finished, the listening mode returns to its custom condition.

INPUT SOURCE	LISTENING MODE
2-Channel	DOLBY PLII MOVIE, DOLBY PLIIx MOVIE*
Dolby Digital	DIGITAL**
DTS(-ES)	*
5.1-Channel Analog	5.1a BYPASS***

** These listening modes depend on the speaker configuration. Dolby Pro Logic IIx MOVIE will only load when side and rear speakers are present.*

***These listening mode names differ depending on the current input source, speaker setup and parameter settings. Refer to the Listening Mode Descriptions section beginning on page 6-4 for more information.*

***If the Advanced Menu input is set to "ANALOG BYPASS OFF" the listening mode for the EXTERNAL NOISE TEST is "5.1a STANDARD".*

Note:

When the external noise test begins, the RV-5 automatically sets volume level to +0dB. Avoid adjusting the master volume level while the test is in progress, to achieve THX reference levels (75dB).

To manually calibrate output levels during the external noise test:

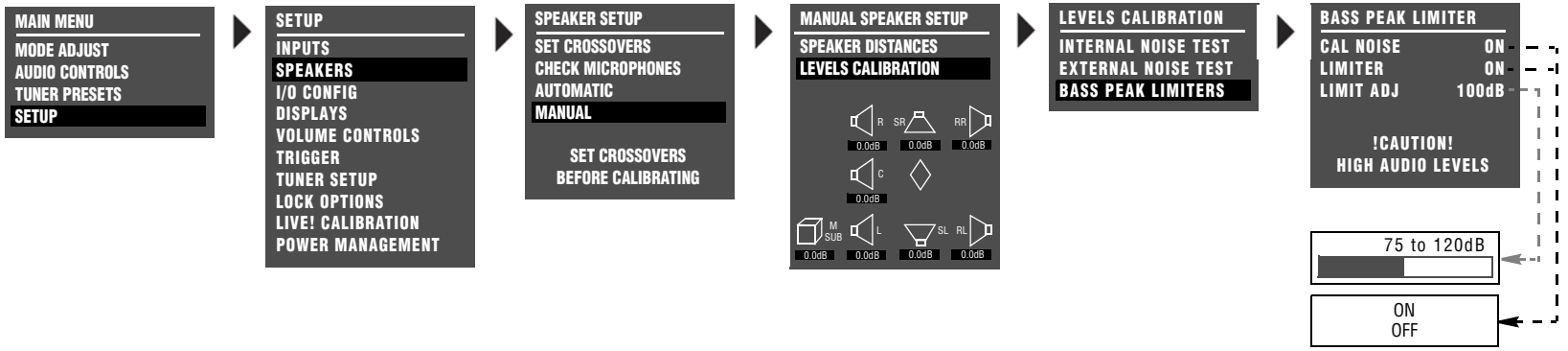
1. Set the SPL meter to "C" weighting and "SLOW" response.
2. Place the SPL meter at the primary listening position.
3. Press the ▲ or ▼ arrow button to highlight the output level parameter you want. Then press the ▸ button to select this output level parameter.

   The horizontal bar graph shown on page 3-55 is displayed.
4. Begin playback of the external calibration source and press the ▲ or ▼ arrow button to select the output level that achieves a 75dB SPL Meter reading.
5. After selecting the output level, press the ◂ arrow button to close the horizontal bar graph.
6. Repeat steps 3, 4 and 5 until you have set all the output levels you want.

SETTING BASS PEAK LIMITERS

SETUP ▶ SPEAKERS ▶ MANUAL ▶ LEVELS CALIBRATION ▶ BASS PEAK LIMITERS

The BASS PEAK LIMITERS option displays the BASS PEAK LIMITERS menu, to set amplitude limits on low-frequency signals sent to the Main Zone audio output connectors, including the Subwoofer. The RV-5 is equipped with an internal limiter to prevent low-frequency signals from exceeding a designated output level. This is essential for Dolby Digital and DTS(-ES) sources that produce low-frequency signal peaks at much higher output levels than 2-channel sources. In home theaters, there is a danger of the subwoofers and their associated amplifiers overloading when attempting to reproduce low-frequency signals.



Parameter	Default Setting	Possible Setting
CAL NOISE	ON	ON, OFF
LIMITER	ON	ON, OFF
LIMIT ADJ	100dB	75 to 120dB

Note:

Configure BASS PEAK LIMITERS menu parameter settings whether output levels are automatically or manually calibrated.

CAL NOISE

ON, OFF

SETUP ▶ SPEAKERS ▶ MANUAL ▶ LEVELS CALIBRATION ▶ BASS PEAK LIMITERS ▶ CAL NOISE

Determines whether bass peak limiters are set with an internal or external calibration source.

To set the CAL NOISE parameter:

- Select **ON** to activate an internal calibration noise signal to set bass peak limiters.
- Select **OFF** to deactivate the internal calibration noise signal.

  Setting bass peak limiters with the calibration noise set to OFF requires an external calibration source such as an audio calibration disc.

LIMITER ON, OFF

SETUP ▶ SPEAKERS ▶ MANUAL ▶ LEVELS CALIBRATION ▶ BASS PEAK LIMITERS ▶ LIMITER

Limits low-frequency signals sent to the subwoofer or redirected to other speakers.

To set the LIMITER parameter:

- Select **ON** to restrict the output level of the low-frequency signals to the LIMIT ADJ parameter setting.
- Select **OFF** to allow an unrestricted signal output level, regardless of the LIMIT ADJ parameter setting.

LIMIT ADJ 75 to 120dB

SETUP ▶ SPEAKERS ▶ MANUAL ▶ LEVELS CALIBRATION ▶ BASS PEAK LIMITERS ▶ LIMITER ADJ

Sets amplitude limits applied to the Subwoofer output connector, and to other Main Zone audio output connectors to which low-frequency signals are redirected.

To set the LIMIT ADJ parameter:

1. Select the **LIMIT ADJ** parameter.

   The parameter initially sets to 75dB.

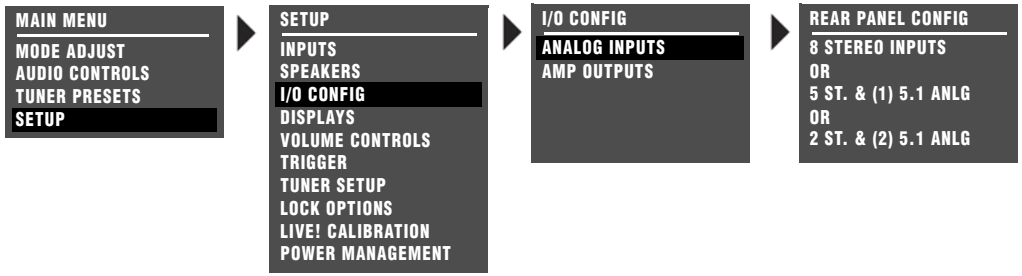
2. Press the ▲ and ▼ arrow buttons to change the parameter value.

   The selected amplitude is applied when the SUB LIMITER parameter is set to ON.

I/O CONFIG

SETUP ▶ I/O CONFIG

The I/O CONFIG option is used to configure the analog audio input connectors as eight (Left/Right) stereo connectors, five (Left/Right) stereo connectors and one 5.1-channel configuration (Front L/R, Center, Subwoofer, Side L/R), or as two stereo connectors and two 5.1-channel configurations.



8 STEREO INPUTS

SETUP ▶ I/O CONFIG ▶ ANALOG INPUTS ▶ 8 STEREO INPUTS

Select the 8 STEREO INPUTS option to configure the analog audio input connectors as eight stereo connectors.

When 8 STEREO INPUTS is selected:

- All analog audio input connectors are configured as stereo connectors.
- The 5.1-channel connectors are not available.
- Input sources that were assigned to the 5.1 ANLG (3-5) and 5.1 ANLG (6-8) are reassigned to the stereo connectors labeled 3 and 6, respectively.

5 ST. & (1) 5.1 ANLG

SETUP ▶ I/O CONFIG ▶ ANALOG INPUTS ▶ 5 ST. & (1) 5.1 ANLG

Configures the analog audio input connectors as five stereo connectors and one 5.1-channel configuration.

When the analog audio input connectors are configured as five stereo and one 5.1-channel configuration:

- The connectors labeled 1, 2, 3, 4 and 5 are configured as stereo connectors.
- The connectors labeled 6, 7 and 8 are configured as a 5.1-channel connector. This connector is sent to the Main Zone audio output connectors, as indicated in the table at the bottom of the next column.
- Two-channel sources that were assigned to the stereo connectors labeled 6, 7 and 8 are reassigned to the 5.1-channel connector labeled 5.1 ANLG (6-8). The 5.1-channel connectors should only be used with 5.1-channel analog sources such as DVD-As and SACDs.

2 ST. & (2) 5.1 ANLG

SETUP ▶ I/O CONFIG ▶ ANALOG INPUTS ▶ 2 ST. & (2) 5.1 ANLG

Configures the analog audio input connectors as two stereo connectors and two 5.1-channel configurations.

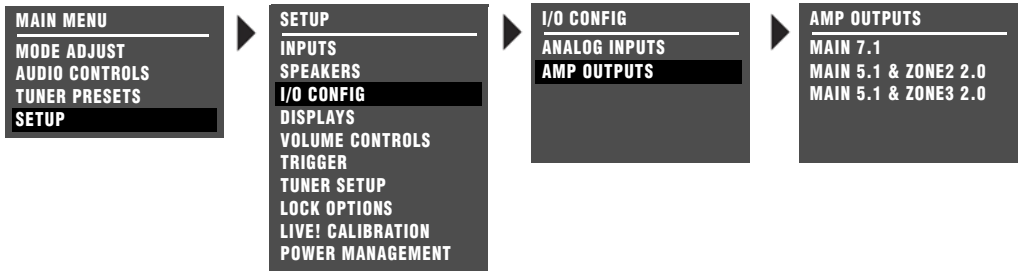
When the analog audio input connectors are configured as two stereo and two 5.1-channel connectors:

- The connectors labeled 1 and 2 are configured as stereo connectors.
- The connectors labeled 3, 4 and 5 are configured as a 5.1-channel connector, and the connectors labeled 6, 7 and 8 are configured as a 5.1-channel connector. These connectors are sent to the Main Zone audio output connectors as indicated in the table at the bottom of this column.
- 2-channel sources that were assigned to the stereo connectors labeled 3, 4 and 5 are reassigned to the 5.1-channel connector labeled 5.1 ANLG (3-5). Two-channel sources that were assigned to the stereo connectors labeled 6, 7 and 8 are reassigned to the 5.1-channel connector labeled 5.1 ANLG (6-8). The 5.1-channel connectors should only be used with 5.1-channel analog sources such as DVD-As and SACDs.

The 5.1-channel analog audio input connectors are sent to the Main Zone analog audio output connectors, as shown in the table below.

Input Connector	Output Connector
(L)	Front L
(R)	Front R
(C)	Center
(SUB)	Sub
(LS)	Side L and Rear L
(RS)	Side R and Rear R

I/O CONFIG *(continued)*



MAIN 7.1

SETUP ▸ I/O CONFIG ▸ AMP INPUTS ▸ MAIN 7.1

When set to MAIN 7.1, all of the amplifier outputs on the rear panel will be configured for use in the Main Zone. Outputs 3 and 7 are used for the rear speakers (Rear L/R).

MAIN 5.1 & ZONE2 2.0

SETUP ▸ I/O CONFIG ▸ AMP INPUTS ▸ MAIN 5.1 & ZONE2 2.0

Configures amplifier outputs 3 and 7 for use in Zone 2. Outputs 1, 2, 4, 5 and 6 will be configured for use in the Main Zone. The input source selected for Zone 2 will be output on amplifier outputs 3 and 7.

Note:

If the current speaker configuration is using rear speakers, a warning message will appear alerting the user to the fact that the rear speakers will be disabled for the Main Zone when the 5.1 MAIN & ZONE2 2.0 setting is chosen. Press the right menu button to confirm the change. Pressing any other button will cancel the change.

MAIN 5.1 & ZONE3 2.0

SETUP ▸ I/O CONFIG ▸ AMP INPUTS ▸ MAIN 5.1 & ZONE3 2.0

Configures amplifier outputs 3 and 7 for use in Zone 3. Outputs 1, 2, 4, 5 and 6 will be configured for use in the Main Zone. The input source selected for Zone 3 will be output on amplifier outputs 3 and 7.

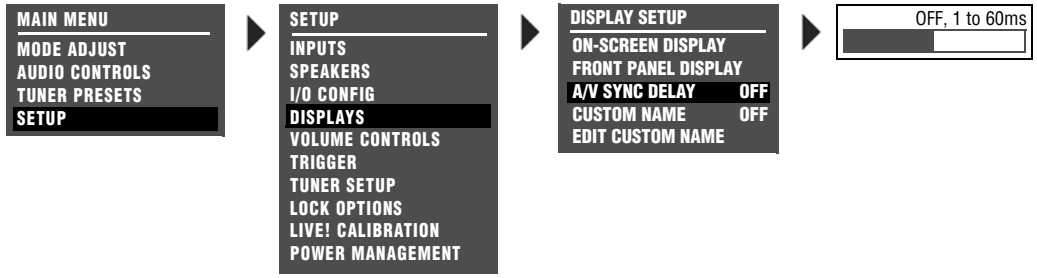
Note:

If the current speaker configuration is using rear speakers, a warning message will appear alerting the user to the fact that the rear speakers will be disabled for the Main Zone when the 5.1 MAIN & ZONE3 2.0 setting is chosen. Press the right menu button to confirm the change. Pressing any other button will cancel the change.

DISPLAY SETUP

SETUP ▶ DISPLAYS

Selecting the SETUP menu DISPLAYS option opens the DISPLAY SETUP menu, which is used to customize the on-screen and front-panel displays, restore audio/video synchronization, and activate and create a custom unit name.

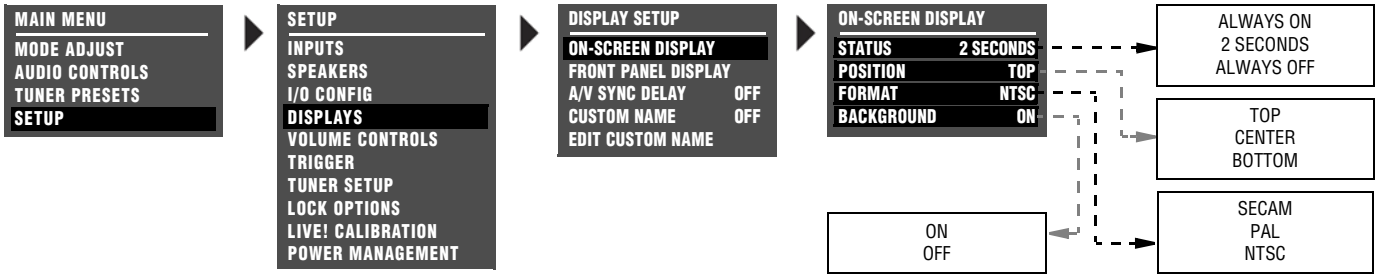


Parameter	Default Setting	Possible Setting
ON-SCREEN DISPLAY	Refer to page 3-64	
FRONT PANEL DISPLAY	Refer to page 3-66	
A/V SYNC DELAY	OFF	OFF, 1 to 60ms
CUSTOM NAME	OFF	ON, OFF
EDIT CUSTOM NAME	N/A	N/A

ON-SCREEN DISPLAY SETUP

SETUP ▶ DISPLAYS ▶ ON-SCREEN DISPLAY

Opens the ON-SCREEN DISPLAY menu, which is used to customize the on-screen display.



Parameter	Default Setting	Possible Settings
STATUS	2 SECONDS	ALWAYS ON, 2 SECONDS, ALWAYS OFF
POSITION	TOP	TOP, CENTER, BOTTOM
FORMAT	NTSC	SECAM, PAL, NTSC
BACKGROUND	ON	ON, OFF

STATUS ALWAYS ON, 2 SECONDS, ALWAYS OFF

SETUP ▶ DISPLAYS ▶ ON-SCREEN DISPLAY ▶ STATUS

Activates and deactivates the on-screen display sent to the Main Zone video output connector. When set to ALWAYS ON, the on-screen display remains on at all times. When set to 2 SECONDS, the on-screen display appears for 2 seconds whenever the input source changes or the RV-5 receives a command. When set to ALWAYS OFF, the on-screen display remains off at all times. It will not reappear until the ON-SCREEN DISPLAY menu STATUS parameter is set to ALWAYS ON or 2 SECONDS.

Note:

When the ON-SCREEN DISPLAY menu STATUS parameter is set to ALWAYS OFF, the on-screen display immediately disappears. Use the front-panel display as a guide to reset the parameter to ALWAYS ON or 2 SECONDS.

POSITION TOP, CENTER, BOTTOM

SETUP ▶ DISPLAYS ▶ ON-SCREEN DISPLAY ▶ POSITION

Controls the vertical position of the two-line status on the display device screen. When set to TOP, the two-line status appears near the top of the display device screen. When set to CENTER, the two-line status is centered on the display device screen. When set to BOTTOM, the two-line status appears near the bottom of the display device screen. Refer to page 2-28 for more information about the two-line status.

FORMAT SECAM, PAL, NTSC

SETUP ▶ DISPLAYS ▶ ON-SCREEN DISPLAY ▶ FORMAT

Controls the compatibility between the video input connectors, the video switcher and the display device. Select the setting that is compatible with the source components and display device.

Note:

The FORMAT parameter affects the composite and S-Video output connectors. It does not affect the component video output connector.

BACKGROUND ON, OFF

SETUP ▶ DISPLAYS ▶ ON-SCREEN DISPLAY ▶ BACKGROUND

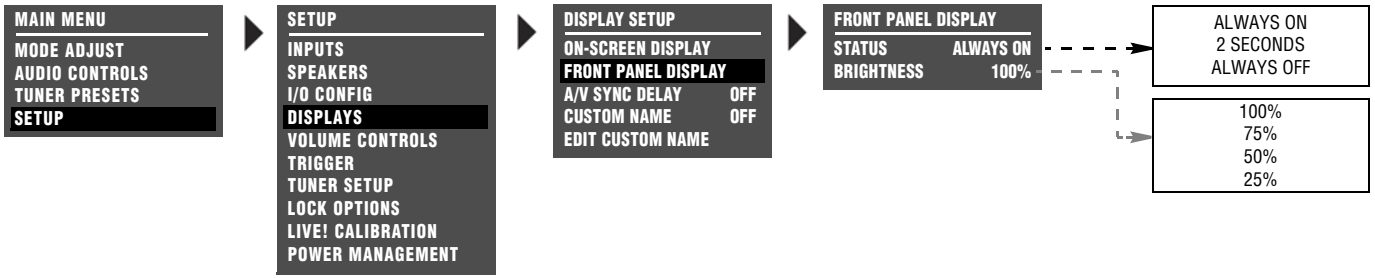
Activates and deactivates the menu background. When set to ON, on-screen display menus appear over a solid blue or gray background (depending on the display device). When set to OFF, on-screen display menus appear over the video input signal.

Note:

When the BACKGROUND parameter is set to OFF, the on-screen display will disappear if the display device is using the component video output connector.

FRONT-PANEL DISPLAY SETUP

Opens the FRONT PANEL DISPLAY menu, which is used to customize the front-panel display.



Parameter	Default Setting	Possible Settings
STATUS	ALWAYS ON	ALWAYS ON, 2 SECONDS, ALWAYS OFF
BRIGHTNESS	100%	100%, 75%, 50%, 25%

STATUS

ALWAYS ON, 2 SECONDS, ALWAYS OFF

SETUP ▸ DISPLAYS ▸ FRONT PANEL DISPLAY ▸ STATUS

Activates and deactivates the front-panel display. When set to ALWAYS ON, the front-panel display remains on at all times. When set to 2 SECONDS, the front-panel display appears for 2 seconds whenever the input source changes or the RV-5 receives a command. When set to ALWAYS OFF, the front-panel display remains off at all times.

Note:

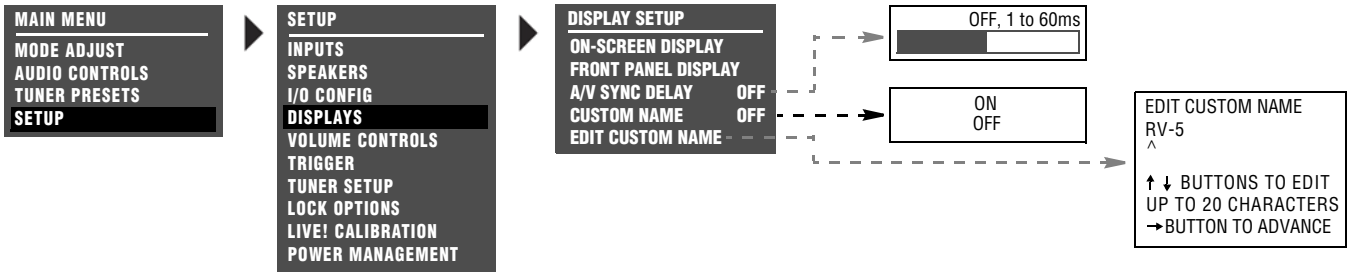
When the FRONT PANEL DISPLAY menu STATUS parameter is set to ALWAYS OFF, the front-panel display immediately disappears. Use the on-screen display as a guide to reset the parameter to ALWAYS ON or 2 SECONDS.

BRIGHTNESS

100%,75%, 50%, 25%

SETUP ▸ DISPLAYS ▸ FRONT PANEL DISPLAY ▸ BRIGHTNESS

Controls the brightness of front-panel display characters. When a setting is selected, front-panel display illumination automatically adjusts to the selected brightness.



A/V SYNC DELAY

OFF, 1 to 60ms

SETUP ▸ DISPLAYS ▸ A/V SYNC DELAY

Restores audio/video synchronization when using products such as video processors that introduce a video signal delay. This parameter can be used to set an audio signal delay to compensate for the video signal delay.

CUSTOM NAME

ON, OFF

SETUP ▸ DISPLAYS ▸ CUSTOM NAME

Activates the display of a custom unit name, which appears when the RV-5 is activated. When set to ON, the custom name scrolls across the on-screen and front-panel displays when the RV-5 is activated. When set to OFF, the custom name does not appear when the RV-5 is activated. The custom name can be entered in the DISPLAY SETUP menu EDIT CUSTOM NAME menu.

EDIT CUSTOM NAME

SETUP ▸ DISPLAYS ▸ EDIT CUSTOM NAME

Opens the EDIT CUSTOM NAME menu shown below, which can be used to create a custom unit name. When the CUSTOM parameter is set to ON, the custom unit name appears in the on-screen and front-panel displays when the RV-5 is activated.

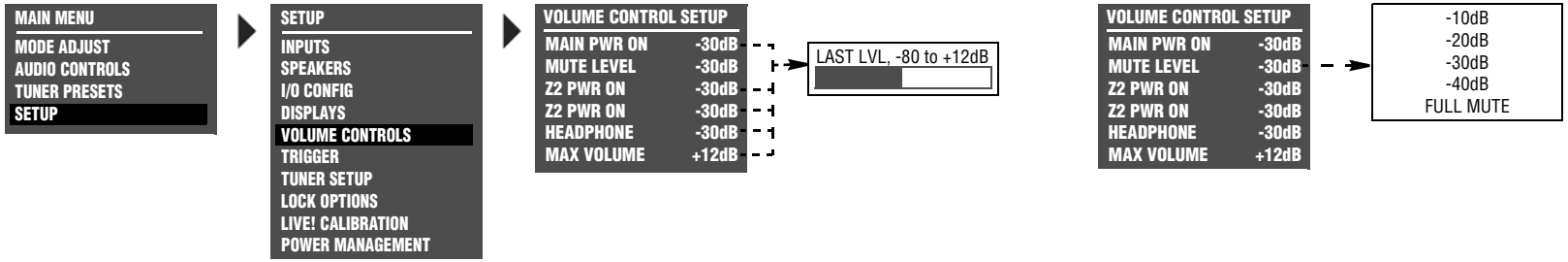
To customize the name of the RV-5:

1. Follow the EDIT CUSTOM NAME menu path to open the EDIT CUSTOM NAME drop-down menu shown below.
2. When the EDIT CUSTOM NAME drop-down menu opens, press the remote control ▲ and ▼ arrow buttons to change the character above the cursor (^).
3. When the desired character has been selected, press the ▸ arrow button to advance to the next character space. The cursor will automatically wrap to the first character space when the last character space is passed.
4. Repeat steps 2 and 3 to enter the desired custom unit name.
5. When the desired custom unit name has been entered, press the ◂ arrow button to close the EDIT CUSTOM NAME drop-down menu and return to the DISPLAY SETUP menu.

VOLUME CONTROL SETUP

SETUP ▶ **VOLUME CONTROLS**

Opens the VOLUME CONTROL SETUP menu, which is used to configure Main Zone, Zone 2, Zone 3, and Headphone volume levels.



Parameter	Default Setting	Possible Settings
MAIN PWR ON	–30dB	LAST LVL, –80 to +12dB
MUTE LEVEL	–30dB	–40dB, –30dB, –20dB, –10dB, FULL
Z2 PWR ON	–30dB	LAST LVL, –80 to +12dB
Z3 PWR ON	–30dB	LAST LVL, –80 to +12dB
HEADPHONE	–30dB	LAST LVL, –80 to +12dB
MAX VOLUME	–12dB	–80 to +12dB

MAIN PWR ON

LAST LVL, –80 to +12dB

SETUP ▶ **VOLUME CONTROLS** ▶ **MAIN PWR ON**

Sets the Main Zone volume level that will be selected whenever the Main Zone is activated. When set to LAST LVL, the Main Zone activates at the volume level that was last selected in the previous operating session.

MUTE LEVEL

–40dB, –30dB, –20dB, –10dB, FULL MUTE

SETUP ▶ **VOLUME CONTROLS** ▶ **MUTE LEVEL**

Sets the amount of attenuation that occurs in the Main Zone when the front-panel or remote control Mute button is pressed. When set to FULL MUTE, Main Zone volume level will be fully attenuated. Otherwise, Main Zone volume level will be attenuated to the selected level.

Z2 PWR ON

LAST LVL, –80 to +12dB

SETUP ▶ **VOLUME CONTROLS** ▶ **ZONE PWR ON**

Sets the Zone 2 volume level that will be selected whenever Zone 2 is activated. When set to LAST LVL, Zone 2 activates at the volume level that was last selected in the previous operating session. LAST LVL is displayed on power up if the Zone 2 was powered off using the Zone 2 Off button on the remote control or front panel.

Z3 PWR ON

LAST LVL, –80 to +12dB

SETUP ▶ VOLUME CONTROLS ▶ ZONE PWR ON

Sets the Zone 3 volume level that will be selected whenever Zone 3 is activated. When set to LAST LVL, Zone 3 activates at the volume level that was last selected in the previous operating session. LAST LVL is displayed on power up if the Zone 3 was powered off using the Zone 3 Off button on the remote control or front panel.

HEADPHONE

LAST LVL, –80 to +12dB

SETUP ▶ VOLUME CONTROLS ▶ ZONE PWR ON

Sets the Headphone volume level that will be selected whenever headphones are plugged in to the RV-5. When set to LAST LVL, the headphones will activate at the last volume level that was selected when they were last plugged in. When the headphones are unplugged, the volume will revert to the MAIN PWR ON setting.

MAX VOLUME

-80 TO +12dB

SETUP ▶ VOLUME CONTROLS ▶ MAX VOLUME

Selects the maximum volume level for the Main Zone. When a value is selected, the RV-5 automatically sets Main Zone volume level to the selected value when the current level is higher.

TRIGGER SETUP

SETUP ▶ TRIGGER

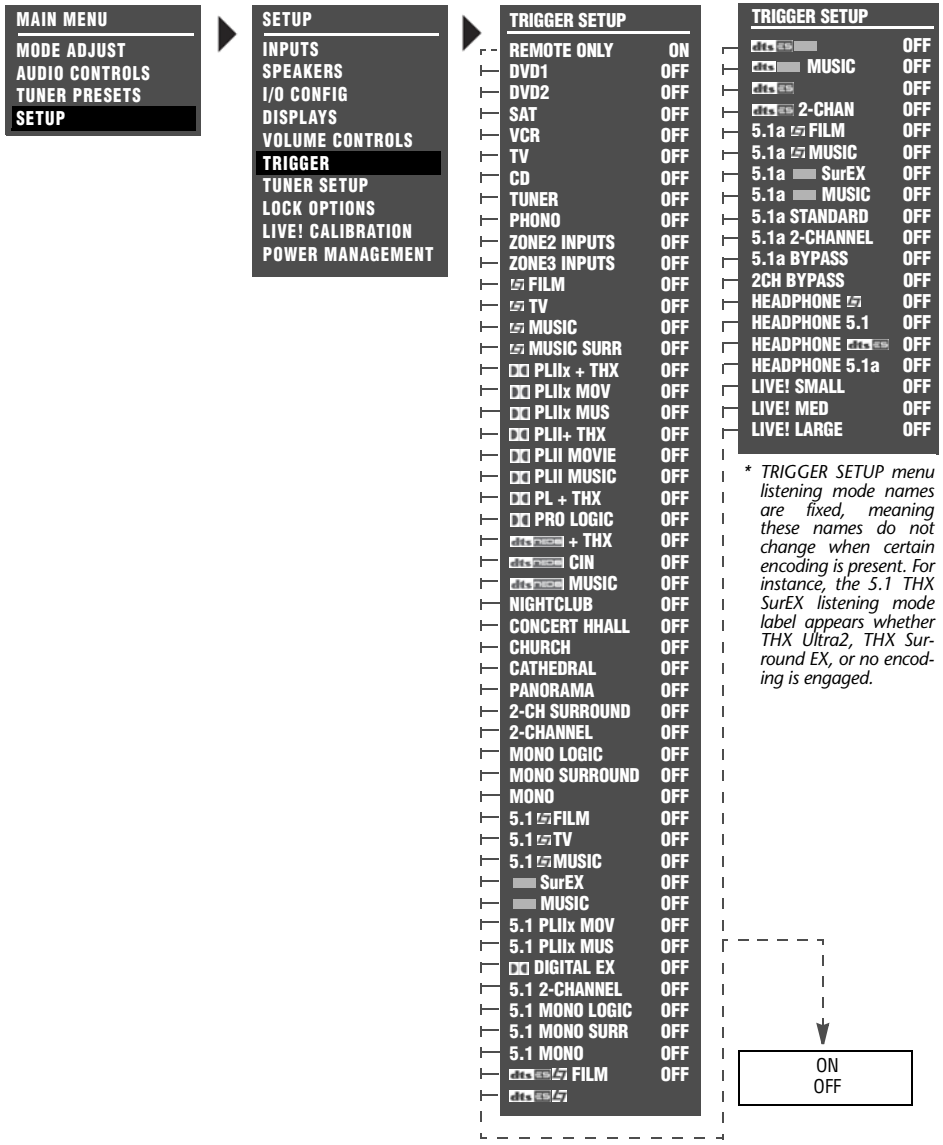
Selecting the SETUP menu TRIGGER option opens the TRIGGER SETUP menu shown to the right, which can be used to configure the trigger output connector labeled 1. The RV-5 rear panel houses two 12V DC trigger output connectors. The connector labeled PWR – the power trigger output connector – is not configurable. It is activated when the RV-5 is activated, and deactivated when the RV-5 is deactivated. The trigger output connector labeled 1 can be configured for remote or program operation.

Parameter	Default Setting	Possible Settings
REMOTE ONLY	ON	ON, OFF
Program Operation	OFF	ON, OFF

REMOTE ONLY ON, OFF

SETUP ▶ TRIGGER ▶ REMOTE ONLY

Configures the trigger output connector labeled 1 for remote operation. When set to ON, this connector is configured for remote operation. The remote control play and stop buttons turns the trigger on and off. The RV-5 ignores all other TRIGGER SETUP menu parameter settings. When set to OFF, the trigger output connector labeled 1 is not configured for remote operation. It can be configured for program operation.



** TRIGGER SETUP menu listening mode names are fixed, meaning these names do not change when certain encoding is present. For instance, the 5.1 THX SurEX listening mode label appears whether THX Ultra2, THX Surround EX, or no encoding is engaged.*

PROGRAM OPERATION PARAMETERS ON, OFF

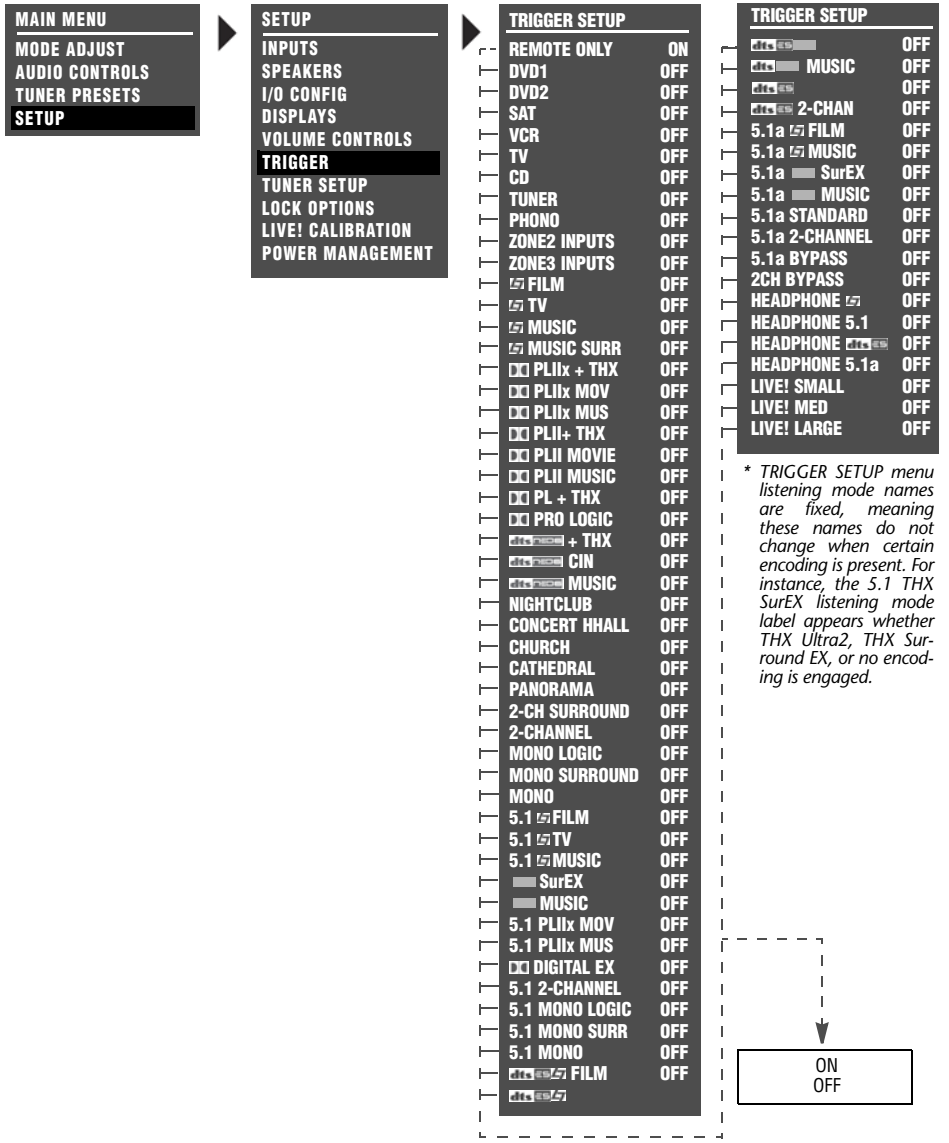
SETUP ▶ TRIGGER ▶ (PROGRAM OPERATION PARAMETER)

Configure the trigger output connector labeled 1 for program operation. All TRIGGER SETUP menu parameters–except the REMOTE ONLY parameter–are considered program operation parameters. The connector can be associated with multiple inputs and listening modes at the same time.

When the REMOTE ONLY parameter is set to OFF and program operation parameters are set to ON, the trigger output connector labeled 1 is associated with the corresponding Main Zone inputs, Main Zone listening modes or Zone 2 inputs. (The connector cannot be associated with individual Zone 2 inputs; rather, it can be associated with the Zone 2 inputs as a group.) When configured for program operation, the connector is activated when the corresponding inputs and listening modes are selected and deactivated when the corresponding inputs and listening modes are deselected.

Note:

When the CUSTOM menu RESET MODE option is selected to restore the factory default version of the selected listening mode, the corresponding TRIGGER SETUP menu listening mode parameter is automatically set to OFF.

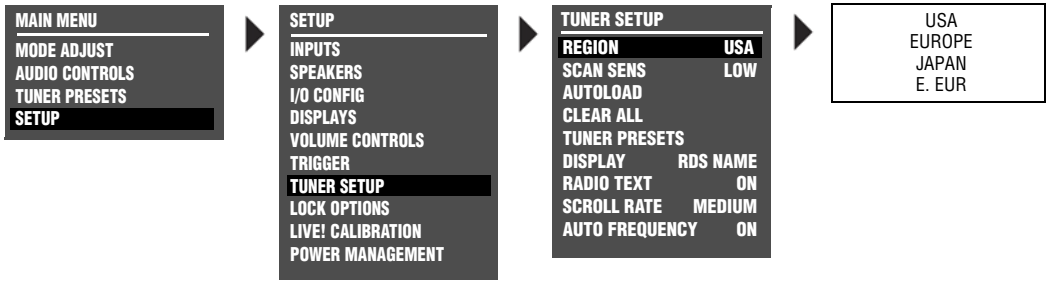


** TRIGGER SETUP menu listening mode names are fixed, meaning these names do not change when certain encoding is present. For instance, the 5.1 THX SurEX listening mode label appears whether THX Ultra2, THX Surround EX, or no encoding is engaged.*

TUNER SETUP

SETUP ▶ TUNER SETUP

Selecting the SETUP menu TUNER SETUP option opens the TUNER SETUP menu, which is used to configure the AM/FM radio tuner.



Parameter	Default Setting	Possible Settings
REGION	USA	USA, EUROPE, JAPAN, E. EUR
SCAN SENS	LOW	LOW, MED, HIGH
AUTOLOAD	N/A	N/A
CLEAR ALL	N/A	N/A
TUNER PRESETS	N/A	N/A
DISPLAY	RDS NAME	RDS NAME, PRESET NAME, FREQUENCY
RADIO TEXT	ON	ON, OFF
SCROLL RATE	MEDIUM	SLOW, MEDIUM, FAST
AUTO FREQUENCY	ON	ON, OFF

REGION

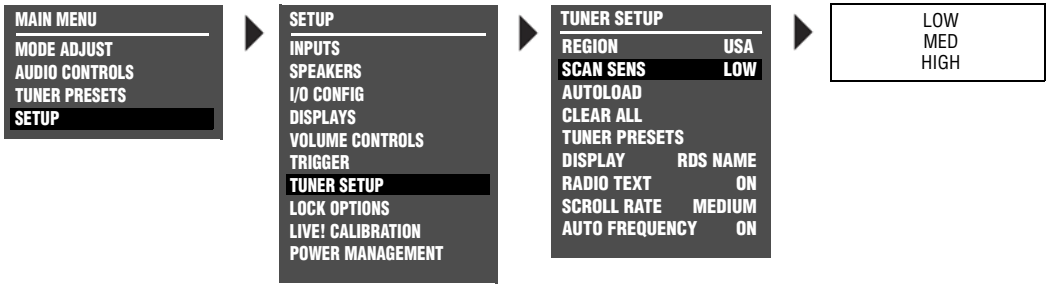
USA, EUROPE, JAPAN, E. EUR

SETUP ▶ TUNER SETUP ▶ REGION

Sets the tuner region. The four regions are USA, EUROPE, JAPAN and E. EUR. The table on the next page lists the band limits and increments for these regions.

Note:

The tuner user interface will not allow illegal frequencies to be entered. It will always set at the closest valid frequency. For example, if the RV-5 has USA set as the current region, entering 107.8MHz will result in 107.9MHz being the actual tuner frequency. If the value is less than the lowest frequency, it will set it to LO LIMIT for the appropriate region. Likewise, if the dialed value is larger than the highest allowed frequency, it will actually set it to the HI LIMIT for the appropriate region.



SCAN SENS

LOW, MED, HIGH

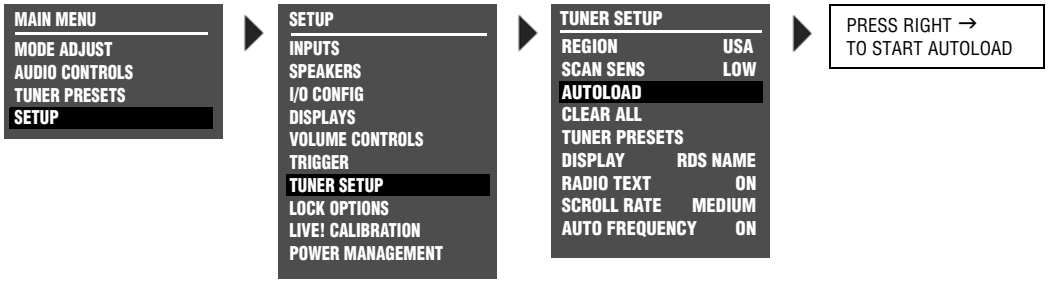
SETUP ▶ TUNER SETUP ▶ REGION

Selects the Scan Sensitivity parameter, which can be used to set the threshold the system will use to tune to a new station. The default setting is LOW sensitivity (only the strongest station frequencies will tune). If the LOW setting does not tune enough stations, try the MED (medium) or HIGH settings.

TUNER REGION BAND LIMIT AND INCREMENTS

REGION	FM LO LIMIT	FM HI LIMIT	FM INCREMENT	AM LO LIMIT	AM HI LIMIT	AM INCREMENT
USA	87.90MHZ	107.90MHZ	200 KHZ/.2MHZ	520KHZ	1720KHZ	10KHZ
EUROPE	87.50MHZ	108.00MHZ	50KHZ/.05MHZ	520KHZ	1602KHZ	9KHZ
JAPAN	76.00MHZ	91.00MHZ	50KHZ/.05MHZ	522KHZ	1720KHZ	9KHZ
E. EUR	64.00MHZ	76.00MHZ	50KHZ/.05MHZ	520KHZ	1720KHZ	9KHZ

TUNER SETUP *(continued)*



AUTOLOAD

SETUP ▸ **TUNER SETUP** ▸ **AUTOLOAD**

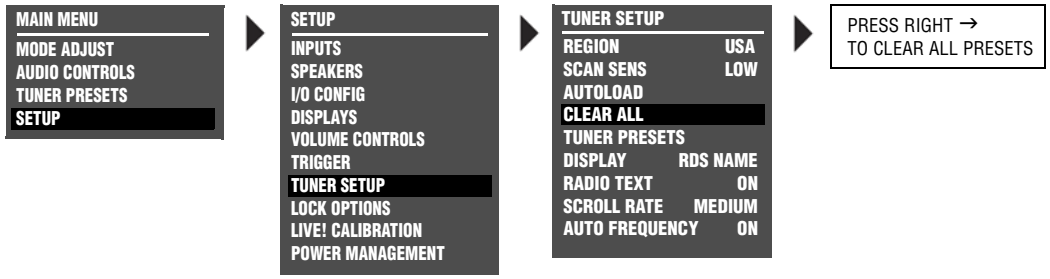
Automatically scans and stores presets for the currently selected frequency band.

To select the AUTOLOAD option, highlight AUTOLOAD in the TUNER SETUP menu and press the right (▸) arrow. The message "PRESS RIGHT ▸ TO START AUTOLOAD" appears in the on-screen and front-panel displays.

- To cancel the AUTOLOAD command, press the left (◂) arrow.
- AUTOLOAD skips presets with previously stored values and uses the next available preset.
- Once all available stations have been scanned, or if any TUNER button is pressed (including the remote's buttons), AUTOLOAD will stop.
- To autoload stations from the other frequency band, select that band and restart AUTOLOAD.

Note:

Presets are saved when the unit is powered down. Because the AUTOLOAD function preserves any existing presets, consider using the CLEAR ALL function before using AUTOLOAD. Note that some channels may be repeated in the preset section if AUTOLOAD is used more than once since the last CLEAR ALL.



CLEAR ALL

SETUP ▸ TUNER SETUP ▸ CLEAR ALL

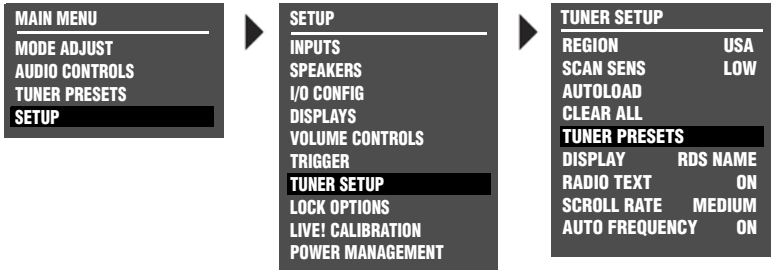
Clears all of the presets. When this option is highlighted, press the right (▸) arrow to select. The message "PRESS RIGHT ▸ TO CLEAR ALL PRESETS" will appear in the on-screen and front-panel displays. (Press the left (◂) arrow to cancel the CLEAR ALL command.)

This should be used after all presets have been entered but it is desired to rescan in order to obtain new presets. For example, if you have moved to a new city, it would be necessary to clear all existing presets and scan for local stations.

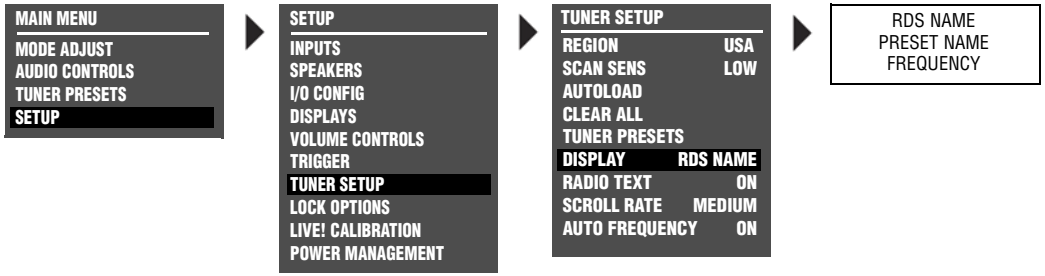
TUNER PRESETS

SETUP ▸ TUNER SETUP ▸ TUNER PRESETS

This selection provides an alternative access point to the TUNER PRESETS menu. For more information, see "Tuner Presets" on page 5-2.



TUNER SETUP *(continued)*



DISPLAY RDS NAME, PRESET NAME, FREQUENCY

SETUP ▶ **TUNER SETUP** ▶ **DISPLAY**

Identifies the current channel setting, in the top right corner of the OSD and front panel display. There are three possible selections: RDS NAME, PRESET NAME, and FREQUENCY. The default setting is RDS NAME.

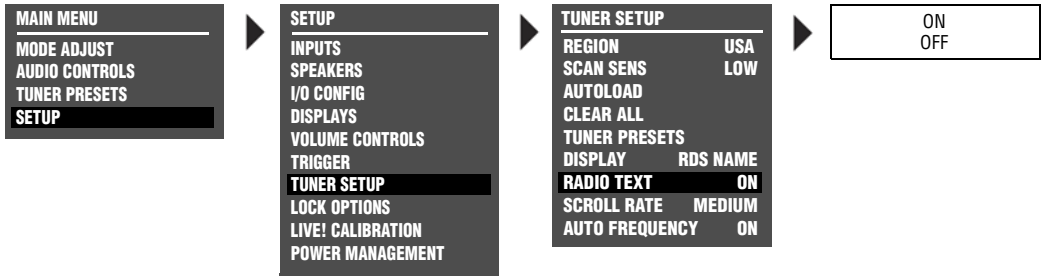
PRESET NAME displays the name given to the preset frequency of the currently selected channel. If the current channel is not a tuner preset, then the channel frequency will be displayed.

RDS NAME displays the station's Program Service (PS) name, which is intended to be used to identify a station or station program. If the RDS information is not available, then the channel frequency will be displayed.

FREQUENCY displays the actual frequency value of the channel selected.

Note:

In the US, some stations broadcast other information in place of the Program Service (PS) name, such as a text messaging feature similar to Radio Text (RT). This can make it difficult to identify the station. You may wish to select PRESET NAME instead of an RSD NAME in this instance.



RADIO TEXT

ON, OFF

SETUP ▶ **TUNER SETUP** ▶ **RADIO TEXT**

Activates the RADIO TEXT (RT) feature. Radio Text is presented as scrolling text in the bottom row of the front-panel and on-screen displays. Radio text can contain up to 64 characters and whatever text the station broadcasts - such as the title and performer of the current song, the station call letters or the station byline. Not all stations broadcast RT. When tuned to a station that broadcasts Radio Text, it will take approximately ten seconds to display the text.

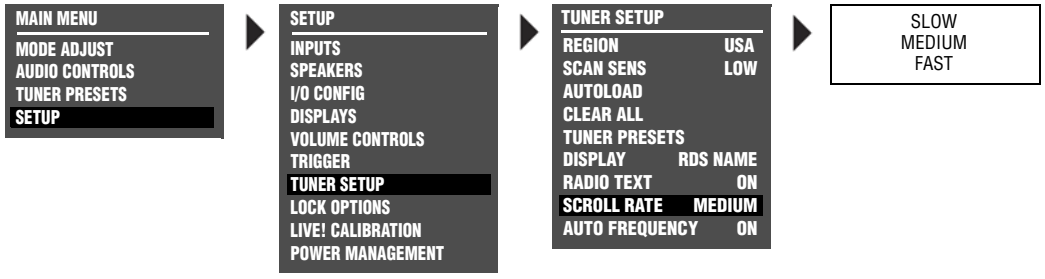
When Radio Text is active, additional information is displayed in the scrolling text. After the RT from the radio station has finished scrolling, double asterisks (**) are displayed, followed by the currently set listening mode, volume level, and tuner frequency. A second set of double asterisks identifies the end of the tuner information and the beginning repeat of the station's Radio Text.

SCROLL RATE

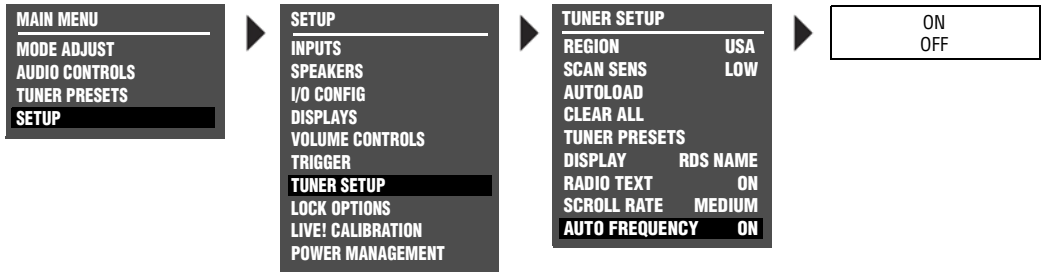
SLOW, MEDIUM, FAST

SETUP ▶ **TUNER SETUP** ▶ **SCROLL RATE**

Controls the scrolling speed of the Radio Text. The default setting is MEDIUM. For faster text scrolling, select FAST. For slower text scrolling, select SLOW.



TUNER SETUP *(continued)*



AUTO FREQUENCY

ON, OFF

SETUP ▸ TUNER SETUP ▸ AUTO FREQUENCY

Checks for alternate frequency broadcasts in case of station drop out or signal fade. The default setting is ON. Many radio stations broadcast on several frequencies simultaneously. When active, AUTO FREQUENCY checks for these alternate frequency broadcasts when signal failure is detected.

If the main frequency drops out and AUTO FREQUENCY is activated, the volume will mute briefly until the alternate broadcast is received.

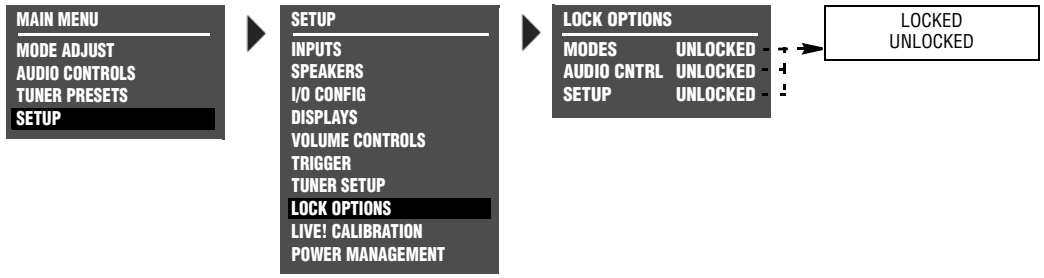
AUTO FREQUENCY will only switch to a new frequency when the following conditions are met:

- The main frequency signal starts to fade.
- The channel identification of the alternate frequency is an exact match of the currently selected frequency.
- The alternate frequency detected has a stronger signal strength than the currently selected frequency.
- The AUTO FREQUENCY feature is ON.

LOCK OPTIONS

SETUP ▶ LOCK OPTIONS

Selecting the SETUP menu LOCK OPTIONS option opens the LOCK OPTIONS menu, which is used to protect MODE ADJUST, AUDIO CONTROLS and SETUP menu branch parameter settings from accidental changes.



Parameter	Default Setting	Possible Settings
MODES	UNLOCKED	LOCKED, UNLOCKED
AUDIO CNTRL	UNLOCKED	LOCKED, UNLOCKED
SETUP	UNLOCKED	LOCKED, UNLOCKED

MODES LOCKED, UNLOCKED

SETUP ▶ LOCK OPTIONS ▶ MODES

Controls MODE ADJUST menu branch settings, which includes all listening mode menu settings. When set to LOCKED, these settings cannot be adjusted. When set to UNLOCKED, these settings can be adjusted.

AUDIO CNTRL LOCKED, UNLOCKED

SETUP ▶ LOCK OPTIONS ▶ AUDIO CNTRL

Controls AUDIO CONTROLS menu branch settings. When set to LOCKED, these settings cannot be adjusted. When set to UNLOCKED, these settings can be adjusted.

SETUP LOCKED, UNLOCKED

SETUP ▶ LOCK OPTIONS ▶ SETUP

Controls SETUP menu branch settings. When set to LOCKED, these settings cannot be adjusted. When set to UNLOCKED, these settings can be adjusted.

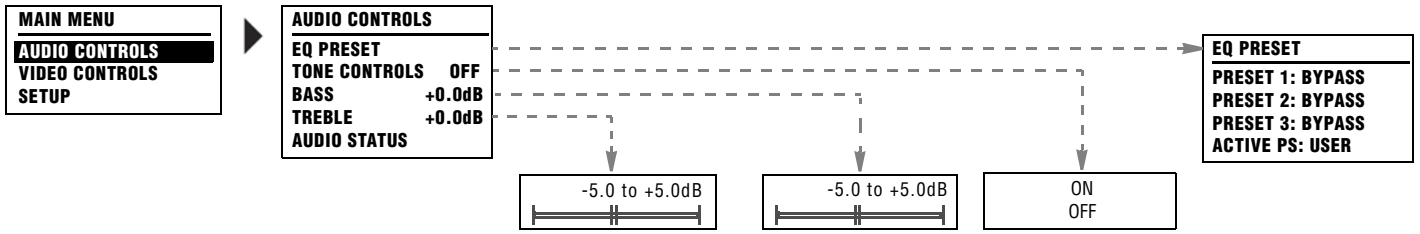
4

Audio & Video Controls

Audio Controls.....4-2

AUDIO CONTROLS

Selecting AUDIO CONTROLS opens the AUDIO CONTROLS menu, which is used to customize the audio output connectors.



EQ PRESET PRESET 1, PRESET 2, PRESET 3, ACTIVE PS

AUDIO CONTROLS ▶ **EQ PRESET**

The RV-5 provides 3 preset controls for the EQ plus one user-controlled setting.

TONE CONTROLS OFF, ON

AUDIO CONTROLS ▶ **TONE CONTROLS**

Actives or deactivates the tone controls.

BASS –0.5dB to +5.0dB

AUDIO CONTROLS ▶ **BASS**

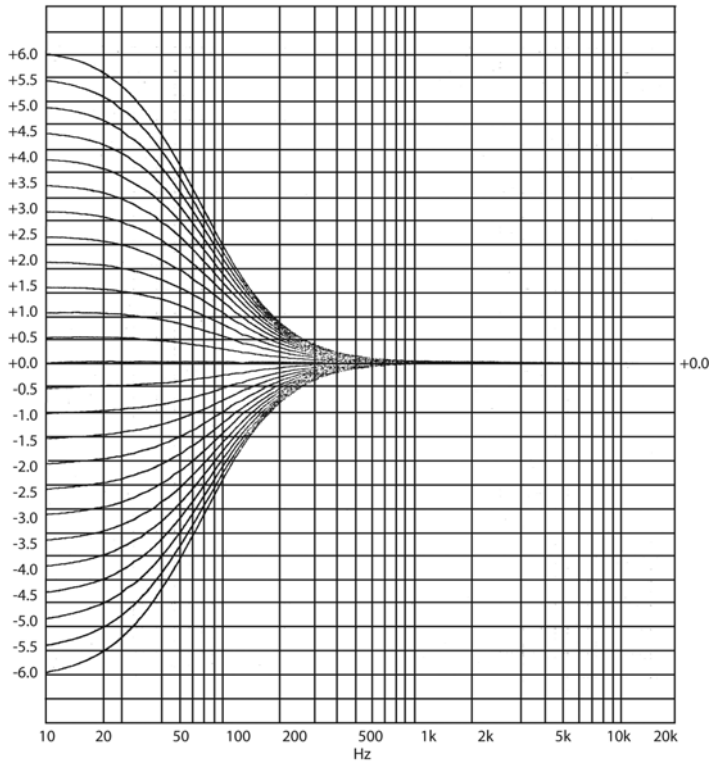
Controls the amount of low-frequency boost or cut applied to the audio output connectors labeled Front L/R, Center, and Subwoofer. The ***BASS Parameter Settings*** graph on the next page indicates the frequency response of all BASS parameter settings. Bass setting can be changed in 2dB increments.

TREBLE –5.0dB to +5.0dB

AUDIO CONTROLS ▶ **TREBLE**

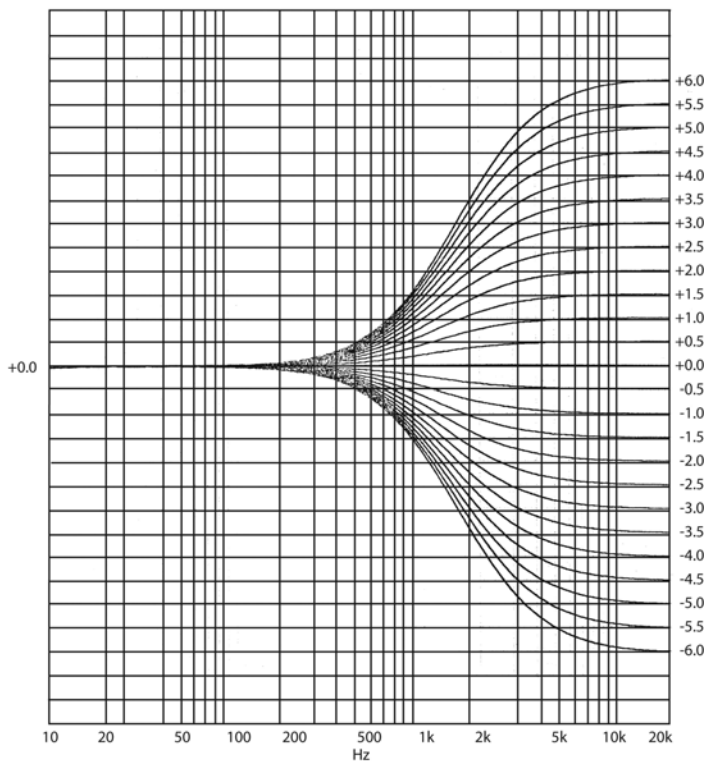
Controls the amount of high-frequency boost or cut applied to the audio output connectors labeled Front L/R and Center. The ***TREBLE Parameter Settings*** graph on the next page indicates the frequency response of all TREBLE parameter settings. Treble setting can be changed in 2dB increments.

BASS Parameter Settings



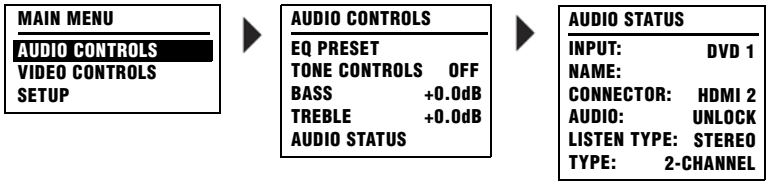
The BASS parameter controls the amount of low-frequency boost or cut applied to the audio output connectors labeled Front L/R, Center and Sub.

TREBLE Parameter Settings



The TREBLE parameter controls the amount of high-frequency boost or cut applied to the audio output connectors labeled Front L/R and Center.

AUDIO CONTROLS *(continued)*



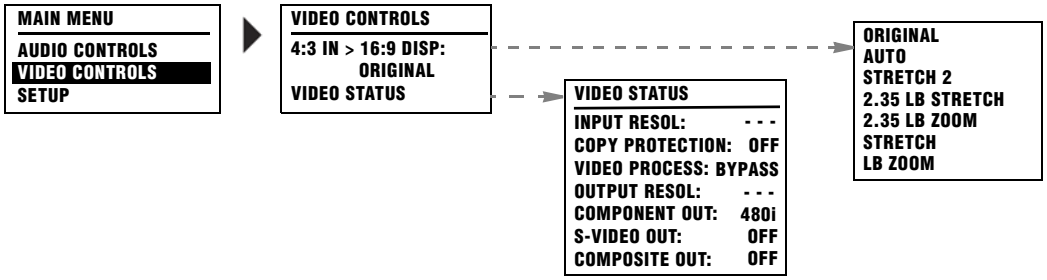
AUDIO STATUS

AUDIO CONTROLS ▶ **AUDIO STATUS**

The AUDIO STATUS menu is an information-only menu identifying the current audio status of the RV-5 unit. Input identifies the actual audio source. Name identifies the title of the RV-5 as defined by the user. Connector identifies the actual audio input port selected on the rear panel. Audio identifies the audio input selected in the control panel. Listen Mode identifies the currently selected surround mode. Type identifies the currently selected surround type.

VIDEO CONTROLS

Selecting VIDEO CONTROLS opens the VIDEO CONTROLS menu, which is used to customize the video connectors.



4:3 IN > 16:9 DISP ORIGINAL, AUTO, STRETCH 2, 2.35 LB STRETCH, 2.35 LB ZOOM, STRETCH, LB ZOOM

AUDIO CONTROLS ▶ **EQ PRESET**

Identifies the display settings.

VIDEO STATUS

AUDIO CONTROLS ▶ **VIDEO STATUS**

The VIDEO STATUS menu is an information-only menu identifying the current video status of the RV-5 unit. Input Resol. identifies the current input resolution setting. Copy Protection identifies the current status of the copy protection mode. Video Process identifies the current setting of the video processor. Output Resol. identifies the current output resolution setting. Component Out identifies the currently selected component output type. S-Video Out identifies the currently selected S-video output type. Composite Out identifies the currently selected composite output type.

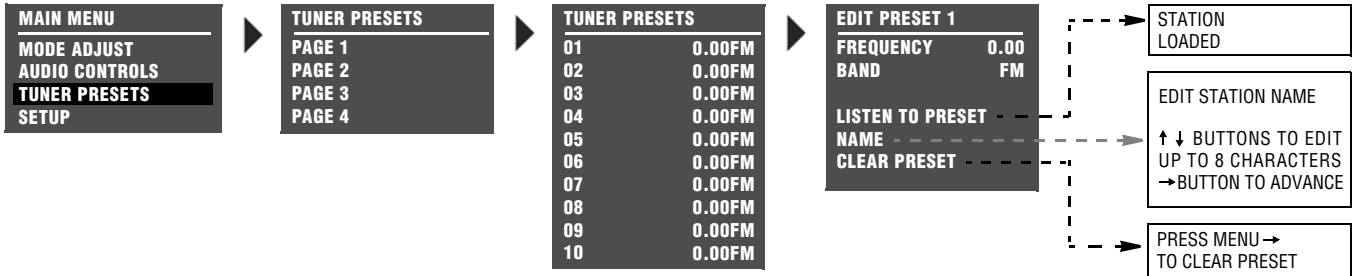
5

Tuner Presets

Tuner Presets 5-2

TUNER PRESETS

Selecting TUNER PRESETS from the MAIN MENU displays a list of the pages of existing presets. The preset number, preset name (if available), frequency and broadcast band is displayed.



Each tuner preset page allows up to 10 preset stations.

In the US, each preset channel is identified by the station's call letters, or what their broadcast information identifies as the call letters. In Europe and Japan, each preset channel is identified by the station's Program Service (PS) name. If RDS information is not available, then the Preset name will be Preset XX, where XX is the listed number location in the Preset menu for that position. For example, if Preset #01 is FM 90.90 and the call letters are WABC, then the name for that position is WABC.

To edit a preset, press the menu ▲/▼ arrows until the desired preset is highlighted, then press the menu ▶ arrow to open the parameters menu for the selected preset.

Parameter
LISTEN TO PRESET
NAME
CLEAR PRESET

LISTEN TO PRESET

TUNER PRESETS ▸ PAGE 1 ▸ 01 ▸ LISTEN TO PRESET

Loads the current preset station. Press the menu ▸ arrow to load the station preset. The front panel and on-screen display will display "STATION LOADED."

NAME

TUNER PRESETS ▸ PAGE 1 ▸ 01 ▸ NAME

Edits the station name. The station name can be up to 8 characters long. The available characters are letters A to Z, numbers 0 to 9, and 10 additional symbols: ., -, +, :, (,), !, @, # or a blank space.

CLEAR PRESET

TUNER PRESETS ▸ PAGE 1 ▸ 01 ▸ CLEAR PRESET

Clears the current preset entry. The front-panel and on-screen display will display "PRESS MENU ▸ TO CLEAR PRESET." Press the ◂ menu arrow to cancel without clearing the preset.

6

Mode Adjust

Mode Adjust 6-2
Listening Mode Activation.....6-2
Listening Mode Descriptions 6-4
Listening Mode Menu Option and Parameter Descriptions.....6-39
Mode – Parameter Relationships 6-47

** These listening mode names differ depending on the current input source, speaker setup and parameter settings. Refer to the Listening Mode Descriptions for more information.*

MODE ADJUST

Selecting the MODE ADJUST option opens the MODE ADJUST menu, which is used to select a listening mode for adjustment. When the MODE ADJUST menu opens, the currently activated Main Zone listening mode is highlighted.

Selecting a listening mode does not activate that listening mode for the current Main Zone input source. Rather, selecting a listening mode opens the corresponding listening mode menu, which is used to customize the selected listening mode. These adjustments are applied when the listening mode is selected with one of the methods described in the Listening Mode Activation section that begins below.

LISTENING MODE ACTIVATION

Listening modes are available for 2-channel, Dolby Digital, DTS(-ES), MIC and analog input sources. The RV-5 allows listening mode selection for all Main Zone sources. In some cases, the RV-5 automatically activates a listening mode in response to certain commands. For this reason, it is important to understand the three methods through which listening mode activation occurs.

Note:

When headphones are plugged into the RV-5, all listening modes are downmixed to two channels with the following exceptions: HEADPHONE L7, HEADPHONE 5.1, HEADPHONE DTS and HEADPHONE 5.1a. These listening modes are described in detail on page 6-27.

Listening mode activation occurs through:

- the INPUT SETUP menu preferred listening mode selection parameters (page 3-12).
- the front-panel or remote control Mode button (page 2-17).
- the remote control listening mode family selection buttons (page 2-17).

PREFERRED LISTENING MODE SELECTION

The INPUT SETUP menus include four preferred listening mode selection parameters labeled 2-CH, DOLBY D, DTS(-ES), 5.1a and MIC. These parameters are used to select a preferred listening mode for 2-channel, Dolby Digital, DTS(-ES), 5.1a and LIVE! input sources. The RV-5 automatically activates the selected listening mode whenever a new input is selected or a new input source is present.

MODE ▲ AND ▼ BUTTONS

The front-panel and remote-control Mode arrow buttons can be used to audition listening modes with the current Main Zone input source. Pressing these buttons scrolls up (▲) or down (▼) through listening modes available for the current Main Zone source. Listening modes are scrolled in the order that appears in the MODE ADJUST menu.

For example, if a 2-channel input source is present, press the ▲ or ▼ arrow buttons to scroll through available 2-channel listening modes. The selected listening mode appears in the bottom-left corner of the Main Zone two-line status.

Dynamic Listening Mode Selection

Dynamic listening modes are only available under certain conditions. For example, many of the dynamic modes are only available when the RV-5 is configured for seven main output channels and source material with specific encoding is played. All dynamic listening modes are available through the remote control or front panel Mode button.

See "Dynamic Listening Modes" on page 3-13 **for a complete listing of dynamic listening modes.**

LISTENING MODE SELECTION BUTTONS

The remote control listening mode selection buttons can be used to activate the Logic 7 Film, Dolby, DTS(-ES), Logic 7 Music, or Logic 7 TV listening mode that is appropriate for the Main Zone input source. For instance, if the L7 button is pressed while a 2-channel source is present, the L7 FILM listening mode is activated. The table below indicates the listening modes associated with each mode family selection button.

Button	2-Channel Sources	Dolby Digital Sources	DTS(-ES) Sources	5.1a Sources
L7 F	L7 FILM	5.1 L7 FILM	DTS(-ES) L7 FILM	5.1a L7 FILM
L7 M	L7 MUSIC	5.1 L7 MUSIC	DTS(-ES) L7 MUSIC	5.1a L7 MUSIC
L7 TV	L7 TV	5.1 L7 TV	MODE SELECTION NOT AVAILABLE**	N/A
L7 MS	L7 MUSIC SURROUND	5.1 L7 MUSIC	DTS(-ES) L7 MUSIC	N/A
DOLBY	DOLBY PLIIx MOV	DD 5.1 PLIIx MOV*	MODE SELECTION NOT AVAILABLE**	N/A
DTS	DTS NEO:6 CIN	MODE SELECTION NOT AVAILABLE**	DTS(-ES)	N/A

** These listening mode names differ depending on the input source, the speaker configuration and certain parameter settings. For 5.1 systems with only side or rear speakers (but not both), pressing the ◻◻ button loads the DOLBY DIGITAL mode.*

*** The "MODE SELECTION NOT AVAILABLE" message appears in the on-screen and front-panel displays when no listening mode is available for the Main Zone input source that is present.*

**** For ES source.*

LISTENING MODE DESCRIPTIONS

Each listening mode description lists the default and possible settings for each listening mode menu parameter. All listening mode menus are shown in the Appendix. Listening mode menu option and parameter descriptions begin on page 6-30.

L7 FILM

MODE ADJUST ▶ L7 FILM

This listening mode is designed for enhanced playback of 2-channel stereo or matrix-encoded film sources.

Logic 7 FILM is a proprietary Lexicon listening mode that derives seven channels from 2-channel input sources. Logic 7 also derives full-frequency stereo surround channels that realistically increase the perceived width, length and sense of envelopment of the listening space. Logic 7 provides remarkable improvement compared to other decoders.

Parameter	Default Setting	Possible Settings
AUTO AZIMUTH	ON	ON, OFF
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
RE-EQUALIZER	ON	ON, OFF
SOUND STAGE	REAR	FRONT, NEUTRAL, REAR
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7.0kHz	500Hz to 20.0kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

L7 TV

MODE ADJUST ▶ L7 TV

This listening mode is designed for playback of 2-channel stereo or matrix-encoded television broadcast sources.

Logic 7 TV is a proprietary Lexicon listening mode based on the Logic 7 FILM listening mode, but specifically tailored for broadcast sources.

Parameter	Default Setting	Possible Settings
AUTO AZIMUTH	ON	ON, OFF
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
FRONT STEERING	FILM	OFF, MSURR, MUSIC, FILM
RE-EQUALIZER	OFF	ON, OFF
SOUND STAGE	REAR	FRONT, NEUTRAL, REAR
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7.0kHz	500Hz to 20.0kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

L7 MUSIC

MODE ADJUST ▶ L7 MUSIC

This listening mode is designed for playback of 2-channel stereo or matrix-encoded music sources.

Logic 7 MUSIC is a proprietary Lexicon listening mode based on the Logic 7 FILM listening mode, but specifically tailored for music sources.

Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
FRONT STEERING	MUSIC	OFF, MSURR, MUSIC, FILM
SOUND STAGE	NEUTRAL	FRONT, NEUTRAL, REAR
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7.0kHz	500Hz to 20.0kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

L7 MUSIC SURR

MODE ADJUST ▶ L7 MUSIC SURR

This listening mode is designed for playback of 2-channel stereo music sources recorded in real spaces and for playback of recordings that contain added reverb. It is recommended for classical music sources, which are often recorded in real spaces with added reverb to enhance the stereo mix.

Logic 7 MUSIC SURR is a proprietary Lexicon listening mode that is similar to the MUSIC SURROUND listening mode in other Lexicon products. Logic 7 extracts ambient sounds from the input source and sends these sounds to all speakers. Ambient sounds are heard from all directions, creating a realistic playback presentation that simulates what listeners experience in real spaces.

Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
FRONT STEERING	MSURR	OFF, MSURR, MUSIC, FILM
SOUND STAGE	NEUTRAL	FRONT, NEUTRAL, REAR
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7.0kHz	500Hz to 20.0kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DOLBY PLIIx MOV & DOLBY PLII MOVIE

MODE ADJUST ▶ DD PLIIx MOVIE OR MODE ADJUST ▶ DD PLII MOVIE

Dolby Pro Logic IIx technology is an extension to Dolby Pro Logic II that enables the listener to experience natural and seamless 6.1- or 7.1-channel (six or seven speakers and a subwoofer) surround sound from any native two-channel (stereo) or 5.1-channel source.

Dolby PLIIx MOV and Dolby PLII MOVIE modes:

- Are designed for playback of Dolby Surround-encoded sources.
- Provide impressive enhancement compared to Dolby Pro Logic decoding.
- Are appropriate for Dolby Surround-encoded film sources.

The PLIIx listening mode is only available when the front, side and rear speakers are present.

Activating the DOLBY PLIIx MOV listening mode

The DOLBY PLIIx MOV listening mode is a dynamic listening mode and cannot be assigned as a preferred listening mode for 2-channel Dolby Surround-encoded film sources. To activate the DOLBY PLIIx Mov listening mode, play the 2-channel source input, and select the DOLBY PLIIx MOV listening mode using the front-panel or remote control Mode buttons.

When the 2-CH parameter is set to USE LAST, the RV-5 will automatically activate the DOLBY PLIIx MOV listening mode if this listening mode was activated the last time a 2-channel Dolby Surround-encoded film source was present.

Note:

The PLIIx MOV mode does not appear in the list of available listening modes if either the side or rear speakers are missing from the configuration.

Parameter

OUTPUT LEVELS	Refer to page 6-28
CUSTOM	Refer to page 6-28

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DOLBY PLIIx MUS & DOLBY PLII MUSIC

MODE ADJUST ▶ DOLBY PLIIx MUS OR MODE ADJUST ▶ DOLBY PLII MUSIC

Dolby Pro Logic IIx technology is an extension to Dolby Pro Logic II that enables the listener to experience natural and seamless 6.1- or 7.1-channel (six or seven speakers and a subwoofer) surround sound from any native two-channel (stereo) or 5.1-channel source.

The PLIIx listening mode is only available when the front, side and rear speakers are present.

Activating the DOLBY PLIIx MUS listening mode

The DOLBY PLIIx MUS listening mode is a dynamic listening mode and cannot be assigned as a preferred listening mode for 2-channel Dolby Surround-encoded film sources. To activate the DOLBY PLIIx MUS listening mode, play the 2-channel source input, and select the DOLBY PLIIx MUS listening mode using the front-panel or remote control Mode buttons.

When the 2-CH parameter is set to USE LAST, the RV-5 will automatically activate the DOLBY PLIIx MUS listening mode if this listening mode was activated the last time a 2-channel Dolby Surround-encoded film source was present.

Note:

The DOLBY PLIIx MUS mode does not appear in the list of available listening modes if either the side or rear speakers are missing from the configuration.

Parameter	Default Setting	Possible Settings
PANORAMA	OFF	ON, OFF
CTR WIDTH	3	MIN, 1 to 6, MAX
DIMENSION	NEUTRAL	FRONT, NEUTRAL, REAR
SURROUND DLY	10ms	0 to 15ms
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DOLBY PRO LOGIC

MODE ADJUST ▶ DOLBY PRO LOGIC

The Dolby PRO LOGIC mode is designed for playback of Dolby Surround-encoded sources. It decodes four channels from Dolby Surround-encoded sources, and uses a mono surround channel with a high-frequency rolloff above 7kHz.

This mode is useful for comparison purposes, particularly with the L7 FILM, Dolby PLIIx MOVIE and DTS Neo:6 CIN listening mode.

Parameter

OUTPUT LEVELS	Refer to page 6-28
CUSTOM	Refer to page 6-28

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DTS NEO:6 CIN & DTS NEO:6 MUSIC

MODE ADJUST ▶ DTS NEO:6 CIN OR DTS NEO:6 MUSIC

These modes are designed for playback of matrix-encoded digital stereo film or music sources. DTS Neo:6 derives six channels when both side and rear speakers are present (rear channels will be in parallel). It derives five channels when only side or rear speakers are present.

These listening modes are dynamic listening modes and cannot be assigned as preferred listening modes. To select either of these listening modes, use the remote control or front-panel Mode button. When the 2-CH parameter is set to USE LAST, the RV-5 will automatically activate a DTS Neo:6 listening mode if this mode was activated the last time a 2-channel source was present.

Note:

- *The RV-5 will not automatically activate a DTS NEO:6 listening mode unless a 44.1kHz or 48kHz PCM digital source is present. The DTS Neo:6 listening modes are not available with 88.2kHz or 96kHz, Dolby Digital or analog sources.*
- *The DTS Neo:6 MUSIC listening mode can be activated with the front-panel or remote control Mode buttons. The DTS Neo:6 CIN listening mode can also activated with the remote control DTS button when a 2-channel input source is present.*

Parameter

OUTPUT LEVELS	Refer to page 6-28
CUSTOM	Refer to page 6-28

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

NIGHTCLUB

MODE ADJUST ▶ NIGHTCLUB

The NIGHTCLUB mode is designed for playback of "dry" music sources that benefit from the addition of room reflections, especially music sources that lack ambience in the recording. The NIGHTCLUB mode generates early reflections and sends them to the front, side and rear channels to simulate small, intimate listening spaces.

The NIGHTCLUB mode is a superior room simulation listening mode because it uses a proprietary reverb algorithm inherited from Lexicon professional products.

Parameter	Default Setting	Possible Settings
CENTER DEPTH	11	0 to 18
SPEECH DETECT	ON	ON, OFF
SIZE	5m	4 to 20m
LIVENESS	196ms	30ms to 20.2s
PRE-DELAY	5ms	OFF, 1 to 100ms
ROLLOFF	9.0kHz	500Hz to 20.0kHz, OFF
EFFECT LVL	+3dB	–12 to +6dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

CONCERT HALL

MODE ADJUST ▶ CONCERT HALL

The CONCERT HALL mode generates early reflections and sends them to the front, side and rear channels to simulate large listening spaces.

The CONCERT HALL mode is a superior room simulation listening mode because it uses a proprietary reverb algorithm inherited from Lexicon professional products.

Parameter	Default Setting	Possible Settings
CENTER DEPTH	12	0 to 18
SPEECH DETECT	ON	ON, OFF
SIZE	20m	4 to 20m
LIVENESS	1.72s	30ms to 20.2s
PRE-DELAY	OFF	OFF, 1 to 100ms
ROLLOFF	2.4kHz	500Hz to 20.0kHz, OFF
EFFECT LVL	–2dB	–12 to +6dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

CHURCH

MODE ADJUST ▶ CHURCH

The CHURCH mode uses a reverb algorithm to emphasize the rich, smooth, reverberant decay characteristic of small and medium listening spaces – such as churches and chambers – with long reverberation time relative to their sizes.

The CHURCH mode is a superior room simulation listening mode because it uses a proprietary reverb algorithm inherited from Lexicon professional products.

Parameter	Default Setting	Possible Settings
CENTER DEPTH	5	0 to 18
SPEECH DETECT	ON	ON, OFF
SIZE*	20m	4 to 30m
MID RT*	1.56s	24ms to 24.3s
BASS RT*	1.87s	5ms to 48.6s
PRE-DELAY	24ms	OFF, 1 to 100ms
ROLLOFF	2.4kHz	500Hz to 20.0kHz, OFF
EFFECT LVL	–3dB	–12 to +6dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

** BASS RT, MID RT and SIZE parameter settings are interdependent, meaning that the full parameter range might not be available depending on the other parameter settings.*

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

CATHEDRAL

MODE ADJUST ▶ CATHEDRAL

The CATHEDRAL mode is similar to the CHURCH listening mode. It uses a reverb algorithm to emphasize the rich, smooth, reverberant decay characteristic of large listening spaces – such as cathedrals – with long reverberation time relative to their size.

The CATHEDRAL mode is a superior room simulation listening mode because it uses a proprietary reverb algorithm inherited from Lexicon professional products.

Parameter	Default Setting	Possible Settings
CENTER DEPTH	12	0 to 18
SPEECH DETECT	ON	ON, OFF
SIZE*	30m	4 to 30m
MID RT*	3.72s	24ms to 24.3s
BASS RT*	4.47s	5ms to 48.6s
PRE-DELAY	23ms	OFF, 1 to 100ms
ROLLOFF	3.1kHz	500Hz to 20.0kHz, OFF
EFFECT LVL	–8dB	–12 to +6dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

** BASS RT, MID RT and SIZE parameter settings are interdependent, meaning that the full parameter range might not be available depending on the other parameter settings.*

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

PANORAMA

MODE ADJUST ▸ PANORAMA

The PANORAMA mode is designed for playback of stereo and matrix-encoded sources. PANORAMA uses proprietary Lexicon algorithms to move the stereo image outward from the front speakers, producing a wider stereo field with greater depth.

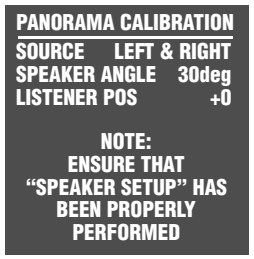
Sound quality depends on proper location of the listening position and front speakers. When the front speakers are positioned close to either side of the display device, the effect is produced over a wider area than when the front speakers are positioned at a large angle from the display device.

Parameter	Default Setting	Possible Settings
EFFECT LVL	+4dB	–12 to +6dB
BASS CONTENT	STEREO	BINAURL, MONO, STEREO
LOW FREQ WIDTH	+0	–25 to +25dB
SURR ROLLOFF	3.1kHz	500Hz to 20.0kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
INPUT BALANCE	<I>	L< to <I> to >R
CALIBRATION	Refer to next column	
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

PANORAMA CALIBRATION

MODE ADJUST ▸ PANORAMA ▸ CALIBRATION



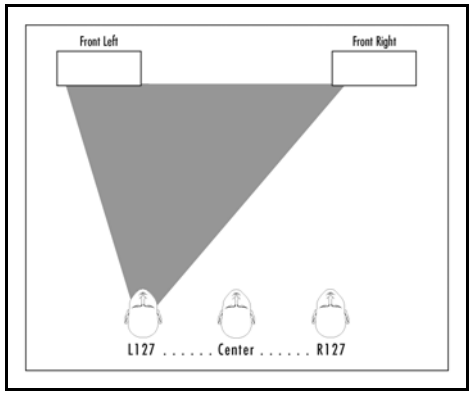
Select PANORAMA ▸ CALIBRATION to open the PANORAMA CALIBRATION menu shown to the left, to calibrate the PANORAMA listening mode. **This listening mode must be calibrated to take full advantage of its effects.**

For best results, you should center the primary listening position between the front left and right speakers as shown in the **Center** illustration at the top of the next page. Otherwise, the PANORAMA listening mode will be calibrated with varying results.

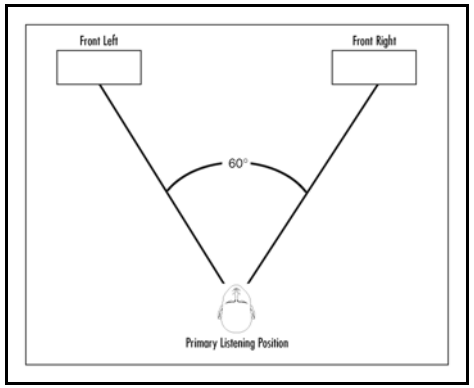
An external calibration source is required to calibrate the PANORAMA listening mode. You should select a familiar stereo source.

Parameter	Default Setting	Possible Settings
SOURCE	LEFT & RIGHT	RIGHT, LEFT & RIGHT, LEFT
SPEAKER ANGLE	30deg	10 to 90deg
LISTENER POS	+0	-127 to +127

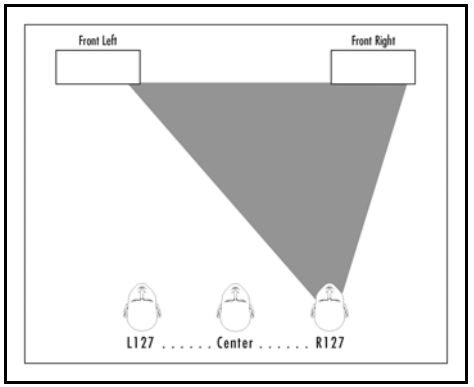
See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.



LEFT



CENTER



RIGHT

To calibrate the PANORAMA listening mode:

1. Remove all obstructions between the speakers and the primary listening position.
2. Make sure the distances between the speakers and the primary listening position are properly measured. To do this, select one of the following options.
   - Select the AUTO SPEAKER SETUP menu DISTANCES option to have the RV-5 automatically calibrate speaker distances.
   - Measure the distance between the primary listening position and the front baffle of each speaker. Then, set the corresponding SPEAKER DISTANCES menu parameters to the closest available value.
3. Sit in the primary listening position. If the primary listening position is not centered between the front left and right speakers as shown in illustration B (above), set the PANORAMA CALIBRATION ▸ LISTENER POS parameter to compensate for the difference using the remote control ▲ and ▼ arrow buttons. Each increment within the –127 to +127 parameter range represents about one-third of an inch. The **Left** illustration shows the left-of-center position. The **Right** illustration shows the right- of-center position
4. Set the SOURCE parameter to **RIGHT**.
5. Begin playback of the external calibration source.
6. When playback of the external calibration source is in progress, set the SPEAKER ANGLE parameter so the sound is not heard in the right ear.
7. To confirm the LISTENER POS and SPEAKER ANGLE parameter settings, set the SOURCE parameter to **LEFT & RIGHT**. If the PANORAMA listening mode is properly calibrated, the sound should be perceived to come from all around the primary listening position. If not, go back to Step 1 and repeat the calibration procedure.

2-CH SURROUND

MODE ADJUST ▶ 2-CH SURROUND

This mode, designed for playback of stereo sources, sends the left channel to Front, Side and Rear Left channels and the right channel to Front, Side and Rear Right channels, and sums the Left and Right for the center. It is recommended for background music.

Parameter	
OUTPUT LEVELS	Refer to page 6-28
CUSTOM	Refer to page 6-28

2-CHANNEL

MODE ADJUST ▶ 2-CHANNEL

This mode, designed for playback of stereo sources, sends the left and right channels to the Front L/R and Subwoofer channels. It is recommended for two-speaker playback with subwoofers and for comparison purposes with other listening modes.

Parameter	Default Setting	Possible Settings
SUB LEVEL	+0dB	OFF, –30 to +12dB
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

MONO LOGIC

MODE ADJUST ▶ MONO LOGIC

This mode, designed for playback of mono sources, uses proprietary Lexicon reverb algorithms to realistically expand mono sources to use all channels. This dramatically increases the perceived width and sense of envelopment of the listening space.

Parameter	Default Setting	Possible Settings
EFFECT LVL	–9dB	–12 to +6dB
ACADEMY FILTER	ON	ON, OFF
SURR ROLLOFF	3.1kHz	500Hz to 20.0kHz, OFF
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

MONO SURROUND

MODE ADJUST ▶ MONO SURROUND

This mode, designed for playback of mono sources, sends the mono source to all channels.

Parameter	
OUTPUT LEVELS	Refer to page 6-28
CUSTOM	Refer to page 6-28

MONO

MODE ADJUST ▶ MONO

This mode, designed for playback of mono sources, sends mono sources to the center channel and subwoofer.

Parameter	Default Setting	Possible Settings
SUB LEVEL	+0dB	OFF, –30 to +12dB
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1 L7 FILM

MODE ADJUST ▶ 5.1 L7 FILM

The 5.1 L7 FILM mode is a proprietary Lexicon listening mode designed for playback of 5.1-channel Dolby Digital-encoded film sources, and provides remarkable improvement compared to other decoders.

It derives seven channels from 5.1-channel input sources with enhanced front steering. When both side and rear speakers are present, the 5.1 L7 FILM listening mode also increases the perceived length and sense of envelopment of the listening space.

Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
RE-EQUALIZER	ON	ON, OFF
SOUND STAGE	REAR	REAR, NEUTRAL, FRONT
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7kHz	500HZ to 20kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1ms to 30ms
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–10.0dB to +0.0dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1 L7 TV

MODE ADJUST ▶ 5.1 TV

This proprietary Lexicon listening mode is designed for playback of 5.1-channel Dolby Digital-encoded broadcast sources. Based on the 5.1 L7 FILM listening mode, 5.1 L7 TV derives seven channels from 5.1-channel input sources with enhanced front steering.

Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
FRONT STEERING	FILM	OFF, MSURR, MUSIC, FILM
RE-EQUALIZER	OFF	ON, OFF
SOUND STAGE	REAR	REAR, NEUTRAL, FRONT
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7kHz	500HZ to 20kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1ms to 30ms
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–10.0dB to +0.0dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1 L7 MUSIC

MODE ADJUST ▶ 5.1 MUSIC

This proprietary Lexicon listening mode is designed for playback of 5.1-channel Dolby Digital-encoded music sources. Based on the 5.1 L7 FILM listening mode, 5.1 L7 MUSIC derives seven channels from 5.1-channel input sources with enhanced front steering.

Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
FRONT STEERING	MUSIC	OFF, MSURR, MUSIC, FILM
RE-EQUALIZER	OFF	ON, OFF
SOUND STAGE	NEUTRAL	REAR, NEUTRAL, FRONT
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7kHz	500HZ to 20kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1ms to 30ms
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–10.0dB to +0.0dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1 PLIIx MOV

MODE ADJUST ▶ **5.1 PLIIx MOV**

The 5.1 PLIIx MOV (MOVIE) listening mode is designed to play back 7.1 discrete channels decoded from 5.1-channel Dolby Digital film sources. The seven main channels are full-frequency. The .1 channel, often referred to as LFE information, has a limited frequency range of up to 120Hz.

The 5.1 PLIIx MOV listening mode is only available when the front, side and rear speakers are present.

Note:

The RV-5RV-5 cannot detect Dolby Digital Surround EX encoding in non-flagged 5.1-channel Dolby Digital input sources.

Activating the 5.1 PLIIx MOV listening mode

The 5.1 PLIIx MOV listening mode is a dynamic listening mode and cannot be assigned as a preferred listening mode for Dolby Digital film sources. To activate this listening mode, use the front-panel or remote control Mode buttons.

When the DOLBY D parameter is set to USE LAST, the RV-5 will automatically activate the dynamic 5.1 PLIIx MOV listening mode if this listening mode was activated the last time a Dolby Digital source was present.

Note:

The 5.1 PLIIx MOV mode will not appear in the list of available listening modes if either the side or rear speakers are missing from the configuration.

Parameter	Default Setting	Possible Settings
EX DECODING	AUTO	AUTO, ON, OFF
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–10.0 to +0.0dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1 PLIIx MUS

MODE ADJUST ▶ 5.1 PLIIx MUS

The 5.1 PLIIx MUS (MUSIC) listening mode is designed to playback 7.1 discrete channels decoded from 5.1-channel Dolby Digital music sources. The seven main channels are full–frequency. The .1 channel, often referred to as LFE information, has a limited frequency range of up to 120Hz.

Note:

The RV-5 cannot detect Dolby Digital Surround EX encoding in non-flagged 5.1-channel Dolby Digital input sources.

Activating the 5.1 PLIIx MUS listening mode

The 5.1 PLIIx MUS listening mode is a dynamic listening mode and cannot be assigned as a preferred listening mode for Dolby Digital sources. To activate this listening mode, use the front-panel or remote control Mode buttons.

When the DOLBY D parameter is set to USE LAST, the RV-5 will automatically activate the dynamic 5.1 PLIIx MUS listening mode if this listening mode was activated the last time a Dolby Digital source was present.

Note:

The 5.1 PLIIx MUS mode does not appear in the list of available listening modes if either the side or rear speakers are missing from the configuration.

Parameter	Default Setting	Possible Settings
EX DECODING	AUTO	AUTO, ON, OFF
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–10.0 to +0.0dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DOLBY DIGITAL & DOLBY DIGITAL EX

MODE ADJUST ▸ DIGITAL OR DIGITAL EX

These listening modes are designed to decode and play back 5.1 discrete channels from 5.1-channel Dolby Digital sources. The five main channels are full-frequency. The .1 channel, often referred to as LFE information, has a limited frequency range of 120Hz.

The mode name differs, depending on the encoding present in the input source, the EX DECODING parameter setting and the speaker setup.

The Dolby DIGITAL EX listening mode is recommended for Dolby Digital sources recorded with Dolby Digital Surround EX encoding. This listening mode can also be used with other types of 5.1-channel Dolby Digital sources with mixed results. The table at the bottom of the page shows the conditions for the behavior of the Dolby Digital EX mode when activated.

The Dolby DIGITAL EX listening mode is available when both the side and rear speakers are present and Dolby Digital Surround EX decoding is activated. Matrix decoding is then applied to derive a surround back channel from the other surround channels.

- Dolby Digital Surround EX decoding is activated when the EX DECODING parameter is set to ON or AUTO and a flagged 5.1-channel Dolby Digital source recorded with Dolby Digital Surround EX encoding is detected.
- Dolby Digital Surround EX decoding is not activated when the EX DECODING parameter is set to OFF or AUTO and a non-flagged 5.1-channel Dolby Digital source recorded with or without Dolby Digital Surround EX encoding is detected.

Parameter	Default Setting	Possible Settings
EX DECODING	AUTO	AUTO, ON, OFF
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–10.0 to +0.0dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

Note:

The RV-5 cannot detect Dolby Digital Surround EX encoding in non-flagged 5.1-channel Dolby Digital input sources because they do not include information in the input signal that identifies Dolby Digital Surround EX encoding.

	Input Source		
Parameter Setting	**5.1-Channel Dolby Digital**	**5.1-Channel Surround EX (Flagged)**	**5.1-Channel Surround EX (Non-Flagged)**
EX DECODING: AUTO	DOLBY DIGITAL	DOLBY DIGITAL EX	DOLBY DIGITAL
EX DECODING: ON	DOLBY DIGITAL EX	DOLBY DIGITAL EX	DOLBY DIGITAL EX
EX DECODING: OFF	DOLBY DIGITAL	DOLBY DIGITAL	DOLBY DIGITAL

5.1 2-CHANNEL

MODE ADJUST ▶ 5.1 2-CHANNEL

This mode, recommended for recording purposes, is designed for converting 5.1-channel Dolby Digital-encoded input sources into 2-channel Logic 7-encoded output signals.

The downmixed 5.1-channel Dolby Digital input signals are sent to the Front L/R speakers and subwoofer.

Parameter	Default Setting	Possible Settings
CENTER MIX	+0dB	–25 to +5dB
SURROUND MIX	+0dB	–5 to +5dB
CNTR DLY SAMPLES	+0	–127 to +127
MASTER LEVEL	+0dB	–5 to +5dB
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–20.0 to +0.0dB
SUB LEVEL	+0dB	OFF, -30 to +12dB
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1 MONO LOGIC

MODE ADJUST ▶ 5.1 MONO LOGIC

This listening mode, designed for playback of Dolby Digital-encoded mono sources, uses proprietary Lexicon reverb algorithms to realistically expand mono sources to use all channels. This dramatically increases the perceived width and sense of envelopment of the listening space.

Note that:

When a 1.0 Dolby Digital source is present, the RV-5 automatically activates the 5.1 MONO LOGIC listening mode.

Parameter	Default Setting	Possible Settings
EFFECT LVL	–9dB	–12 to +6dB
ACADEMY FILTER	ON	ON, OFF
SURR ROLLOFF	3.1kHz	500Hz to 20.0kHz, OFF
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1 MONO SURR

MODE ADJUST ▸ **5.1 MONO SURR**

This listening mode, designed for playback of Dolby Digital-encoded mono sources, sends mono signals to all channels.

Parameter

OUTPUT LEVELS	Refer to page 6-28
CUSTOM	Refer to page 6-28

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1 MONO

MODE ADJUST ▸ **5.1 MONO**

This listening mode, designed for playback of Dolby Digital-encoded mono sources, sends mono signals to the center channel and subwoofer.

Parameter	Default Setting	Possible Settings
SUB LEVEL	+0dB	OFF, –30 to +12dB
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DTS-ES DECODING

The DTS, DTS-ES, and DTS-ES Discr listening modes are designed for, at a minimum, playback of 5.1-channel DTS, 5.1-channel matrix-encoded DTS-ES and 6.1-channel discrete-encoded DTS-ES sources.

The DTS, DTS-ES, and DTS-ES Discr listening mode names differ depending on the encoding present in the input source, the DECODING parameter setting and the speaker setup.

DTS-ES listening modes are available when DTS-ES decoding is activated. The table at the bottom of the page shows the conditions for the behavior of DTS-ES decoding when it is activated.

- DTS-ES decoding is activated when both the side and rear speakers are present and the ES DECODING parameter is set to ON or AUTO and a 5.1-channel matrix-encoded or a 6.1-channel discrete-encoded DTS-ES source is detected.
- DTS-ES decoding is deactivated when the ES DECODING parameter is set to OFF or when the ES DECODING parameter is set to AUTO and a 5.1-channel DTS source is detected.
- DTS-ES Discr mode decodes 6.1-channel discrete-encoded DTS-ES sources when ES decoding is set to AUTO or ON in the MODE ADJUST menu. The mode appears in the Setup menu when a DTS 6.1 source is present and seven speakers are selected in the SPEAKER SETUP menu.

Note:

The table below is not applicable to the DTS-ES THX, DTS THX ULTRA2 and DTS THX MUSIC listening modes. These listening modes will be explained in greater detail later in this manual.

Parameter Setting	Input Source		
	5.1-Channel DTS	5.1-Channel Matrix-Encoded DTS-ES	6.1-Channel Discrete-Encoded DTS-ES
ES DECODING: AUTO	DTS	DTS-ES	DTS-ES
ES DECODING: ON	DTS-ES	DTS-ES	DTS-ES
ES DECODING: OFF	DTS	DTS	DTS

DTS-ES L7 FILM & DTS L7 FILM

MODE ADJUST ▸ dts ES L7 FILM OR dts L7 FILM

These proprietary Lexicon listening modes use an advanced matrix to decode seven channels from 5.1- and 6.1-channel film sources with enhanced front steering. When both side and rear speakers are present, the DTS-ES L7 FILM listening mode also increases the perceived length and sense of envelopment of the listening space.

The listening modes are designed for enhanced playback of 5.1-channel DTS, 5.1-channel matrix-encoded DTS-ES, or 6.1-channel discrete-encoded DTS-ES film sources. The listening mode name differs, depending on the encoding present in the input source, the ES DECODING parameter setting and the speaker setup.

Option/Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
RE-EQUALIZER	ON	ON, OFF
SOUND STAGE	REAR	REAR, NEUTRAL, FRONT
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7kHz	500Hz to 20kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
LFE MIX	+0.0dB	-10.0 to +0.0dB
ES DECODING	AUTO	AUTO, ON, OFF
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DTS-ES L7 MUSIC & DTS L7 MUSIC

MODE ADJUST ▸ dts ES L7 MUSIC OR dts L7 MUSIC

These proprietary Lexicon listening modes, similar to the DTS-ES L7 FILM listening mode, use an advanced matrix to decode seven channels from 5.1 and 6.1-channel music sources with enhanced front steering to provide remarkable sound improvement compared to other decoders.

The listening modes are designed for enhanced playback of 5.1-channel DTS, 5.1-channel matrix-encoded DTS-ES, or 6.1-channel discrete-encoded DTS-ES music sources. The listening mode name differs, depending on the encoding present in the input source, the ES DECODING parameter setting and the speaker setups.

Option/Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
FRONT STEERING	MUSIC	OFF, MSURR, MUSIC, FILM
RE-EQUALIZER	OFF	ON, OFF
SOUND STAGE	NEUTRAL	REAR, NEUTRAL, FRONT
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7kHz	500Hz to 20kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
LFE MIX	+0.0dB	–10.0 to +0.0dB
ES DECODING	AUTO	AUTO, ON, OFF
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DTS, DTS-ES & DTS(-ES) Discr

MODE ADJUST ▶ dts OR dts ES OR dts ES Discr

This mode decodes 5.1 matrix or 6.1 discrete channels from DTS-ES sources. It is designed for playback of 5.1-channel DTS, 5.1-channel matrix-encoded DTS-ES, and 6.1-channel discrete-encoded DTS-ES sources.

The six decoded main channels are full-frequency. The .1 channel, often referred to as LFE information, has a limited frequency range of 120Hz.

The listening mode name differs, depending on the encoding present in the input source, the DECODING parameter setting, and the speaker setup. Refer to page 6-21 for more information.

Option/Parameter	Default Setting	Possible Settings
LFE MIX	+0.0dB	–10.0 to +0.0dB
ES DECODING	AUTO	AUTO, ON, OFF
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

DTS 2-CHAN & DTS-ES 2-CHAN

MODE ADJUST ▶ dts 2-CHAN OR dts ES 2-CHAN

These modes, recommended for recording purposes, send downmixed 5.1-channel or 6.1-channel DTS-ES input signals to the front speakers and subwoofer as 2-channel Logic 7-encoded output signals.

Option/Parameter	Default Setting	Possible Settings
CENTER MIX	+0dB	–25 to +5dB
SURROUND MIX	+0dB	–5 to +5dB
CNTR DLY SAMPLES	+0	–127 to +127
MASTER LEVEL	+0dB	–5 to +5dB
LFE MIX	+0.0dB	–20.0 to +0.0dB
ES DECODING	AUTO	AUTO, ON, OFF
SUB LEVEL	+0dB	OFF, –30 to +12dB
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1a L7 FILM

MODE ADJUST ▶ 5.1 FILM

The 5.1a LOGIC7 FILM listening mode is a proprietary Lexicon listening mode that uses LOGIC7 decoding to derive seven channels from 5.1-channel analog film sources with enhanced front steering.

This listening mode allows 5.1-channel analog sources to use bass management, speaker crossovers, speaker distance calibration, and audio controls (tone controls).

Option/Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
RE-EQUALIZER	ON	ON, OFF
SOUND STAGE	REAR	REAR, NEUTRAL, FRONT
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7kHz	500Hz to 20kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
LFE MIX	+0.0dB	-10.0 to +0.0dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1a L7 MUSIC

MODE ADJUST ▶ 5.1a MUSIC

The 5.1a LOGIC7 MUSIC listening mode is similar to the 5.1a LOGIC7 FILM listening mode, but specifically tailored for music sources. This mode is designed and recommended for playback of 5.1-channel analog music sources.

Option/Parameter	Default Setting	Possible Settings
VOCAL ENHANCE	+0.0dB	+6.0dB, +3.0dB, +0.0dB
FRONT STEERING	MUSIC	OFF, MSURR, MUSIC, FILM
RE-EQUALIZER	OFF	ON, OFF
SOUND STAGE	NEUTRAL	REAR, NEUTRAL, FRONT
5 SPKR ENHANCE	ON	ON, OFF
BASS ENHANCE	OFF	ON, OFF
SURR ROLLOFF	7kHz	500Hz to 20kHz, OFF
REAR DLY OFFSET	15ms	OFF, 1 to 30ms
LFE MIX	+0.0dB	-10.0 to +0.0dB
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1a STANDARD

MODE ADJUST ▶ 5.1a STANDARD

This mode allows 5.1-channel analog sources to use bass management, speaker crossovers, speaker distance calibration, and audio controls (tone controls). When these features are not used, the 5.1a STANDARD listening mode is similar to the 5.1a BYPASS listening mode. The 5.1a STANDARD mode sends identical signals (with appropriate time delays) to the Main Zone audio output connectors labeled Side L and Rear as well as Side R and Rear R.

Parameter	
OUTPUT LEVELS	Refer to page 6-28
CUSTOM	Refer to page 6-28

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1a 2-CHANNEL

MODE ADJUST ▶ 5.1a 2-CHANNEL

This mode downmixes 5.1-channel analog input signals into 2-channel LOGIC7-encoded output signals. It sends these signals to the front speakers and the subwoofer. It is recommended for recording purposes, particularly for recording from a DVD-A or multi-channel SACD player to a CD-R or another 2-channel recording format.

Parameter	Default Setting	Possible Settings
CENTER MIX	+0dB	-25 to +5dB
SURROUND MIX	+0dB	-5 to +5dB
CNTR DLY SAMPLES	+0	-127 to +127
MASTER LEVEL	+0dB	-5 to +5dB
LFE MIX	+0.0dB	-20.0 to +0.0dB
SUB L/R LVL	+0dB	OFF, -30 to +12dB
CUSTOM	Refer to page 6-28	

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

5.1a BYPASS

MODE ADJUST ▶ 5.1a BYPASS

- Designed for playback of 5.1-channel analog sources, such as DVD-A or SACD players.
- Sends the 5.1-channel analog audio input connector directly to the Main Zone volume control and audio output connectors, as shown on pages 2-9 and 3-59. These signals receive no internal processing.
- When both side and rear speakers are present, surround channel signals are sent in parallel to the side and rear speakers. To configure a 5-channel speaker setup, set the OUTPUT LEVELS menu SIDE L/R or REAR L/R parameter to OFF to deactivate the associated surround speakers.
- Pressing the remote control HOME/MAIN/AGE2/A BYP then 2CH buttons toggles the MAIN ADV menu ANALOG BYPASS parameter between ON and OFF.

Parameter	Default Setting	Possible Settings
OUTPUT LEVELS	Refer to page 6-28	
CUSTOM	Refer to page 6-28	

Note:

Speaker crossover settings, speaker distances and audio (tone) controls are not available when the 5.1a BYPASS listening mode is activated.

2CH BYPASS

MODE ADJUST ▶ 2CH BYPASS

This listening mode sends 2-channel analog audio input signals to the Main Zone audio output connectors labeled Front L/R with no internal processing.

The 2CH BYPASS listening mode is automatically activated whenever a 2-channel analog source is present and the MAIN ADV menu ANALOG BYPASS parameter is set to ON. The 2CH BYPASS listening mode is not available when a digital source is present and the MAIN ADV menu INPUT SELECT parameter is set to AUTO.

Pressing the remote control HOME/MAIN/PAGE2/A BYP button then 2CH buttons toggles the MAIN ADV menu ANALOG BYPASS parameter between ON and OFF.

Note:

Speaker crossover settings, speaker distances and audio controls (tone) are not available when the 2CH BYPASS listening mode is activated.

HEADPHONE L7

MODE ADJUST ▶ HEADPHONE L7

HEADPHONE L7 is a proprietary Lexicon listening mode designed for enhanced playback of 2-channel sources through headphones. This listening mode uses LOGIC7 processing and Head Related Transfer Functions to realistically increase the perceived sense of envelopment when listening through headphones.

The HEADPHONE listening mode is recommended for 2-channel sources when listening through headphones. No parameters for the HEADPHONE listening mode are available.

HEADPHONE 5.1

MODE ADJUST ▶ HEADPHONE 5.1

HEADPHONE 5.1 is a proprietary Lexicon listening mode designed for enhanced playback of Dolby Digital-encoded music or film sources through headphones. This listening mode uses LOGIC7 processing and Head Related Transfer Functions to realistically increase the perceived sense of envelopment when listening through headphones.

The HEADPHONE 5.1 listening mode is recommended for Dolby Digital-encoded sources when listening through headphones. No parameters for the HEADPHONE 5.1 listening mode are available.

HEADPHONE DTS

MODE ADJUST ▶ HEADPHONE DTS

HEADPHONE DTS is a proprietary Lexicon listening mode designed for enhanced playback of DTS(-ES)-encoded music or film sources through headphones. This listening mode uses LOGIC7 processing and Head Related Transfer Functions to realistically increase the perceived sense of envelopment when listening through headphones.

The HEADPHONE DTS listening mode is recommended for DTS-encoded sources when listening through headphones. No parameters for the HEADPHONE DTS listening mode are available.

HEADPHONE 5.1a

MODE ADJUST ▶ HEADPHONE 5.1a

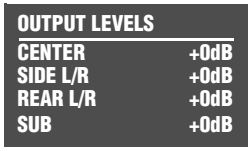
HEADPHONE 5.1a is a proprietary Lexicon listening mode designed for enhanced playback of 5.1-channel analog music or film sources through headphones. This listening mode uses LOGIC7 processing and Head Related Transfer Functions to realistically increase the perceived sense of envelopment when listening through headphones.

The HEADPHONE 5.1a listening mode is recommended for 5.1-channel analog sources when listening through headphones. No parameters for the HEADPHONE 5.1a listening mode are available.

OUTPUT LEVELS

MODE ADJUST ▶ Listening Mode ▶ OUTPUT LEVELS

Opens the OUTPUT LEVELS menu, which is used to adjust output levels for the Main Zone audio output connectors labeled Center, Subwoofer, Side L/R and Rear L/R.



The OUTPUT LEVELS option does not appear on listening mode menus when the selected listening mode does not accommodate multichannel output signals. Instead, an output-specific parameter appears. For example, the MONO listening mode menu includes a SUB LVL parameter.

Parameter	Default Setting	Possible Settings
CENTER	+0dB	OFF, –30 to +12dB
SIDE L/R	+0dB	OFF, –30 to +12dB
REAR L/R	+0dB	OFF, –30 to +12dB
SUB	+0dB	OFF, –30 to +12dB

See "Listening Mode Menu Option and Parameter Descriptions" on page 6-30 for detailed descriptions.

CUSTOM

MODE ADJUST ▶ (Listening Mode) ▶ CUSTOM

Opens the CUSTOM menu, which can be used to compare custom and factory-default versions of the selected listening mode and to restore the factory-default version of the selected listening mode.

CUSTOM VS PRESET

MODE ADJUST ▶ (Listening Mode) ▶ CUSTOM ▶ CUSTOM VS PRESET

Allows comparison listening between the custom and factory-default versions of the selected listening mode. When PRESET is selected, the listening mode is heard in its factory-default condition, as if all listening mode menu parameters were set to their factory-default settings.

When CUSTOM is selected, the listening mode is heard in its custom condition, including all current listening mode menu parameter settings. The PRESET and CUSTOM versions of the selected listening mode will sound identical when all listening mode menu parameters are set to their factory-default settings.

Note:

The CUSTOM VS PRESET option does not affect current listening mode menu parameter settings.

To toggle between the custom and factory-default versions of the selected listening mode:

1. Follow the CUSTOM VS PRESET menu path to open the CUSTOM VS PRESET drop-down menu.
2. When the CUSTOM VS PRESET option drop-down menu is open, press the remote control ▲ and ▼ arrow buttons to toggle between the PRESET (factory-default) and CUSTOM versions of the selected listening mode.
3. When finished, press the ◀ arrow button to close the CUSTOM VS PRESET drop-down menu.

RESET MODE

MODE ADJUST ▸ **(Listening Mode)** ▸ **CUSTOM** ▸ **RESET MODE**

Restores the factory-default version of the selected listening mode, restoring all listening mode menu parameters to their factory default settings.

To restore the factory-default version of the selected listening mode:

1. Follow the RESET MODE menu path to select the RESET MODE option. The PRESS RIGHT → TO RESTORE MODE message appears in the on-screen display.

2. Press the ▸ arrow button to restore the factory-default version of the selected listening mode. Press the ◂ arrow button to close the message without restoring the factory-default.

Note:

When the CUSTOM menu RESET MODE option is selected to restore the factory-default version of the selected listening mode, the corresponding TRIGGER SETUP menu listening mode parameter is automatically set to OFF.

LISTENING MODE MENU OPTION and PARAMETER DESCRIPTIONS

5 SPKR ENHANCE ON, OFF

Simulates 7-channel playback in 5-channel speaker configurations. When set to ON, the RV-5 provides an increased sense of spaciousness and envelopment through the surround speakers. This enhancement is most noticeable when the surround speakers are positioned to the side of the primary listening position, or when the primary listening position is located against the rear wall. The effectiveness of this parameter varies within the listening space. For best results, it is recommended that you position the surround speakers to the left and right sides of the primary listening position.

ACADEMY FILTER ON, OFF

When set to ON, restores the proper tonal balance of older mono film sources that have much narrower frequency responses than more recent mono film sources.

AUTO AZIMUTH ON, OFF

Maximizes matrix steering accuracy. When set to ON, the RV-5 continually monitors the 2-channel input signal and automatically adjusts the relative level and time offset of the input channels to ensure that signals are sent to the appropriate channels with maximum separation. When set to OFF, the accuracy of the selected listening mode varies among sources. It is recommended that you set this parameter to ON for film and broadcast sources and to OFF for music sources.

BASS CONTENT BINAURAL, MONO, STEREO

Adjusts the bass content of binaural, mono and stereo recordings. When set to BINAURL, the RV-5 activates low-frequency compensation. Select this setting for true binaural sources recorded with dummy head microphones. Select the MONO setting for sources recorded with mono bass. Select the STEREO setting for sources recorded with stereo bass.

BASS ENHANCE ON, OFF

Enhances stereo bass, which results in low-frequency reproduction that is less localizable and more realistic in the listening space. The effectiveness of the BASS ENHANCE parameter varies, depending on room acoustics and the ability of the surround speakers to reproduce low frequencies. It is recommended that you use front, side or rear speakers that are capable of reproducing frequencies of 40Hz or lower.

BASS RT 5ms to 48.6s

Works with the MID RT and SIZE parameters to adjust the amount of time required for low-frequency information to decay below 60dB in level. The BASS RT parameter setting should match the MID RT parameter setting for more natural effects in smaller listening spaces.

CAUTION!

Setting the BASS RT, MID RT and SIZE parameters to a high value may produce undesirable or damaging audio.

BASS XOVER 30Hz to 19.9kHz, OFF

Sets the frequency to which BASS RT applies.

CALIBRATION

Opens the PANORAMA listening mode CALIBRATION menu, which is used to calibrate the PANORAMA listening mode. Refer to “PANORAMA” on page 6-11 for more information.

LISTENING MODE MENU OPTION and PARAMETER DESCRIPTIONS *(continued)*

CENTER OFF, –30 to +12dB

Controls the output level of the audio output connector labeled Center. Available in all except 2 CH modes (2-CHANNEL, 2 CH BYPASS, DTS(-ES) 2-CHAN, 5.1 2-CHANNEL), MONO, 5.1 MONO and LIVE! modes.

CENTER DEPTH 0 to 18

Adjusts the amount of processing applied to the center channel, changing the perceived distance of the center speaker. Higher settings increase and lower settings decrease the perceived distance of the center speaker from the listening position. Available in NIGHTCLUB, CONCERT HALL, CHURCH and CATHEDRAL modes.

CENTER MIX –25 to +5dB

Indicates the relative center channel level for downmixing. Set this parameter to +0dB for film sources and –5dB for music sources. Available in 5.1 2-CHANNEL and DTS(-ES) 2-CHAN modes.

CNTR DLY SAMPLES –127 to +127

Controls the relative time offset of the center channel. Set this parameter to +0 unless the center channel is not properly timed and the value of the error is known. Available in 5.1 2-CHANNEL and DTS(-ES) 2-CHAN modes.

COMPRESSION AUTO, ON, OFF

Reduces wide volume level changes and increases dialogue intelligibility at lower listening levels for Dolby Digital input sources. When ON, full compression is applied, regardless of volume level. When OFF, compression is not applied. Set this parameter to AUTO or ON for Dolby Digital input sources that are listened to at lower volume levels, especially for nighttime viewing to avoid disturbing others. Available in all Dolby Digital modes.

CTR WIDTH MIN, 1 to 6, MAX

Adjusts the center image. When set to MIN, the center image is heard from just the center speaker. When set to MAX, the center image is heard as a "phantom" center image from the front left and right speakers. When set on the 1 to 6 scale, the center image is heard in various combinations of the front and center speakers. Available in Dolby PLII MUSIC and Dolby PLIIx MUSIC modes.

CUSTOM

Opens the CUSTOM menu, which is used to compare custom and factory-default versions of the selected listening mode and to restore the factory default version of the selected listening mode. Available in all modes.

CUSTOM VS PRESET

Allows comparison listening to the custom and factory-default versions of the selected listening mode. Refer to page 5-32 for information. Available in all modes.

DIMENSION FRONT, NEUTRAL, REAR

Controls the relative balance of the sound field, which can be useful with certain recordings to achieve a more suitable balance among all speakers. When set to FRONT, the sound field is balanced toward the front of the listening space. When set to NEUTRAL, the sound field is balanced at the center of the listening space. When set to REAR, the sound field is balanced toward the rear of the listening space. Available in Dolby PLII MUSIC and Dolby PLIIx MUSIC modes.

EARLY RFLX LVL –80dB to +12dB, OFF

Controls the amount of additional early reflections. Available in all LIVE! modes.

EFFECT LVL –12 to +6dB

Adjusts the amount of effect applied to the listening mode. Available in NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL, PANORAMA, MONO LOGIC and 5.1 MONO LOGIC modes.

ES DECODING AUTO, ON, OFF

Controls DTS-ES decoding, which extracts a rear channel from 5.1-channel DTS, 5.1-channel matrix-encoded DTS-ES and 6.1-channel discrete-encoded DTS-ES sources. When ON is selected, DTS-ES decoding is activated for all DTS-ES sources. When OFF is selected, DTS-ES decoding is deactivated for all DTS-ES sources.

DTS-ES decoding is activated when AUTO is selected and a 5.1-channel matrix-encoded or a 6.1-channel discrete-encoded DTS-ES source is detected. DTS-ES decoding is deactivated when a 5.1-channel DTS source is detected.

DTS-ES listening modes are available when DTS-ES decoding is engaged. DTS listening modes are available when DTS-ES decoding is not engaged. Refer to the DTS-ES Decoding section that begins on page 5-25 for more information.

Note the following:

- DTS-ES decoding cannot be engaged unless both side and rear speakers are present.
- The DTS-ES STATUS menu includes an SB level meter when the ES DECODING parameter is set to ON and a 5.1-channel DTS source is present or when the ES DECODING parameter is set to AUTO and a 5.1-channel matrix-encoded or 6.1-channel discrete-encoded DTS-ES source is present.

This parameter is available in all DTS modes.

EX DECODING AUTO, ON, OFF

Controls Dolby Digital Surround EX decoding, which extracts a rear channel from 5.1-channel Dolby Digital sources recorded with or without Dolby Digital Surround EX. When ON, Dolby Digital Surround EX decoding is engaged for all 5.1-channel Dolby Digital sources. When OFF, Dolby Digital Surround EX decoding is disengaged for all 5.1-channel Dolby Digital sources.

When AUTO is selected, Dolby Digital Surround EX decoding is engaged when a flagged 5.1-channel Dolby Digital source recorded with Dolby Digital Surround EX encoding is detected. Dolby Digital Surround EX decoding is not engaged when a non- flagged 5.1-channel Dolby Digital source recorded with or without Dolby Digital Surround EX encoding is detected.

Note:

The RV-5 cannot automatically detect Dolby Digital Surround EX encoding in non-flagged 5.1-channel Dolby Digital sources. A non-flagged input source does not identify Dolby Digital Surround EX encoding in the input signal.

The Dolby DIGITAL EX listening mode is available when Dolby Digital Surround EX decoding is engaged. The Dolby DIGITAL listening mode is available when Dolby Digital Surround EX decoding is not engaged. Refer to the Dolby DIGITAL EX & Dolby DIGITAL listening mode descriptions that begin on page 5-22 for more information.

Note the following:

- Dolby Digital Surround EX decoding cannot be engaged unless both side and rear speakers are present.

LISTENING MODE MENU OPTION and PARAMETER DESCRIPTIONS *(continued)*

- This parameter is available in 5.1 PLIIx MOV, 5.1 PLIIx MUS, DOLBY DIGITAL EX and DOLBY DIGITAL modes.
- When the Shift command bank is activated, pressing the remote control DOLBY button while a 5.1-channel Dolby Digital source is present activates the Dolby DIGITAL EX or Dolby DIGITAL listening mode. Subsequent presses adjust the EX DECODING parameter, cycling through the AUTO, ON and OFF settings.

FRONT STEERING OFF, MSURR, MUSIC, FILM

Adjusts front steering between the front left, front right, and center speakers. When set to FILM, maximum front steering is applied to the center channel. When set to MUSIC, moderate front steering is applied. When set to MSURR, minimum front steering is applied. When set to OFF, no front steering is applied. It is recommended that you set this parameter to FILM for film and broadcast sources and to MUSIC, MSURR or OFF for music sources. Available in L7 TV, L7 MUSIC, L7 MUSIC SURR, all 5.1 L7 modes and all DTS L7 modes.

INPUT BALANCE L< to <I> to >R

Controls the balance of the selected stereo analog audio input connectors, compensating for audio input sources with audible channel imbalance. Available in PANORAMA mode.

LFE MIX –20.0 or -10.0 to +0.0dB

Controls the output level of LFE information – the .1 channel in a 5.1- or 6.1-channel input source – that is sent to the audio output labeled Subwoofer. Low frequencies from up to seven other channels might be combined with the LFE information to create the subwoofer output signal, which significantly increases subwoofer output levels.

Careful adjustment of this parameter allows achievement of proper tonal balance and reduces the risk of subwoofer overload. When the speaker setup does not include a subwoofer, LFE information is mixed into speakers for which the corresponding CUSTOM SETUP menu parameter is set to FULL or to the lowest crossover points. Available in all Dolby Digital modes except MONO modes (5.1 MONO LOGIC, 5.1 MONO SURR, 5.1 MONO) and all DTS modes.

LISTENER POS –127 to +127

Compensates for primary listening positions that are not centered between the front left and right speakers. Each increment within the –127 to +127 parameter range represents about one-third of an inch. Refer to the Calibration section that begins on page 5-13 for more information. Available in PANORAMA CALIBRATION mode.

Note:

The LISTENER POS parameter range might extend past the location of the front left and right speakers.

LIVENESS 30ms to 20.2s

Depends on the SIZE parameter setting. The LIVENESS parameter adjusts the amount of effect recirculation. Higher settings mimic more reflective surfaces and increase decay time. Available in NIGHTCLUB and CONCERT HALL modes.

LOW FREQ WIDTH –25 to +25dB

Applies low-frequency spatial correction to the input signal. This correction is applied to uncorrelated input signals below 60Hz. Available in PANORAMA mode.

MASTER LEVEL –5 to +5dB

Adjusts the output level of 2-channel Logic 7-encoded sources. Available in 5.1 2-CHANNEL and DTS(-ES) 2-CHAN modes.

MID RT 24ms to 24.3s

Works with the SIZE parameters to adjust the amount of time required for mid-frequency information to decay below 60dB in level. The full parameter range might not be available depending on the SIZE parameter setting. Available in CHURCH, CATHEDRAL and all LIVE! modes.

CAUTION!

Setting the BASS RT, MID RT or SIZE parameters to a high value may produce undesirable or damaging audio.

OUTPUT LEVELS

Opens the OUTPUT LEVELS menu, which is used to adjust output levels for the Main Zone audio output connectors labeled Center, Subwoofer, Side L/R and Rear L/R. Refer to page 5-32 for more information. Available in all except 2-CHANNEL, MONO, 5.1 2-CHANNEL, 5.1 MONO, DTS (-ES) 2-CHAN, 2CH BYPASS and LIVE! modes.

PANORAMA ON, OFF

When set to ON, Dolby PLII MUSIC and Dolby PLIIx MUSIC listening modes extend the front stereo image to include surround channel signals, which creates a "wraparound" effect with side wall imaging. Available in Dolby PLII MUSIC and Dolby PLIIx MUSIC modes.

Note:

The PANORAMA parameter within the Dolby PLII MUSIC and Dolby PLIIx MUSIC listening modes should not be confused with the separate PANORAMA listening mode (page 6-11).

PRE-DELAY 1 to 100ms, OFF

Adjusts delay time between the direct sound and the onset of reverberation. Higher settings make the simulated space sound larger. Because some pre-delay is inherent in all source material, you should begin with the parameter set to the lowest setting, then make adjustments accordingly. Available in NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL and all LIVE! modes.

RE-EQUALIZER ON, OFF

Simulates high-frequency rolloffs that occur in movie theaters. When set to ON, the RV-5 applies a high-frequency filter. When set to OFF, the RV-5 does not apply a high-frequency filter. It is recommended that you set this parameter to ON for film sources, as many films are mixed for movie theaters and might sound too bright when played back in home theaters without re-equalization. Available in L7 FILM, L7 TV, Dolby PLII + THX, Dolby PLIIx + THX, 5.1 L7 FILM, 5.1 L7 TV, THX ULTRA2, THX SurEX, THX, DTS (-ES) L7 FILM, DTS(-ES) THX ULTRA2 and DTS(-ES) THX modes.

REAR DLY OFFSET OFF, 1 to 30ms

Increases the perceived depth of the listening space by delaying the arrival time of rear speaker signals. It is recommended that you increase the setting when using side and rear speakers that are located close together or when a greater sense of depth is desired in the listening space. Available in all Logic 7 modes and PANORAMA mode.

LISTENING MODE MENU OPTION and PARAMETER DESCRIPTIONS *(continued)*

REAR L/R –30 to +12dB, OFF

Controls the output level of the Main Zone audio output connector labeled Rear L/R. Available in all except 2-CHANNEL, MONO, 5.1 2-CHANNEL, 5.1 MONO, DTS (-ES) 2-CHAN, 2CH BYPASS and LIVE! modes.

RESET MODE

Restores the factory-default version of the selected listening mode, restoring all listening mode menu parameters to their factory-default settings. Available in all modes.

REVERB LVL –80 to +0dB, OFF

Controls the amount of added reverb. Available in all LIVE! modes.

ROLLOFF 500Hz to 20.0kHz, OFF

Simulates the absorption of high frequencies in a real space. It is recommended that you begin with a low setting to simulate high-frequency absorptive spaces. Available in NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL and all LIVE! modes.

SHAPE 0 TO 4

Controls the buildup of the energy that most audibly creates the sound of a real room. SHAPE and SPREAD work together – if either is set to zero, the other has no effect. Available in all LIVE! modes.

SIDE L/R –30 to +12dB, OFF

Controls the level of the Side L/R audio output connectors in the Main Zone. Available in all except 2-CHANNEL, MONO, 5.1 2-CHANNEL, 5.1 MONO, DTS (-ES) 2-CHAN, 2CH BYPASS and LIVE! modes.

SIZE 4 to 20 or 30m

Adjusts the length of the listening space within a 4m to 20m or 30m range (depending on the listening mode). Increase the size of the space to increase the reverb effect. Available in NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL and all LIVE! modes.

CAUTION!

Setting the BASS RT, MID RT and SIZE parameters to a high value may produce undesirable or damaging audio.

SOUND STAGE FRONT, NEUTRAL, REAR

Dynamically controls the relative balance of the audio output connectors. When set to FRONT, Side L/R and Rear L/R output levels are attenuated by 6dB, shifting the perceived balance of the sound field to the front of the listening space. When set to NEUTRAL, Side L/R and Rear L/R output levels are slightly attenuated by 3dB, shifting the perceived balance of the sound field to the center of the listening space. When set to REAR, Side L/R and Rear L/R output levels are not attenuated, preserving the intended balance of the sound field. Available in all Logic 7 modes.

SOURCE RIGHT, LEFT & RIGHT, LEFT

Controls the perceived direction of the PANORAMA listening mode external calibration source signal. When RIGHT is selected, the sound is perceived to come from the right of the primary listening position. When LEFT is selected, the sound is perceived to come from the left of the primary listening position. When LEFT & RIGHT is selected, the sound is perceived to come from all around the primary listening position. Refer to the Calibration section that begins on page 6-11 for more information about the SOURCE parameter. Available in PANORAMA CALIBRATION.

Note:

The SOURCE parameter controls the perceived direction of the sound, although both the front left and right speakers generate the external calibration source signal.

SPEAKER ANGLE 10 to 90deg

Compensates for a wide or narrow speaker angle relative to the primary listening position. Select the setting closest to the angle between the front left and right speakers and the primary listening position. Refer to the Calibration section that begins on page 6-11 for more information about the SPEAKER ANGLE parameter. Available in PANORAMA CALIBRATION.

SPEECH DETECT ON, OFF

Distinguishes monaural speech from other input sources. When set to ON, effects are lowered to minimize interference and unnatural echo in monaural speech. When stereo input sources are present, the front left and right channels are independently used as inputs for ambience synthesis. When strong monaural speech is present in the input source, the monaural component of the ambience effect is reduced and the stereo component of the effect is increased. When set to OFF, the amount of ambience synthesis is dynamically controlled. Available in NIGHTCLUB, CONCERT HALL, CHURCH and CATHEDRAL modes.

SPREAD 0 to 100%

Controls the timing between the initial reflections that most audibly create the sound of a real room. SHAPE and SPREAD work together; if either is set to 0, the other has no effect. Available in all LIVE! modes.

SUB & SUB LVL OFF, –30 to +12dB

Controls the output level of the Main Zone audio output connector labeled Subwoofer. The SUB parameter appears on the listening mode OUTPUT LEVELS menu. The SUB LVL parameter appears on listening mode menus when the listening mode does not accommodate multichannel output signals. Available in all except LIVE! modes.

SURR ROLLOFF 500Hz to 20.0kHz, OFF

Applies high-frequency attenuation control to the audio output connectors labeled Side L/R and Rear L/R. This filter is only applied to output signals generated by the RV-5. Available in all Logic 7 modes.

SURROUND DLY 0 to 15ms

Increases the perceived depth of the listening space by delaying the arrival time of signals from the side and rear speakers. It is recommended that you increase the setting when a greater sense of depth is desired in the listening space.

SURROUND EX AUTO, ON, OFF

Controls the THX Surround EX decoding feature, which can be used to extract a rear channel from 5.1-channel Dolby Digital sources. When ON is selected, THX Surround EX decoding is engaged for all 5.1-channel Dolby Digital sources. When OFF is selected, THX Surround EX decoding is not engaged for all 5.1-channel Dolby Digital sources. Available in THX ULTRA2, THX SurEX and THX modes.

LISTENING MODE MENU OPTION and PARAMETER DESCRIPTIONS *(continued)*

SURROUND MIX -5 to +5dB

Controls the relative level of surround channel information sent to the audio output connectors labeled Front L/R. It is recommended that you set this parameter to +2dB or +3dB for all input sources. Available in 5.1 2-CHANNEL and DTS (-ES) 2-CHAN modes.

TREB CUT RT 500Hz to 20kHz

Sets the frequency above which high frequencies are rolled off in the reverberated signal, causing reverberated signals to grow progressively darker. This results in a more natural sound because it simulates the effect of air absorption in a real hall. Setting this parameter to a low frequency dampens the audio as it re-circulates, and consequently can actually shorten the reverb time. Available in all LIVE! modes.

VOCAL ENHANCE +6.0dB, +3.0dB, +0.0dB

Controls the level of dialog-boost in the audio output connector labeled Center. Increase this setting to improve dialog intelligibility, particularly at lower volume levels. Available in all Logic 7 modes.

MODE – PARAMETER RELATIONSHIPS

The following table lists each parameter and the modes in which it is used.

The parameter...	Is used in these modes
5 SPKR ENHANCE	All L7 modes
ACADEMY FILTER	MONO LOGIC and 5.1 MONO LOGIC
AUTO AZIMUTH	L7 FILM and L7 TV
BASS CONTENT	PANORAMA
BASS ENHANCE	All L7 modes
BASS RT	CHURCH, CATHEDRAL and all LIVE! modes
CALIBRATION	PANORAMA
CENTER	All except 2 CH modes (2-CHANNEL, 2 CH BYPASS, DTS(-ES) 2-CHAN, 5.1 2-CHANNEL, MONO, 5.1 MONO and LIVE! modes)
CENTER DEPTH	NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL
CENTER MIX	5.1 2-CHANNEL, DTS(-ES) 2-CHAN
CNTR DLY SAMPLES	5.1 2-CHANNEL, DTS(-ES) 2-CHAN
COMPRESSION	All Dolby Digital modes
CTR WIDTH	Dolby PLII MUSIC and Dolby PLIIx MUSIC
CUSTOM	All modes
CUSTOM VS PRESET	All modes
DIMENSION	Dolby DPLII MUSIC and Dolby PLIIx MUSIC
EARLY RFLX LVL	All LIVE! modes
EFFECT LVL	NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL, PANORAMA, MONO LOGIC and 5.1 MONO LOGIC
ES DECODING	All DTS modes

The parameter...	Is used in these modes
EX DECODING	5.1 PLIIx MOV, 5.1 PLIIx MUS, DOLBY DIGITAL EX and DOLBY DIGITAL
FRONT STEERING	L7 TV, L7 MUSIC, L7 MUSIC SURR, all 5.1 L7 modes and all DTS L7 modes
INPUT BALANCE	PANORAMA
LFE MIX	All Dolby Digital modes except MONO modes (5.1 MONO LOGIC, 5.1 MONO SURR, 5.1 MONO), all DTS modes and 5.1a BYPASS
LISTENER POS	PANORAMA CALIBRATION
LIVENESS	NIGHTCLUB, CONCERT HALL
LOW FREQ WIDTH	PANORAMA
MASTER LEVEL	5.1 2-CHANNEL, DTS(-ES) 2-CHAN
MID RT	CHURCH, CATHEDRAL and all LIVE! modes
OUTPUT LEVELS	All except 2-CHANNEL, MONO, 5.1 2-CHANNEL, 5.1 MONO, DTS(-ES) 2-CHAN, 2CH BYPASS and LIVE! modes
PANORAMA	Dolby PLII MUSIC and Dolby PLIIx MUSIC
PRE-DELAY	NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL and all LIVE! modes
RE-EQUALIZER	L7 FILM, L7 TV, Dolby PLII + THX, Dolby PLIIx + THX, 5.1 L7 FILM, 5.1 L7 TV, THX ULTRA2, THX SurEX, THX, DTS (-ES) L7 FILM, DTS (-ES) THX ULTRA2 and DTS (-ES) THX
REAR DLY OFFSET	All L7 modes and PANORAMA
REAR L/R	All except 2-CHANNEL, MONO, 5.1 2-CHANNEL, 5.1 MONO, DTS(-ES) 2-CHAN, 2CH BYPASS and LIVE! modes
RESET MODE	All modes
REVERB LVL	All LIVE! modes
ROLLOFF	NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL and all LIVE! modes
SHAPE	All LIVE! modes
SIDE L/R	All except 2-CHANNEL, MONO, 5.1 2-CHANNEL, 5.1 MONO, DTS(-ES) 2-CHAN, 2CH BYPASS and LIVE! modes
SIZE	NIGHTCLUB, CONCERT HALL, CHURCH, CATHEDRAL and all LIVE! modes

The parameter...	Is used in these modes
SOUND STAGE	All L7 modes
SOURCE	PANORAMA CALIBRATION
SPEAKER ANGLE	PANORAMA CALIBRATION
SPEECH DETECT	NIGHTCLUB, CONCERT HALL, CHURCH and CATHEDRAL
SPREAD	All LIVE! modes
SUB & SUB LVL	All except LIVE! modes
SURR ROLLOFF	All L7 modes
SURROUND DLY	Dolby PLII MUSIC and Dolby PLIIx MUSIC
SURROUND MIX	5.1 2-CHANNEL and DTS(-ES) 2-CHAN
TREB CUT RT	All LIVE! modes
VOCAL ENHANCE	All L7 modes

7

Troubleshooting and Maintenance

Troubleshooting.....7-2

Routine Maintenance 7-4

Restoring Factory-Default Settings.....7-4

TROUBLESHOOTING

The RV-5 does not power on.

1. Make sure the rear-panel power switch is set to the | ("on") position.
2. Attempt to power on the RV-5 with the front-panel **Standby** button and remote control **On** button.
3. Examine the power cord to ensure a good connection between the rear-panel AC input connector and the wall outlet.
4. Check the electrical circuit and breaker.

The remote control does not work.

1. Eliminate obstructions between the remote control and the front-panel IR receiver. When the RV-5 is not using the rear-panel IR IN connector, the remote control must be in line of sight with the front-panel IR receiver for proper operation. The remote control might also become unreliable if strong sunlight or fluorescent light is shining on the IR receiver.
2. Make sure the remote control batteries are correctly inserted with the proper polarity (page 1-6).
3. Replace the remote control batteries. When the batteries are low on power, the remote control enters a low-voltage condition that prevents it from operating the RV-8.

The RV-5 is powered on, but there is no audio.

1. Make sure volume level is audible. Volume level can be increased with the front-panel volume knob or the remote control VOL ▲ and ▼ buttons.
2. Make sure audio has not been muted. The message "MUTE ON" or "FULL MUTE ON" will appear in the on-screen and front-panel displays when audio has been muted. To deactivate mute, press the **Mute** button or adjust the volume level.
3. Check the INPUT SETUP menu DIGITAL IN and ANALOG IN parameters to ensure the appropriate audio connector is assigned to the selected input.
4. Make sure the RV-5 is receiving an audio signal. To do this, follow the instructions that begin on page 2-29 to open the STATUS menu for the current input source.

Dialogue sounds muffled.

If the speaker setup does not include a center speaker, make sure a custom – as opposed to a THX – speaker setup is selected. Then, make sure the CUSTOM SETUP menu CENTER parameter is set to NONE (page 3-31).

A humming sound is present in the audio.

1. If a cable TV connection is present, disconnect the cable from the wall outlet. If this eliminates the humming sound, a ground loop isolation device is required. Contact your dealer or the cable provider for assistance.
2. Disconnect components one at a time to isolate the problem. Once the problem is identified, make sure the associated component is properly grounded and connected to the same electrical circuit as the RV-5.

The RV-5 is powered on, but there is no video.

1. Examine the video cables – particularly the S-Video cables – to ensure a good connection to the associated component.

2. Check the INPUT SETUP menu VIDEO IN and COMPONENT IN (page 3-11) parameters to ensure the appropriate video connector is assigned to the selected input.

RF interference is present in the audio or video.

1. Make sure the RV-5 is not positioned near unshielded TV or FM antennas, cable TV decoders and other RF-emitting devices.
2. Replace unshielded cables with shielded cables wherever possible.

The RV-5 is exhibiting erratic behavior.

1. Set the rear-panel power switch to the ○ ("off") position. Wait 10 seconds. Then set the rear-panel power switch to the | ("on") position.
2. Use the RV-5 configuration tool to download the current RV-5 configuration to a personal computer (PC) or document all user-defined settings on the Installation Worksheet that begins on page D-2. Then, follow the instructions on the next page to restore factory-default settings.

If all else fails...

1. Document all user-defined settings on the Installation Worksheet that begins on page D-2. Then, follow the instructions on page 7-4 to restore factory-default settings.
2. Contact an authorized Lexicon dealer.
3. Contact Lexicon customer service at 781-280-0300 or www.lexicon.com.

Note:

Visit the knowledgebase at http://www.lexicon.com/kbase for answers to frequently asked questions and additional trouble-shooting information.

The tuner volume suddenly went mute, then after a minute it resumed. This seems to happen occasionally.

Under the TUNER SETUP menu, is the AUTO FREQUENCY option active? You may be experiencing broadcast station dropouts. When the broadcast signal drops out, the volume is muted and AUTO FREQUENCY activates, scanning for alternate broadcast frequencies and then verifying that the station ID is an exact match. If the station ID matches and the alternate frequency is a stronger signal, then the tuner switches to the alternate frequency and turns off the volume mute. Otherwise, auto frequency scans for another alternate frequency and repeats the procedure. If there are a lot of alternate broadcast frequencies, this process can take a noticeable amount of time. To stop this behavior, simply turn off the Auto frequency option.

ROUTINE MAINTENANCE

The bulleted items below describe routine maintenance that should be performed on a periodic basis.

- Clean the RV-5 exterior surface with a soft, lint-free cloth. Do not use alcohol, benzene, acetone-based cleaners or strong commercial cleaners. Do not use a cloth made with steel wool or metal polish. If the RV-8 is exposed to a dusty environment, a low-pressure blower can be used to remove dust from its exterior surface.
- Replace the remote control batteries as needed. The remote control requires four AAA batteries. When these batteries are low on power, the remote control enters a low-voltage condition that prevents it from operating the RV-5. Normal operation will resume when new batteries are installed.

RESTORING FACTORY-DEFAULT SETTINGS

When factory-default settings are restored, all parameters and user-defined values are restored to their factory-default settings. Before restoring factory-default settings, record all user-defined settings in the Installation Worksheet in the Appendix on page D-2.

To restore factory-default settings:

1. Record all user-defined settings on the Installation Worksheet that begins on page D-2. When factory-default settings are restored, all parameters and user-defined values are restored to their factory-default settings.
2. If the RV-5 is powered on, press the front-panel standby button or the remote control **Off** button to activate standby mode and deactivate the RV-5. If the RV-5 is in standby mode, proceed to step 3.
3. Press the front-panel standby button or the remote control On button to deactivate standby mode and activate the RV-5.
4. Quickly press and hold the front-panel or remote control Mute button until the FACTORY SETTINGS menu opens in the on-screen and front-panel displays.
5. Press the remote control ▲ and ▼ arrow buttons to highlight the desired option. Highlight the RESTORE DEFAULTS option to restore factory-default settings. Highlight the EXIT option to close the FACTORY SETTINGS menu without restoring factory-default settings.
6. When the desired option is highlighted, press the remote control ▶ arrow button to select this option.
   - If the RESTORE DEFAULTS option was selected, the FACTORY SETTINGS message shown in the previous page will appear in the on-screen and front-panel displays. When this message appears, press a front-panel or remote control button to restart the RV-5.
   - If the EXIT option is selected, the FACTORY SETTINGS menu will close and the two-line status will open in the on-screen and front-panel displays.

A

Appendix

Specifications A-2
Declaration of Conformity A-4
Menu Tree A-5
Installation Worksheet A-20

SPECIFICATIONS

Audio Input & Output Connectors	
Analog Audio Inputs	Eight stereo (RCA) *or* five stereo and one 5.1-channel or 2 stereo and two 5.1-channel connectors
Digital Audio Inputs	• Four S/PDIF coaxial (RCA) and four S/PDIF optical connectors • Coaxial and optical input connectors conform to IEC-958, S/PDIF standards • Accepts 44.1, 48, 88.2 and 96kHz sample rates • Accepts 16-24-bit PCM audio, Dolby Digital, DTS and DTS-ES discrete data formats
Main Zone Audio Outputs	Eight unbalanced (RCA) connectors for Front L/R, Center, Sub, Side L/R and Rear L/R
Zone 2 Audio Outputs	• One unbalanced (RCA, variable output level) stereo connector • One unbalanced (RCA, fixed output level) stereo connector • One S/PDIF coaxial (RCA) connector and one optical connector
Headphone	One stereo (1/4-inch phone) connector
Amplifier	Seven channels, two channels assigned to Zone 2 or Zone 3

Main Zone Audio Performance	
A/D Conversion	24-Bit, 96kHz, dual-bit ΔΣ architecture
D/A Conversion	24-Bit, 44.1 to 192kHz, multibit ΔΣ architecture
*Frequency Response	20Hz to 20kHz, +0.1dB/–0.1dB, –0.25dB at 40kHz, –0.5dB at 40kHz, reference 1kHz
*THD + Noise	Below 0.02%, 20Hz to 20kHz, 140W Rms all channels driven
*Dynamic Range	• 105dB minimum, 22kHz bandwidth, "A" weighted • 102dB minimum, 22kHz bandwidth, unweighted
*Signal-to-Noise Ratio	• 105dB minimum, 22kHz bandwidth, "A" weighted • 102dB minimum, 22kHz bandwidth, unweighted
Input Sensitivity	200mV Rms (2V Rms for maximum output level) at 0dB input gain

Main Zone Audio Performance	
Input Impedance	100kΩ in parallel with 150pF
Preamp Output Level	• 150mV Rms typical, 6V Rms maximum (RCA connectors) • Maximum value with full-scale input signal and volume at +12dB
Preamp Output Impedance	500Ω in parallel with 150pF (RCA connectors)

Zone 2 Audio Performance	
A/D Conversion	24-Bit, 44.1 to 96kHz, multibit ΔΣ architecture (Zone 2 only)
D/A Conversion	24-Bit, 44.1 to 192kHz, multibit ΔΣ architecture
Frequency Response	10Hz to 20kHz, +0.1dB/–0.25dB, –0.75dB at 40kHz, reference 1kHz
THD + Noise	Below 0.005% at 1kHz, (1V Rms output level)
Dynamic Range	101dB minimum, 22kHz bandwidth
Signal-to-Noise Ratio	101dB minimum, 22kHz bandwidth
Input Sensitivity	200mV Rms (4V Rms for maximum output level)
Input Impedance	100kΩ in parallel with 150pF
Preamp Output Level	• 200mV Rms typical, 4V Rms maximum • Maximum value with full-scale input signal and volume at 0dB
Preamp Output Impedance	300Ω in parallel with 150pF

Video Input & Output Connectors	
Video Inputs	Five composite (RCA), five S-Video and three component video (RCA)
Video Outputs	Two composite (RCA, one monitor and one Zone 2), two S-Video (one monitor and one Zone 2) and one component (RCA)
Composite & S-Video Performance	
Compatibility	NTSC, PAL and SECAM

Composite & S-Video Performance	
Switching	Active
Output Level	1.0V peak-to-peak
Impedance	75Ω
Input Return Loss	>40dB
Differential Gain	<0.5%
Differential Phase	<0.5°
Bandwidth	>25MHz
K Factor	<0.3%
Gain	±0.15dB
Signal-to-Noise Ratio	>65dB
Frequency Response	10Hz to 10MHz + 0.1/–0.3dB

Component Video Performance	
Compatibility	3-Channel (Y, Pr, Pb), format-independent
Switching	Passive
Impedance	75Ω
Insertion Loss	<3dB
Bandwidth	>150MHz
Video Converter	NTSC, PAL, SECAM, to Y/Pb/Pr

Microphone Input Connectors	
Inputs	4 3.5mm miniature phone jacks
Input Sensitivity	10mV Rms (400mV maximum input level)
Input Impedance	20kΩ (accepts balanced or unbalanced input signals)

FM Tuner Performance	
Tuning Range	64MHz to 108MHz
Usable Sensitivity	<4uV, 1.6mV typical
Selectivity	>87dBmV, 93dBmV typical

FM Tuner Performance	
Frequency Response	50Hz to 16kHz, +0.1dB/-1.0dB
THD + Noise	<0.4% at 1 kHz (stereo)
Signal-to-Noise Ratio	50dB minimum at 60dBmV
Image Rejection	>50dB, >60dB typical
AM Suppression	>45dB, >55dB typical

AM Tuner Performance	
Tuning Range	520 to 1720kHz
Usable Sensitivity	<8uV, 4mV typical
THD + Noise	< 0.56%, 0.20% typical (1kHz, 60dBmV, 30% mod)
Wideband AGC	>80dBmV

Phono Performance (MM)	
Frequency Response	50Hz to 20kHz, +0.5dB/-0.5dB, rumble filter -4dB at 10Hz
THD + Noise	< 0.20%, 20Hz to 10kHz, 4.7mV input
Signal-to-Noise Ratio	72dB minimum

Compatible Amplifier Connectors	
Banana Plugs	Standard 0.75 inch plugs
Spade Connectors	Size 10-12 gauge
Bare Wire	Up to 10 gauge bare wire

Other	
Trigger Outputs	One power on/off and one programmable connector on detachable screw terminals (+12 VDC, 0.5 amps each)
RS-232 Serial Input/ Output	Two 9-pin D-sub connectors
Power Requirements	120-230 VAC, 50-60Hz, 60W (universal line input), detachable power cord

Other	
Power Requirements	120VAC 60Hz, 5.0W (standby), 1.3kW (maximum) 230VAC 50Hz, _____W (standby), _____kW (maximum) universal line input, detachable power cord
RV-5 Dimensions & Weight	• Height (with feet): 6.496 inches (165 mm) • Width: 17.717 inches (450 mm) • Depth: 15.748 inches (400 mm) • Weight: 39.7 lbs (18kg)
Rack-Mounting	• Optional brackets are available for installation in a standard 19" equipment rack (two rack units required)
Environment	• Operating temperature: 0° to 35°C (32° to 95°F) • Storage temperature: –20° to 60°C (–4° to 140°F) • Relative humidity: 95% maximum without condensation
Remote Control	• Handheld, backlit infrared remote control unit, preprogrammed and learning • Requires 4 AAA batteries (alkaline batteries recommended)

Specifications are subject to change without notice.

DECLARATION OF CONFORMITY

Application of Council Directive(s):
2004/108/EEC and 73/23/EEC as amended by 93/68/EEC

Standard(s) to Which Conformity is Declared:
EN 55013:2001 + A1:2003
EN 55020:2002 + A1:2003 + A2:2005

EN 61000-3-2:2000 + A2:2005
EN 61000-3-3:1995 + A1:2001

EN 60065:2002

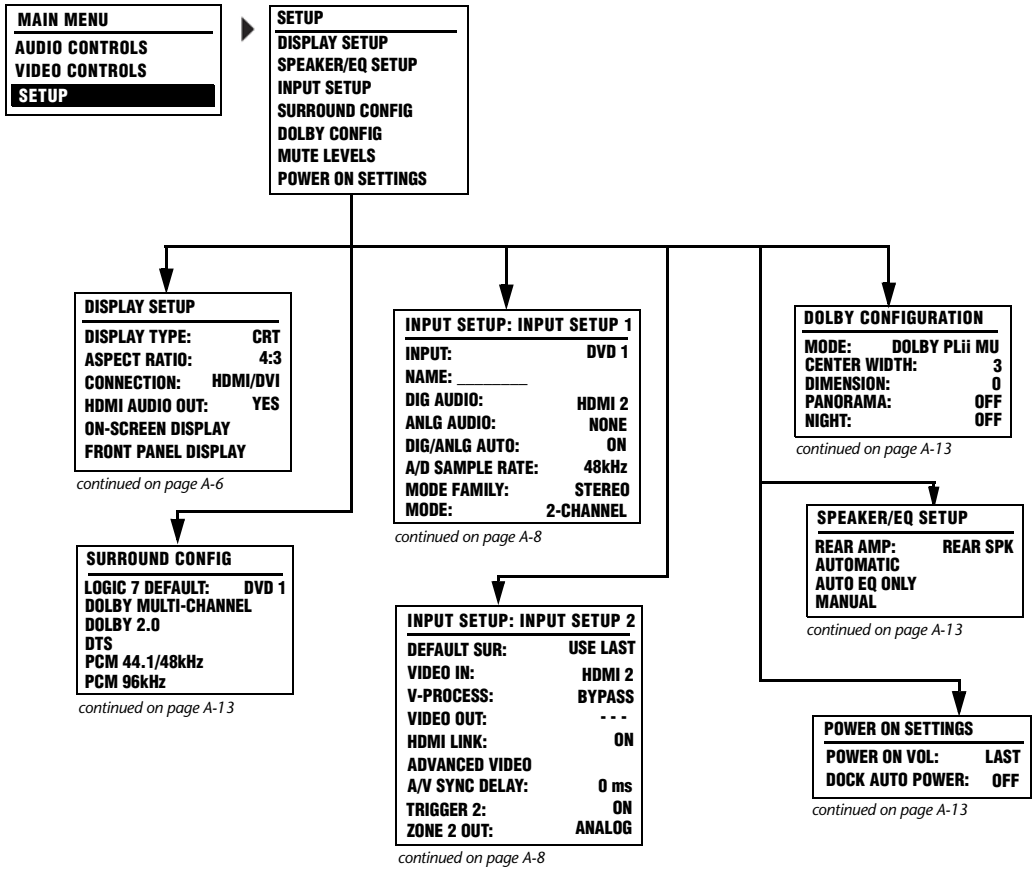
Manufacturer: Harman Specialty Group
3 Oak Park
Bedford, MA 01730-1413 USA

The equipment identified here conforms to the Directive(s) and Standard(s) specified above.

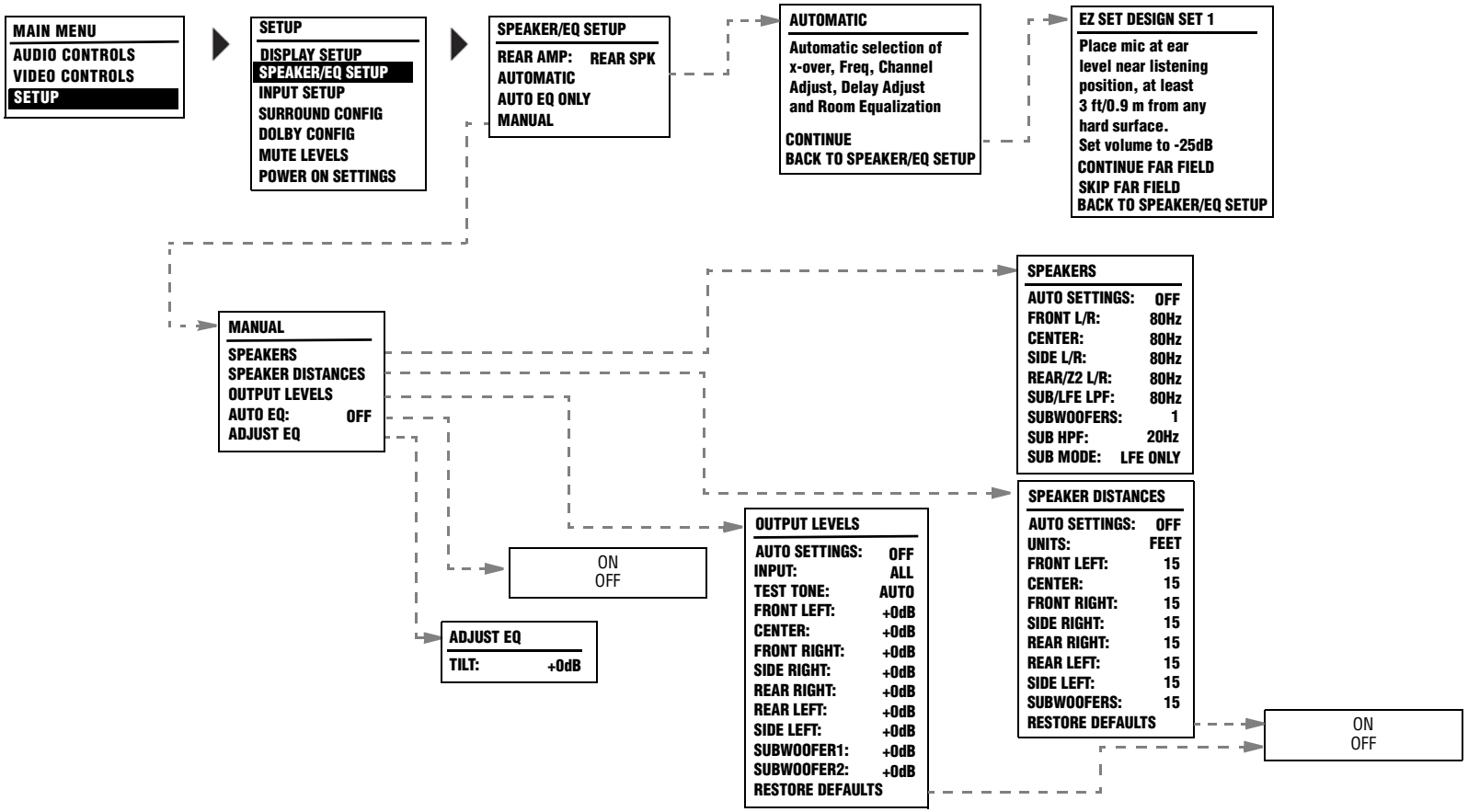
Type of Equipment: Digital Receiver
Model: Lexicon RV-5
Date: January 2007

Harman Specialty Group
Vice President of Engineering
3 Oak Park
Bedford, MA 01730-1413 USA
Tel: 781-280-0300
Fax: 781-280-0490

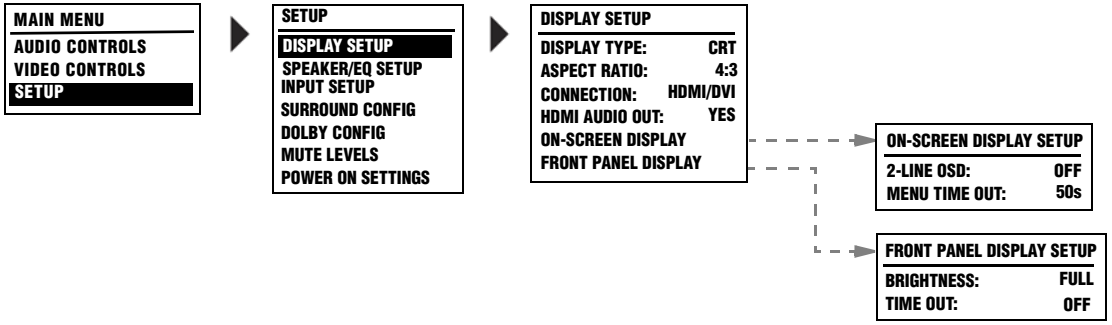
MAIN MENU: SETUP MENU



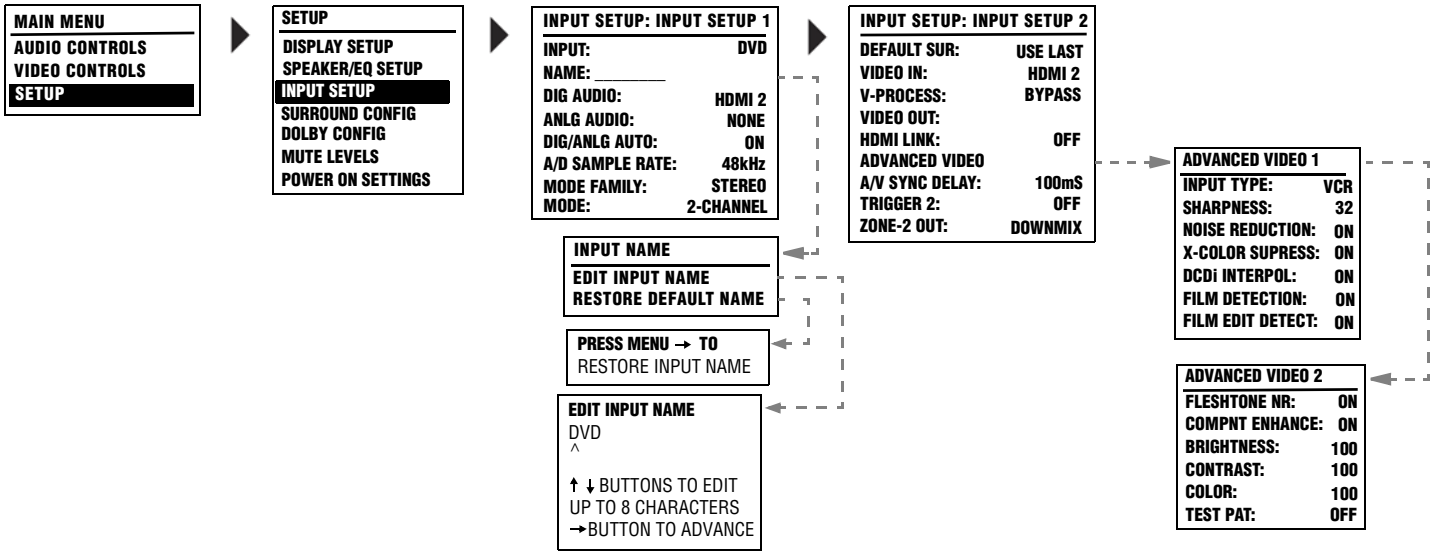
SETUP MENU: SPEAKERS

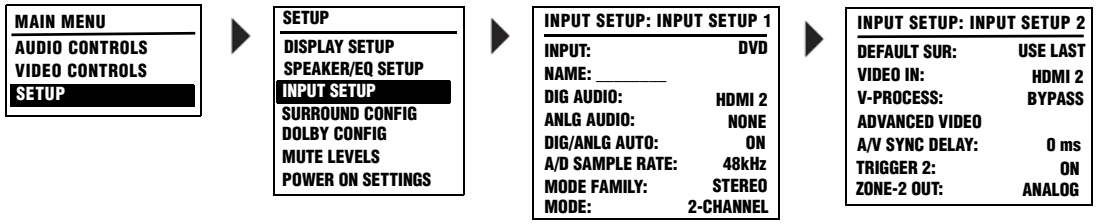


SETUP MENU: DISPLAY SETUP

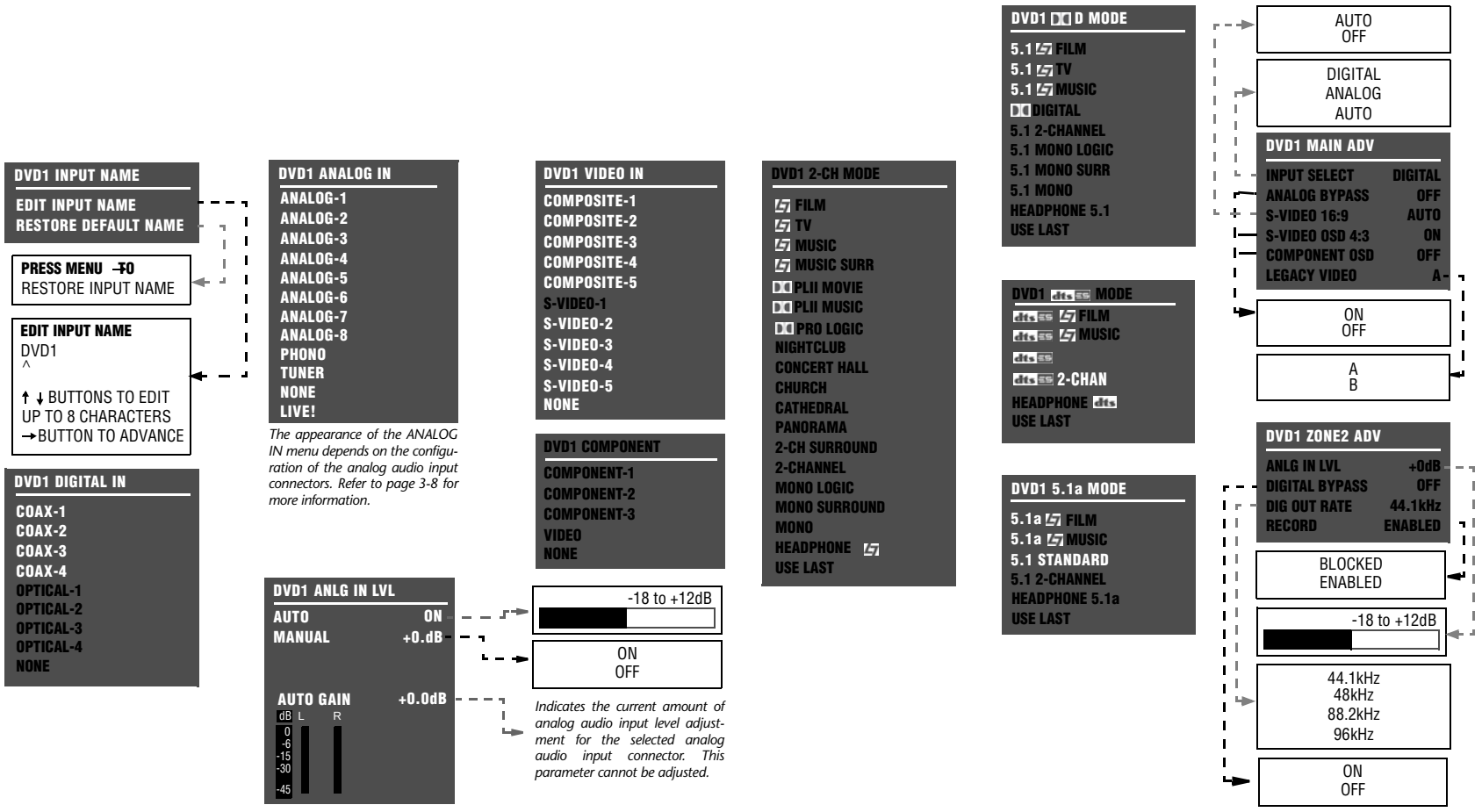


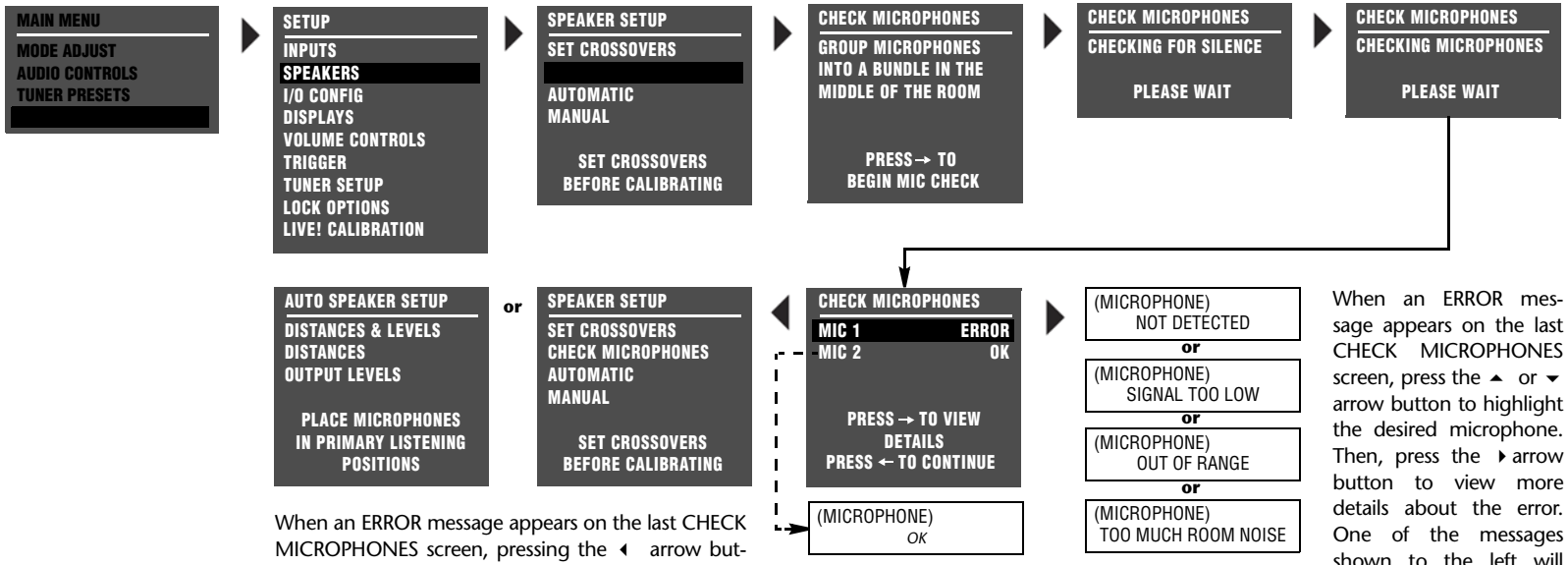
SETUP MENU: INPUT SETUP





Selecting an INPUT SETUP menu item opens the corresponding menu shown below. These menus are identical regardless of which input is selected. The MAIN ADV menus shown on the next page indicate factory-default parameter settings for each input.

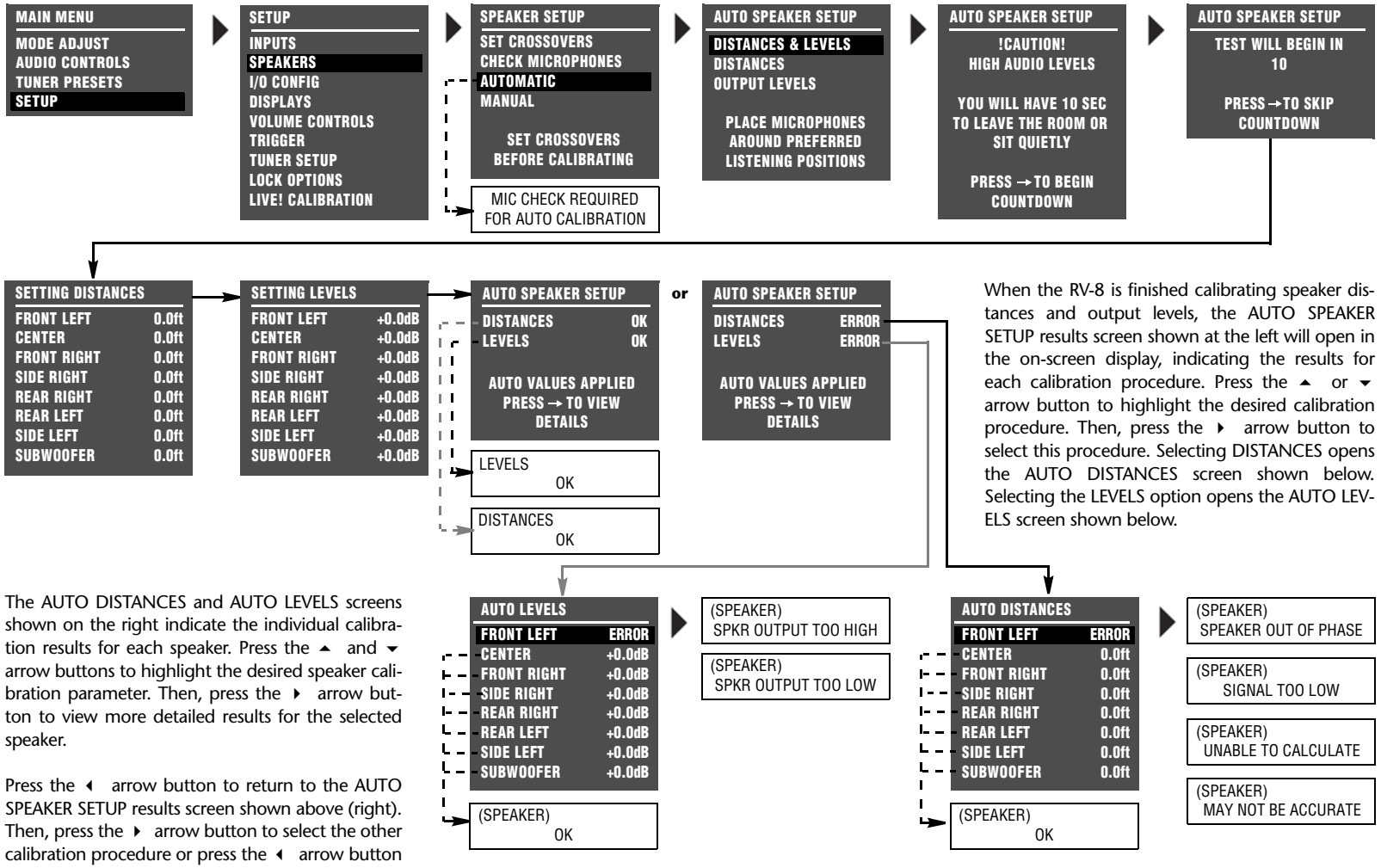




When an ERROR message appears on the last CHECK MICROPHONES screen, pressing the ◂ arrow button opens the SPEAKER SETUP menu. When no ERROR message appears on the last CHECK MICROPHONES screen, pressing the ◂ arrow button opens the AUTO SPEAKER SETUP menu.

When an ERROR message appears on the last CHECK MICROPHONES screen, press the ▲ or ▼ arrow button to highlight the desired microphone. Then, press the ▸ arrow button to view more details about the error. One of the messages shown to the left will appear in the on-screen display.

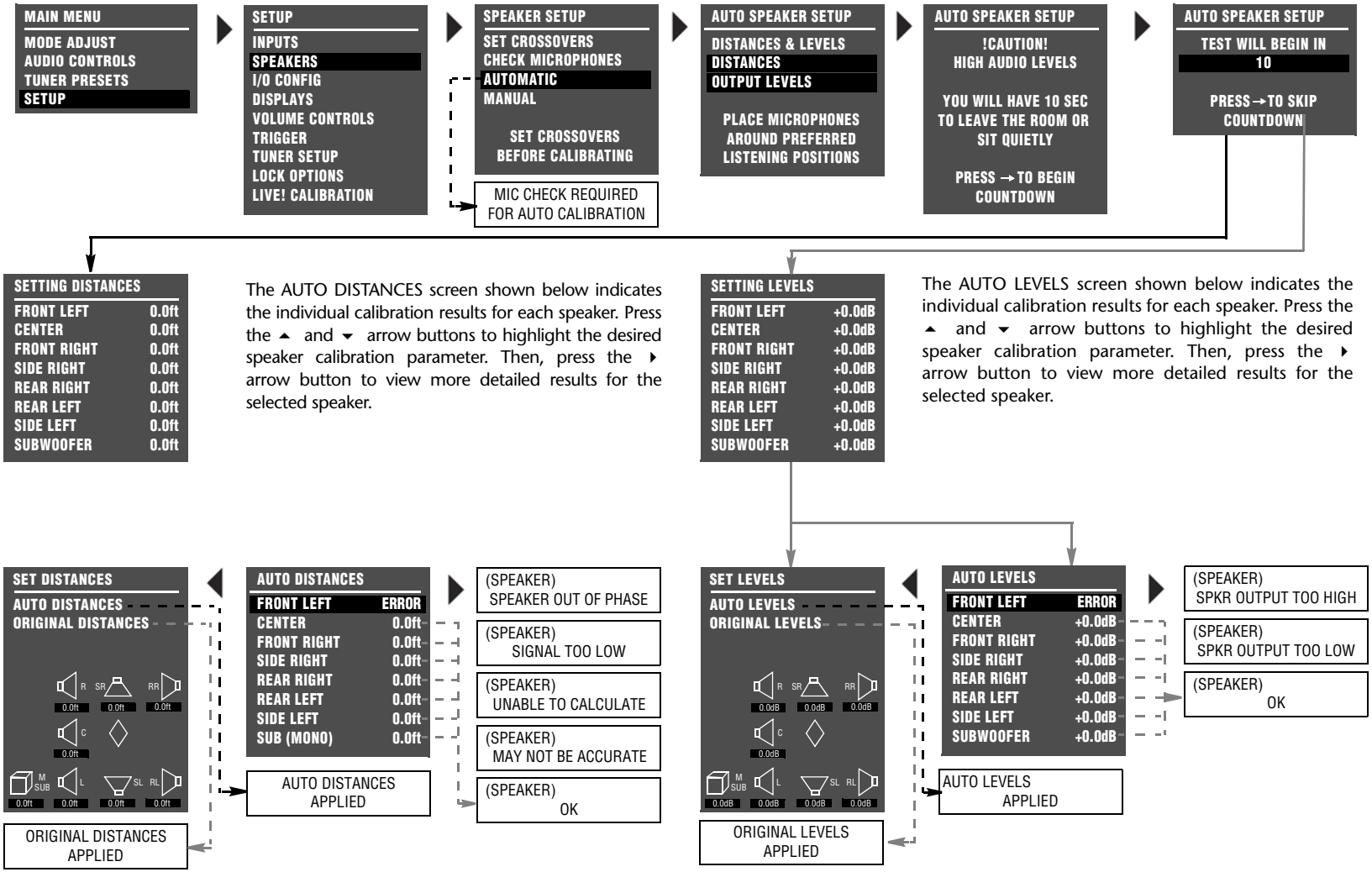
SETUP MENU: SPEAKERS *(continued)*



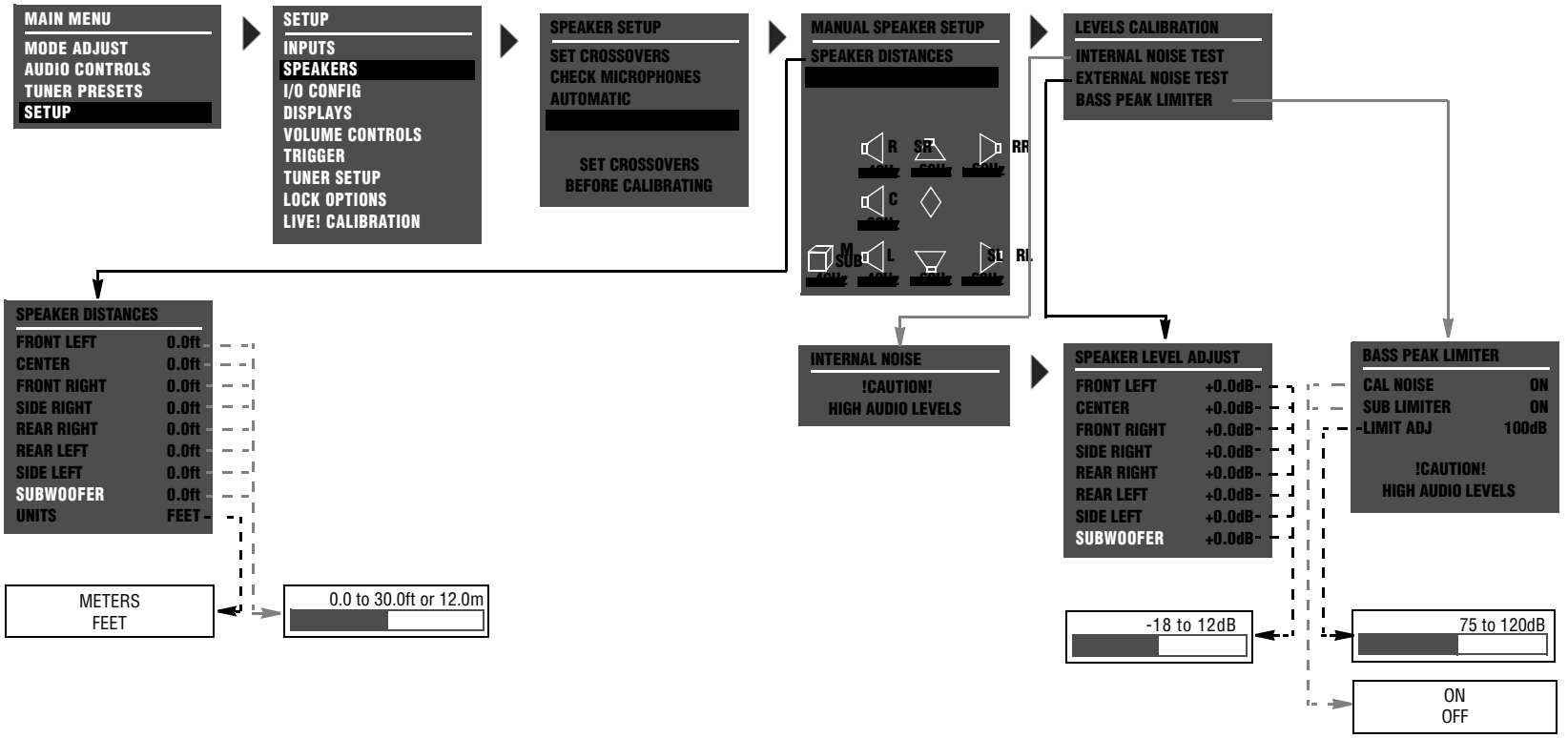
When the RV-8 is finished calibrating speaker distances and output levels, the AUTO SPEAKER SETUP results screen shown at the left will open in the on-screen display, indicating the results for each calibration procedure. Press the ▲ or ▼ arrow button to highlight the desired calibration procedure. Then, press the ▶ arrow button to select this procedure. Selecting DISTANCES opens the AUTO DISTANCES screen shown below. Selecting the LEVELS option opens the AUTO LEVELS screen shown below.

The AUTO DISTANCES and AUTO LEVELS screens shown on the right indicate the individual calibration results for each speaker. Press the ▲ and ▼ arrow buttons to highlight the desired speaker calibration parameter. Then, press the ▶ arrow button to view more detailed results for the selected speaker.

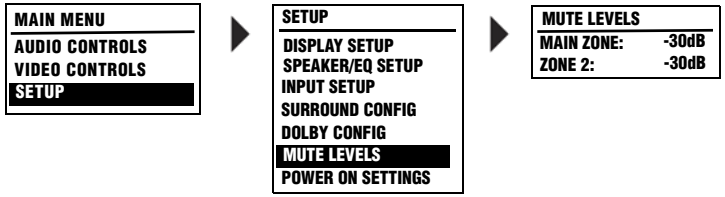
Press the ◀ arrow button to return to the AUTO SPEAKER SETUP results screen shown above (right). Then, press the ▶ arrow button to select the other calibration procedure or press the ◀ arrow button to return to the SPEAKER SETUP menu.


MAIN MENU
MODE ADJUST
AUDIO CONTROLS
TUNER PRESETS
SETUP
SETUP
INPUTS
SPEAKERS
I/O CONFIG
DISPLAYS
VOLUME CONTROLS
TRIGGER
TUNER SETUP
LOCK OPTIONS
LIVE! CALIBRATION
SPEAKER SETUP
SET CROSSOVERS
CHECK MICROPHONES
AUTOMATIC
MANUAL
SET CROSSOVERS BEFORE CALIBRATING
MIC CHECK REQUIRED FOR AUTO CALIBRATION
AUTO SPEAKER SETUP
DISTANCES & LEVELS
DISTANCES
OUTPUT LEVELS
PLACE MICROPHONES AROUND PREFERRED LISTENING POSITIONS
AUTO SPEAKER SETUP
!CAUTION!
HIGH AUDIO LEVELS
YOU WILL HAVE 10 SEC TO LEAVE THE ROOM OR SIT QUIETLY
PRESS → TO BEGIN COUNTDOWN
AUTO SPEAKER SETUP
TEST WILL BEGIN IN
10
PRESS → TO SKIP COUNTDOWN
SETTING DISTANCES
FRONT LEFT 0.0ft
CENTER 0.0ft
FRONT RIGHT 0.0ft
SIDE RIGHT 0.0ft
REAR RIGHT 0.0ft
REAR LEFT 0.0ft
SIDE LEFT 0.0ft
SUBWOOFER 0.0ft
The AUTO DISTANCES screen shown below indicates the individual calibration results for each speaker. Press the ▲ and ▼ arrow buttons to highlight the desired speaker calibration parameter. Then, press the ▶ arrow button to view more detailed results for the selected speaker.
SETTING LEVELS
FRONT LEFT +0.0dB
CENTER +0.0dB
FRONT RIGHT +0.0dB
SIDE RIGHT +0.0dB
REAR RIGHT +0.0dB
REAR LEFT +0.0dB
SIDE LEFT +0.0dB
SUBWOOFER +0.0dB
The AUTO LEVELS screen shown below indicates the individual calibration results for each speaker. Press the ▲ and ▼ arrow buttons to highlight the desired speaker calibration parameter. Then, press the ▶ arrow button to view more detailed results for the selected speaker.
SET DISTANCES
AUTO DISTANCES
ORIGINAL DISTANCES
ORIGINAL DISTANCES APPLIED
AUTO DISTANCES
FRONT LEFT ERROR
CENTER 0.0ft
FRONT RIGHT 0.0ft
SIDE RIGHT 0.0ft
REAR RIGHT 0.0ft
REAR LEFT 0.0ft
SIDE LEFT 0.0ft
SUB (MONO) 0.0ft
AUTO DISTANCES APPLIED
(SPEAKER) SPEAKER OUT OF PHASE
(SPEAKER) SIGNAL TOO LOW
(SPEAKER) UNABLE TO CALCULATE
(SPEAKER) MAY NOT BE ACCURATE
(SPEAKER) OK
SET LEVELS
AUTO LEVELS
ORIGINAL LEVELS
ORIGINAL LEVELS APPLIED
AUTO LEVELS
FRONT LEFT ERROR
CENTER +0.0dB
FRONT RIGHT +0.0dB
SIDE RIGHT +0.0dB
REAR RIGHT +0.0dB
REAR LEFT +0.0dB
SIDE LEFT +0.0dB
SUBWOOFER +0.0dB
AUTO LEVELS APPLIED
(SPEAKER) SPKR OUTPUT TOO HIGH
(SPEAKER) SPKR OUTPUT TOO LOW
(SPEAKER) OK

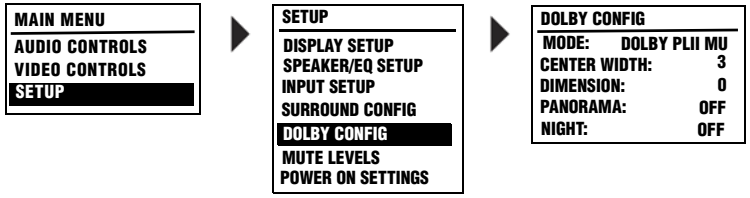
SETUP MENU: SPEAKERS *(continued)*



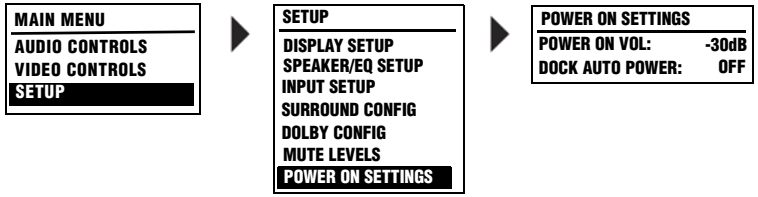
SETUP MENU: MUTE LEVELS

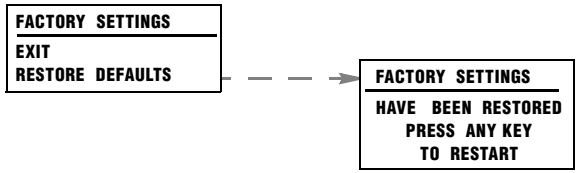


SETUP MENU: DOLBY CONFIG



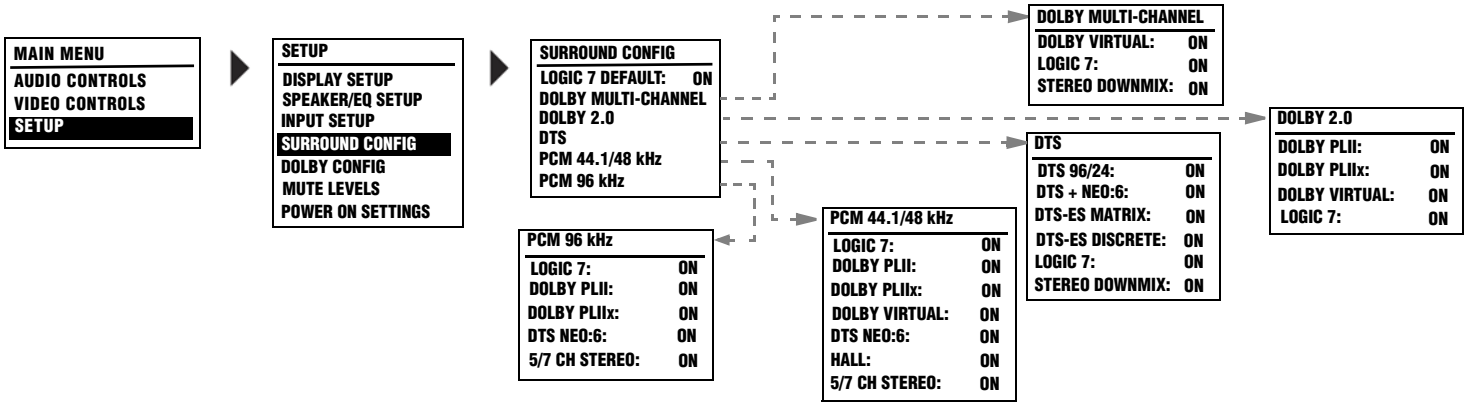
SETUP MENU: POWER ON SETTINGS



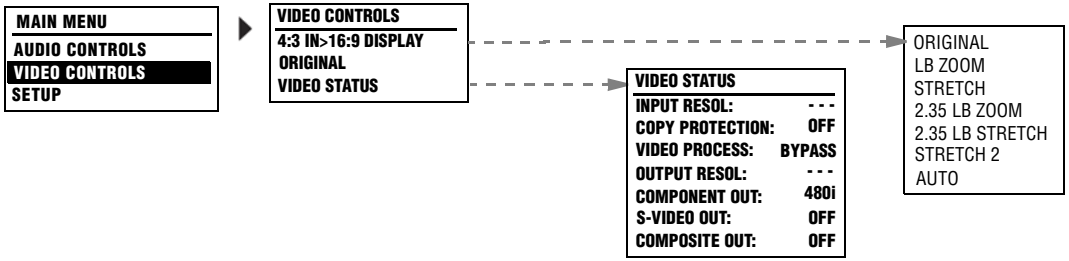


Refer to the Restoring Factory-Default Settings section that begins on page 7-4 for more information.

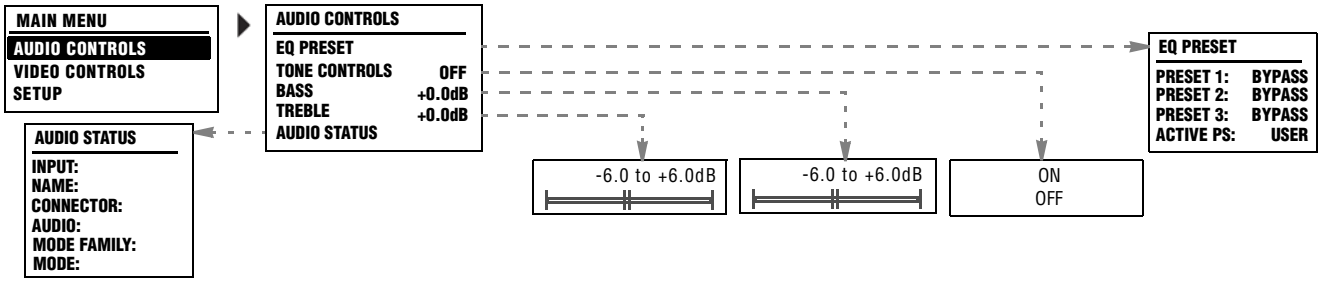
SETUP MENU: SURROUND CONFIG



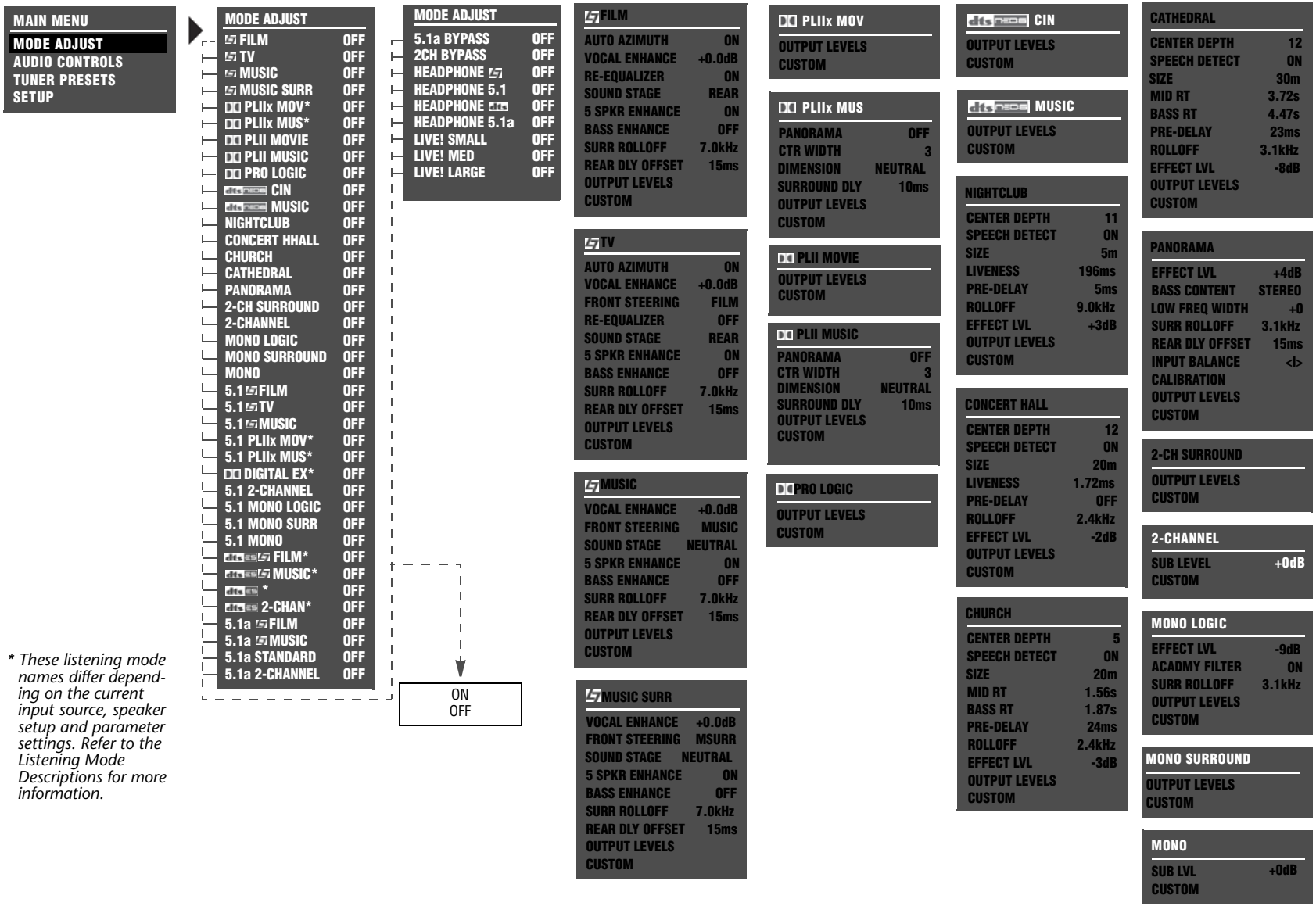
MAIN MENU: VIDEO CONTROLS



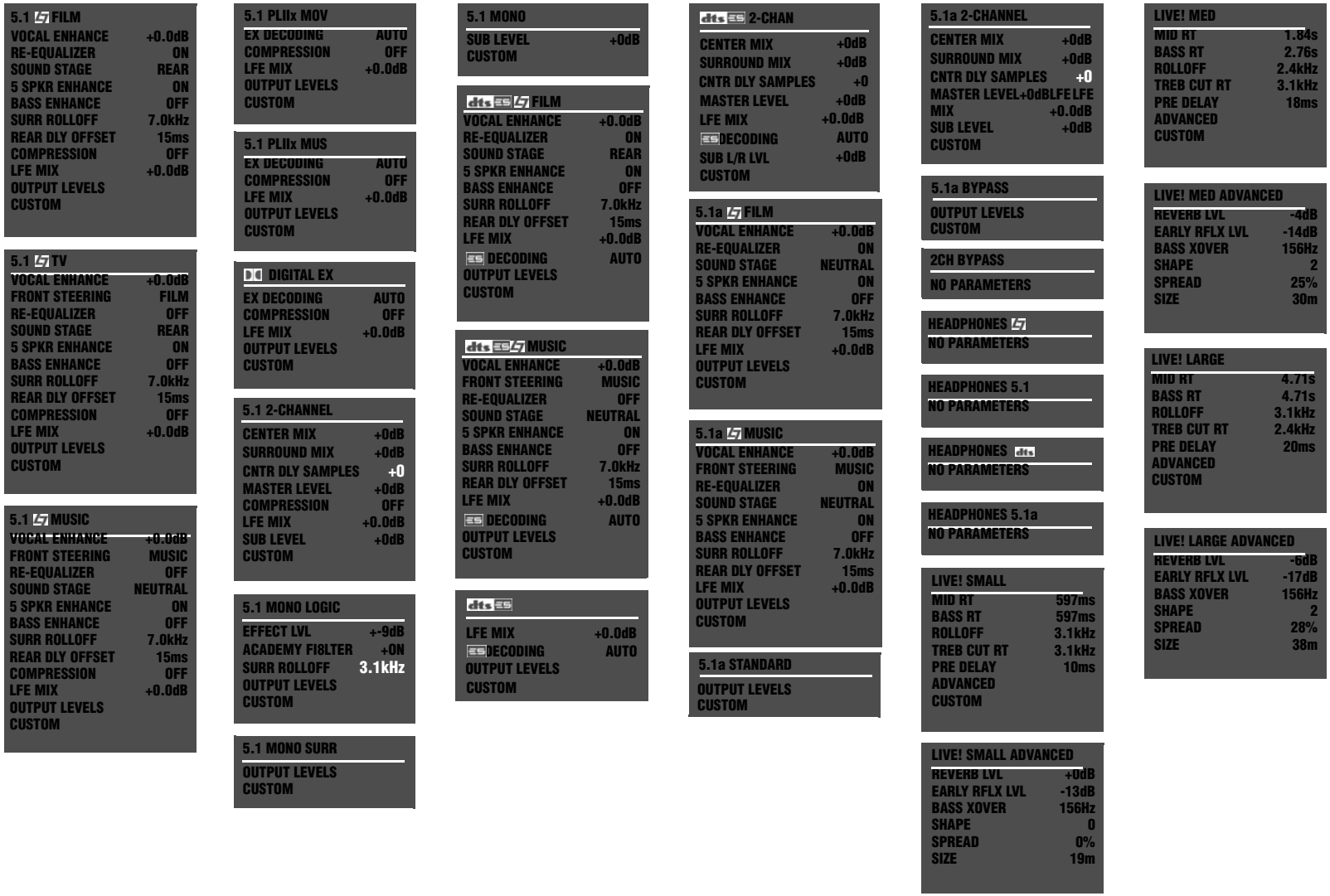
MAIN MENU: AUDIO CONTROLS



MAIN MENU: MODE ADJUST

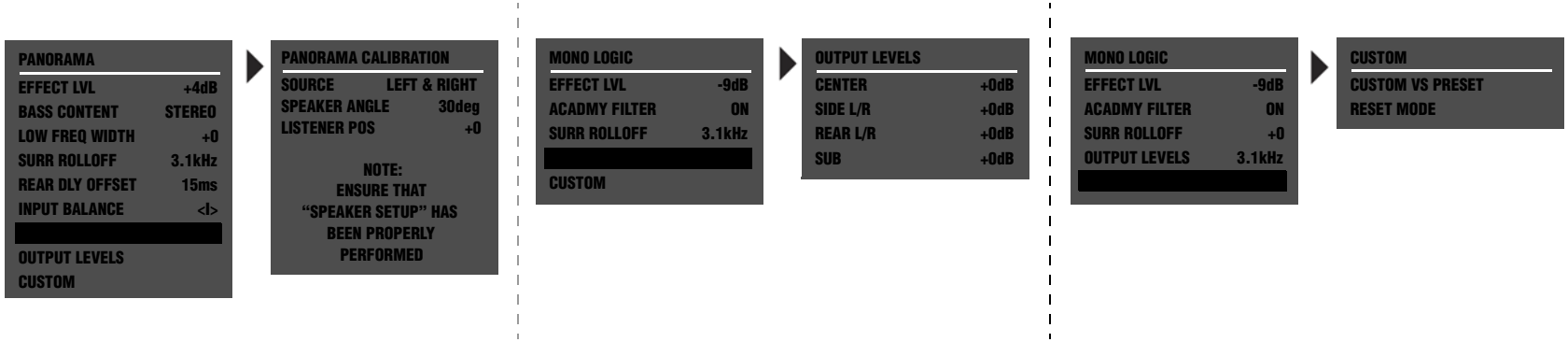


** These listening mode names differ depending on the current input source, speaker setup and parameter settings. Refer to the Listening Mode Descriptions for more information.*

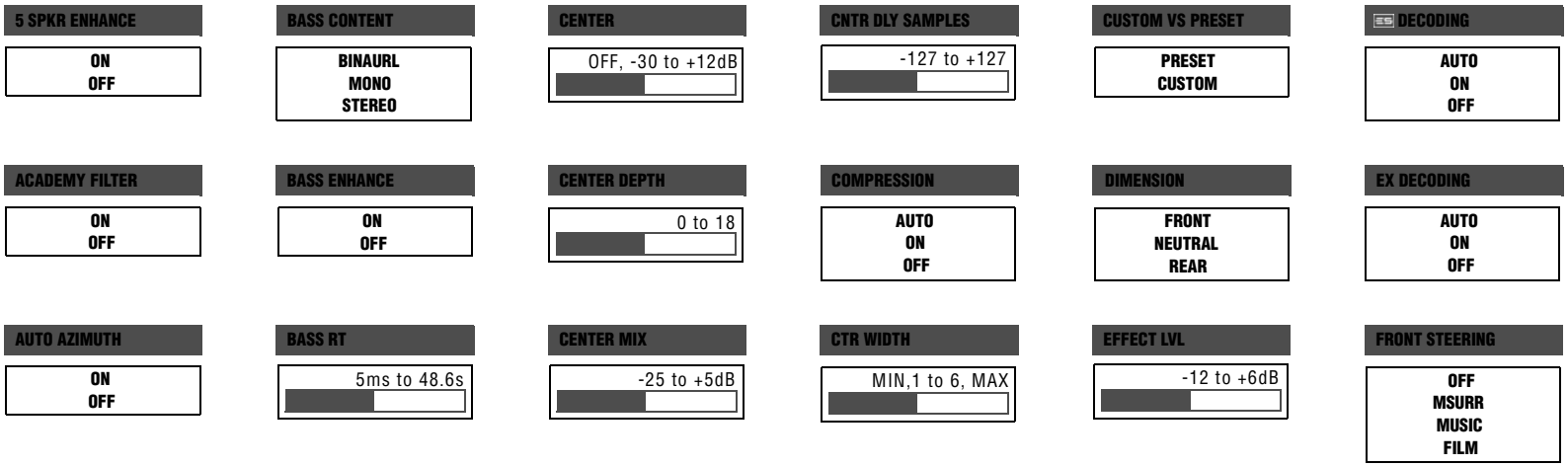

5.1 FILM
VOCAL ENHANCE +0.0dB
RE-EQUALIZER ON
SOUND STAGE REAR
5 SPKR ENHANCE ON
BASS ENHANCE OFF
SURR ROLLOFF 7.0kHz
REAR DLY OFFSET 15ms
COMPRESSION OFF
LFE MIX +0.0dB
OUTPUT LEVELS
CUSTOM
5.1 TV
VOCAL ENHANCE +0.0dB
FRONT STEERING FILM
RE-EQUALIZER OFF
SOUND STAGE REAR
5 SPKR ENHANCE ON
BASS ENHANCE OFF
SURR ROLLOFF 7.0kHz
REAR DLY OFFSET 15ms
COMPRESSION OFF
LFE MIX +0.0dB
OUTPUT LEVELS
CUSTOM
5.1 MUSIC
VOCAL ENHANCE +0.0dB
FRONT STEERING MUSIC
RE-EQUALIZER OFF
SOUND STAGE NEUTRAL
5 SPKR ENHANCE ON
BASS ENHANCE OFF
SURR ROLLOFF 7.0kHz
REAR DLY OFFSET 15ms
COMPRESSION OFF
LFE MIX +0.0dB
OUTPUT LEVELS
CUSTOM
5.1 PLIIx MOV
EX DECODING AUTO
COMPRESSION OFF
LFE MIX +0.0dB
OUTPUT LEVELS
CUSTOM
5.1 PLIIx MUS
EX DECODING AUTO
COMPRESSION OFF
LFE MIX +0.0dB
OUTPUT LEVELS
CUSTOM
DIGITAL EX
EX DECODING AUTO
COMPRESSION OFF
LFE MIX +0.0dB
OUTPUT LEVELS
CUSTOM
5.1 2-CHANNEL
CENTER MIX +0dB
SURROUND MIX +0dB
CNTR DLY SAMPLES +0
MASTER LEVEL +0dB
COMPRESSION OFF
LFE MIX +0.0dB
SUB LEVEL +0dB
CUSTOM
5.1 MONO LOGIC
EFFECT LVL +-9dB
ACADEMY FI8LTER +ON
SURR ROLLOFF 3.1kHz
OUTPUT LEVELS
CUSTOM
5.1 MONO SURR
OUTPUT LEVELS
CUSTOM
5.1 MONO
SUB LEVEL +0dB
CUSTOM
FILM
VOCAL ENHANCE +0.0dB
RE-EQUALIZER ON
SOUND STAGE REAR
5 SPKR ENHANCE ON
BASS ENHANCE OFF
SURR ROLLOFF 7.0kHz
REAR DLY OFFSET 15ms
LFE MIX +0.0dB
DECODING AUTO
OUTPUT LEVELS
CUSTOM
MUSIC
VOCAL ENHANCE +0.0dB
FRONT STEERING MUSIC
RE-EQUALIZER OFF
SOUND STAGE NEUTRAL
5 SPKR ENHANCE ON
BASS ENHANCE OFF
SURR ROLLOFF 7.0kHz
REAR DLY OFFSET 15ms
LFE MIX +0.0dB
DECODING AUTO
OUTPUT LEVELS
CUSTOM
LFE MIX +0.0dB
DECODING AUTO
OUTPUT LEVELS
CUSTOM
2-CHAN
CENTER MIX +0dB
SURROUND MIX +0dB
CNTR DLY SAMPLES +0
MASTER LEVEL +0dB
LFE MIX +0.0dB
DECODING AUTO
SUB L/R LVL +0dB
CUSTOM
5.1a FILM
VOCAL ENHANCE +0.0dB
RE-EQUALIZER ON
SOUND STAGE NEUTRAL
5 SPKR ENHANCE ON
BASS ENHANCE OFF
SURR ROLLOFF 7.0kHz
REAR DLY OFFSET 15ms
LFE MIX +0.0dB
OUTPUT LEVELS
CUSTOM
5.1a MUSIC
VOCAL ENHANCE +0.0dB
FRONT STEERING MUSIC
RE-EQUALIZER ON
SOUND STAGE NEUTRAL
5 SPKR ENHANCE ON
BASS ENHANCE OFF
SURR ROLLOFF 7.0kHz
REAR DLY OFFSET 15ms
LFE MIX +0.0dB
OUTPUT LEVELS
CUSTOM
5.1a STANDARD
OUTPUT LEVELS
CUSTOM
5.1a 2-CHANNEL
CENTER MIX +0dB
SURROUND MIX +0dB
CNTR DLY SAMPLES +0
MASTER LEVEL +0dB LFE MIX +0.0dB
SUB LEVEL +0dB
CUSTOM
5.1a BYPASS
OUTPUT LEVELS
CUSTOM
2CH BYPASS
NO PARAMETERS
HEADPHONES
NO PARAMETERS
HEADPHONES 5.1
NO PARAMETERS
HEADPHONES
NO PARAMETERS
HEADPHONES 5.1a
NO PARAMETERS
LIVE! SMALL
MID RT 597ms
BASS RT 597ms
ROLLOFF 3.1kHz
TREB CUT RT 3.1kHz
PRE DELAY 10ms
ADVANCED
CUSTOM
LIVE! SMALL ADVANCED
REVERB LVL +0dB
EARLY RFLX LVL -13dB
BASS XOVER 156Hz
SHAPE 0
SPREAD 0%
SIZE 19m
LIVE! MED
MID RT 1.84s
BASS RT 2.76s
ROLLOFF 2.4kHz
TREB CUT RT 3.1kHz
PRE DELAY 18ms
ADVANCED
CUSTOM
LIVE! MED ADVANCED
REVERB LVL -4dB
EARLY RFLX LVL -14dB
BASS XOVER 156Hz
SHAPE 2
SPREAD 25%
SIZE 30m
LIVE! LARGE
MID RT 4.71s
BASS RT 4.71s
ROLLOFF 3.1kHz
TREB CUT RT 2.4kHz
PRE DELAY 20ms
ADVANCED
CUSTOM
LIVE! LARGE ADVANCED
REVERB LVL -6dB
EARLY RFLX LVL -17dB
BASS XOVER 156Hz
SHAPE 2
SPREAD 28%
SIZE 38m

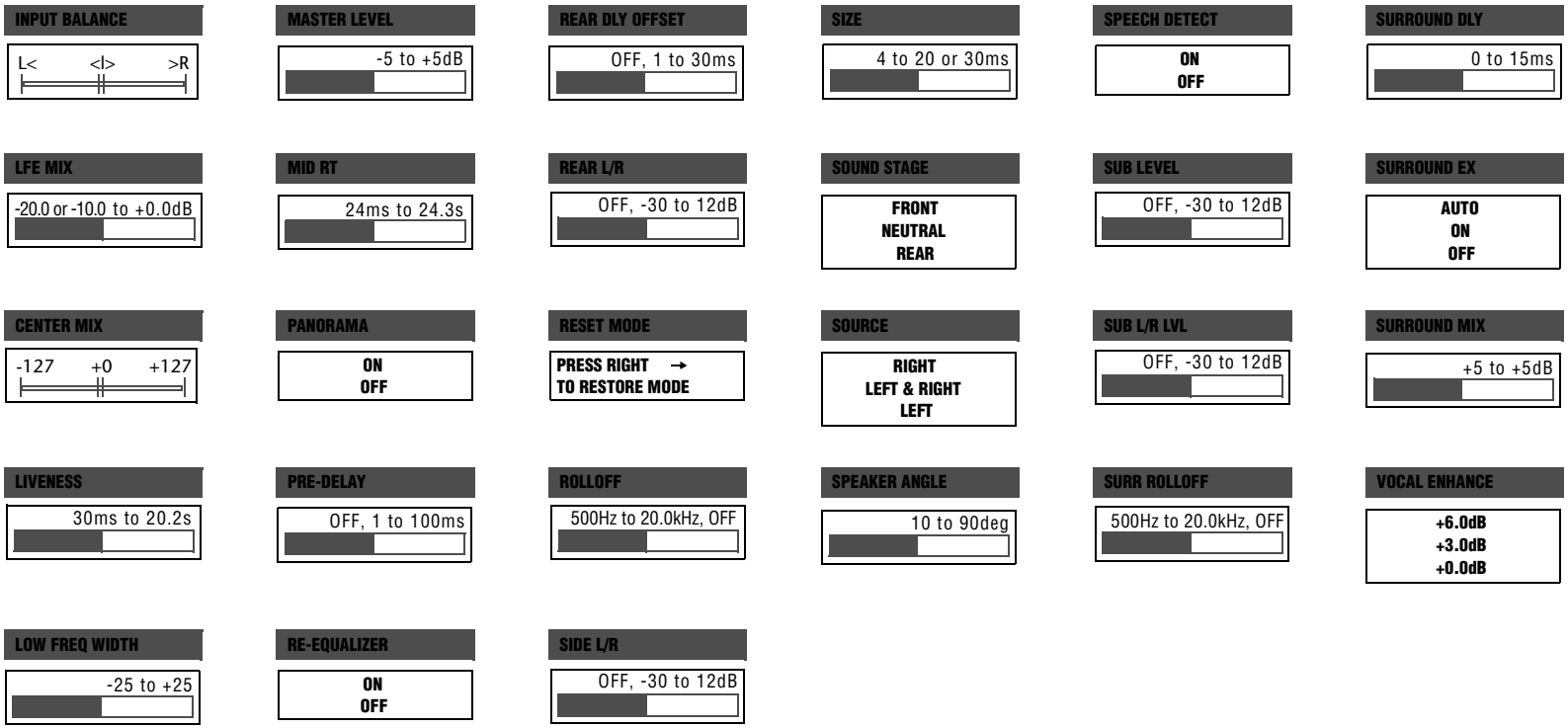
MODE ADJUST *(continued)*

Selecting the listening mode menu CALIBRATION, OUTPUT LEVELS or CUSTOM option opens the corresponding menu path shown below. The CALIBRATION option is available for the PANORAMA listening mode. The OUTPUT LEVELS and CUSTOM options are available for most listening modes. These menus are identical regardless of which listening mode is selected. Listening mode menu parameter drop-down menus are shown below and on the next page.



Selecting a listening mode menu parameter opens the corresponding parameter drop-down menu shown below and on the next page. These drop-down menus are identical regardless of which listening mode is selected. However, certain parameter ranges differ from listening mode to listening mode.

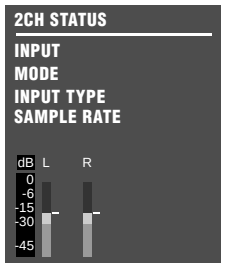


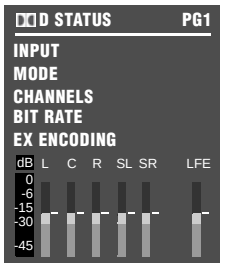

INPUT BALANCE
L< <I> >R
MASTER LEVEL
-5 to +5dB
REAR DLY OFFSET
OFF, 1 to 30ms
SIZE
4 to 20 or 30ms
SPEECH DETECT
ON
OFF
SURROUND DLY
0 to 15ms
LFE MIX
-20.0 or -10.0 to +0.0dB
MID RT
24ms to 24.3s
REAR L/R
OFF, -30 to 12dB
SOUND STAGE
FRONT
NEUTRAL
REAR
SUB LEVEL
OFF, -30 to 12dB
SURROUND EX
AUTO
ON
OFF
CENTER MIX
-127 +0 +127
PANORAMA
ON
OFF
RESET MODE
PRESS RIGHT →
TO RESTORE MODE
SOURCE
RIGHT
LEFT & RIGHT
LEFT
SUB L/R LVL
OFF, -30 to 12dB
SURROUND MIX
+5 to +5dB
LIVENESS
30ms to 20.2s
PRE-DELAY
OFF, 1 to 100ms
ROLLOFF
500Hz to 20.0kHz, OFF
SPEAKER ANGLE
10 to 90deg
SURR ROLLOFF
500Hz to 20.0kHz, OFF
VOCAL ENHANCE
+6.0dB
+3.0dB
+0.0dB
LOW FREQ WIDTH
-25 to +25
RE-EQUALIZER
ON
OFF
SIDE L/R
OFF, -30 to 12dB

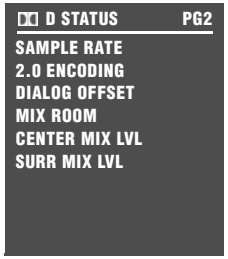
MAIN MENU: RESTORE DEFAULTS

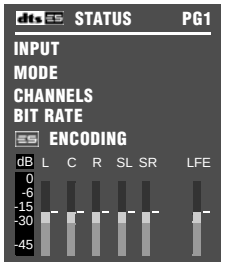
Refer to the Restoring Factory-Default Settings section that begins on page 7-4 for more information.

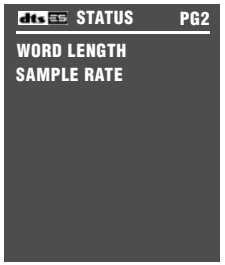
STATUS MENUS

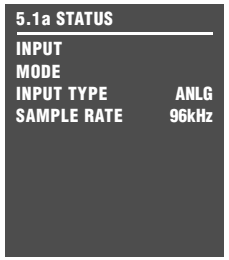


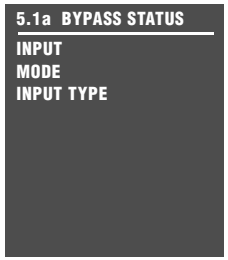


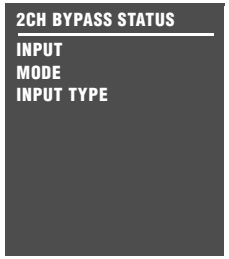


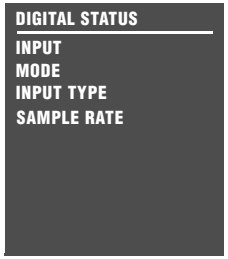


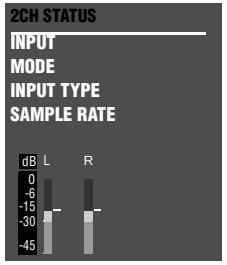












Refer to the Status Menus section that begins on page 2-29 for more information.

INSTALLATION WORKSHEET

INPUT SETUP	DVD1	DVD2	LD	TV	SAT	VCR	CD	PVR	GAME	TAPE	TUNER	AUX
NAME												
DIGITAL IN												
ANALOG IN												
ANLG IN LVL												
VIDEO IN												
COMPONENT IN												
2-CH												
DD												
dts ES												
MIC												
MAIN ADVANCED												
INPUT SELECT												
2-CH ANLG BYP												
S-VIDEO 16:9												
S-VIDEO 4:3 OSD												
COMPONENT OSD												
ZONE2 IN												

INSTALLATION WORKSHEET *(continued)*

SPEAKER SETUP	CUSTOM SETUP		SPEAKER DISTANCES	LEVELS CALIBRATION
FRONT LEFT/RIGHT				
CENTER				
SIDE LEFT/RIGHT				
REAR LEFT/RIGHT				
SUBWOOFER				
BGC				
ASA				
UNITS				
BASS PEAK LIMITERS				
CAL NOISE				
SUB LIMITER				
LIMIT ADJ				

REAR PANEL CONFIG		VOLUME CONTROL SETUP		LOCK OPTIONS	
Circle one.		MAIN PWR ON		MODES	
8 STEREO INPUTS	5 ST. & (1) 5.1 ANLG	MUTE LEVEL		AUDIO CNTRL	
2 ST. & (2) 5.1 ANLG		ZONE PWR ON		SETUP	
		MAX VOLUME			

DISPLAY SETUP	
ON-SCREEN DISPLAY	
STATUS	
POSITION	
FORMAT	
BACKGROUND	
REMOTE STATE	
FRONT-PANEL DISPLAY	
STATUS	
BRIGHTNESS	
A/V SYNC DELAY	
CUSTOM NAME	
EDIT CUSTOM NAME	
AUDIO CONTROLS	
BASS	
TREBLE	
TILT EQ	
LOUDNESS	
BALANCE	
FADER	
ZONE2 BALANCE	

TRIGGER SETUP	
Circle all parameters set to ON.	
REMOTE ONLY DVD1 DVD2 SAT VCR TV CD CD TUNER AUX ZONE2 INPUTS FILM TV MUSIC MUSIC SURR PLIIx MOV PLIIx MUS PLII MOVIE PLII MUSIC PRO LOGIC CIN MUSIC NIGHTCLUB CONCERT HALL CHURCH CATHEDRAL PANORAMA	2-CH SURROUND 2-CHANNEL MONO LOGIC MONO SURROUND MONO 5.1 FILM 5.1 TV 5.1 MUSIC 5.1 PLIIx MOV 5.1 PLIIx MUS DIGITAL EX 5.1 2-CHANNEL 5.1 MONO LOGIC 5.1 MONO SURR 5.1 MONO FILM MUSIC 2-CHAN 5.1a BYPASS 2CH BYPASS

LIMITED WARRANTY

ty Group offers the following warranty
:

uration of this Warranty?
vill remain in effect for three (3) years
al date of purchase.

ed?
nay be enforced by the original pur-
sequent owners during the warranty
d the original dated sales receipt or
warranty coverage is presented at time

red?
overs all defects in material and
on this product, except as specified
owing are not covered:

sulting from:
t, misuse, abuse, or neglect.
o follow instructions contained in the
de.
r attempted repair unauthorized by
Specialty Group.
o perform recommended periodic
nance.
er than product defects, including lack
npetence, or experience on the part of

ccurring during any shipment of this
laims for shipping damages must be
the carrier.

4. Damage to a unit that has been altered, or on which the serial number has been defaced, modified, or removed.

What Expenses will Harman Specialty Group Assume?

Harman Specialty Group will pay all labor and material expenses for covered items. Payment of shipping charges is discussed in the next section of the warranty.

How is Service Obtained?

When this product needs service, write, telephone, or fax Harman Specialty Group to request information about where the unit should be taken or sent. When making a written request, please include your name, complete address, and daytime telephone number; the product model and serial numbers; and a description of the problem. Do not return the unit to Harman Specialty Group without prior authorization.

When Shipping a Product for Service . . .

1. Pay any initial shipping charges, which are the responsibility of the owner. If necessary repairs are covered by this warranty, Harman Specialty Group will pay return shipping charges to any destination in the United States using the carrier of our choice.
2. Pack the unit securely. Package insurance is strongly recommended.
3. Include a copy of the original dated sales receipt. (A copy of the original dated sales receipt must be presented whenever warranty service is required.)
4. Do not include accessories such as power cords or user guides unless instructed to do so.

What are the Limitations of Implied Warranties?

Any implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

What Certain Damages are Excluded?

Harman Specialty Group's liability for a defective product is limited to repair or replacement of that product, at our option. Harman Specialty Group shall not be liable for damages based on inconvenience; loss of use of the product; loss of time; interrupted operation; commercial loss; or any other damages, whether incidental, consequential, or otherwise.

How do State Laws Relate to this Warranty?

Some states do not allow limitations on the duration of implied warranties and/or the exclusion or limitation of incidental or consequential damages. As such, the above limitations may not apply.

This warranty is not enforceable outside of North America. This warranty provides specific legal rights. Additional rights may be provided by some states.

lexicon
A Harman International Company

Harman Specialty Group
3 Oak Park
Bedford, MA 01730-1413
USA

Tel 781-280-0300
Fax 781-280-0490
www.lexicon.com

Customer Service
Tel 781-280-0300
Fax 781-280-0495 (Sales)
Fax 781-280-0499 (Service)

lexicon
A Harman International Company

PRODUC
Please regi
purchase. T
or register
sales receip

Mr. Mrs.
Single Married

First Name Last Name
Company Title
Mailing Address
City S
Telephone Number F
Email Address
Product Model Purchase Date
Version Serial Number
Where did you purchase this product?

Age
Under 18
18-24
25-34
35-49
50-64
65+

Education
High Schoo
College
Graduate S
Certificate:

How did you learn about this product? C
Friend
Colleague
Teacher
Store sales
Store displa
Received a

Which of the following were most import
Sound Quality
Features Brandname

What are your three favorite magazines
1. 2.

What are your three favorite websites?
1. 2.

What features would you like to see add

RV-5 12/06

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 67 BEDFORD MA

POSTAGE WILL BE PAID BY ADDRESSEE

PRODUCT REGISTRATION
HARMAN SPECIALTY GROUP
3 OAK PARK
BEDFORD MA 01730-9863

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

lexicon®

A Harman International Company

3 Oak Park Drive
Bedford, MA 01730-1413 USA
Tel 781-280-0300
Fax 781-280-0490
www.harmanspecialtygroup.com

Customer Service
Telephone: 781-280-0300
Sales Fax: 781-280-0495
Service Fax: 781-280-0499

Product Shipments
900 Middlesex Bldg. #6
Billerica, MA 01821-0017

Part No. 070-18144 | Rev 0 | 12/06