Lexicon

MC-8 Digital Controller

User Guide

A Harman International Company

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 another apparatus (including amplifiers) that produces 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.

- Refer to the manufacturer's operating instructions for power requirements. Be advised that different operating voltages may require the use of different line cord and/or attachment plug.
- Do not install the unit in an unventilated rack, or directly above heat-producing equipment such as power amplifiers. Observe the maximum ambient operating temperature listed in the product specification.
- Never attach audio power amplifier outputs directly to any of the unit's connectors.

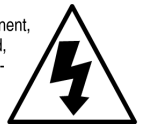
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and radiates radio 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.

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not place objects containing liquid, such as vases, on this apparatus.

This triangle, which appears on your component, alerts you to the presence of uninsulated, dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

This triangle, which appears on your component, alerts you to important operating and maintenance instructions in this accompanying literature.

lexicon

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DOCUMENTATION CONVENTIONS

This document contains general safety, installation and operation instructions for the MC-8 and MC-8 Balanced Digital Controllers. 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 MC-8 to refer to both the MC-8 and MC-8 Balanced Digital Controllers unless otherwise specified.
This document uses the term DTS-(ES) to indicate that DTS-ES encoding may or may not be present in the input source.

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1

Getting Started

ABOUT THE MC-8

Thank you for purchasing the MC-8 Digital Controller, an 8-channel audio and video control center with independent zone monitoring that provides control of audio and video source selection in two zones at the same time. The MC-8 includes eight configurable inputs, each of which can be assigned to its eight digital audio, eight analog audio, 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. In addition, the MC-8 Balanced offers balanced analog audio output connectors for all Main Zone and Zone 2 channels.

Inside and out, the MC-8 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 two removable access panels to accommodate connectors for emerging technologies.

More than just an audio and video control center, the MC-8 features the latest version of Lexicon's critically acclaimed LOGIC 7® decoding, which derives 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.

The MC-8 also offers LIVE! (Lexicon Intelligent Variable Environment), designed to transform the way your listening room sounds with the live sound that is created within the room by the occupants of the room. LIVE! does not (nor is it meant to) work with prerecorded material. LIVE! provides a realistic illusion of a larger, more reverberant listening space–ideal for musicians wishing to practice or perform with the sound of a larger venue.

LIVE! is a unique, sophisticated reverberation system that uses a combination of microphones and digital signal processing (DSP) to enhance a room's acoustics and create the illusion of a much larger space. When you engage in normal conversation, it seems as if you are in a large room. When you practice or perform with a musical instrument, it seems as if you are in a concert hall. Choose from one of three customizable presets to create an ambience to liven up a party or amaze your friends.

In addition to LOGIC 7, the MC-8 offers THX Ultra2 certification, which guarantees that the MC-8 meets the highest THX® specifications.

With four floating-point SHARC™ digital signal processing (DSP) engines, the MC-8 boasts enormous processing power. These powerful processors perform custom Lexicon processing such as LOGIC 7 decoding, bass enhancement, dialogue enhancement, auto azimuth, five-speaker enhancement, bass management, high-precision digital crossovers and audio controls. These features are available at sample rates of up to 96kHz, with 24-bit resolution to retain top performance from all sources. In addition, a fifth DSP engine is dedicated to decoding multichannel compressed audio sources.

The MC-8 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 MC-8 to provide the benefits of precise digital signal processing without sacrificing signal integrity. Alternatively, 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 MC-8 features two 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. 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 MC-8 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 MC-8 represents a solid investment that will retain its value in the face of rapidly emerging technologies.

HIGHLIGHTS

- Eight channels
- Eight configurable inputs
- Two independent zones
- Four S/PDIF coaxial and four S/PDIF optical digital audio input connectors
- Up to two 5.1-channel analog audio input connectors
- Analog bypass option for stereo audio input connectors
- Auto switching between digital and analog audio input connectors
- 24-Bit/192kHz D/A converters for all audio channels
- Automatic and manual calibration of speaker distances and output levels
- Three component video input connectors with full HDTV compatibility
- Five S-Video input connectors
- Five composite video input connectors
- Broadcast-quality video switching
- Four 32-bit DSP engines
- Separate DSP engine for decoding compressed audio sources
- LOGIC 7 decoding
- LIVE! (Lexicon Intelligent Variable Environment)
- 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
- THX Ultra2 and THX Surround EX decoding
- THX Ultra2 certification
- RS-232 control
- Digital audio output connector
- Two trigger output connectors
- Rear-panel IR input connector
- Four microphone input connectors
- Two internal expansion slots
- Removable access panel
- Balanced audio output connectors for all Main Zone and Zone 2 channels (MC-8 Balanced only)
- Flash memory software upgrade capabilities
- Optional 19-inch rack-mount kit

PRODUCT REGISTRATION

Please register the MC-8 Digital Controller 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 MC-8 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 MC-8 on a solid, flat, level surface such as a table or shelf. The MC-8 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 MC-8 to high temperatures, humidity, steam, smoke, dampness or excessive dust. Avoid installing the MC-8 near radiators and other heat-producing appliances.

Do Not install the MC-8 near unshielded TV or FM antennas, cable TV decoders, or other RF-emitting devices that might cause interference.

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

Do Not place the MC-8 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 MC-8 on a surface that is unstable or unable to support all four feet.

Do Not stack the MC-8 directly above heat-producing equipment such as a power amplifier.

CAUTION!

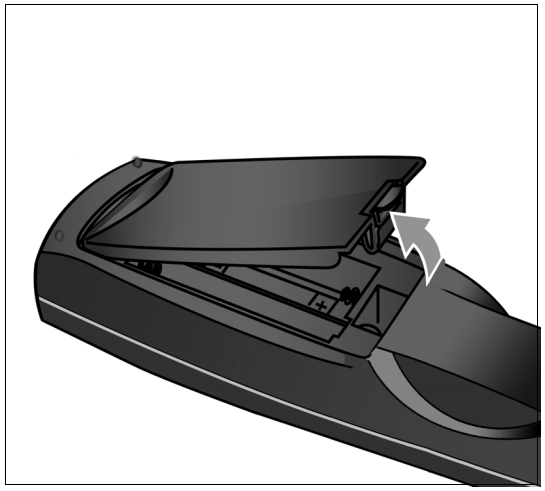
Before moving the MC-8, power the unit off using the rear-panel power switch and unplug the power cord from the wall outlet.

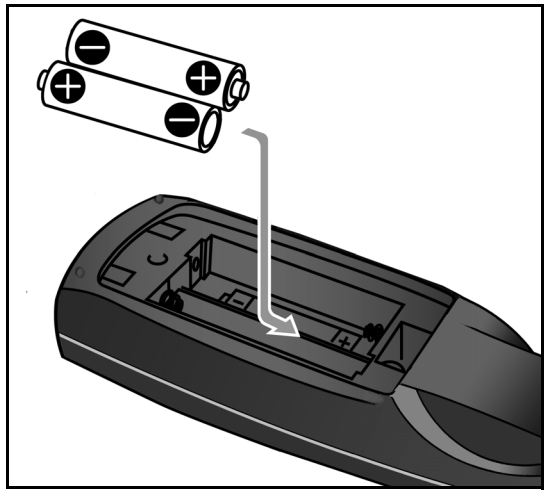
REMOTE CONTROL BATTERY INSTALLATION

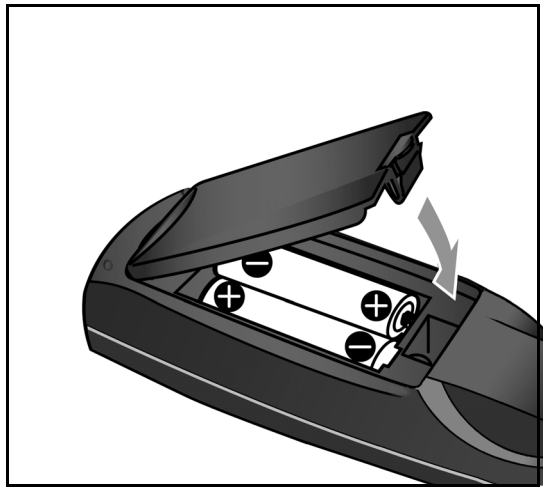
The remote control requires two AA batteries. The batteries should be replaced as needed. Alkaline batteries, which last longer without leaking, are recommended. When battery power is low, the remote control enters a low-voltage condition, preventing it from operating the MC-8. When this occurs, replace 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 and lift the cover away from the remote control.
2. Remove old batteries (if applicable).
3. Observing the proper polarity, insert two AA batteries.
4. Align the cover over the battery compartment and gently press down until it snaps back into place.
5. Dispose of the old batteries (if applicable).





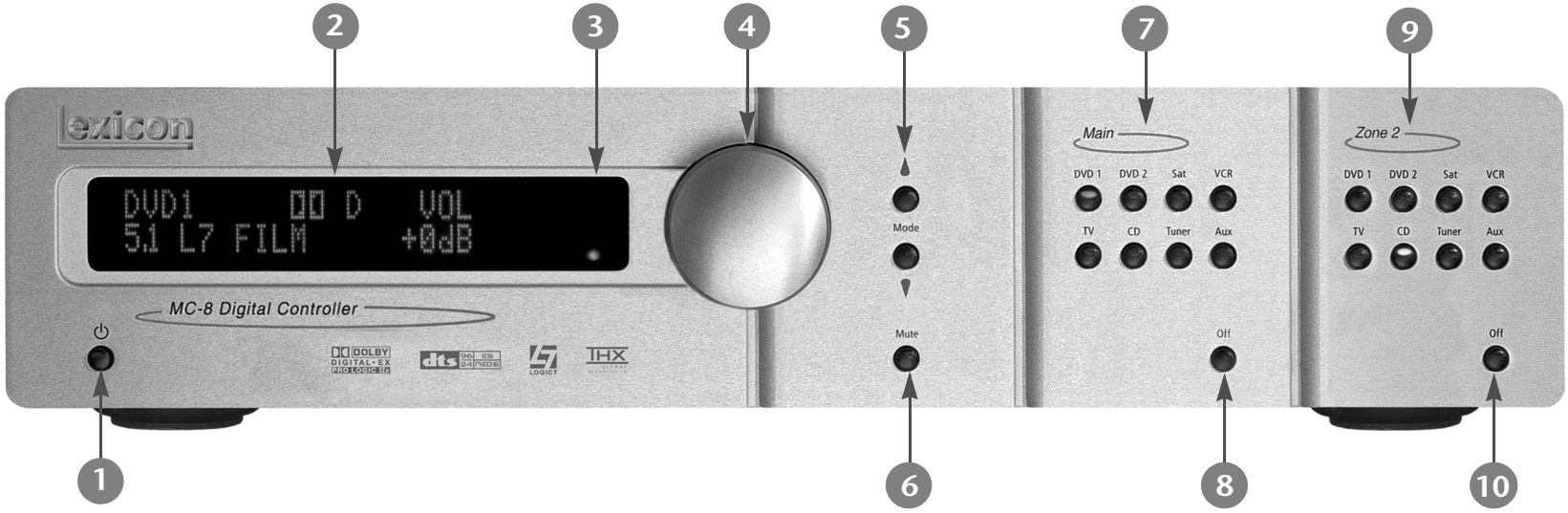


2

Basic Operation

FRONT-PANEL OVERVIEW

The MC-8 is shown below. The MC-8 Balanced is shown on page 2-4. The front panels are identical, except the MC-8 Balanced has a larger chassis. The numbers in the front-panel illustrations correspond with the numbered items in the text.



1 STANDBY BUTTON

Use the Standby button to activate or deactivate standby mode. The Standby button performs no function when the MC-8 rear-panel power switch is powered off. When standby mode is deactivated, all MC-8 zones that were active during the last session are reactivated. The red standby button LED lights whenever standby mode is activated.

2 FRONT-PANEL DISPLAY

Use the front-panel display to view the current input, listening mode, input source and volume level. The 2 x 20 character display also functions as a display for messages and menus.

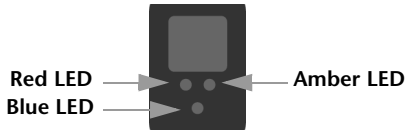
Note:

Power is still supplied to the MC-8 when standby mode is activated.

3 IR RECEIVER

The IR receiver receives infrared commands from the MC-8 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 MC-8 is powered on and activated – even if the FRONT PANEL DISPLAY menu STATUS parameter is set to ALWAYS OFF.



4 VOLUME KNOB

Use the volume knob to adjust volume level in the Main Zone or Zone 2.

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.
2. While holding the selected Zone 2 input selection button, rotate the volume knob clockwise to increase or counterclockwise to decrease volume level in 1dB increments. The corresponding horizontal graph shown here appears in the on-screen and front-panel displays. This graph illustrates 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.

Note:

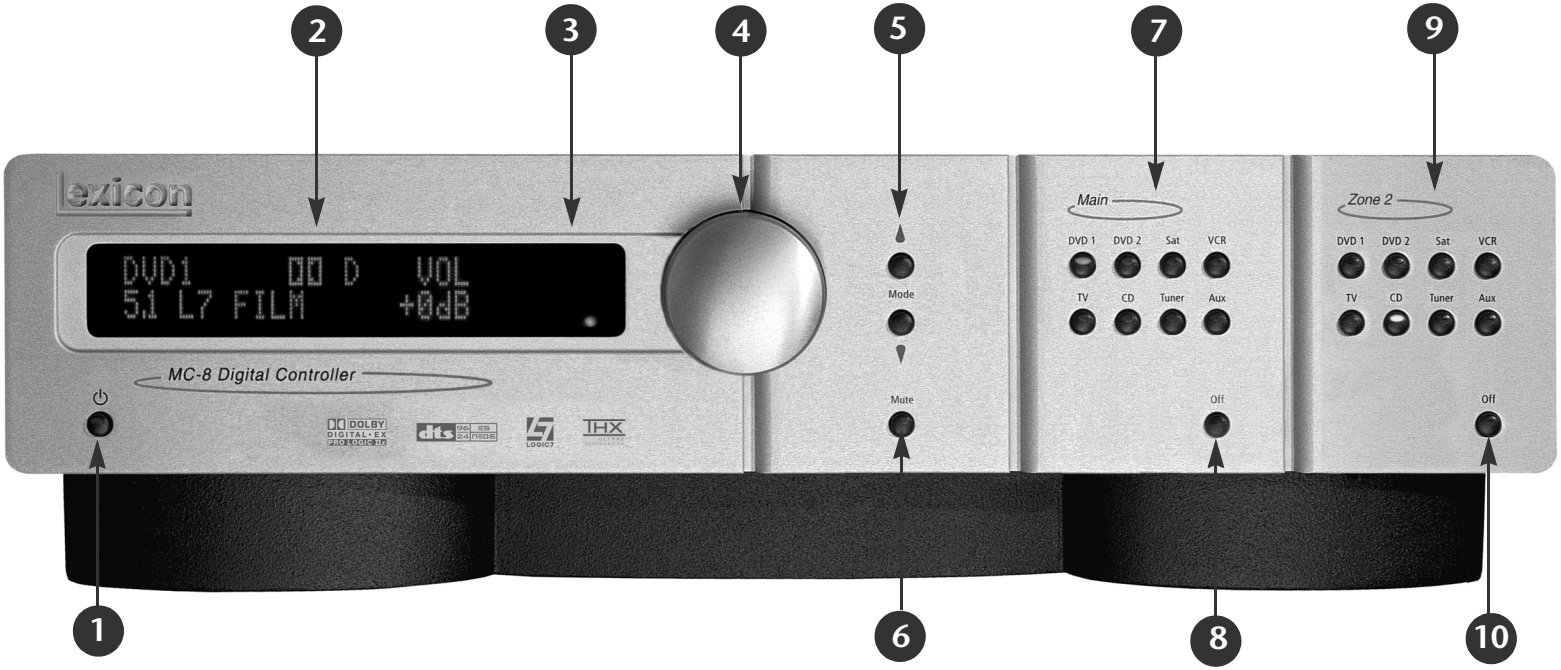
Remote control input selection buttons cannot be used to select Zone 2 level adjustment, even if the Zone 2 command bank is activated.

5 MODE ▲ and ▼ BUTTONS

Use the Mode buttons to scroll to the previous (▲) and next (▼) available listening mode. Scrolling occurs in the order shown in the MODE ADJUST menu. Refer to the Listening Mode Activation section that begins on page 5-2 for more information.

FRONT-PANEL OVERVIEW *(continued)*

The MC-8 Balanced, shown below, has a larger chassis than the MC-8, shown on page 2-2. Otherwise, they are identical. The numbers in the front-panel illustrations correspond with the numbered items in the text.



6 MUTE BUTTON

Mutes or restores the MC-8 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 MC-8 briefly activates mute when changing input sources or listening modes. The amber Mute button LED lights whenever mute is activated.

7 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 Main Zone and selects the corresponding input. Zone 2 remains deactivated until a Zone 2 input is selected.

8 MAIN ZONE OFF BUTTON

Deactivates the Main Zone.

9 ZONE 2 INPUT SELECTION BUTTONS

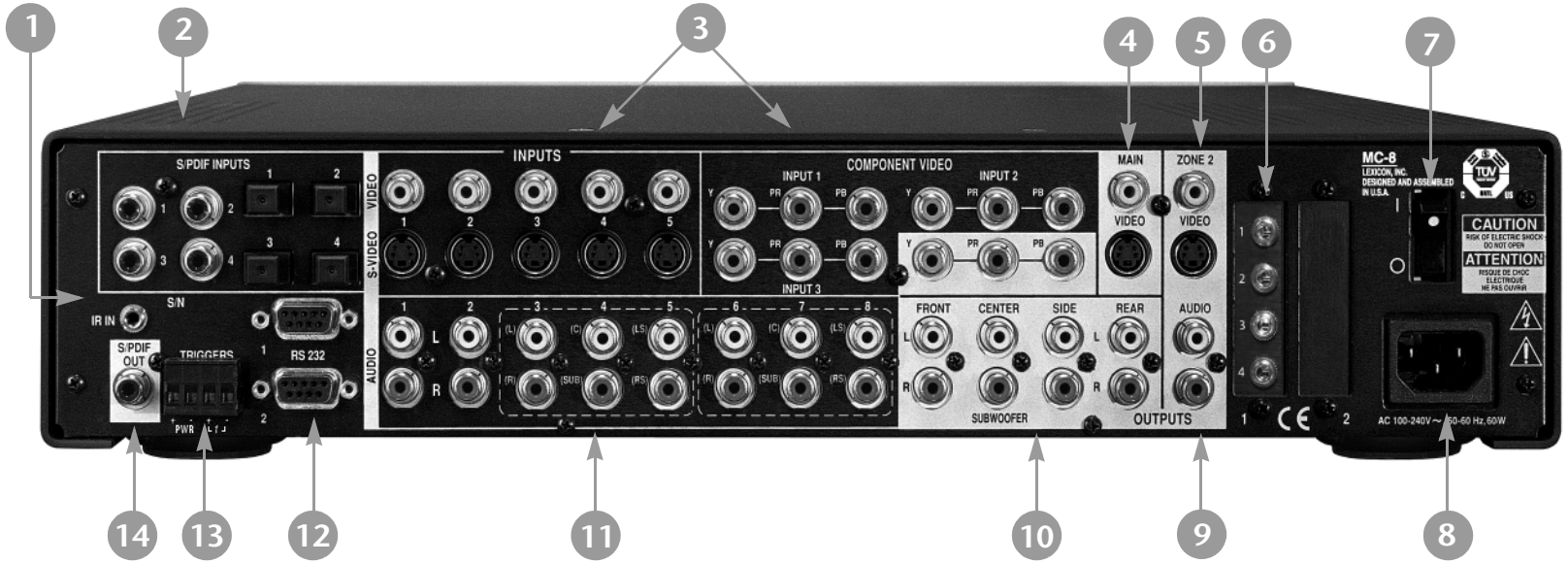
Selects the corresponding input in Zone 2. When an input is selected, an amber LED lights on the corresponding input selection button. When Zone 2 is deactivated, pressing a Zone 2 input selection button activates Zone 2 and selects the corresponding input. The Main Zone remains deactivated until a Main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

10 ZONE 2 OFF BUTTON

Deactivates Zone 2.

REAR-PANEL OVERVIEW

The MC-8 is shown below. The MC-8 Balanced, shown on page 2-8, includes balanced audio output connectors for the Main Zone and Zone 2. Otherwise, both models are identical. The numbers in the rear-panel illustrations correspond with the numbered items in the text.



CAUTION! Never make or break connections to the MC-8 unless the MC-8 and all associated components are powered off.

1 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.

2 DIGITAL AUDIO INPUT CONNECTORS (S/PDIF)

Provide digital audio input in the Main Zone and Zone 2. Four S/PDIF coaxial and four S/PDIF optical input connectors are available. Connectors are compatible with PCM (44.1, 48, 88.2 and 96kHz), Dolby Digital and DTS(-ES) sources.

3 VIDEO INPUT CONNECTORS

Provide video input in the Main Zone and Zone 2. Five composite video connectors labeled Video 1 to 5, five S-Video connectors labeled S-Video 1 to 5, and three component video connectors labeled 1 to 3 are available. **The component video connectors are not available for Zone 2.**

4 MAIN ZONE VIDEO OUTPUT CONNECTORS

Provide video output in the Main Zone. One composite video connector, one S-Video connector and one component video connector (RCA) are available.

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.*
- *Component video output connectors are available when a component video source is present.*

5 ZONE 2 VIDEO OUTPUT CONNECTORS

Provide video output in Zone 2. One composite video connector and one S-Video connector are available. Alternatively, these connectors can be used to connect a video recording device.

6 MICROPHONE INPUT CONNECTORS

Provide microphone input for speaker distance and output level calibration. Additionally, inputs 1 (left) and 2 (right) are used when LIVE! is active. Four 3.5mm Tip/Ring/Sleeve connectors are available.

7 POWER SWITCH

Use the Power switch to power the MC-8 on or off. The **I** and **O** positions represent "on" and "off" status, respectively. When the MC-8 is powered on, the front-panel Standby button or remote control On button can be used to activate and deactivate standby mode. When the MC-8 is powered off, standby mode is not available.

8 AC INPUT CONNECTOR

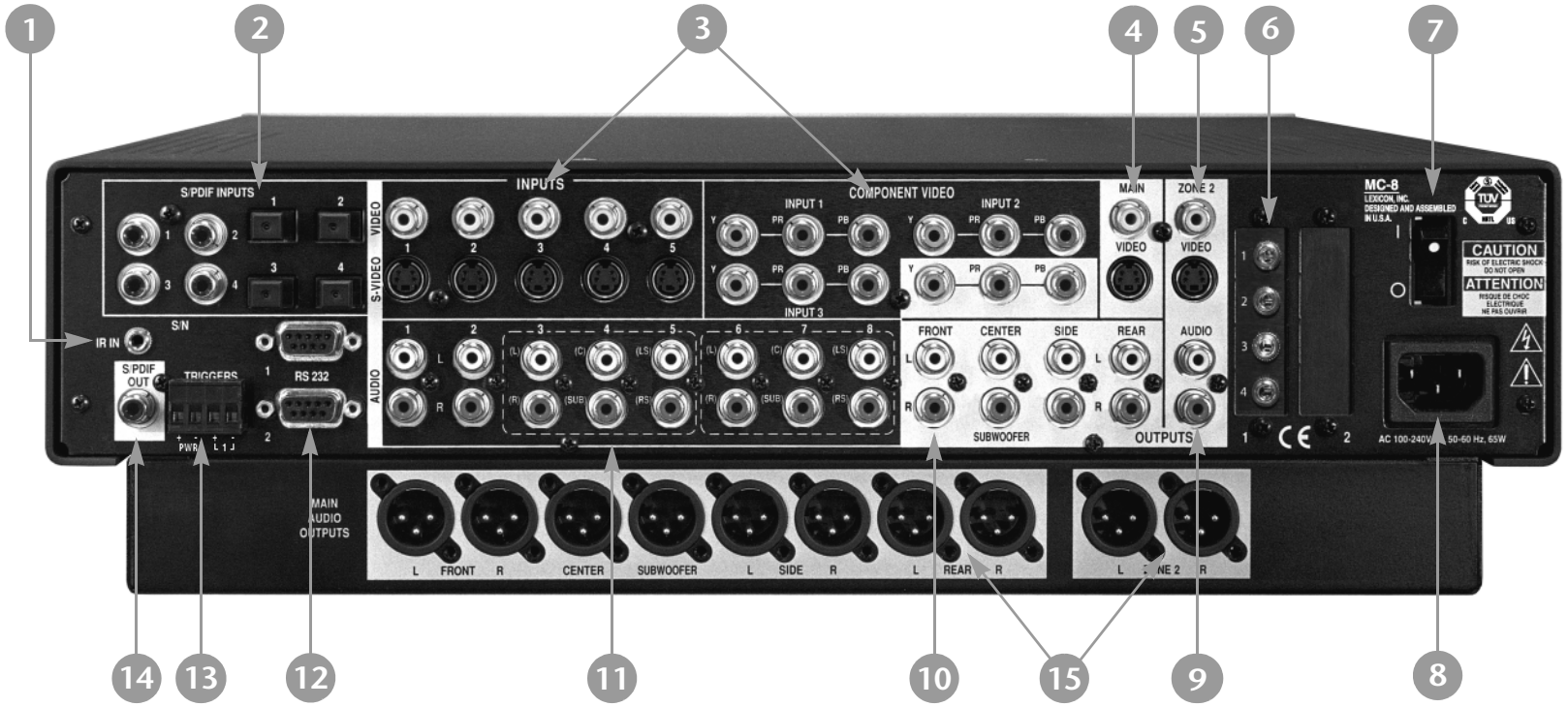
Provides power to the MC-8 through the supplied power cord (3-wire, 10-amp, IEC 320).

9 ZONE 2 AUDIO OUTPUT CONNECTORS

Provide analog audio output in Zone 2. Two connectors labeled Audio are available. Alternatively, these connectors can be used to connect a recording device. When the Zone 2 audio output connectors are sent to a recording device, it is recommended that you set the VOLUME CONTROL SETUP menu ZONE PWR ON parameter to +0dB to achieve appropriate recording levels. The Zone 2 audio output connectors provide variable output levels. Adjusting Zone 2 volume level will affect the recording.

REAR-PANEL OVERVIEW *(continued)*

The MC-8 is shown on page 2-6. The MC-8 Balanced, shown below, includes balanced analog audio output connectors for the Main Zone and Zone 2. Otherwise, both models are identical. The numbers in the rear-panel illustrations correspond with the numbered items in the text.



CAUTION! Never make or break connections to the MC-8 unless the MC-8 and all associated components are powered off.

10 MAIN ZONE AUDIO OUTPUT CONNECTORS

Provide analog audio output in the Main Zone. Eight connectors–labeled Front L/R, Center, Subwoofer, Side L/R and Rear L/R–are available.

11 ANALOG AUDIO INPUT CONNECTORS

Provide analog audio input in the Main Zone and Zone 2. Eight stereo analog audio input connectors labeled 1 to 8 are available. Connectors labeled 3, 4 and 5, and 6, 7 and 8 can be configured as 5.1-channel connectors.

When a 5.1-channel analog audio source is present in the Main Zone, input signals are sent to the Main Zone audio output connectors, as indicated in the table below. When a 5.1-channel analog source is present in the Main Zone and the INPUT SETUP menu ZONE2 IN parameter is set to DMIX, only the (L) and (R) input signals are sent to the Zone 2 audio output connectors.

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

12 RS-232 CONNECTORS

The RS-232 serial connector (1) is used to perform configuration downloads and flash memory software upgrades. The RS-232 connector (2) is capable of supporting future developments.

13 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 MC-8 is activated, and deactivated when the MC-8 is deactivated. The trigger output connector (1) can be configured for remote or program operation.

14 DIGITAL AUDIO OUTPUT CONNECTOR (S/PDIF)

Provides digital audio output in Zone 2. One S/PDIF coaxial connector is available.

15 BALANCED AUDIO OUTPUT CONNECTORS (MC-8 BALANCED)

Provide balanced analog audio output in the Main Zone and Zone 2. Eight connectors–labeled Front L/R, Center, Subwoofer, Side L/R and Rear L/R–are available in the Main Zone. Two connectors–labeled Zone 2 L/R–are available in Zone 2.

REMOTE CONTROL OVERVIEW

The MC-8 remote control provides full operation of the MC-8, including commands, such as menu navigation, that are not available from the front panel. The command matrix, beginning on page 2-14, indicates the commands that the remote control buttons perform when each command bank is active. The numbered items in the matrix correspond with the remote control illustrations.

OPERATION CONSIDERATIONS

The following factors can improve or impede remote control operation.

Note the following before operating the MC-8 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 17 feet (5m) from the MC-8. Placing the MC-8 inside a smoked glass cabinet will reduce the remote control range.
- Remote controllers 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

The MAIN MENU represents the beginning of the menu structure. Use the MAIN MENU to open the three main menu branches: MODE ADJUST, AUDIO CONTROLS and SETUP.

MENU NAVIGATION

Use the remote control arrow buttons to navigate the extensive menu structure shown in the Appendix. The table on the next page indicates the navigation commands that the remote control buttons perform when the Main Zone command bank is activated.

MENU ITEM SELECTION

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

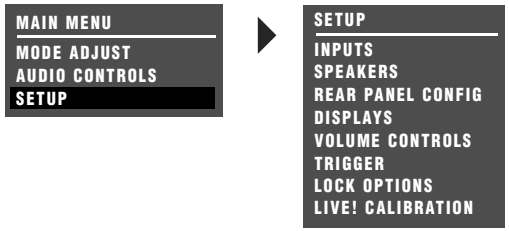
Arrow	Navigation Functions
▶	• When a menu is open, press the ▶ arrow button to select the highlighted menu item. • When no menus are open, press the ▶ arrow button to open the MAIN MENU.
◀	• When a menu is open, press the ◀ arrow button to close the menu and, in most cases, open the previous menu. Subsequent 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 ◀ arrow button performs no function. • When a drop-down menu is open, press the ◀ arrow button to select the current setting and close the drop-down menu.
▲ ▼	• When a menu is open, press the ▲ and ▼ arrow buttons to scroll upward and downward through the complete list of menu items. The highlighted menu item appears on 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.

To select a menu item on the open menu:

1. Press the remote control ▲ and ▼ arrow buttons to highlight the desired menu item.
2. When the desired menu item is highlighted, press the ▶ arrow button to select the highlighted item. If an option is selected, another menu opens. If a parameter is selected, a parameter drop-down menu or horizontal graph opens.

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.

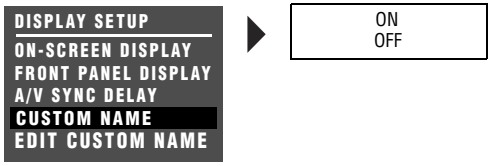


MENU PARAMETERS

Selecting a menu parameter opens a drop-down menu or horizontal bar graph that is used to select the desired setting.

PARAMETER DROP-DOWN MENUS

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



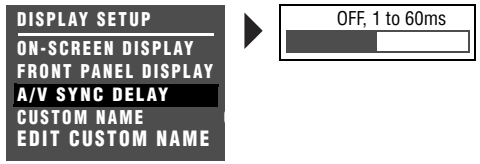
To select a setting in a parameter drop-down menu:

1. When the drop-down menu opens, press the remote control ▲ and ▼ arrow buttons 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 button 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. The setting appears to the right of the parameter name in the on-screen and front-panel displays.

For example, selecting the DISPLAY SETUP menu A/V SYNC DELAY parameter 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 ▼ arrow buttons to increase or decrease the setting in 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 button to select the setting and close the horizontal bar graph.

COMMAND BANK ACTIVATION

Remote control buttons perform different commands, depending on whether the Main Zone, Zone 2 or Shift command bank is activated. The Main Zone command bank does not need to be activated. It remains activated unless the Zone 2 or Shift command bank is activated. Pressing and holding the remote control **Zone 2** button activates the Zone 2 command bank, and pressing and holding the remote control **Shift** button activates the Shift command bank.

The Zone 2 and Shift buttons themselves do not send commands to the MC-8. When pressed and held, these buttons activate the associated command bank. For instance, pressing the remote control **Off** button deactivates the MC-8. Pressing and holding the **Zone 2** button while pressing the **Off** button deactivates Zone 2. Also, pressing and holding the **Shift** button while pressing the **Off** button deactivates the Main Zone.

To activate a command bank:

1. Press and hold a command bank (**Zone 2** or **Shift**) selection button to activate the desired command bank.
2. While holding the selected button, press a remote control button to send the associated command to the MC-8. The command matrix that begins on the next page indicates the commands that the remote control buttons perform when each command bank is activated.
3. Release the **Zone 2** or **Shift** button to deactivate the associated command bank.

The ON-SCREEN DISPLAY menu REMOTE STATE parameter controls the remote control command bank indicator that appears in the on-screen display. When the REMOTE STATE parameter is set to ON, a command bank indicator appears in the top-right corner of the on-screen display to indicate the last command bank from which the MC-8 received a command. When the REMOTE STATE parameter is set to OFF, no command bank indicator appears in the on-screen display.

A “Z” appears when a command from the Zone 2 command bank was received last. An “S” appears when a command from the Shift command bank was received last. No letter appears when a command from the Main Zone command bank was received last.

COMMAND MATRIX

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

Button	Main Zone	Zone 2	Shift
1 On	Deactivates standby mode and activates the MC-8.	Reserved for future possibilities.	Reserved for future possibilities.
2 Off	Activates standby mode and deactivates the MC-8.	Deactivates Zone 2.	Deactivates the Main Zone.
3 FP	Toggles the FRONT PANEL DISPLAY menu STATUS parameter between ALWAYS OFF and its current setting.	Centers the AUDIO CONTROLS menu ZONE2 BALANCE parameter.	Centers the AUDIO CONTROLS menu Main Zone BALANCE and FADER parameters.
4 Blue	Toggles the ON-SCREEN DISPLAY menu BACKGROUND parameter between ON and OFF.	Sets the AUDIO CONTROLS menu BASS, TREBLE and TILT EQ parameters to +0.0dB.	Deactivates the trigger output connector labeled 1 when the connector is configured for remote operation.
5 OSD	Toggles the ON-SCREEN DISPLAY menu STATUS parameter between ON and OFF.	Reserved for future possibilities.	Activates the trigger output connector labeled 1 when the connector is configured for remote operation.
6 Stat	Displays the Main Zone two-line status for 2 seconds.	Displays the Zone 2 two-line status for 2 seconds.	Toggles between opening and closing the STATUS menu for the current input source.
7	Activates an additional bank of commands that control the Main Zone. Refer to the previous page for more information.		
8 Z2	Activates an additional bank of commands that control Zone 2. Refer to the previous page for more information.		

Button	Main Zone	Zone 2	Shift
9 ▲ ▼	Scroll upward (▲) and downward (▼) through menu items.	Increase (▲) and decrease (▼) the output level of the Main Zone audio output connector labeled Subwoofer as applied to the activated listening mode.	Adjust the AUDIO CONTROLS menu Main Zone FADER parameter forward (▲) and backward (▼).
10 ◀	Closes the current menu.	Adjusts the AUDIO CONTROLS menu ZONE2 BALANCE parameter left.	Adjusts the AUDIO CONTROLS menu Main Zone BALANCE parameter left.
11 ▶	Opens the menu structure and selects the highlighted menu item.	Adjusts the AUDIO CONTROLS menu ZONE2 BALANCE parameter right.	Adjusts the AUDIO CONTROLS menu Main Zone BALANCE parameter right.
12 Light	Activates the remote control backlight, making remote control buttons more visible in the dark.		
13 Mode	Scroll to the previous (▲) and the next (▼) available Main Zone listening mode.	Sets Zone 2 volume level to –15dB (▲) or –30dB (▼).	Sets Main Zone volume level to –15dB (▲) or –30dB (▼).
14 VOL	Increases (▲) and decreases (▼) Main Zone volume level in 1dB increments.	Increases (▲) and decreases (▼) Zone 2 volume level in 1dB increments.	Increases (▲) and decreases (▼) Main Zone volume level in 3dB increments.
15 Mute	Toggles between lowering Main Zone volume level and restoring Main Zone volume to its original level.	Toggles between fully muting Zone2 volume level and restoring Zone 2 volume to its original level.	Toggles between fully muting Main Zone volume level and restoring Main Zone volume to its original level.

Button	Main Zone	Zone 2	Shift
16 DVD1	Selects the DVD1 input for the Main Zone.	Selects the DVD1 input for Zone 2.	Increases the AUDIO CONTROLS menu BASS parameter in 0.5dB increments.
DVD2	Selects the DVD2 input for the Main Zone.	Selects the DVD2 input for Zone 2.	Increases the AUDIO CONTROLS menu TREBLE parameter in 0.5dB increments.
Sat	Selects the SAT input for the Main Zone.	Selects the SAT input for Zone 2.	Increases the AUDIO CONTROLS menu TILT EQ parameter in 0.2dB increments.
VCR	Selects the VCR input for the Main Zone.	Selects the VCR input for Zone 2.	Sets the AUDIO CONTROLS menu LOUDNESS parameter to ON.
TV	Selects the TV input for the Main Zone.	Selects the TV input for Zone 2.	Decreases the AUDIO CONTROLS menu BASS parameter in 0.5dB increments.
CD	Selects the CD input for the Main Zone.	Selects the CD input for Zone 2.	Decreases the AUDIO CONTROLS menu TREBLE parameter in 0.5dB increments.
Tuner	Selects the TUNER input for the Main Zone.	Selects the TUNER input for Zone 2.	Decreases the AUDIO CONTROLS menu TILT EQ parameter in 0.2dB increments.
Aux	Selects the AUX input for the Main Zone.	Selects the AUX input for Zone 2.	Sets the AUDIO CONTROLS menu LOUDNESS parameter to OFF.

Button	Main Zone	Zone 2	Shift
17	Selects the LOGIC 7 Film mode family for the current input source.	Reserved for future possibilities.	Selects the PANORAMA listening mode.
	Selects the Dolby mode family for the current input source.	Reserved for future possibilities.	Refer to the next page.
	Selects the DTS(-ES) Cin mode family for the current input source.	Reserved for future possibilities.	Refer to the next page.
	Selects the THX mode family for the current input source.	Reserved for future possibilities.	Refer to the next page.
	Selects the LOGIC 7 Music mode family for the current input source.	Reserved for future possibilities.	Selects the L7 MUSIC SURR listening mode.
	Selects the LOGIC 7 TV mode family for the current input source.	Reserved for future possibilities.	Selects the MONO LOGIC listening mode for 2-channel input sources and the 5.1 MONO LOGIC listening mode for 5.1-channel input sources.
18	Toggles between 7 and 5-channel playback.	Reserved for future possibilities.	Adjusts the MAIN ADV menu INPUT SELECT parameter, cycling through the ANALOG, DIGITAL and AUTO settings.
19	Toggles between the current listening mode and the 2-CHANNEL listening mode.	Reserved for future possibilities.	Toggles the MAIN ADV menu 2-CH ANLG BYP parameter between ON and OFF.

Shift-DOLBY

When the Shift command bank is activated, pressing the remote control DOLBY button while a 5.1-channel Dolby Digital input source is present activates the DOLBY DIGITAL EX or DOLBY DIGITAL listening mode. Subsequent presses toggle the EX DECODING parameter, cycling through the AUTO, ON and OFF settings.

Shift-DTS

When the Shift command bank is activated, pressing the remote control DTS button while a DTS(-ES) input source is present toggles the ES DECODING parameter, cycling through the AUTO, ON and OFF settings.

Shift-THX

When the Shift command bank is activated, pressing the remote control THX button while a 5.1-channel Dolby Digital input source is present activates the THX UL2Cin or THX SurEX listening mode. Subsequent presses toggle the SURROUND EX parameter, cycling through the AUTO, ON and OFF settings.

UNDERSTANDING THE ZONES

The MC-8 features two zones of operation, called the Main Zone and Zone 2. The Main Zone controls audio and video sources in the primary listening space. Zone 2 controls audio and video sources in the secondary listening space.

These zones have separate digital audio receivers and dedicated analog source selectors that allow for independent input selection in each zone. For instance, the MC-8 can play a DVD in the Main Zone and a CD in Zone 2 at the same time.

The following are exceptions to independent zone operation:

1. When a Dolby Digital or DTS-ES source is present in the Main Zone, the same Dolby Digital or DTS-ES source can also be present in Zone 2. However, different Dolby Digital or DTS-ES sources cannot be present in both zones at the same time.
2. Main Zone multichannel audio can be down-mixed in Zone 2 when all of the following conditions are met:
   - A Dolby Digital or DTS-ES source is present in the Main Zone.
   - The Main Zone input is also selected in Zone 2.
   - The INPUT SETUP menu ZONE2 IN parameter is set to DMIX.
3. When the INPUT SETUP menu ZONE2 IN parameter is set to ANLG, the Zone 2 audio output connectors carry the FRONT L/R speaker audio from the Main Zone. However, it is possible to have a 5.1-channel analog audio source present in the Main Zone and a digital input source present in Zone 2.

TWO-LINE STATUS

The two-line status opens in the on-screen and front-panel displays whenever the MC-8 detects a change in input source or listening mode. The Main Zone two-line status appears when the MC-8 detects a Main Zone change, and the Zone 2 two-line status appears when a Zone 2 status change is detected.

The ON-SCREEN DISPLAY menu STATUS parameter can be used to control the length of time the two-line status appears in the on-screen display. The ON-SCREEN DISPLAY menu POSITION parameter can be used to control the vertical alignment of the two-line status on 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 display device does not show the on-screen display.

MAIN ZONE TWO-LINE STATUS

Opens in the on-screen and front-panel displays whenever the MC-8 detects a Main Zone status change. The Main Zone two-line status indicates the current input, listening mode, input source and volume level selected in the Main Zone.

ZONE 2 TWO-LINE STATUS

Opens in the on-screen and front-panel displays whenever the MC-8 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.

STATUS MENUS

Activate the Shift command bank and press the remote control **Stat** button to open the STATUS menu for the current input source. The STATUS menu contains parameters that provide information about the current input source and listening mode. These parameters cannot be adjusted. STATUS menus are available for 2-channel, Dolby Digital, 5.1 analog, LIVE!, DTS and digital input sources.

Unlike most other menus, STATUS menus cannot be opened by selecting menu options. The remote control command sequence outlined below must be performed.

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

1. Press and hold the remote control **Shift** button.
2. While holding the Shift button, press the remote control **Stat** button. 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. While the Shift command bank is activated, press the **Stat** button to open the second page. If the STATUS menu does not include a second page, pressing the Stat button closes the menu. If this occurs, begin again with step 1.
3. When the desired STATUS menu page has been opened, release the **Shift** button to deactivate the Shift command bank. Then, press the remote control ▲ and ▼ arrow buttons to scroll up or down through the list of available parameters. **When the Shift command bank is activated, the Menu arrows cannot be used to scroll through STATUS menu parameters.**
4. Press the **Stat** button or the Menu ◄ arrow to close the STATUS menu. In some cases, the Stat button or the Menu ◄ arrow must be pressed twice in succession to close the STATUS menu.

STATUS MENU DESCRIPTIONS

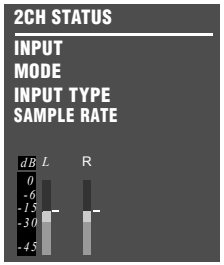
The table beneath each description lists the possible settings for each parameter.

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 2-24 for detailed information.

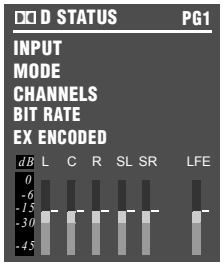


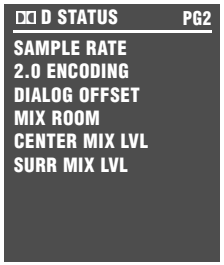
◻◻ *D STATUS*

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	YES, NO
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 2-24 for detailed information.



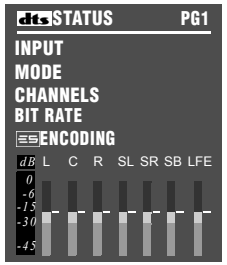


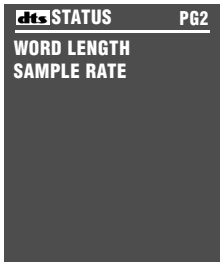
dts STATUS

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 2-24 for detailed information.



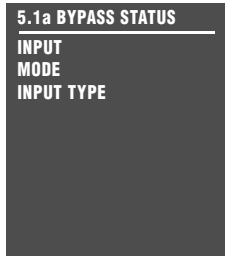


5.1a BYPASS STATUS

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 2-24 for detailed information.

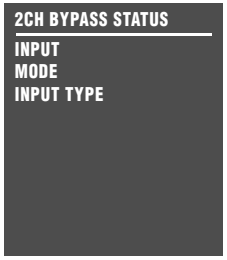


2CH BYPASS STATUS

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 2-24 for detailed information.

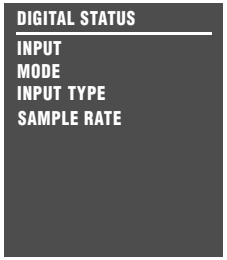


DIGITAL STATUS

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 2-24 for detailed information.

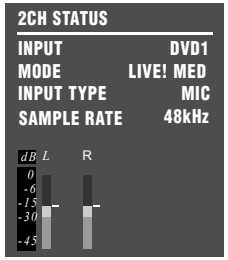


LIVE! STATUS

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 2-24



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 MC-8 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 Subwoofer.

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 MC-8 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 MC-8 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.

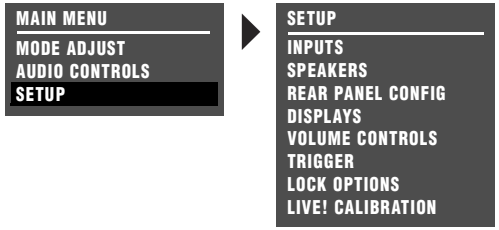
Level meters appear in combinations of green, yellow and red when the on-screen display is configured for a blue-screen background. Green indicates low levels, yellow indicates normal levels, and red indicates high levels and the onset of overload. Level meters appear in white when the on-screen display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

3

Setup

SETUP

Selecting SETUP from the MAIN MENU opens the SETUP menu.



INPUTS

SETUP ▸ INPUTS

Prompts the selection of a desired input (e.g., DVD1) and opens the corresponding 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 3-4 for more information.

SPEAKERS

SETUP ▸ SPEAKERS

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 3-22 for more information.

REAR PANEL CONFIG

SETUP ▸ REAR PANEL CONFIG

Opens the REAR PANEL CONFIG menu, which is used to configure the analog audio input connectors as eight stereo connectors, one 5.1-channel and five stereo connectors, or two stereo and two 5.1-channel connectors. See "REAR PANEL CONFIG" on page 3-59 for more information.

DISPLAYS

SETUP ▸ DISPLAYS

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 3-61 for more information.

VOLUME CONTROLS

SETUP ▸ VOLUME CONTROLS

Opens the VOLUME CONTROL SETUP menu, which is used to configure Main Zone, Zone 2, and Mute volume levels. See "VOLUME CONTROL SETUP" on page 3-66 for more information.

TRIGGER

SETUP ▸ TRIGGER

Open the TRIGGER SETUP menu, which is used to configure the trigger output connector labeled 1. See "TRIGGER SETUP" on page 3-67 for more information.

LOCK OPTIONS

SETUP ▶ **LOCK OPTIONS**

Opens the LOCK OPTIONS menu, which is used to protect MODE ADJUST, AUDIO CONTROLS and SETUP menu branch settings from accidental changes. See “LOCK OPTIONS” on page 3-69 for more information.

LIVE! CALIBRATION

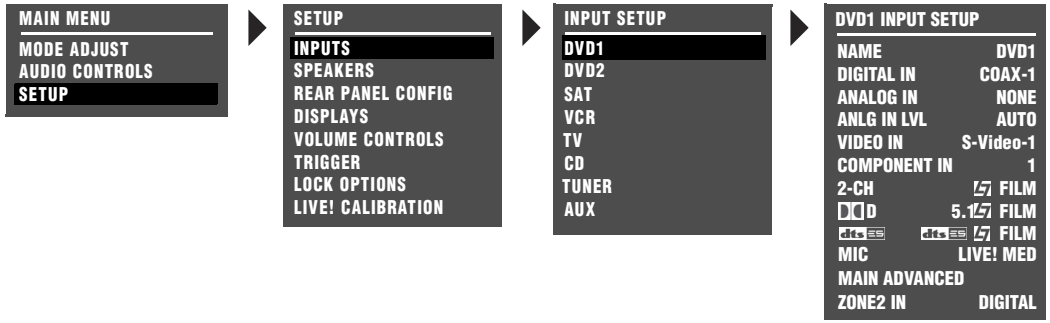
SETUP ▶ **LIVE! CALIBRATION**

Opens the LIVE! CALIBRATION menu, which is used to perform the necessary calibration before using the LIVE! modes. See “LIVE! CALIBRATION” on page 3-70 for more information.

INPUT SETUP

SETUP ▸ INPUTS ▸ DVD1 ▸ INPUT SETUP

Selecting the SETUP menu INPUTS option prompts the selection of a desired input (e.g., DVD1). Selecting an input opens the corresponding INPUT SETUP menu, which is used to change the input name, assign audio and video input connectors, select preferred listening modes and configure advanced Main Zone and Zone 2 input settings.

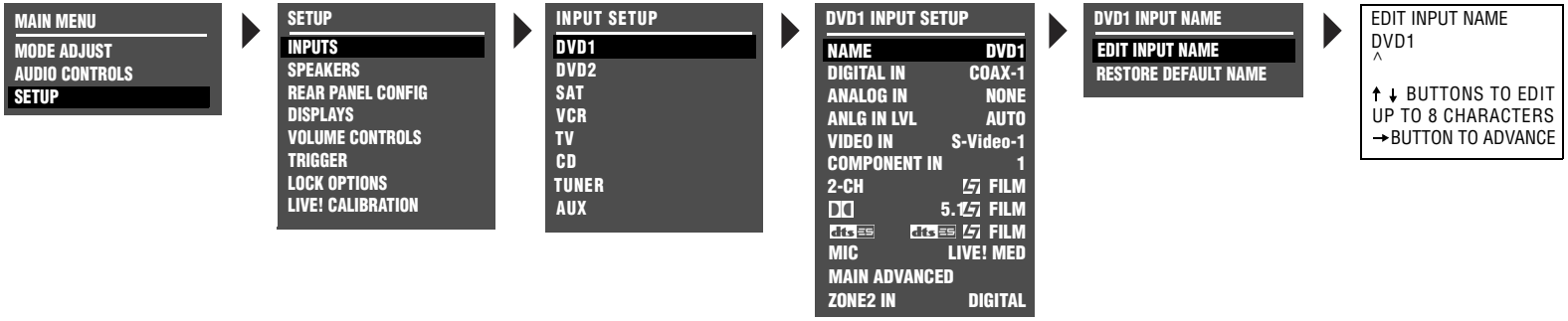


The DVD1 INPUT SETUP menu is shown here as an example, and will continue to be shown as an example throughout this section. Whenever it appears, any other INPUT SETUP menu can be substituted. Likewise, whenever the DVD1 input appears as a step in a menu path, any other input can be substituted.

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.

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

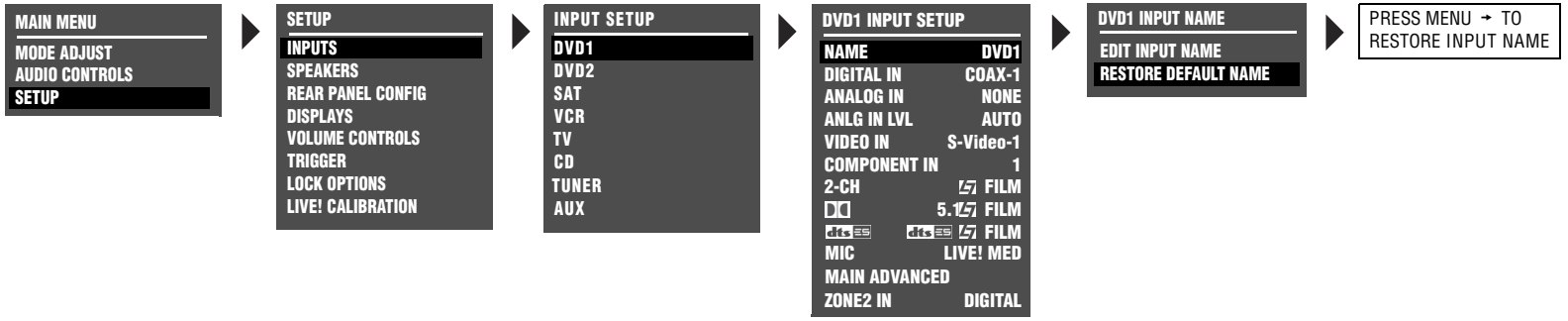
SETUP ▸ INPUTS ▸ DVD1 ▸ NAME ▸ EDIT INPUT NAME

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. Use 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 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.



RESTORE DEFAULT NAME

SETUP ▸ **INPUTS** ▸ **DVD1** ▸ **NAME** ▸ **RESTORE DEFAULT NAME**

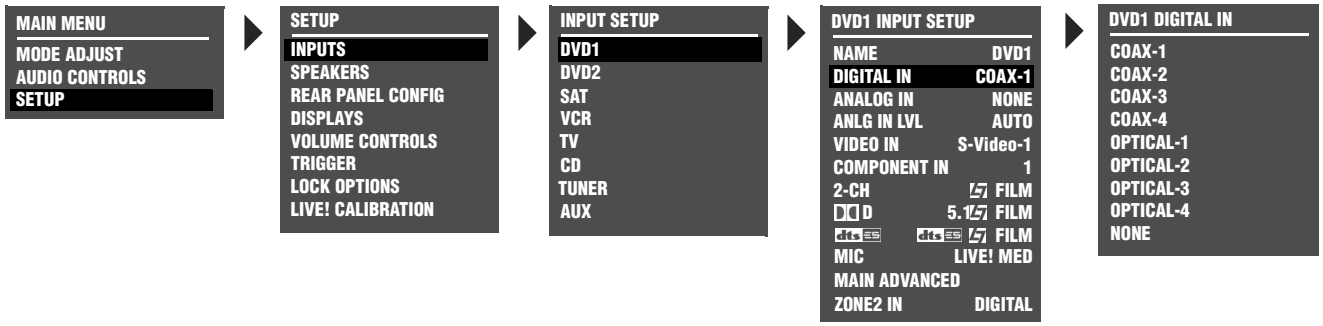
Restores the factory-default name of the selected input. Factory-default input names correspond to front-panel and remote control input selection button labels.

To restore the factory-default name of the selected input:

1. Follow the RESTORE DEFAULT NAME menu path to open the INPUT NAME menu.
2. When the INPUT NAME menu opens, press the remote control ▲ and ▼ arrow buttons to highlight the RESTORE DEFAULT NAME option.
3. When the RESTORE DEFAULT NAME option is highlighted, press the ▸ arrow button to select this option. The message "PRESS MENU → TO RESTORE INPUT NAME" appears in the on-screen and front-panel displays.
4. When this message appears, press the ▸ arrow button to restore the factory-default name of the selected input and close the message. (Press the ◂ arrow button to close the message without restoring the factory-default name of the selected input.)

ASSIGNING AUDIO and VIDEO INPUT CONNECTORS

The MC-8 has eight configurable inputs, each of which can be assigned to its eight digital audio, eight analog audio, five composite video, five 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. The ANLG IN LVL parameter can be used to adjust 2-channel analog audio input levels for the selected input.

Parameter	Possible Settings
DIGITAL IN	COAX-1 to 4, OPTICAL-1 to 4, NONE
ANALOG IN	ANALOG-1 to 8, 5.1 ANLG (3-5) or (6-8), LIVE!, NONE
ANLG IN LVL	AUTO, –18dB to +12dB
VIDEO IN	COMPOSITE-1 to 5, S-VIDEO-1 to 5, NONE
COMPONENT IN	COMPONENT-1 to 3, NONE

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 not compatible with MPEG or MP3 sources.

DIGITAL IN COAX-1 TO 4, OPTICAL-1 TO 4, NONE

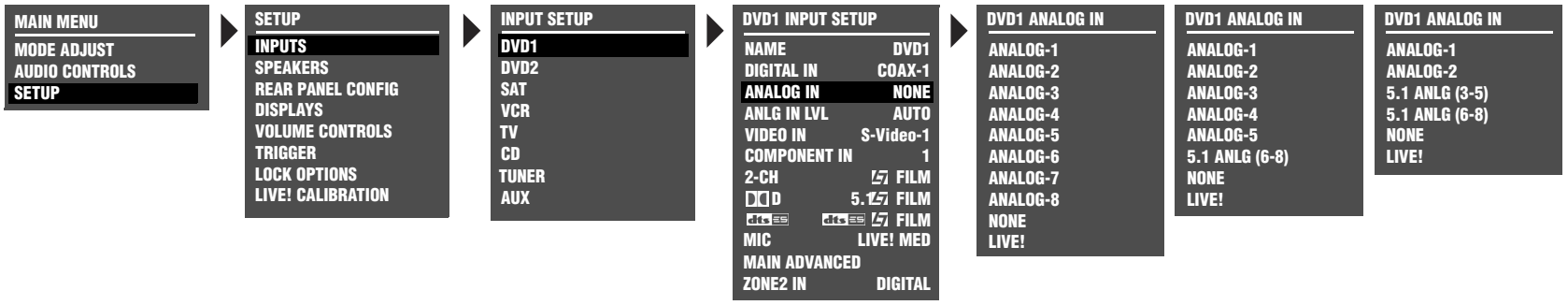
SETUP ▶ INPUTS ▶ DVD1 ▶ DIGITAL IN

Opens the DIGITAL IN menu, which is used to assign a digital audio input connector for the selected input. The MC-8 has eight configurable inputs, each of which can be assigned to any of its eight digital audio input connectors.

Please note the following:

- When no digital audio input connector is assigned, the MC-8 will automatically set the MAIN ADV menu INPUT SELECT parameter to ANALOG (3-17).
- 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 8, 5.1 ANLG (3-5) or (6-8), LIVE!, NONE

SETUP ▶ INPUTS ▶ DVD1 ▶ ANALOG IN

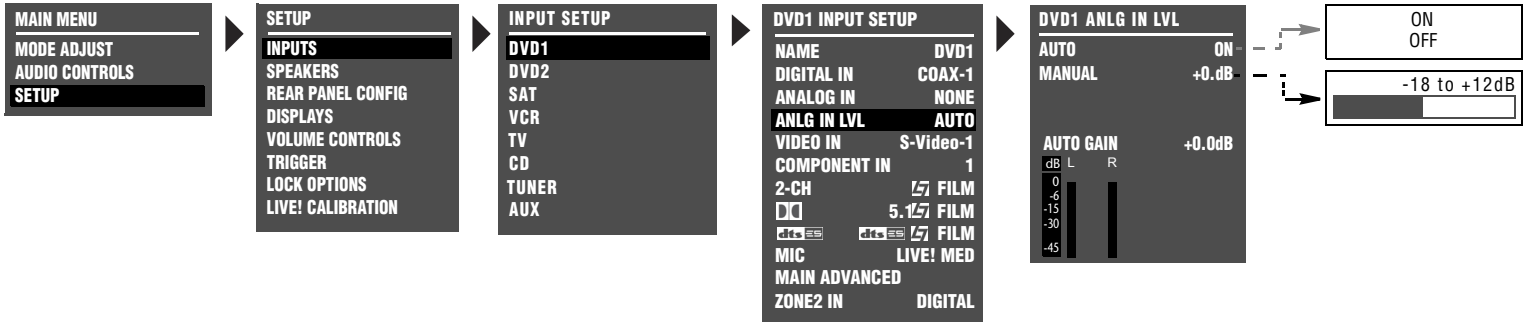
Opens the ANALOG IN menu, which is used to assign an analog audio input connector for the selected input. The MC-8 has eight configurable inputs, each of which can be assigned to any of its eight analog audio input connectors.

The appearance of the ANALOG IN menu depends on the configuration of the analog audio input connectors.

- The ANALOG IN menu (A above) appears when the REAR PANEL CONFIG menu 8 STEREO INPUTS option is selected (3-59).
- The ANALOG IN menu (B above) appears when the REAR PANEL CONFIG menu 5 ST. & 5.1 ANLG option is selected (3-60).
- The ANALOG IN menu labeled (C above) appears when the REAR PANEL CONFIG menu 2 ST. & (2) 5.1 ANLG option is selected (3-60).

Please note the following:

- When no analog audio input connector is assigned, the MC-8 will automatically set the MAIN ADV menu INPUT SELECT parameter to DIGITAL (3-17).
- 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.
- LIVE! cannot be selected until LIVE! CALIBRATION is run. When the ANALOG IN selection is LIVE!, no other analog inputs (1-8) or digital inputs can be selected for that input.



ANLG IN LVL

AUTO, –18dB to +12dB

SETUP ▸ INPUTS ▸ DVD1 ▸ ANLG IN LVL

Opens the ANLG IN LVL menu, which is used to adjust the 2-channel analog audio input levels for the selected input. Despite attempts at standardization, analog audio sources have a wide range of levels. To compensate for this, the MC-8 allows independent input level adjustment for each of its stereo analog audio input connectors. **Input level adjustment is not available for the 5.1-channel analog audio input connectors**.

Parameter	Possible Settings
AUTO	ON, OFF
MANUAL	–18 to +12dB
AUTO GAIN*	–18 to +12dB

** This parameter cannot be adjusted.*

Note:

Adjustments made in the ANLG IN LVL menu are applied to the stereo analog audio input connector assigned for the selected input. When another stereo analog audio input connector is assigned, these adjustments are automatically applied to the new connector.

ASSIGNING AUDIO and VIDEO INPUT CONNECTORS *(continued)*

AUTO

ON, OFF

SETUP ▸ INPUTS ▸ DVD1 ▸ ANLG IN LVL ▸ AUTO

Provides automatic adjustment of 2-channel analog audio input levels. When set to ON, the MC-8 automatically monitors and optimizes input levels. When the input signal is too high, the MC-8 quickly decreases input levels to avoid overload. When the input signal is too low, the MC-8 slowly increases input levels to maximize signal-to-noise ratio and dynamic range.

When OFF is selected, the MC-8 does not automatically monitor and optimize 2-channel analog audio input levels. Rather, input levels must be adjusted with the MANUAL parameter (see below).

MANUAL

–18dB to +12dB

SETUP ▸ INPUTS ▸ DVD1 ▸ ANLG IN LVL ▸ MANUAL

Provides manual adjustment of 2-channel analog audio input levels. When manual adjustments are made, the MC-8 automatically sets the ANLG IN LVL menu AUTO parameter to OFF, deactivating automatic input level adjustment. Manual input level adjustments are retained when the AUTO parameter is ON.

Note:

When the AUTO parameter is ON, the MC-8 will not make adjustments that exceed the ANLG IN LVL menu MANUAL parameter setting.

AUTO GAIN

SETUP ▸ INPUTS ▸ DVD1 ▸ ANLG IN LVL ▸ AUTO GAIN

Indicates the current amount of input level adjustment for the selected stereo analog audio input connector. When the ANLG IN LVL menu AUTO parameter is ON, the AUTO GAIN parameter indicates the amount of automatic input level adjustment. When the AUTO parameter is OFF, the AUTO GAIN parameter indicates the amount of manual input level adjustment. (In other words, the AUTO GAIN parameter reflects the setting of the ANLG IN LVL menu MANUAL parameter.)

When the AUTO parameter is ON, the AUTO GAIN parameter continues to indicate the amount of manual input level adjustment until automatic adjustments have been made.

LEVEL METERS

Indicate fluctuating input levels in the front left (L) and front right (R) channels for the selected input. Like the STATUS menu level meters, ANLG IN LVL menu level meters indicate input levels for both analog and digital audio sources. However, ANLG IN LVL menu input level adjustments affect only 2-channel analog audio sources.

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 the onset of overload. Level meters appear in white when the on-screen display is not configured for a blue-screen background.

VIDEO IN COMPOSITE-1 TO 5, S-VIDEO-1 TO 5, NONE

SETUP ▶ INPUTS ▶ DVD1 ▶ VIDEO IN

Opens the VIDEO IN menu, which is used to assign a composite or S-Video input connector for the selected input. The MC-8 has eight configurable inputs, each of which can be assigned to any of its five composite or five S-Video 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.

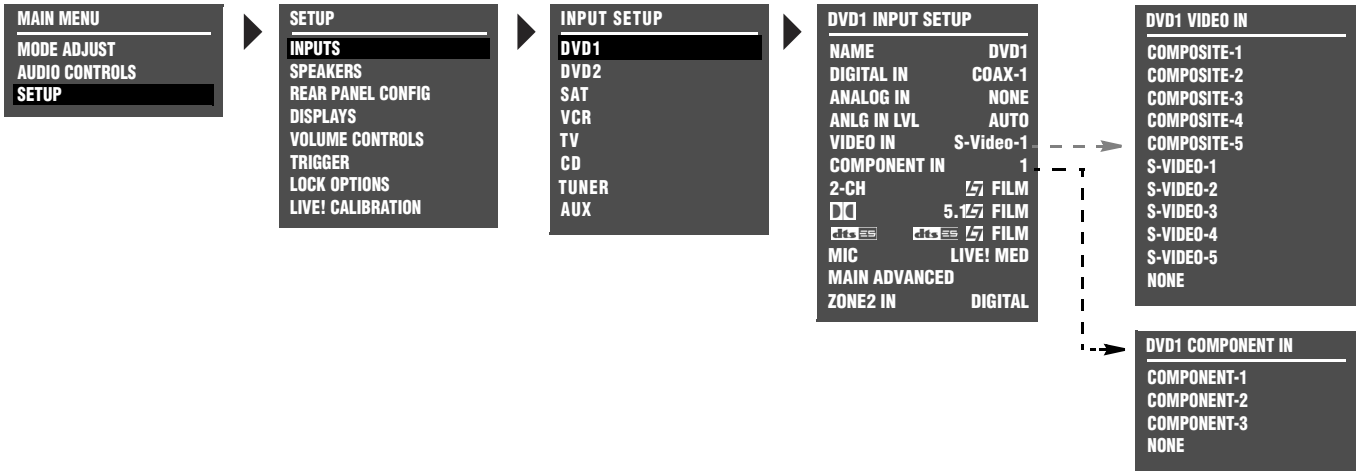
COMPONENT IN COMPONENT-1 to 3, NONE

SETUP ▶ INPUTS ▶ DVD1 ▶ COMPONENT IN

Opens the COMPONENT IN menu, which is used to assign a component video input connector for the selected input. The MC-8 has eight configurable inputs, each of which can be assigned to any of its three component video input connectors.

Note:

Component video output connectors are available only when a component video source is present.



SELECTING PREFERRED LISTENING MODES

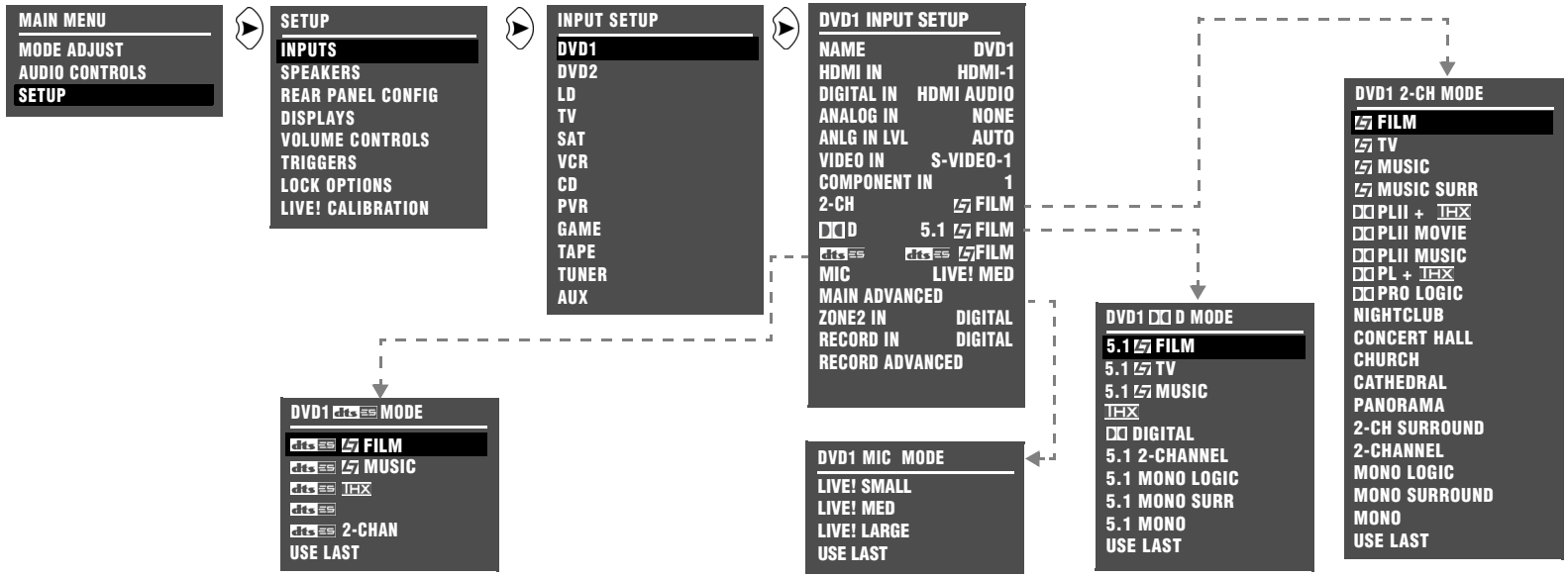
Preferred listening modes can be pre-selected so that when a particular type of input source is played, the pre-selected listening mode is activated.

The MC-8 allows five preferred listening modes for each Main Zone input: one listening mode each for 2-channel, Dolby Digital, DTS(-ES), and MIC (LIVE!) sources. The table below 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
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, it is 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 3-12):

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 MC-8 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 MC-8 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		
DTS NEO:6 MUSIC		

The Use Last Parameter

When the MC-8 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 MC-8 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 MC-8 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 MC-8 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 MC-8 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 MC-12 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 MC-8 deactivates the selected listening mode whenever a 2-channel source is present.

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

The MC-8 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 MC-8 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 MC-8 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 MC-8 activates the listening mode that was activated the last time a Dolby Digital source was present

The MC-8 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 MC-8 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 MC-8 activates the listening mode that was activated the last time a DTS-ES source was present
- The MC-8 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.

MIC

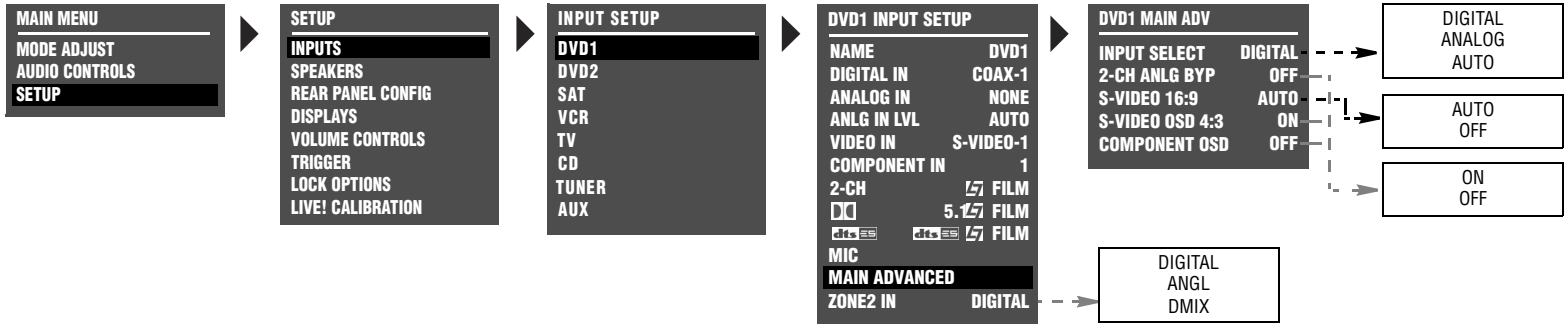
SETUP ▸ INPUTS ▸ DVD1 ▸ MIC

Opens the MIC MODE menu, which is used to select a preferred listening mode for the LIVE! source. The MC-8 automatically activates the preferred listening mode when a LIVE! input is selected.

When the MIC parameter is set to USE LAST:

The MC-8 activates the listening mode (LIVE! SMALL, LIVE! MED or LIVE! LARGE) that was activated the last time a MIC source was present.

CONFIGURING ADVANCED INPUT 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
2-CH ANLG BYP	ON, OFF
S-Video 16:9	AUTO, OFF
S-Video OSD 4:3	ON, OFF
COMPONENT OSD	ON, OFF

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 3-19 describes INPUT SELECT parameter settings.

When the Shift command bank is activated, the remote control 7/5 button is used to adjust the INPUT SELECT parameter by cycling through the DIGITAL, ANALOG and AUTO settings.

Note:

When the INPUT SELECT parameter is set to AUTO, the MC-8 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 MC-8 automatically selects the assigned digital audio input connector.

CONFIGURING ADVANCE INPUT SETTINGS *(continued)*

2-CH ANLG BYP ON, OFF

SETUP ▸ INPUTS ▸ DVD1 ▸ MAIN ADVANCED ▸ 2-CH ANLG BYP

Allows 2-channel analog input sources to bypass A/D conversion and internal processing. When ON, the MC-8 passes analog audio input signals directly to the Main Zone audio output connectors. When a 5.1-channel analog audio source is present, the MC-8 passes only (L) and (R) analog audio input signals to the Main Zone audio output connectors labeled Front L/R. When LIVE! is the selected analog input, the MAIN ADVANCED ▸ INPUT SELECT parameter is forced to ANALOG, and ANALOG BYPASS is disabled. When set to OFF, all analog audio input signals are sent through A/D conversion and internal processing before passing to the Main Zone audio output connectors.

Note:

When the Shift command bank is activated, pressing the 2 CH button toggles the 2-CH ANLG BYP parameter between the ON and OFF settings.

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 MC-8 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 MC-8 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 MC-8 sends the assigned digital audio input connector to the Main Zone audio output connectors. The MC-8 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. • The MC-8 automatically sets the INPUT SELECT parameter to DIGITAL when no analog audio input connector is assigned. • The INPUT SETUP menu DIGITAL IN parameter can be used to assign a digital audio input connector for the selected input.	The MC-8 sends the assigned analog audio input connector to the Main Zone audio output connectors. The MC-8 ignores the digital audio input connector. **Note the following:** • The MC-8 automatically sets the INPUT SELECT parameter to ANALOG when no digital audio input connector is assigned. • The INPUT SETUP menu ANALOG IN parameter can be used to assign an analog audio input connector for the selected input.	The MC-8 toggles between sending the assigned digital and analog audio output 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 MC-8 automatically selects the assigned digital audio input connector. • When an SACD™ source is present, the MC-8 automatically selects the assigned analog audio input connector. **Note the following:** • The MC-8 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 MC-8 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.

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.

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 table on the next page describes ZONE2 IN parameter settings.

Caution!

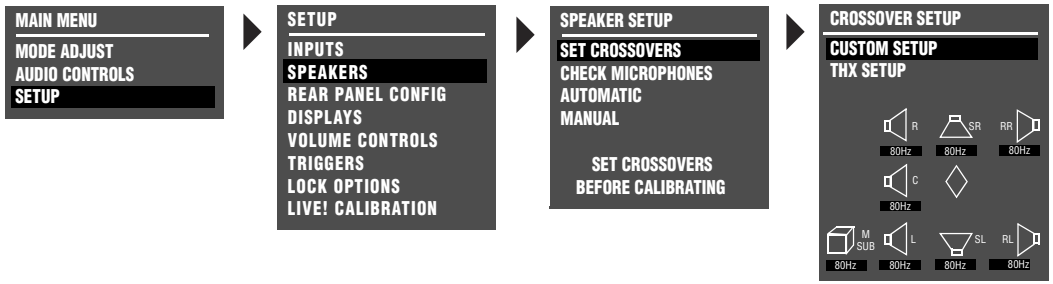
When the ZONE2 IN parameter is set to DIGITAL or ANLG, the MC-8 recognizes some DTS-encoded sources as audio signals (not data signals) and outputs loud digital noise from the Zone 2 audio output connectors.

ZONE2 IN PARAMETER SETTINGS		
DIGITAL	**ANLG (Analog)**	**DMIX (Downmix)**
The MC-8 automatically sets the ZONE2 IN parameter to DIGITAL when the ANALOG IN parameter is set to NONE. • The MC-8 sends the assigned digital audio input connector to the Zone 2 audio output connectors. The MC-8 ignores the assigned analog audio input connector. • Independent zone monitoring is available. • The DIGITAL IN parameter (3-7) can be used to assign a digital audio input connector for the selected input.	The MC-8 automatically sets the ZONE2 IN parameter to ANLG when the DIGITAL IN parameter is set to NONE. • The MC-8 sends the assigned analog audio input connector to the Zone 2 audio output connectors. The MC-8 ignores the assigned digital audio input connector. • Independent zone monitoring is available. • The ANALOG IN parameter (3-8) can be used to assign an analog audio input connector for the selected input.	The MC-8 sends a downmixed version of Main Zone audio to the Zone 2 audio output connectors. Downmixes can be generated for Dolby Digital and DTS(-ES) 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. • Downmixes cannot be generated when the 5.1a BYPASS listening mode is activated in the Main Zone. However, when the ZONE2 IN parameter is set to DMIX, the signals from the Main Zone audio output connectors labeled Front L/R are sent to Zone 2. Signals from other Main Zone audio output connectors are ignored. • Independent zone monitoring is **NOT** available. • 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 (i.e., Tivo® or Replay TV®). • The MC-8 automatically uses LOGIC 7 encoding to downmix multichannel input sources (except 5.1-channel analog sources) to LOGIC 7-encoded stereo output signals for listening and recording. LOGIC 7-encoded downmixes are compatible with matrix decoders, but will sound best when played back through a LOGIC 7 listening mode.

SPEAKER SETUP

SETUP ▶ **SPEAKERS**

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.



SETTING CROSSOVER POINTS

SETUP ▶ **SPEAKERS** ▶ **SET CROSSOVERS**

Selecting the SPEAKER SETUP menu SET CROSSOVERS option opens the CROSSOVER SETUP menu, which configures a custom or THX setup.

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.

CUSTOM SPEAKER SETUPS

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP

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:

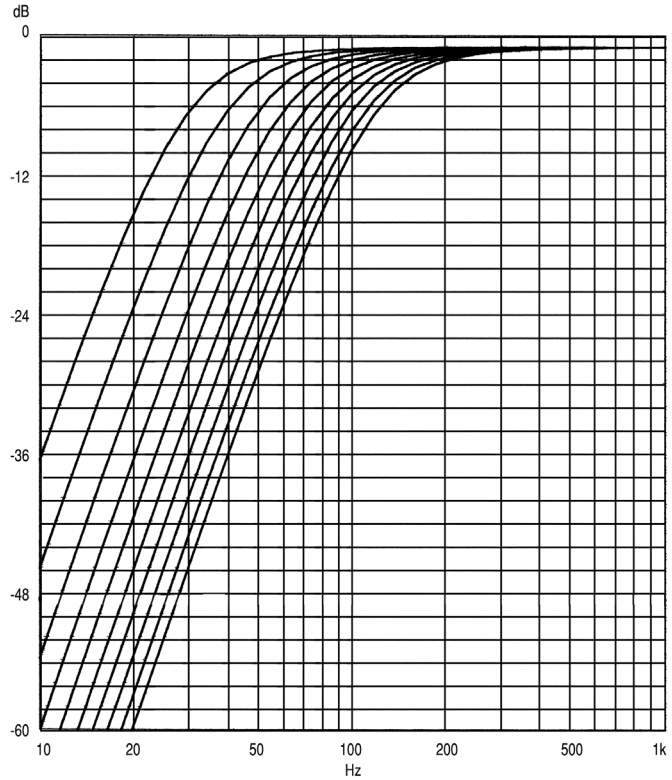
- Select the crossover point closest to the low frequency rating of the associated speakers. For example, set the FRONT L/R parameter to the crossover point closest to the low-frequency rating of the front speakers.
- Select the subwoofer crossover point equal to the lowest crossover point of any of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

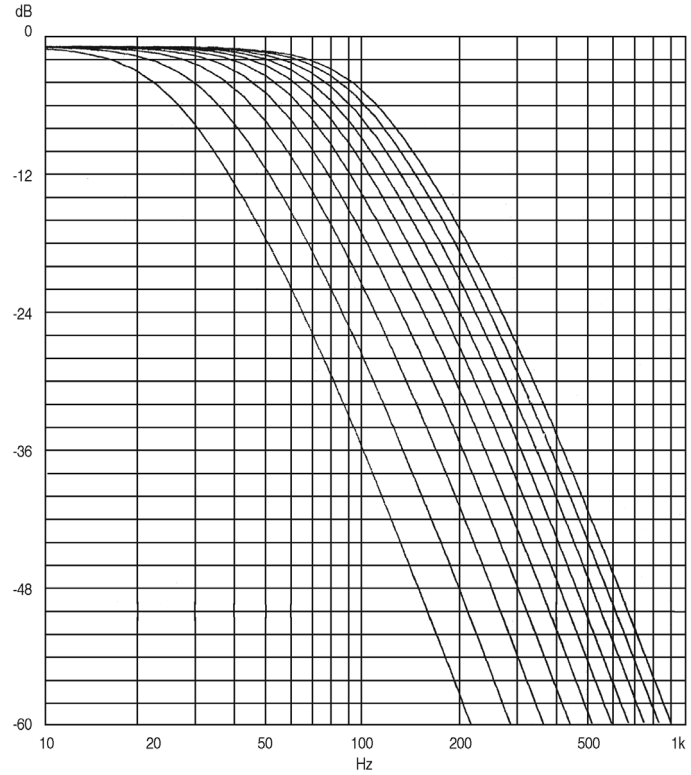
SETTING CROSSOVER POINTS *(continued)*

High-Pass Filter

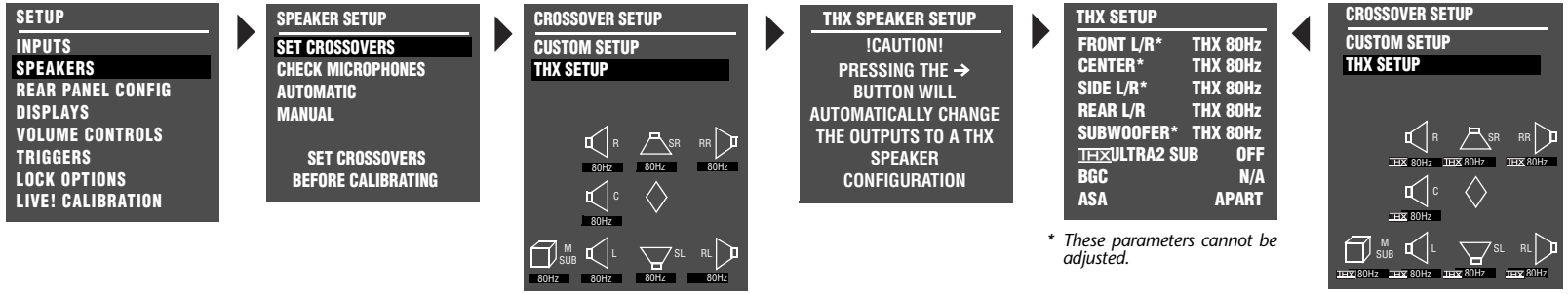


High-pass filters attenuate low frequencies at 24dB per octave. The curves in the graph above indicate the frequency response of each crossover setting. From left to right, the curves represent crossover settings from 30Hz to 120Hz. The graph above does not show the THX 80Hz crossover point, which is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



* *These parameters cannot be adjusted.*

THX SPEAKER SETUPS

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸ ▸

Selecting CROSSOVER SETUP ▸ THX SETUP opens the THX SPEAKER SETUP screen, which indicates that pressing the ▸ arrow button will automatically configure the Main Zone audio output connectors for a THX speaker setup. Use THX-certified speakers in a THX speaker setup.

When the THX SPEAKER SETUP screen opens:

- Press the ▸ arrow button to configure the Main Zone audio output connectors for a THX speaker setup. The THX SETUP menu will open on the in-screen display.
- Press the ◂ arrow button to close the message without configuring the Main Zone audio output connectors for a THX speaker setup.

When a THX speaker setup is selected, the MC-8 applies a THX 80Hz crossover point with a 12dB-per-octave filter to the Front L/R, Center, Side L/R and Rear L/R output connectors. The MC-8 applies a THX 80Hz crossover point with a 24dB-per-octave filter to the Subwoofer output connector.

Notes:

- *A THX speaker setup is not required to activate THX listening modes.*
- *In the THX SETUP menu, only the REAR L/R, THX ULTRA2 SUB, BGC and ASA parameters can be changed.*

SPEAKER SETUP PARAMETERS

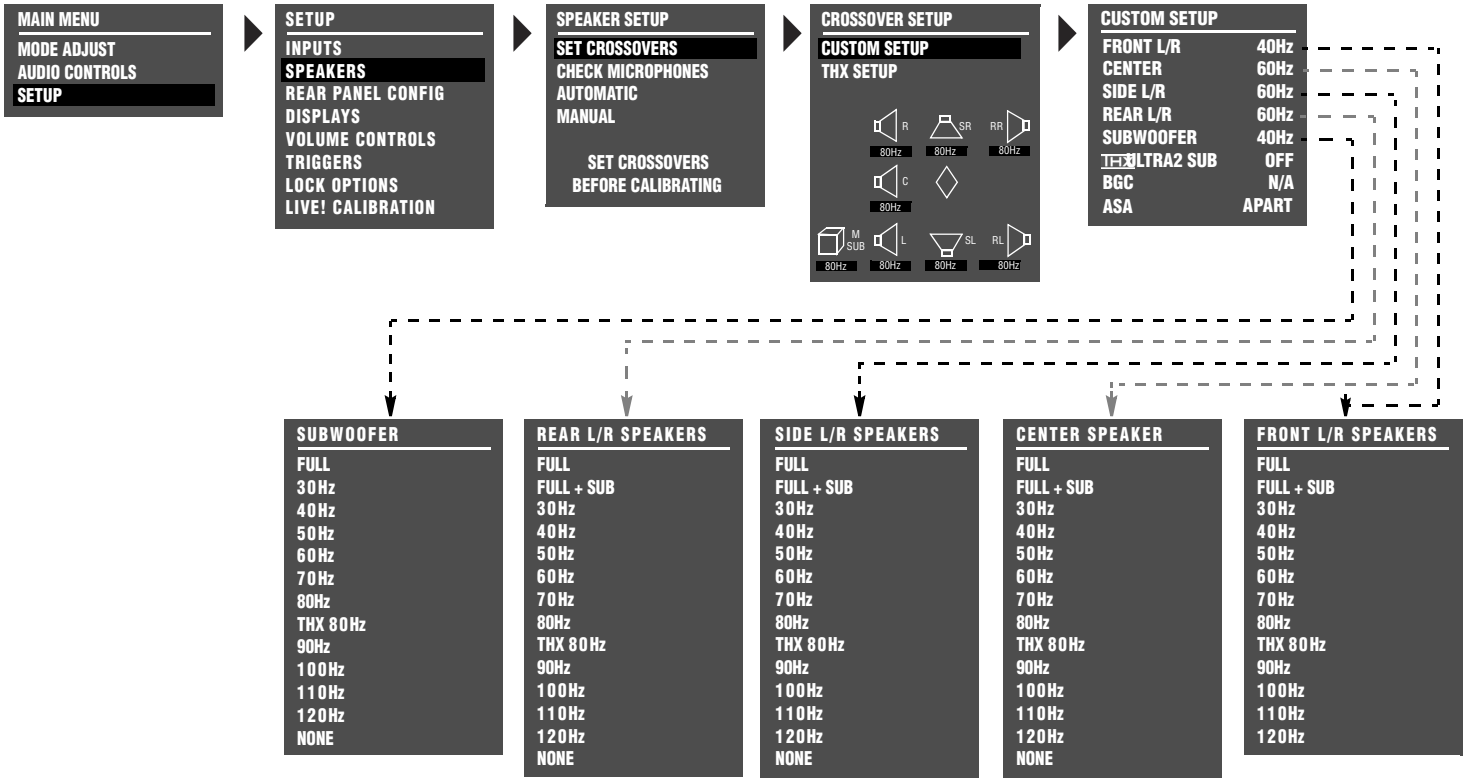
SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ *or* SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸▸

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 on 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*	40Hz	FULL, FULL + SUB, 30 to 120Hz, THX 80Hz	THX 80Hz	THX 80Hz
CENTER*	60Hz	FULL, FULL + SUB, 30 to 120Hz, THX 80Hz, NONE	THX 80Hz	THX 80Hz
SIDE L/R*	60Hz	FULL, FULL + SUB, 30 to 120Hz, THX 80Hz, NONE	THX 80Hz	THX 80Hz
REAR L/R	60Hz	FULL, FULL + SUB, 30 to 120Hz, THX 80Hz, NONE	THX 80Hz	THX 80Hz, NONE
SUBWOOFER*	40Hz	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).


MAIN MENU
MODE ADJUST
AUDIO CONTROLS
SETUP
SETUP
INPUTS
SPEAKERS
REAR PANEL CONFIG
DISPLAYS
VOLUME CONTROLS
TRIGGERS
LOCK OPTIONS
LIVE! CALIBRATION
SPEAKER SETUP
SET CROSSOVERS
CHECK MICROPHONES
AUTOMATIC
MANUAL
SET CROSSOVERS
BEFORE CALIBRATING
CROSSOVER SETUP
CUSTOM SETUP
THX SETUP
R
SR
RR
C
M
SUB
L
SL
RL
80Hz
CUSTOM SETUP
FRONT L/R 40Hz
CENTER 60Hz
SIDE L/R 60Hz
REAR L/R 60Hz
SUBWOOFER 40Hz
THX ULTRA2 SUB OFF
BGC N/A
ASA APART
SUBWOOFER
FULL
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
NONE
REAR L/R SPEAKERS
FULL
FULL + SUB
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
NONE
SIDE L/R SPEAKERS
FULL
FULL + SUB
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
NONE
CENTER SPEAKER
FULL
FULL + SUB
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
NONE
FRONT L/R SPEAKERS
FULL
FULL + SUB
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz

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

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 MC-8 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 a 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 MC-8 redirects surround channel signals to the Front L/R output connectors.

Note:

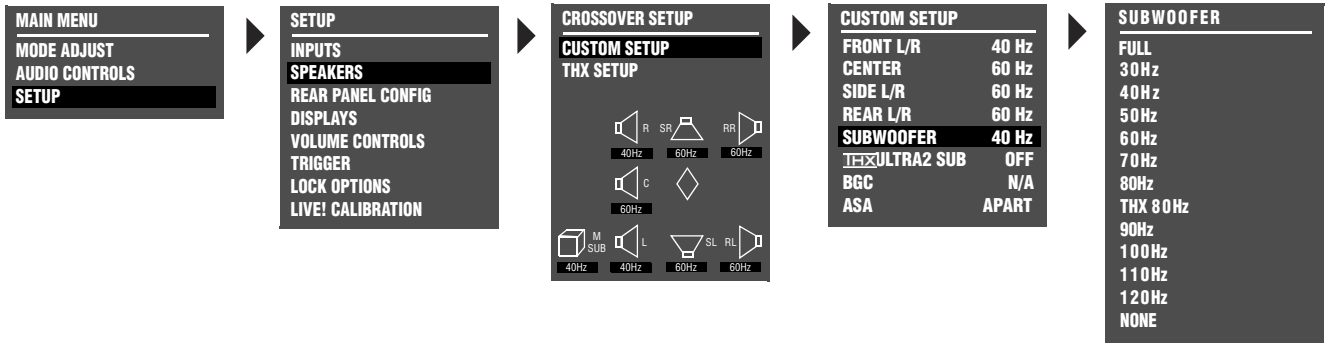
When the REAR L/R parameter is set to NONE, Dolby Digital Surround EX, THX Ultra2, THX Surround EX, PLIIx modes, DTS(-ES) decoding and the ASA parameter are not available.

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸ ▸

When a THX speaker setup is selected, the REAR L/R parameter opens the THX REAR SPEAKERS menu 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**.

SPEAKER SETUP PARAMETERS *(continued)*



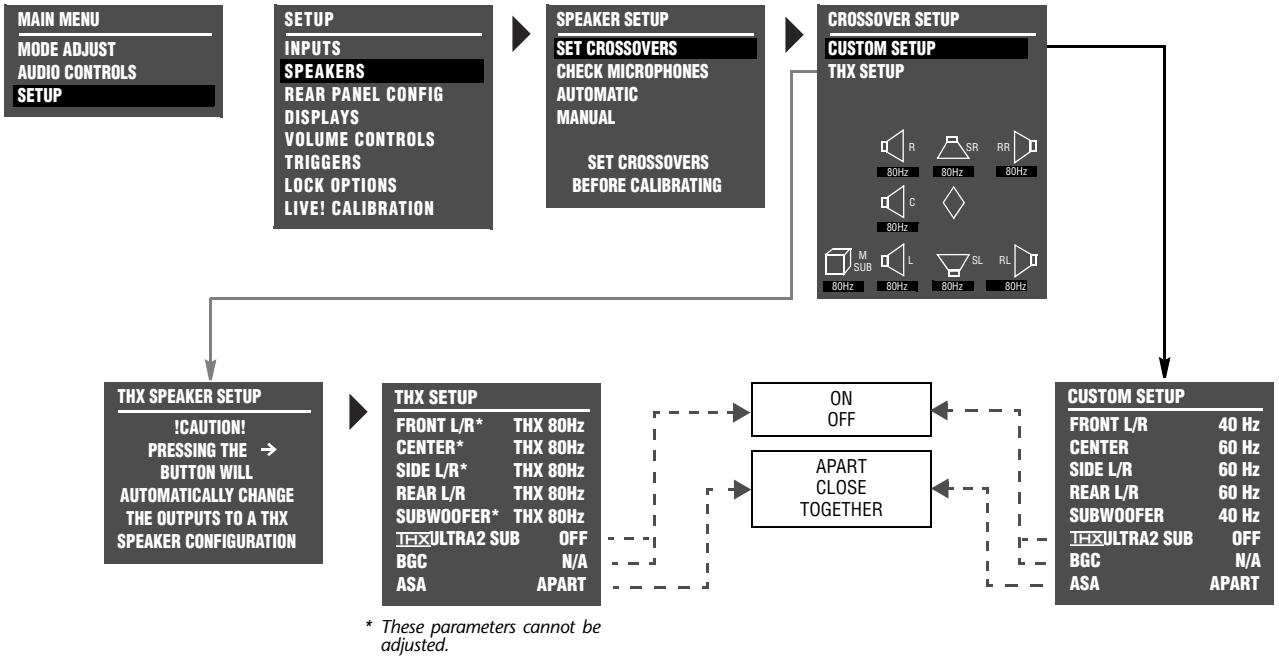
SUBWOOFER FULL, 30 TO 120 Hz, THX 80Hz, NONE

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 MC-8 sends a full-range audio output signal to this connector. Otherwise, the MC-8 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.



* *These parameters cannot be adjusted.*

THX ULTRA2 SUB ON, OFF

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ THX ULTRA2 SUB *or* SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ THX SETUP ▸▸ THX 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).

SPEAKER SETUP PARAMETERS *(continued)*

BGC (BOUNDARY GAIN COMPENSATION) ON, OFF

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ BGC

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ 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 ▸ SET CROSSOVERS ▸ CUSTOM SETUP ▸ ASA

SETUP ▸ SPEAKERS ▸ SET CROSSOVERS ▸ 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 MC-8 automatically switches between the 5.1 THX ULTRA2 and 5.1 THX or DTS THX ULTRA2 and DTS THX listening modes.*

CALIBRATING SPEAKER DISTANCES and OUTPUT LEVELS

The MC-8 offers both automatic and manual calibration of speaker distances and output levels. Calibration helps to ensure accurate output signal arrival time and level at the primary listening position. However, it is not a substitute for proper speaker placement.

Before calibrating speaker distances and output levels:

- Set crossover points for the Main Zone audio output connectors. Setting crossover points afterwards could invalidate calibrated output levels. (The CUSTOM or THX SETUP menu can be used to set crossover points.)
- Eliminate extraneous noise in the listening space, including conversation, air conditioners and sounds that filter in through open doors and windows.
- Move or remove objects – in addition to people – blocking the line of sight path between the microphones or SPL meter and the speakers.

Note:

If Power is lost during automatic calibration of speaker levels or speaker distances, recalibration of speaker levels and speaker distances is required.

SPEAKER CALIBRATION PARAMETERS

The table on the next page indicates the speaker calibration parameters that can be used to set speaker distances and output levels for the speakers connected to the corresponding Main Zone audio output connectors. These parameters are available on the speaker distance and output level menus shown throughout this section. All parameters perform the same function, whether automatic or manual calibration is selected.

SPEAKER DISTANCE PARAMETERS +0.0 to 30.0 ft or 12.0m

Determine the distance between the primary listening position and the speaker connected to the corresponding Main Zone audio output connector.

OUTPUT LEVEL PARAMETERS –18.0db to +12.0dB

Determine the output level of signals sent to the speaker connected to the corresponding Main Zone audio output connector.

UNITS

FEET, METERS

SETUP ▸ SPEAKERS ▸ MANUAL ▸ SPEAKER DISTANCES ▸ UNITS

Determines the unit of measurement in which speaker distances are calculated on ALL speaker distance menus. When FEET is selected, the MC-8 calculates speaker distances in feet. When METERS is selected, the MC-8 calculates speaker distances in meters. When the UNITS parameter setting is adjusted, the MC-8 automatically adjusts speaker distances to the closest available value in the selected unit of measurement.

	Speaker Distance Settings		Output Level Settings	
Parameter	**Default Setting**	**Possible Setting**	**Default Setting**	**Possible Setting**
FRONT LEFT	+0.0 ft	+0.0 to 30.0 ft or 12.0m	+0.0dB	–18.0 to +12.0dB
CENTER	+0.0 ft	+0.0 to 30.0 ft or 12.0m	+0.0dB	–18.0 to +12.0dB
FRONT RIGHT	+0.0 ft	+0.0 to 30.0 ft or 12.0m	+0.0dB	–18.0 to +12.0dB
SIDE RIGHT	+0.0 ft	+0.0 to 30.0 ft or 12.0m	+0.0dB	–18.0 to +12.0dB
REAR RIGHT	+0.0 ft	+0.0 to 30.0 ft or 12.0m	+0.0dB	–18.0 to +12.0dB
REAR LEFT	+0.0 ft	+0.0 to 30.0 ft or 12.0m	+0.0dB	–18.0 to +12.0dB
SIDE LEFT	+0.0 ft	+0.0 to 30.0 ft or 12.0m	+0.0dB	–18.0 to +12.0dB
SUBWOOFER	+0.0 ft	+0.0 to 30.0 ft or 12.0m	+0.0dB	–18.0 to +12.0dB
UNITS	FEET	FEET, METERS		

When a speaker is not included in the speaker setup, the corresponding speaker distance or output level parameter is not available (N/A).

AUTOMATIC CALIBRATION

The MC-8 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 MC-8 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

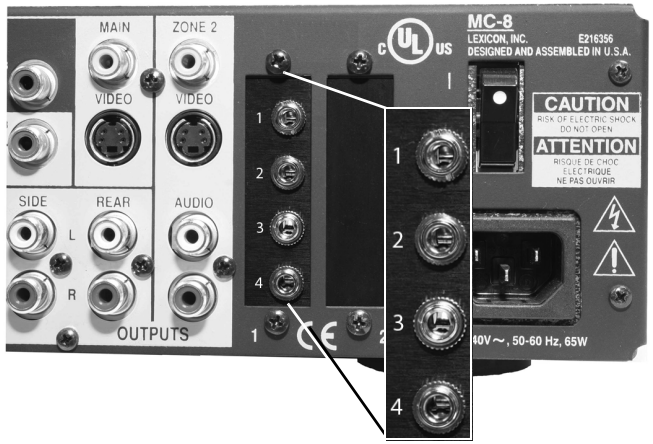
CAUTION!

- **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 MC-8 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. A separate kit includes a microphone board assembly which is installed in one of the available card slots.
- 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.

MC-8 rear panel with optional microphone board location



1. Make sure the MC-8 is powered off OR in standby mode.
2. Connect the microphones included in the Lexicon Microphone Kit to the microphone input connectors on the MC-8 rear panel, as shown above. 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, 2, 3 and 4, based on the input connector to which the microphone is connected. You should label the microphones for troubleshooting purposes.
3. Power on the MC-8 or deactivate standby mode.

POSITIONING THE MICROPHONES FOR THE MICROPHONE CHECK

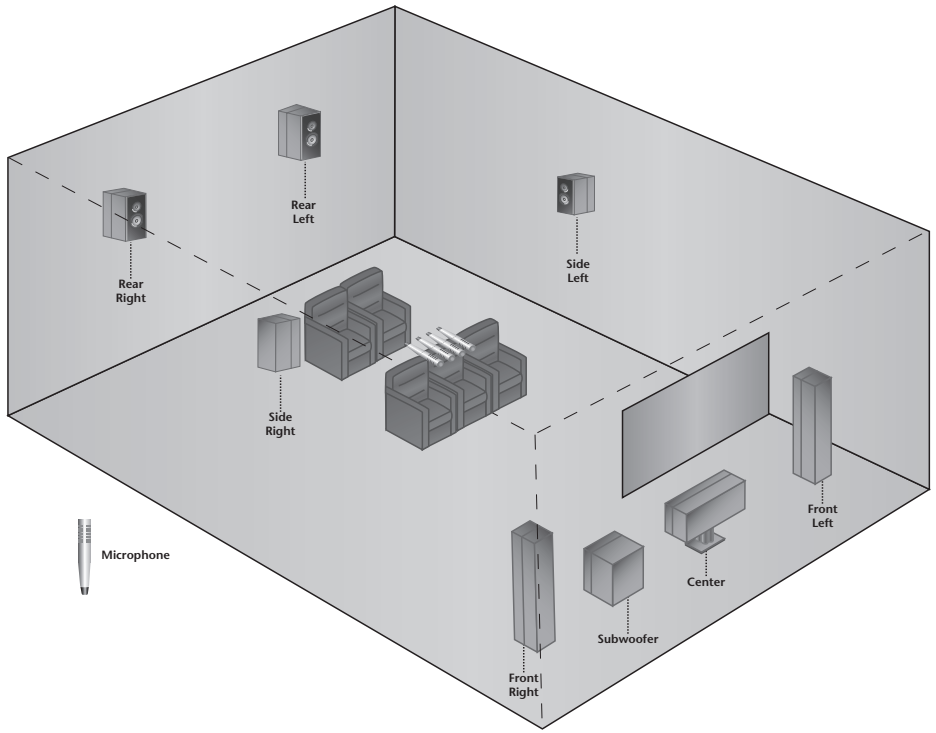
Refer to the microphone placement examples that begin below to position the microphones for the microphone check.

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.

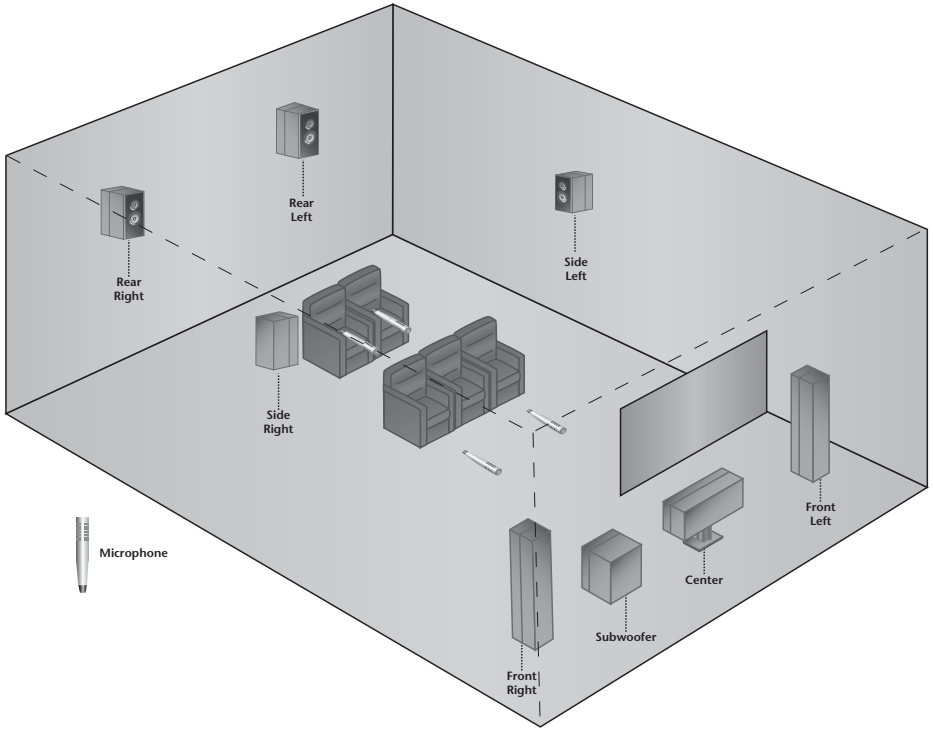


IMPROPER *microphone positioning for the microphone check*

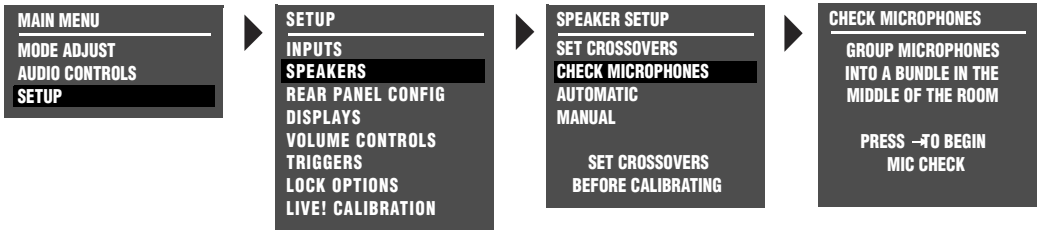
During the microphone check, DO NOT:

- ✗ 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

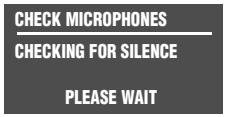


Note the following:

- The MC-8 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 MC-8 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.

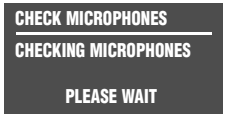
1. Select the SPEAKER SETUP menu CHECK MICROPHONES option, as shown above.
2. The first CHECK MICROPHONES screen opens in the on-screen display, indicating the importance of proper microphone placement to achieve accurate automatic calibration results.
3. Press the ▸ arrow button to begin the microphone 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 MC-8 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 MC-8 calculates an average level for all microphones.

CHECKING MICROPHONES



Appears in the on-screen display while the MC-8 confirms the microphone level calculated during the silence check. To do this, the MC-8 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

CHECKING THE MICROPHONES (continued)

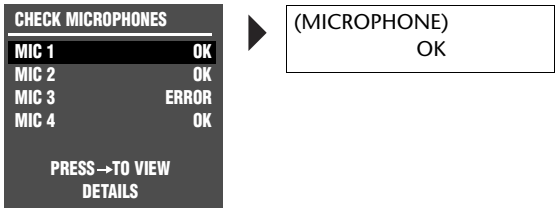
level. If the signal becomes too loud, press the ◀ arrow button to cancel the microphone check.

The MC-8 uses the calibration noise signal to eliminate microphones that register the signal at a level that is too low or too high. Then, the MC-8 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 MC-8 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 MC-8 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 MC-8 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 or four microphones are available. If using the four microphone kit, perform automatic calibration with four microphones that have passed the microphone check. If using the two microphone kit, perform automatic calibration with two microphones that have passed the microphone check.

  However, the MC-8 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.

Message	Description	Troubleshooting
(MICROPHONE) OK	The microphone detected the calibration noise signal without error.	• N/A
(MICROPHONE) NOT DETECTED	The MC-8 did not detect the microphone during the silence check.	• Examine microphone input connections to ensure that the microphones are properly connected to the MC-8 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 MC-8 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 MC-8 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 MC-8 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 MC-8 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.

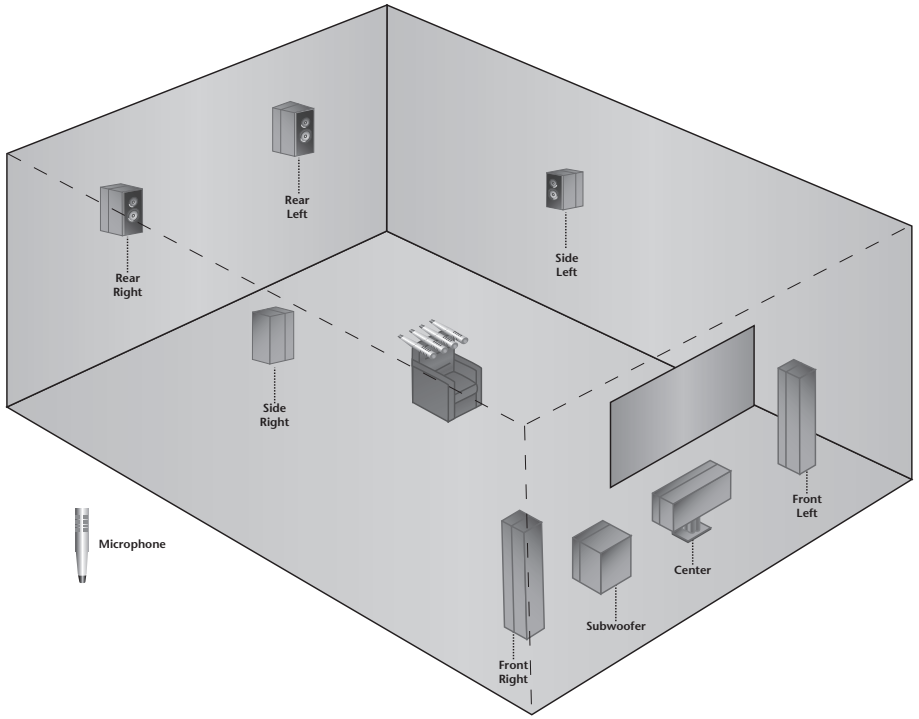
POSITIONING THE MICROPHONES FOR AUTOMATIC CALIBRATION *(continued)*

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 MC-8 to calibrate optimal speaker distances and output levels for that position.

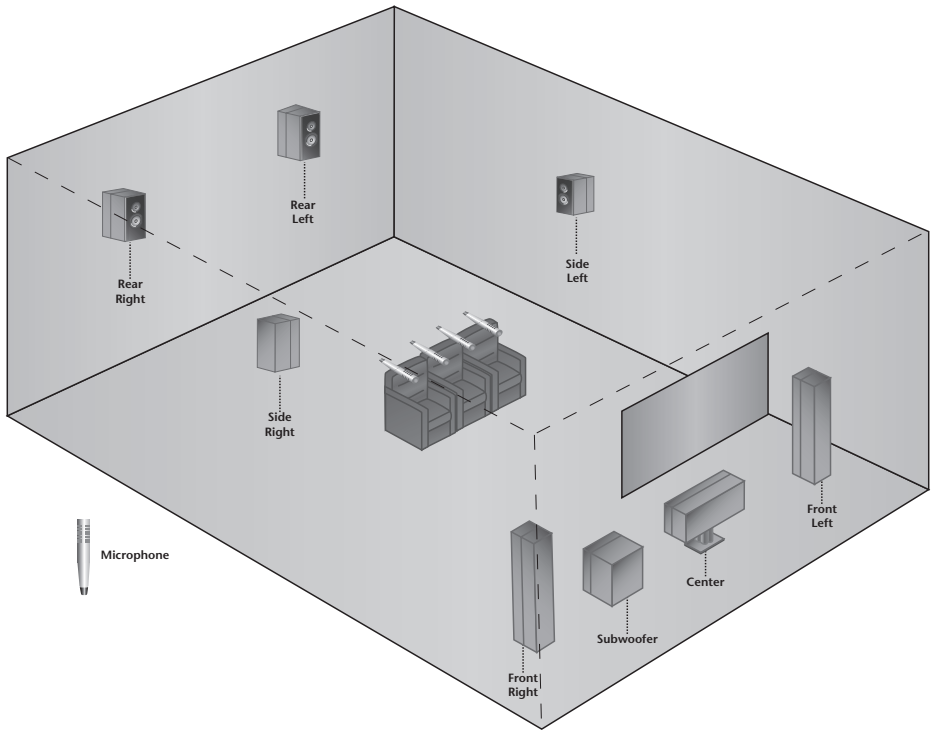


PROPER *microphone placement to achieve the best results for multiple listening positions in a single row*

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 MC-8 to calibrate optimal speaker distances and output levels for that row at the expense of a single listening position.



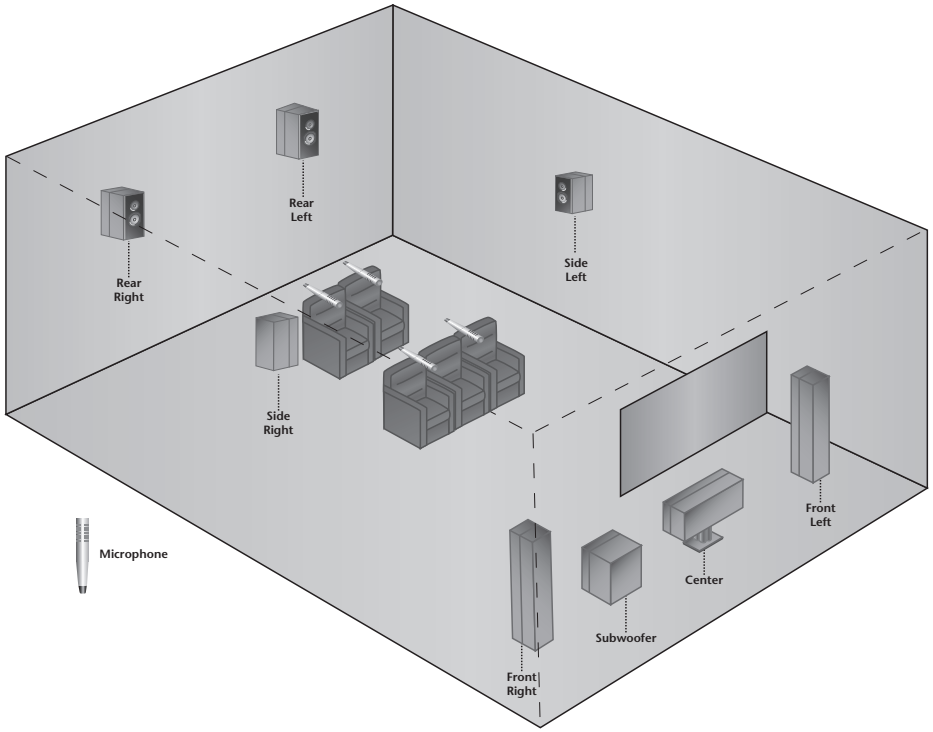
POSITIONING THE MICROPHONES FOR AUTOMATIC CALIBRATION *(continued)*

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 MC-8 to calibrate optimal speaker distances and output levels for a larger listening area at the expense of a single listening position.

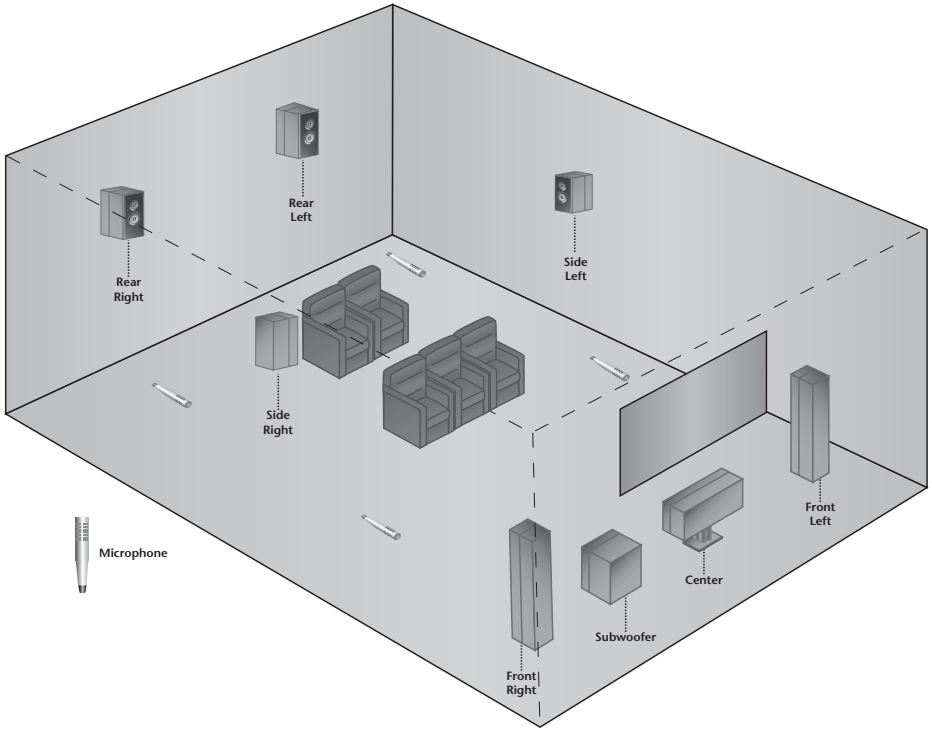


IMPROPER *microphone positioning for automatic calibration*

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 MC-8 to calibrate optimal speaker distances and output levels for the actual listening positions.



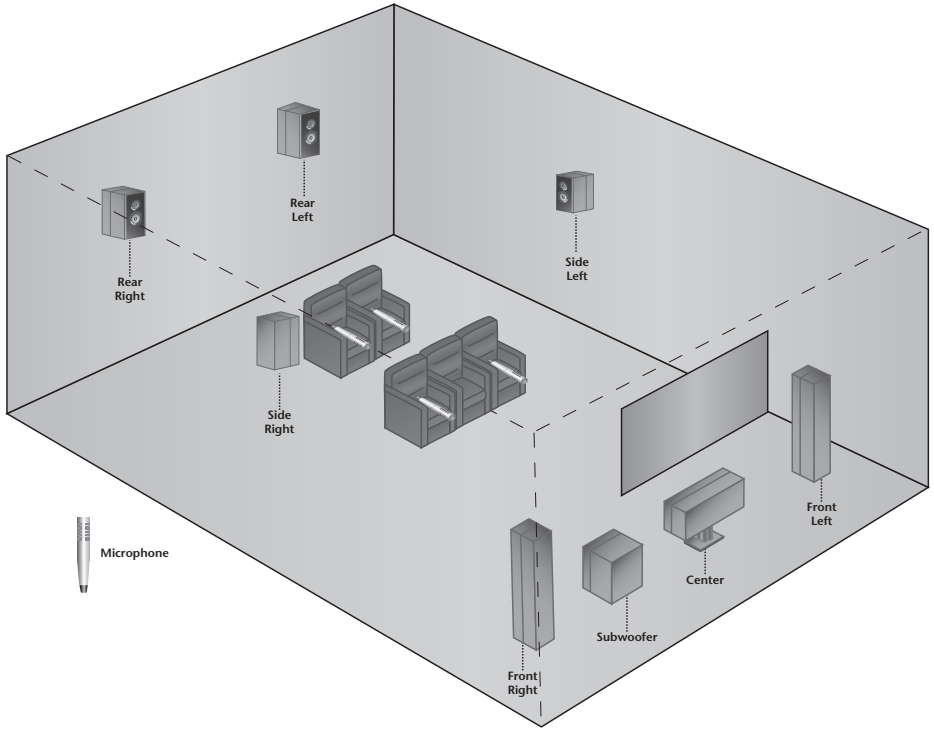
POSITIONING THE MICROPHONES FOR AUTOMATIC CALIBRATION *(continued)*

IMPROPER *microphone positioning for automatic calibration*

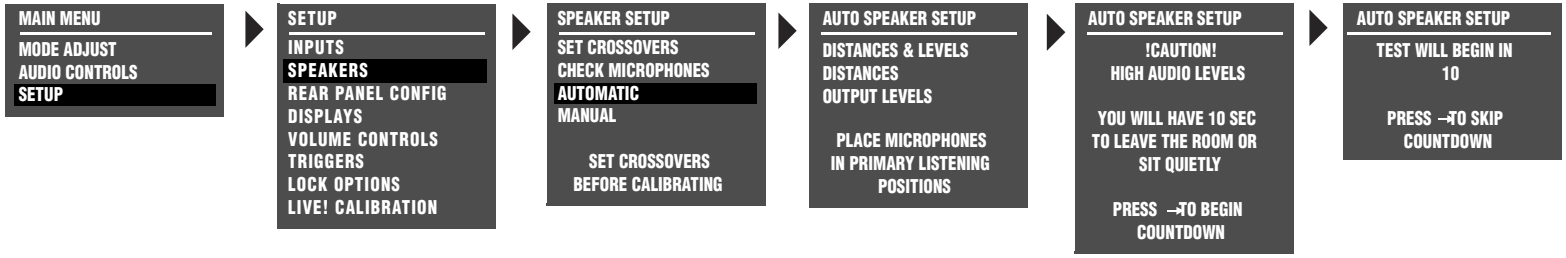
During the automatic calibration, do not:

- ✗ Arrange the microphones along the perimeter of the listening positions or space
- ✗ Position the microphones 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

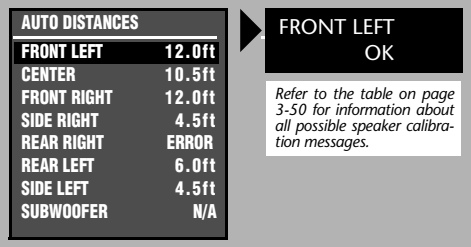
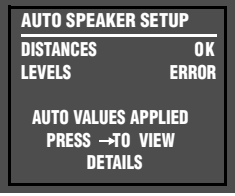
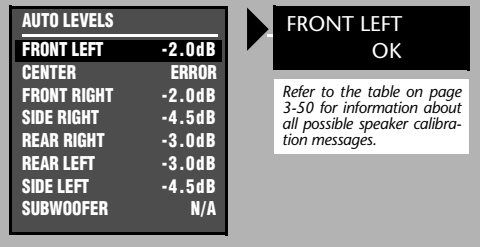


Follow the procedures in the appropriate table column for the desired type of automatic calibration.

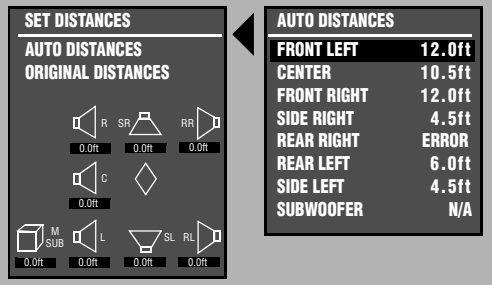
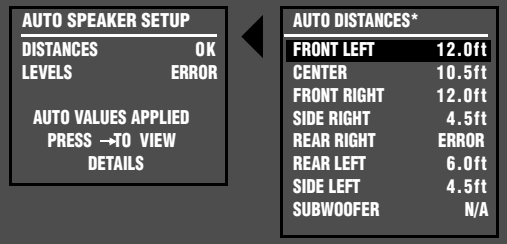
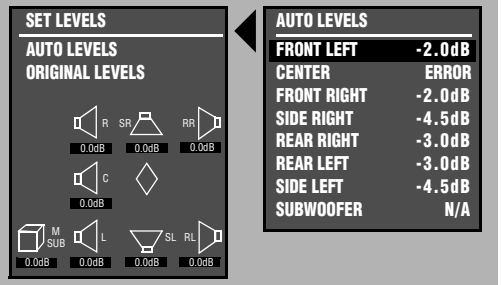
STEP	DISTANCES	DISTANCES & LEVELS	LEVELS
1	**Select the SPEAKER SETUP menu AUTOMATIC option, as shown in the menu illustration above.** • If a microphone check is successful, the AUTO SPEAKER SETUP menu appears in the on-screen display. Press the ▲ or ▼ arrow button to highlight the automatic calibration 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 MC-8 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 MC-8 automatically activates automatic calibration when the countdown ends.		

PERFORMING AUTOMATIC CALIBRATION *(continued)*

STEP	DISTANCES	DISTANCES & LEVELS	LEVELS
3	**The SETTING DISTANCES menu is displayed when the MC-8 calibrates speaker distances.** • During speaker distance calibration, the MC-8 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 MC-8 calculates a distance for the corresponding speaker. As it finishes each parameter, the MC-8 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 MC-8 does not send calibration noise signals to the Subwoofer connector during speaker distance calibration. Instead, the MC-8 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 3-53.		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 MC-8 calibrates output levels.** • During speaker levels calibration, the MC-8 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 MC-8 calculates an output level for the corresponding speaker. As it finishes each parameter, the MC-8 enters the calibrated value or an ERROR message to the right of the parameter label.	

STEP	DISTANCES	DISTANCES & LEVELS	LEVELS
5	 *Refer to the table on page 3-50 for information about all possible speaker calibration messages.* **When the MC-8 is finished calibrating speaker distances, the AUTO DISTANCES screen is displayed, indicating the results for each individual speaker.** • 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 3-50 for information about all possible speaker calibration messages.	 **When the MC-8 is finished calibrating speaker distances and output levels, 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.	 *Refer to the table on page 3-50 for information about all possible speaker calibration messages.* **When the MC-8 is finished calibrating output levels, the AUTO LEVELS screen is displayed, indicating the results for each individual speaker.** • 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 3-50 for information about all possible speaker calibration messages.

PERFORMING AUTOMATIC CALIBRATION *(continued)*

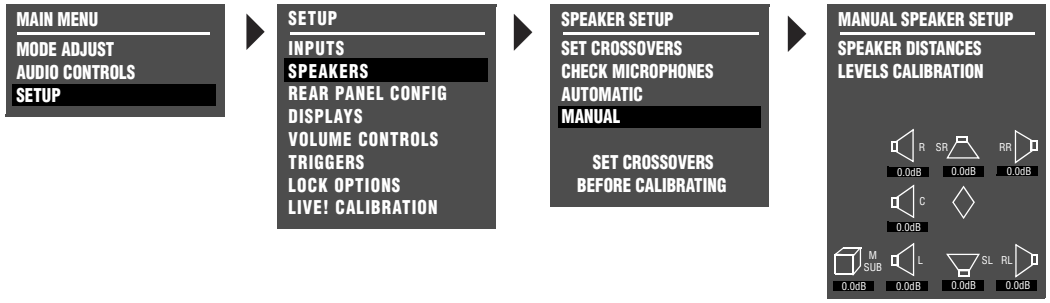
STEP	DISTANCES	DISTANCES & LEVELS	LEVELS
6			
	Use the SET DISTANCES menu to select the desired speaker distances. 1 Press the ◂ arrow button to return to the SET DISTANCES menu. 2 Press the ▴ or ▾ arrow button to toggle between calibrated speaker distances (AUTO) and original speaker distances. The 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.	**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.

Message	Description	Troubleshooting
(SPEAKER) OK	The MC-8 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 MC-8 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 MC-8 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 MC-8 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 MC-8 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 MC-8 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.

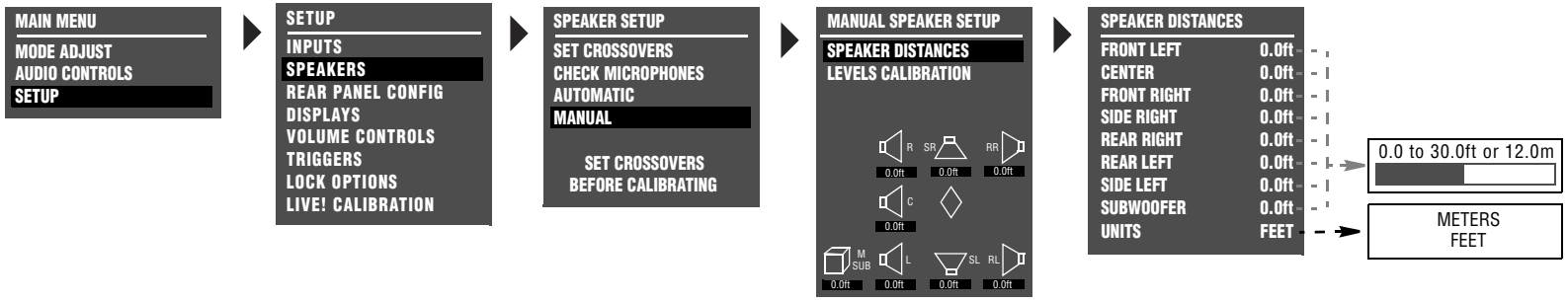


Manual Options	Details
SPEAKER DISTANCES	• Provides manual calibration and individual adjustment of speaker distances.
INTERNAL NOISE TEST	• Provides manual calibration and individual adjustment of output levels. • Automatically sends an internal calibration noise signal to each Main Zone audio output 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:

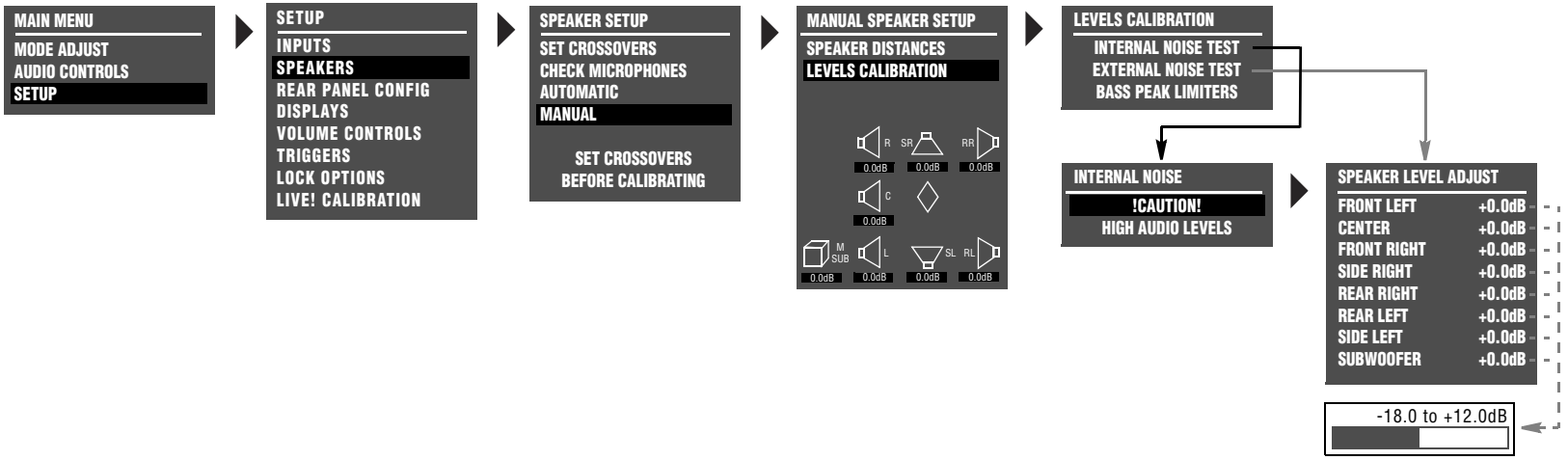
1. Follow the menu path shown above to select MANUAL SPEAKER SETUP ▸ SPEAKER DISTANCES. The SPEAKER DISTANCES menu shown above will open in the on-screen display.
2. Press the ▲ or ▼ arrow buttons to highlight the desired speaker distance parameter. Then, press the ▸ arrow button to select the highlighted 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 MC-8 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 MC-8 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 MC-8 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 MC-8 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 3-54, 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 MC-8 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	DOLBY DIGITAL**
DTS(-ES)	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 5-4 for more information.*

Note:

When the external noise test begins, the MC-8 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:

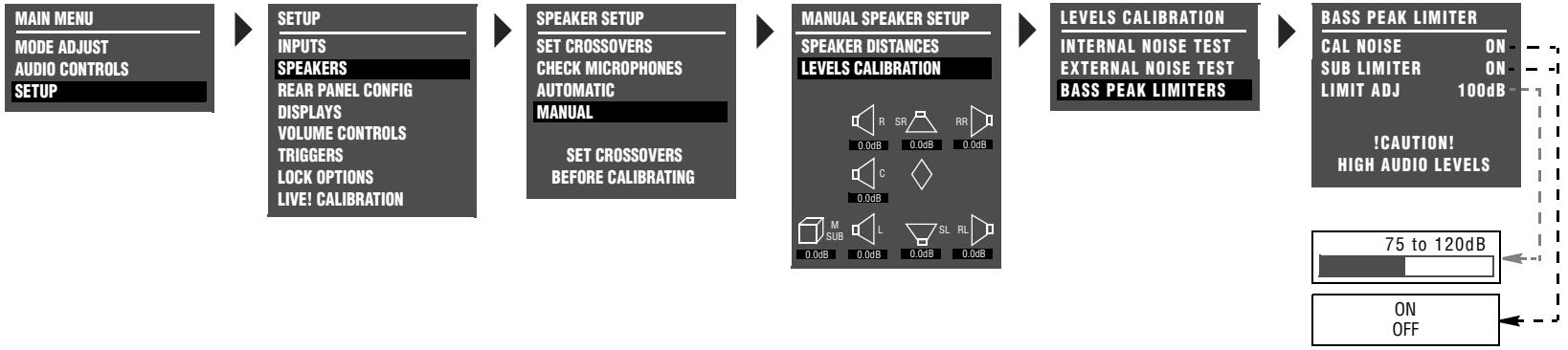
1. Set the SPL meter to "C" weighting and "SLOW" response.
2. Place the SPL meter at the primary listening position.
3. Press the ▲ or ▼ arrow button to highlight the output level parameter you want. Then press the ▸ button to select this output level parameter.

   The horizontal bar graph shown on page 3-54 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 MC-8 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
SUB 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.

SETTING BASS PEAK LIMITERS *(contined)*

SUB LIMITER ON, OFF

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

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

To set the SUB 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.

REAR-PANEL CONFIGURATION

SETUP ▶ REAR PANEL CONFIG

The REAR PANEL 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 ▶ REAR PANEL CONFIG ▶ 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 connector is 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. & 5.1 ANLG

SETUP ▸ REAR PANEL CONFIG ▸ 5 ST. & 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 ▸ REAR PANEL CONFIG ▸ 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.

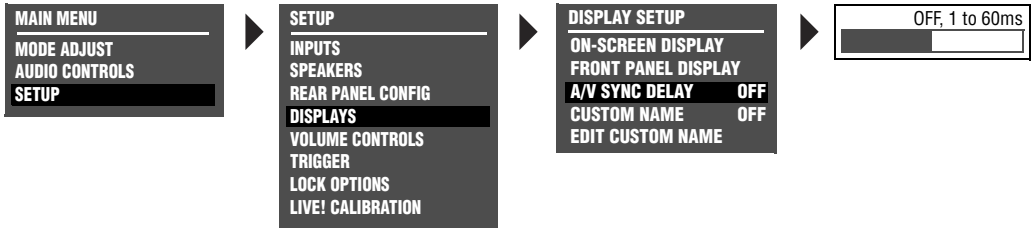
The 5.1-channel analog audio input connectors are sent to the Main Zone analog audio output connectors, as shown in the table below.

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

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.

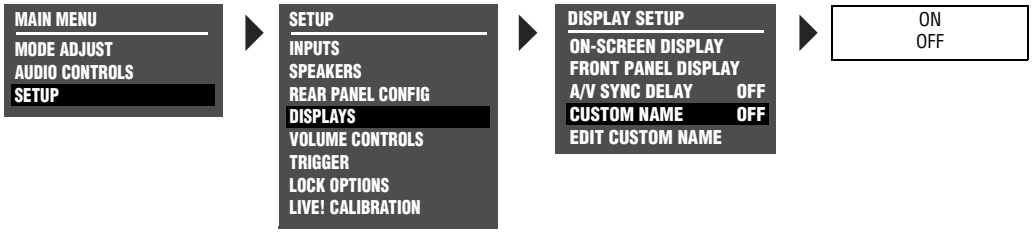


Parameter	Default Setting	Possible Setting
ON-SCREEN DISPLAY	Refer to page 3-63	
FRONT PANEL DISPLAY	Refer to page 3-65	
A/V SYNC DELAY	OFF	OFF, 1 to 60ms
CUSTOM NAME	OFF	ON, OFF
EDIT CUSTOM NAME	N/A	N/A

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 MC-8 is activated. When set to ON, the custom name scrolls across the on-screen and front-panel displays when the MC-8 is activated. When set to OFF, the custom name does not appear when the MC-8 is activated. The custom name can be entered in the DISPLAY SETUP menu EDIT CUSTOM NAME menu.

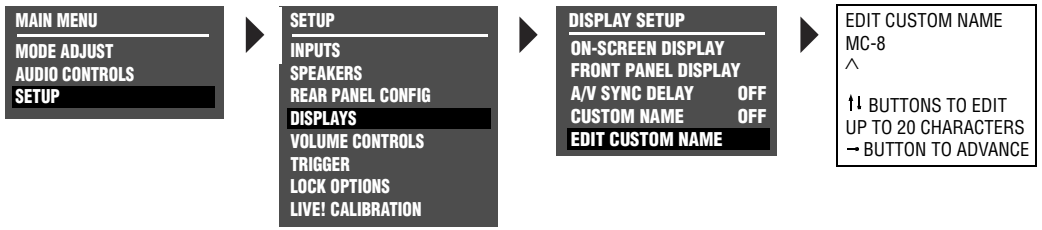
EDIT CUSTOM NAME

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 MC-8 is activated.

To customize the name of the MC-8:

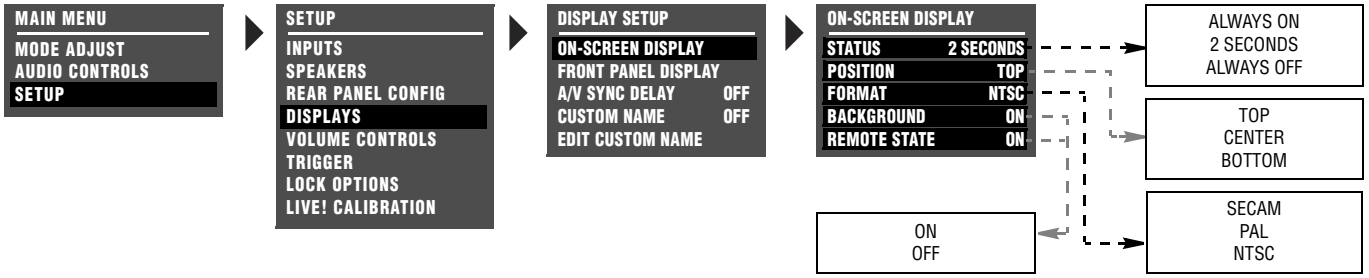
1. Follow the EDIT CUSTOM NAME menu path to open the EDIT CUSTOM NAME drop-down menu shown below.
2. When the EDIT CUSTOM NAME drop-down menu opens, press the remote control ▲ and ▼ arrow buttons to change the character above the cursor (^).
3. When the desired character has been selected, press the ▸ 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.



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
REMOTE STATE	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 MC-8 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. Press the remote control OSD button or 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 2-19 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.

REMOTE STATE ON, OFF

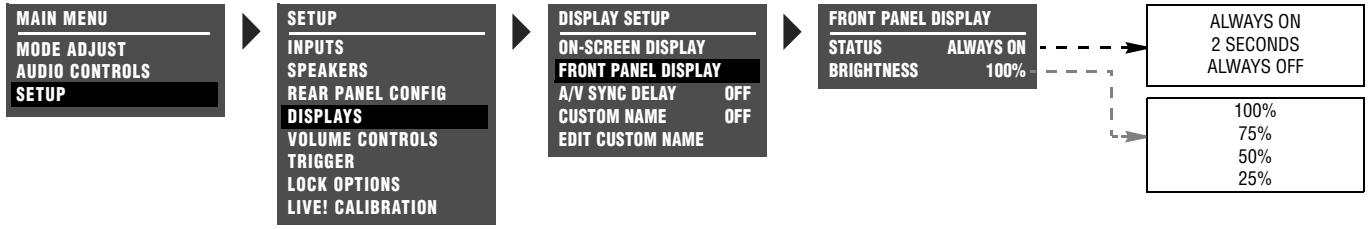
SETUP ▸ DISPLAYS ▸ ON-SCREEN DISPLAY ▸ REMOTE STATE

Controls the remote control command bank indicator that appears in the on-screen display. When set to ON, a command bank indicator appears in the top-right corner of the on-screen display to indicate the last command bank from which the MC-8 received a command. When set to OFF, no command bank indicator appears in the on-screen display.

A “Z” appears when a command from the Zone 2 command bank was received last. An “S” appears when a command from the Shift command bank was received last. No letter appears when a command from the Main Zone command bank was received last.

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 MC-8 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. Press the remote control FP button or use the on-screen display as a guide to reset the parameter to ALWAYS ON or 2 SECONDS.

BRIGHTNESS

100%,75%, 50%, 25%

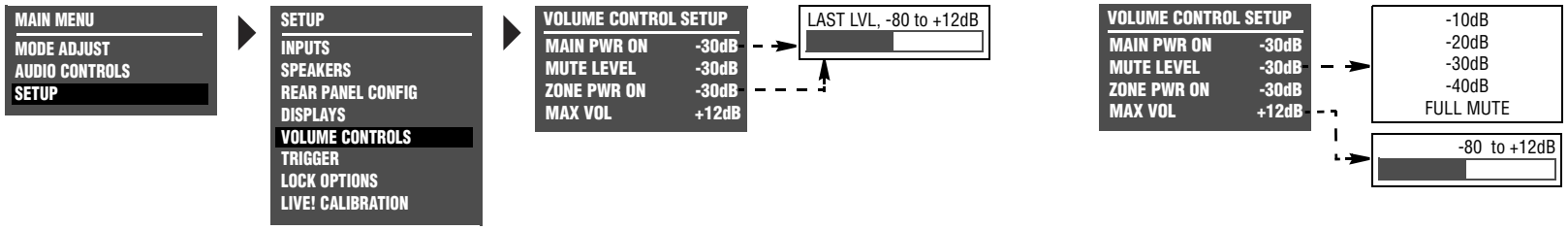
SETUP ▶ DISPLAYS ▶ FRONT PANEL DISPLAY ▶ **BRIGHTNESS**

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

VOLUME CONTROL SETUP

SETUP ▶ VOLUME CONTROLS

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



Parameter	Default Setting	Possible Settings
MAIN PWR ON	–30dB	LAST LVL, –80 to +12dB
MUTE LEVEL	–30dB	FULL, –40dB, –30dB, –20dB, –10dB
ZONE PWR ON	–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*FULL MUTE, –40dB, –30dB, –20dB, –10dB

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.

*ZONE 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.

MAX VOLUME–80 to +12dB

SETUP ▶ VOLUME CONTROLS ▶ MAX VOLUME

Limits the volume to the MAX VOLUME parameter value if you attempt to adjust the volume above that level.

TRIGGER SETUP

SETUP ▶ TRIGGER

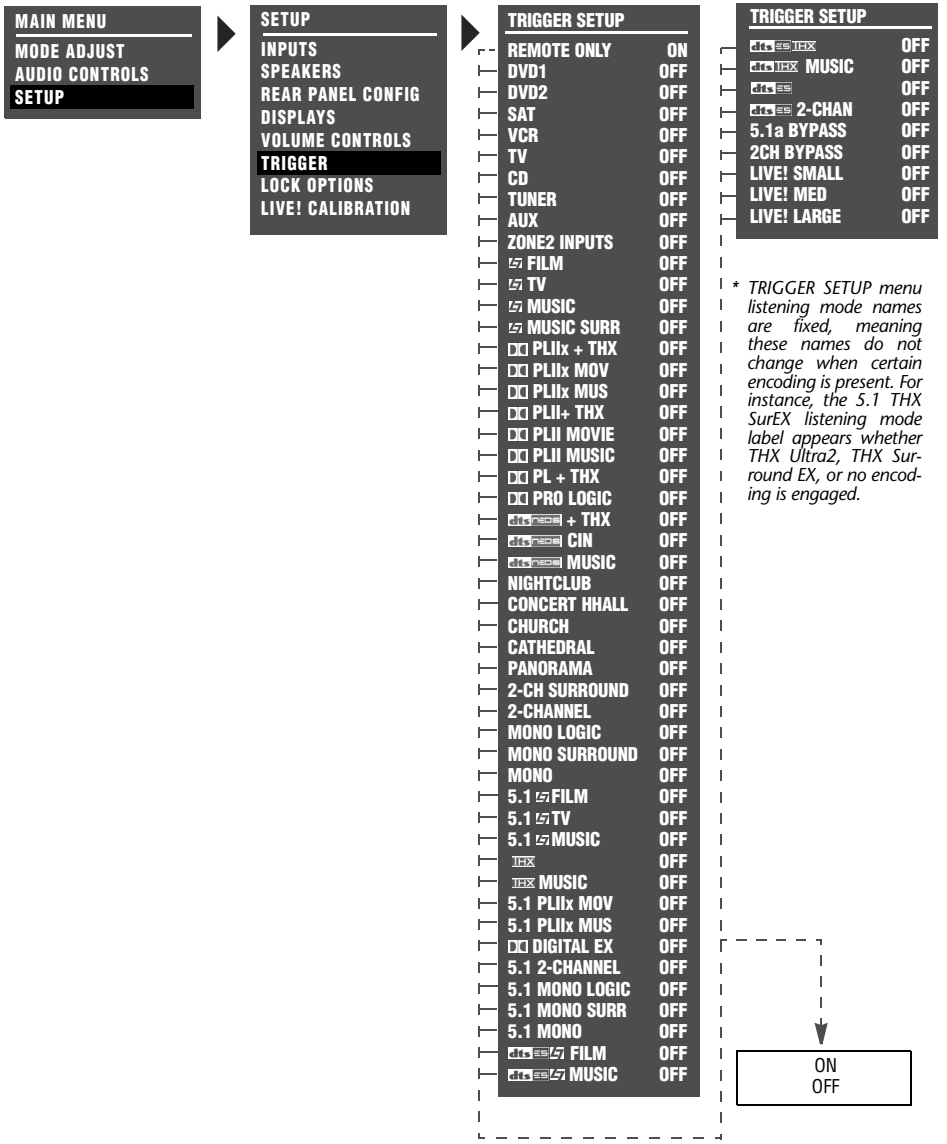
Selecting the SETUP menu TRIGGER option opens the TRIGGER SETUP menu shown to the right, which can be used to configure the trigger output connector labeled 1. The MC-8 rear panel houses two 12V DC trigger output connectors. The connector labeled PWR – the power trigger output connector – is not configurable. It is activated when the MC-8 is activated, and deactivated when the MC-8 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. When the Shift command bank is activated, it can be activated and deactivated with the remote control Blue and OSD buttons. The MC-8 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

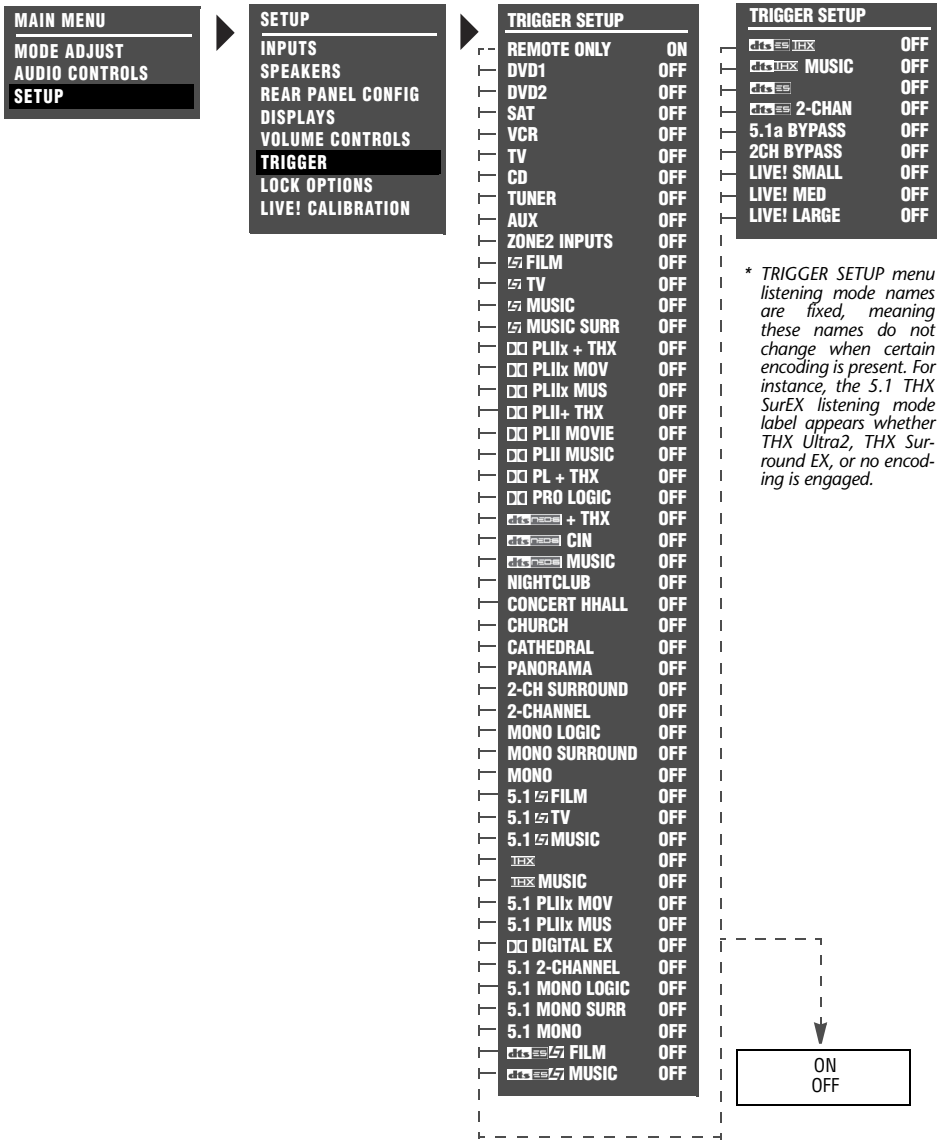
SETUP ▶ **TRIGGER** ▶ **(PROGRAM OPERATION PARAMETER)**

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.

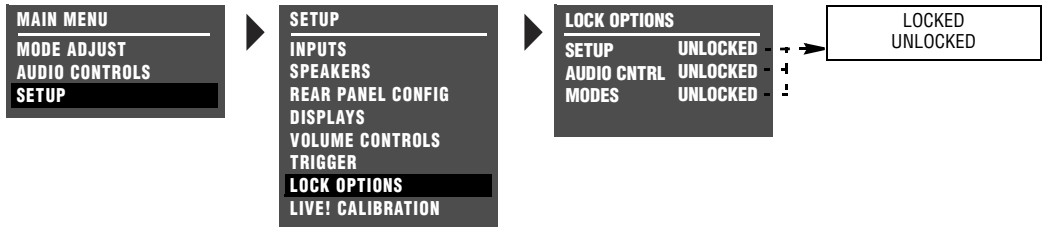


** TRIGGER SETUP menu listening mode names are fixed, meaning these names do not change when certain encoding is present. For instance, the 5.1 THX SurEX listening mode label appears whether THX Ultra2, THX Surround EX, or no encoding is engaged.*

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
SETUP	UNLOCKED	LOCKED, UNLOCKED
MODES	UNLOCKED	LOCKED, UNLOCKED
AUDIO CNTRL	UNLOCKED	LOCKED, UNLOCKED

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.

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.

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.

LIVE! CALIBRATION

SETUP ▶ LIVE! CALIBRATION

LIVE! (Lexicon Intelligent Variable Environment) is a proprietary mode designed to transform the way your listening room sounds. LIVE! uses a combination of microphones and digital signal processing (DSP) to enhance the room acoustics and create the illusion of a larger, more reverberant listening space. LIVE! CALIBRATION must be completed before using any of the LIVE! modes.

Notes:

You should run automatic calibration before running LIVE! CALIBRATION. See page 3-35 for instructions on running an automatic calibration. Any changes to the LEVELS CALIBRATION or CROSSOVER SETUP in the SPEAKER SETUP menu will cause LIVE! to become uncalibrated.

If power is lost during calibration of LIVE!, previous settings may be lost and recalibration of speaker levels and distances, as well as LIVE! is required.

The Bass, Treble, Tilt EQ and Loudness controls do not function when LIVE! is running. While LIVE! is active, the BASS, TREBLE, and TILT EQ parameters are shown in the AUDIO CONTROLS menu as set to 0. The LOUDNESS parameter is shown as set to OFF.

LIVE! requires two microphones, available in a kit from your authorized Lexicon dealer. (If you own the Lexicon four-microphone kit, there is no need to purchase the two-microphone kit. The microphones should be permanently mounted in the listening room. Performing LIVE! CALIBRATION with microphones other than those in the kit can produce undesirable results.

LIVE! requires that a minimum of four speakers (Front L/R, and either side L/R or Rear L/R) be set up and connected to the amplifier. If no subwoofer is present, the crossover setting of the Front L/R speakers should be set to FULL.

Proper microphone placement, both during calibration and when running LIVE!, is essential to achieving the desired results. Microphone placement instructions and illustrations are included in this section.

The location of the sound source (piano, guitar, voices, etc.) is not critical. LIVE! compensates for sounds that are closer to one microphone or another.

CONNECTING THE MICROPHONES

CAUTION!

- **The Lexicon microphones require careful handling. Dropping or otherwise physically abusing the microphones can cause irreparable damage to the microphone.**
- **The microphone wires also require careful handling. Do not sharply bend the wires or place objects on them.**

1. Make sure the MC-8 is powered off or in standby mode.
2. Connect the Lexicon microphones to the microphone input 1 and 2 connectors on the MC-8 rear panel. Connector 1 is for the left microphone, connector 2 is for the right. If microphones are connected to inputs 3 and 4, they will be ignored during LIVE! calibration and operation. Make sure each microphone cable plug is fully inserted for a solid connection.

   During the microphone check, the microphones will be referred to as 1 and 2, based on the input connector to which the microphone is connected. You should label the microphones for troubleshooting purposes.
3. Power on the MC-8 or deactivate standby mode.

POSITIONING THE MICROPHONES FOR LIVE!

Refer to the microphone placement examples below to position the microphones for LIVE!

PROPER *microphone positioning for LIVE!*

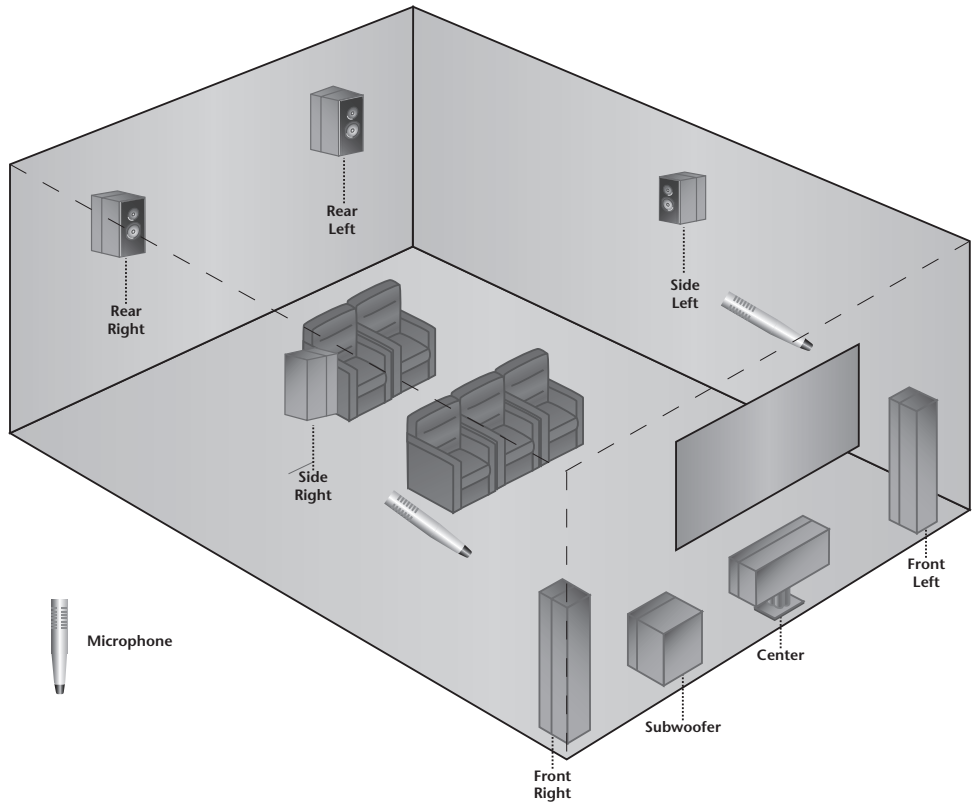
Position the microphones:

- ✓ On or near opposite side walls
- ✓ Approximately halfway between the front and side speakers
- ✓ At an approximate height between the waist and head of a standing person
- ✓ In a location unobstructed by furniture and other fixtures
- ✓ At least 2 feet (0.61m) from all speakers

Note:

LIVE! can potentially create feedback in the system. The processing is designed to prevent this, but you should avoid placing the microphones too close to speakers.

The illustration to the right provides an example of proper microphone placement during LIVE! calibration and also for permanent location.

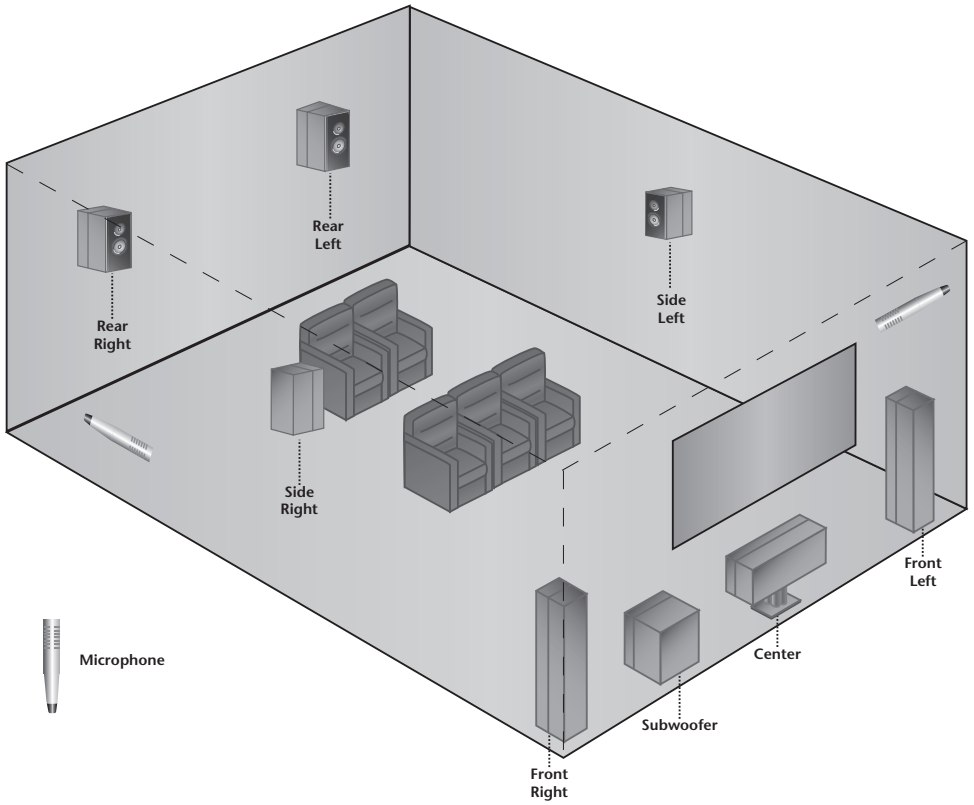


IMPROPER *microphone positioning for LIVE!*

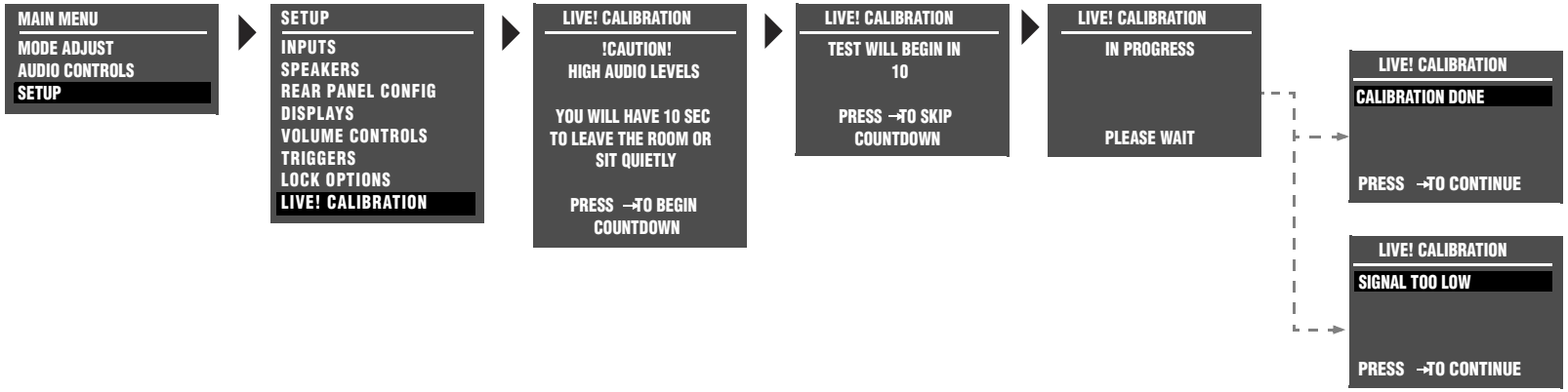
When positioning the microphones, DO NOT:

- ✗ Place the microphones on the front or rear walls
- ✗ Place the microphones near the floor or ceiling
- ✗ Obstruct the microphones with furniture or other fixtures
- ✗ Place the microphones within 2 feet (0.61m) of any speaker

The illustration to the right provides an example of improper microphone placement for LIVE! calibration or for a permanent location.



PERFORMING LIVE! CALIBRATION



To perform LIVE! calibration:

1. Select SETUP ▸ LIVE! CALIBRATION as shown above.
2. The !CAUTION! HIGH AUDIO LEVELS message appears to indicate that the MC-8 generates loud calibration noise signals during LIVE! calibration. If the signals become too loud, press the ◂ button to cancel LIVE! calibration. Press the ▸ button to begin calibration.
3. The countdown display notifies you that LIVE! calibration begins 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 3 minutes (the calibration procedure should be completed). Press the ▸ arrow button to skip the countdown and begin LIVE! calibration. The MC-8 automatically activates LIVE! calibration when the countdown ends.

   When the LIVE! calibration is finished, the LIVE CALIBRATION results screen displays one of the following two messages.

   - The CALIBRATION DONE message indicates that no errors occurred during the calibration procedure.
   - The SIGNAL TOO LOW message indicates that the microphones failed to pick up sufficient calibration noise signals for calibration to complete.

4. After reading the message, press ▸ to continue.

   If the SIGNAL TOO LOW message appears:

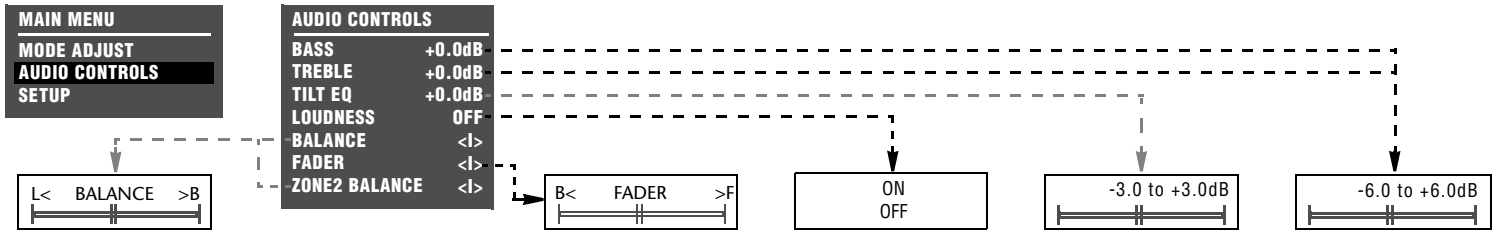
   - Examine microphone input connections to ensure that the microphones are properly connected to the MC-8 in microphone inputs 1 and 2 and that microphone cable plugs are fully inserted for a solid connection.
   - Examine the speakers and the associated amplifier to ensure that speaker wires are connected and the amplifier is on.
   - Run a Microphone Check to determine whether a microphone has been damaged. See page 3-39 for instructions on checking the microphones.

4

Audio Controls

AUDIO CONTROLS

Selecting the MAIN MENU AUDIO CONTROLS option opens the AUDIO CONTROLS menu, which is used to customize the Main Zone audio output connectors and to control the balance of the Zone 2 audio output connectors. The BASS, TREBLE, TILT EQ, LOUDNESS, BALANCE and FADER parameters affect the Main Zone audio output connectors, including all Main Zone inputs and listening modes, except the 5.1a BYPASS and 2CH BYPASS listening modes. The ZONE2 BALANCE parameter affects the Zone 2 audio output connectors, including all Zone 2 inputs.



Parameter	Default Setting	Possible Settings
BASS	+0.0dB	–6.0 to +6.0dB
TREBLE	+0.0dB	–6.0 to +6.0dB
TILT EQ	+0.0dB	–3.0 to +3.0dB
LOUDNESS	OFF	ON, OFF
BALANCE	<I>	L< to <I> to >R
FADER	<I>	B< to <I> to >F
ZONE2 BALANCE	<I>	L< to <I> to >R

Notes:

When the Zone 2 command bank is activated, pressing the remote control Blue button sets the BASS, TREBLE and TILT EQ parameters to +0.0dB.

When LIVE! is active, the BASS, TREBLE, TILT EQ, and LOUDNESS controls do not function and the corresponding parameters are shown in the AUDIO CONTROLS menu as set to +0.0dB. The LOUDNESS parameter is shown as set to OFF.

BASS

–6.0dB to +6.0dB

AUDIO CONTROLS ▶ **BASS**

Controls the amount of low-frequency boost or cut applied to the Main Zone audio output connectors labeled Front L/R, Center, and Subwoofer. The graph shown on the near right indicates the frequency response of all BASS parameter settings.

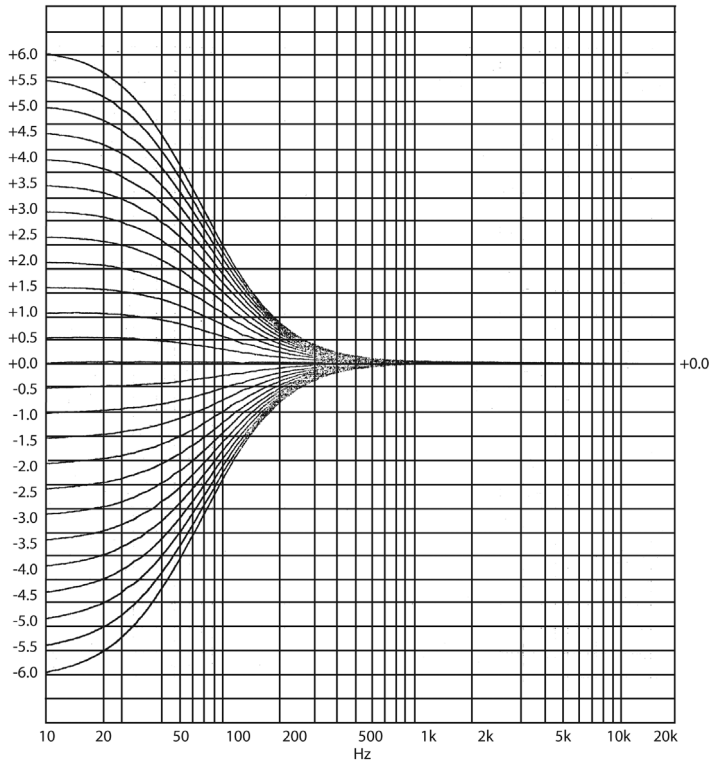
TREBLE

–6.0dB to +6.0dB

AUDIO CONTROLS ▶ **TREBLE**

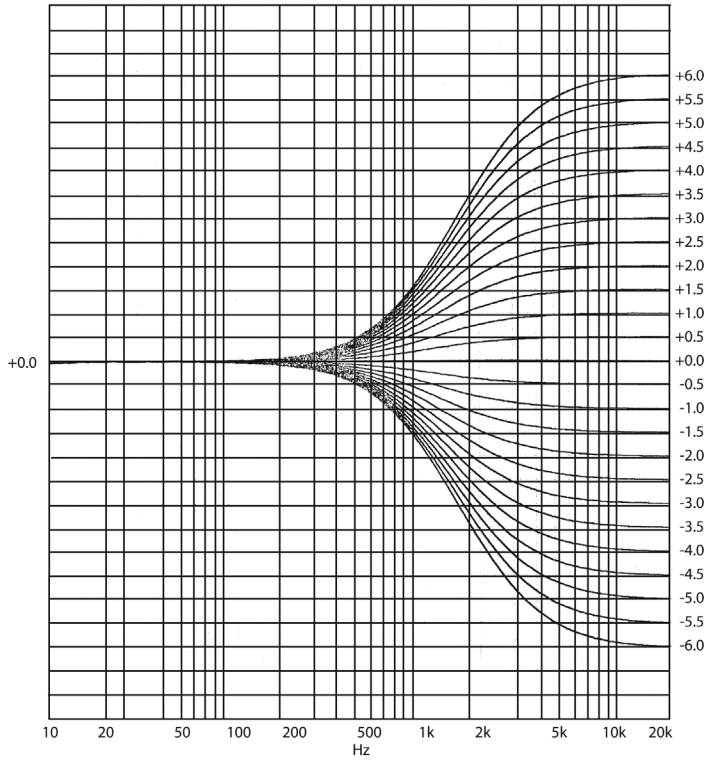
Controls the amount of high-frequency boost or cut applied to the Main Zone audio output connectors labeled Front L/R and Center. The graph shown on the far right indicates the frequency response of all TREBLE parameter settings.

BASS Parameter Settings



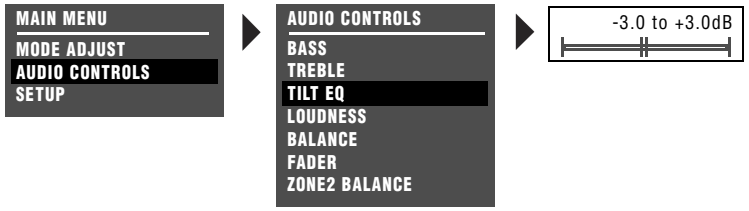
The BASS parameter controls the amount of low-frequency boost or cut applied to the Main Zone audio output connectors labeled Front L/R, Center and Subwoofer.

TREBLE Parameter Settings



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

AUDIO CONTROLS *(continued)*



TILT EQ

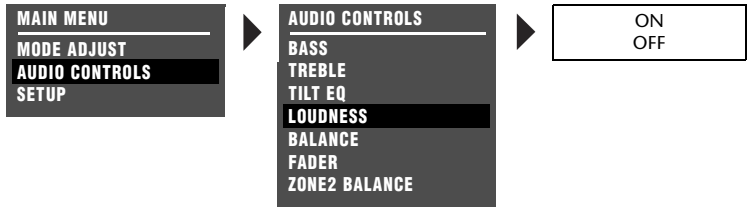
–3.0dB to +3.0dB

AUDIO CONTROLS ▸ **TILT EQ**

Controls the amount of tilt equalization applied to the Main Zone audio output connectors labeled Front L/R, Center and Subwoofer. This parameter setting affects the entire frequency spectrum with a hinge point at 1kHz. As the setting increases, frequencies higher than 1kHz are boosted while frequencies lower than 1kHz are simultaneously cut. As the setting decreases, frequencies higher than 1kHz are cut while frequencies lower than 1kHz are simultaneously boosted. The graph shown on the near right indicates the frequency response of all TILT EQ parameter settings.

Note:

When the Zone 2 command bank is activated, pressing the remote control Blue button sets the BASS, TREBLE and TILT EQ parameter to +0.0dB.



LOUDNESS

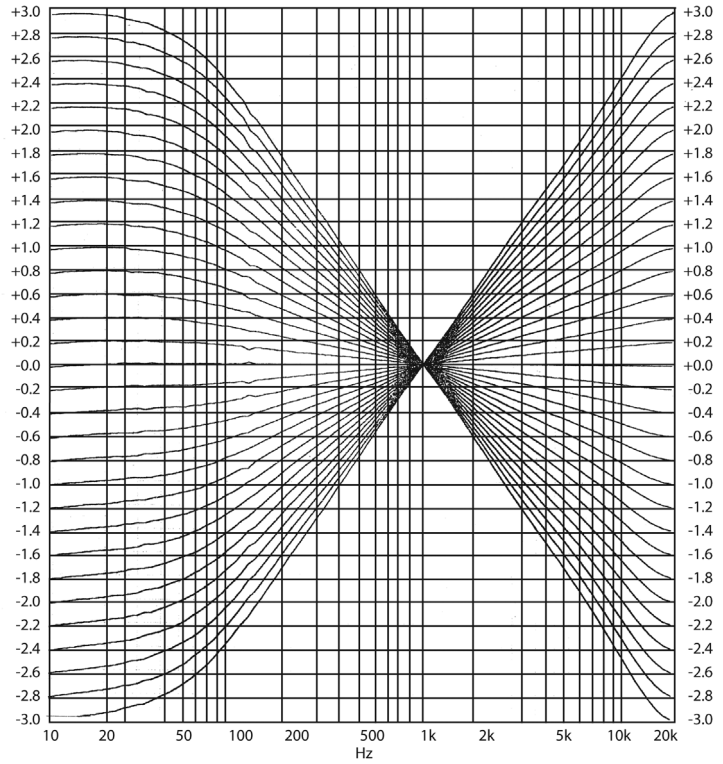
ON, OFF

AUDIO CONTROLS ▸ **LOUDNESS**

Controls the amount of low-frequency boost that is automatically applied to the Main Zone audio output connectors labeled Front L/R, Center and Subwoofer. When ON is selected, loudness compensation is automatically applied, based on volume level. As volume level increases, the amount of boost automatically decreases. The loudness contour is optimized for input sources calibrated to THX reference levels. When OFF is selected, no loudness compensation is applied.

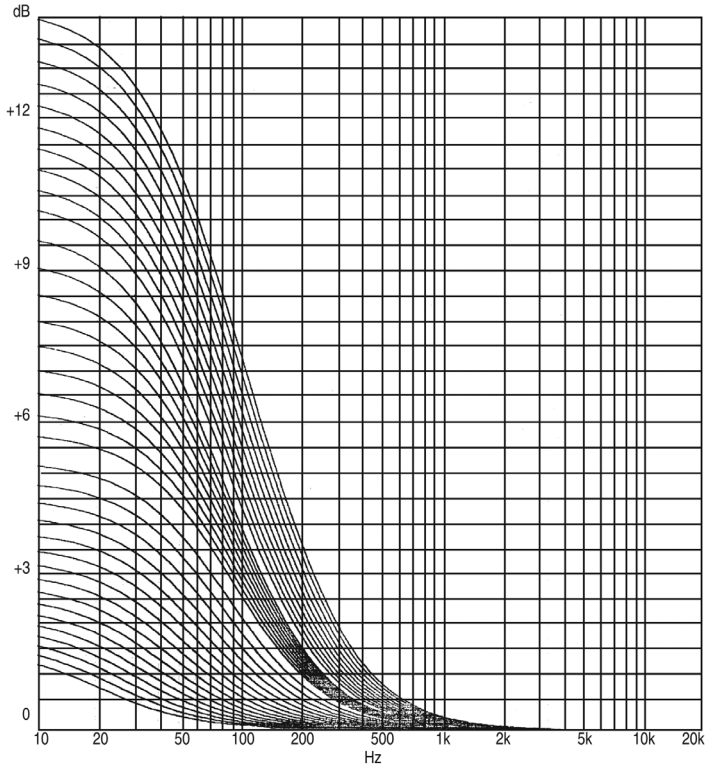
The graph shown on the far right indicates the frequency response that is automatically applied when the LOUDNESS parameter is set to ON and Main Zone volume level is adjusted.

TILT EQ Parameter Settings



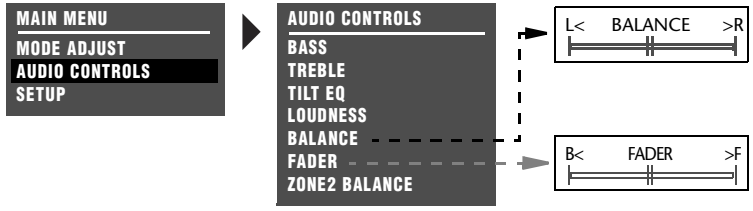
The TILT EQ parameter controls the amount of tilt equalization applied to the Main Zone audio output connectors labeled Front L/R, Center and Subwoofer.

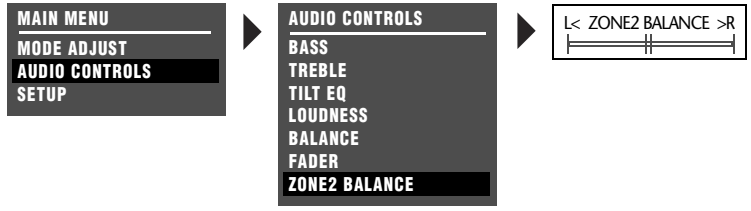
LOUDNESS Parameter Settings



The LOUDNESS parameter controls the amount of low-frequency boost that is automatically applied to the Main Zone audio output connectors labeled Front L/R, Center and Subwoofer.

AUDIO CONTROLS *(continued)*





BALANCE L< <I> >R

AUDIO CONTROLS ▶ **BALANCE**

Controls the left-to-right balance of the Main Zone audio output connectors.

FADER B< <I> >F

AUDIO CONTROLS ▶ **FADER**

Controls the front-to-back balance of the Main Zone audio output connectors.

Note:

When the Shift command bank is activated, pressing the remote control FP button centers the Main Zone BALANCE and FADER parameters.

ZONE2 BALANCE L< <I> >R

AUDIO CONTROLS ▶ **ZONE2 BALANCE**

Controls the left-to-right balance of the Zone 2 audio output connectors.

Note:

When the Zone 2 command bank is activated, pressing the remote control FP button centers the ZONE2 BALANCE parameter.

5

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.*

MODE ADJUST

Selecting the MAIN MENU 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) and MIC, and analog input sources. The MC-8 allows listening mode selection for all Main Zone sources. In some cases, the MC-8 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.

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 2-15).
- 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 and MIC. These parameters are used to select a preferred listening mode for 2-channel, Dolby Digital, DTS(-ES) and LIVE! input sources. The MC-8 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 (▲) and 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 ▲ and ▼ 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 MC-8 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), THX, 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
L7	L7 FILM	5.1 L7 FILM	DTS(-ES) L7 FILM
DD	DOLBY PLIIx MOV	DD 5.1 PLIIx MOV*	MODE SELECTION NOT AVAILABLE**
dts	DTS NEO:6 CIN	MODE SELECTION NOT AVAILABLE**	DTS(-ES)
THX	DOLBY PLIIx + THX	THX UL2CIN	DTS THX DTS THX UL2 CIN DTS-ES THX***
Music	L7 MUSIC	5.1 L7 MUSIC	DTS(-ES) L7 MUSIC
TV	L7 TV	5.1 L7 TV	MODE SELECTION NOT AVAILABLE**

** 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 DD 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 5-34.

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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

DOLBY PLIIx + THX & DOLBY PLII + THX

MODE ADJUST ▶ DOLBY PLIIX + THX OR MODE ADJUST ▶ DOLBY PLII + THX

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 modes are recommended for home theaters with THX-certified speakers. Dolby PLII(x) + THX encoding:

- Apply THX re-equalization to simulate high-frequency rolloffs that occur in movie theaters. Most films are mixed for movie theaters, and might sound too bright when played back in home theaters without re-equalization.
- Apply THX timbre matching to minimize timbre differences between the front and surround channels, which results in smoother sound movements between them.

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

Activating the DOLBY PLIIx + THX listening mode

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

When the 2-CH parameter is set to USE LAST, the MC-8 will automatically activate the DOLBY PLIIx + THX listening mode if this listening mode was activated the last time a 2-channel Dolby Surround-encoded source was present.

Note:

The PLIIx 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
RE-EQUALIZER	ON	ON, OFF
OUTPUT LEVELS	Refer to page 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

DOLBY PLIIx MOV & DOLBY PLII MOVIE

MODE ADJUST ▶ DOLBY PLIIx MOVIE OR MODE ADJUST ▶ DOLBY 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. The PLII listening mode is available when the front and side 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 MC-8 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 5-32
CUSTOM	Refer to page 5-32

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

DOLBY PLIIx MUS & DOLBY PLII MUSIC

MODE ADJUST ▶ DD PLIIx MUS OR MODE ADJUST ▶ DD 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. The PLII listening mode is available when the front and side 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 MC-8 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

DOLBY PL + THX

MODE ADJUST ▶ DOLBY PL + THX

This mode is designed for playback of Dolby Surround-encoded sources and decodes four channels: three front channels and one mono surround channel with a high-frequency rolloff above 7kHz. This mode is recommended for home theaters with THX-certified speakers. Dolby PL + THX mode:

- Applies THX re-equalization to simulate high-frequency rolloffs that occur in movie theaters. Most films are mixed for movie theaters, and may sound too bright when played back in home theaters without re-equalization.
- Applies THX timbre matching to minimize timbre differences between the front and surround channels, which results in smoother sound movements between them.

Parameter	Default Setting	Possible Settings
RE-EQUALIZER	ON	ON, OFF
OUTPUT LEVELS	Refer to page 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32
CUSTOM	Refer to page 5-32

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

DTS NEO:6 + THX

MODE ADJUST ▶ dts NEO:6 + THX

This mode is designed for playback of matrix-encoded digital stereo film 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.

In addition to THX processing, THX re-equalization is applied to simulate high-frequency rolloffs that occur in movie theaters. Most films are mixed for movie theaters, and may sound too bright when played back in home theaters without re-equalization.

This listening mode is a dynamic listening mode and cannot be assigned as a preferred listening mode. To select this listening mode use the remote control or front-panel Mode button. When the 2-CH parameter is set to USE LAST, the MC-8 will automatically activate a DTS Neo:6 + THX listening mode if this mode was activated the last time a 2-channel source was present.

Parameter	Default Setting	Possible Settings
RE-EQUALIZER	ON	ON, OFF
OUTPUT LEVELS	Refer to page 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 MC-8 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 MC-8 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 5-32
CUSTOM	Refer to page 5-32

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

** 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 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

** 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 5-34 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.

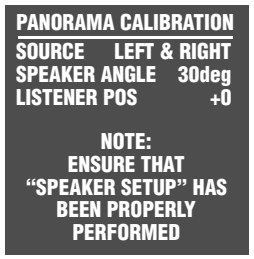
Sound quality depends on proper location of the listening position and front speakers. When the front speakers are positioned close to either side of the display device, the effect is produced over a wider area than when the front speakers are positioned at a large angle from the display device.

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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

PANORAMA CALIBRATION

MODE ADJUST ▸ PANORAMA ▸ CALIBRATION



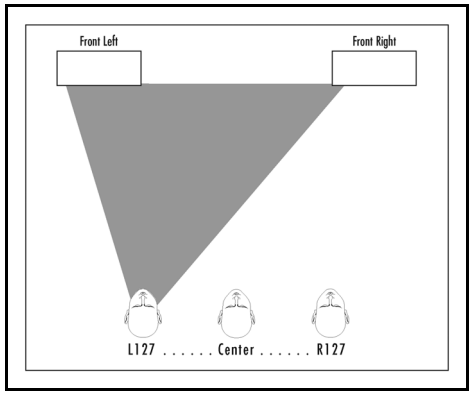
Select PANORAMA ▸ CALIBRATION to open the PANORAMA CALIBRATION menu shown to the left, to calibrate the PANORAMA listening mode. **This listening mode must be calibrated to take full advantage of its effects.**

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

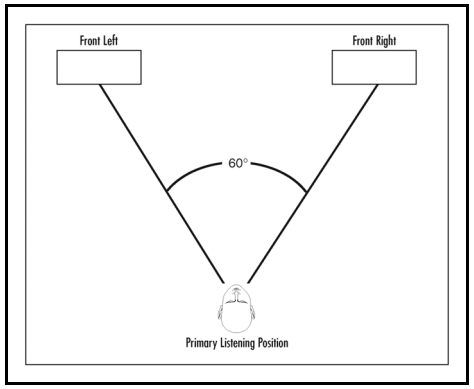
An external calibration source is required to calibrate the PANORAMA listening mode. You should select a familiar stereo source.

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

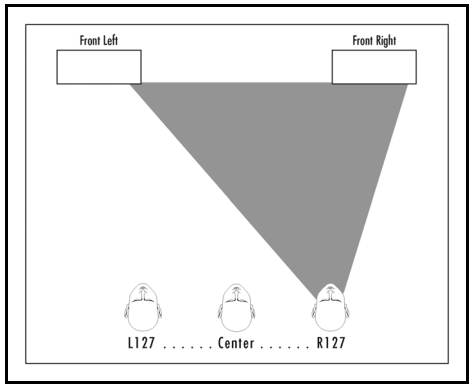
See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.



A



B



C

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 MC-8 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. Illustration A shows the left-of-center position. Illustration C 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 5-32
CUSTOM	Refer to page 5-32

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 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

Note:

When the remote control Shift command bank is activated, pressing the TV button activates the MONO LOGIC listening mode for 2-channel sources.

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 5-32
CUSTOM	Refer to page 5-32

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 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

5.1 L7 TV

MODE ADJUST ▶ 5.1 L7 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	MUSIC	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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

5.1 L7 MUSIC

MODE ADJUST ▶ 5.1 L7 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

THX, THX UL2Cin, & THX SurEX

MODE ADJUST ▸ THX UL2Cin OR THX SurEX OR THX

These modes are designed for 7-channel playback of 5.1-channel Dolby Digital film sources that do not have THX Surround EX encoding. They apply THX re-equalization to simulate high-frequency rolloffs that occur in movie theaters. Most films are mixed for movie theaters, and might sound too bright when played back in home theaters without re-equalization. THX timbre matching is applied to minimize timbre differences between the front and surround channels, which results in smoother sound movements between them. These modes are recommended for home theaters with THX-certified speakers.

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

The table at the bottom of the page shows the conditions for the behavior of the THX Ultra2 and THX Surround EX modes when activated:

- The THX UL2Cin listening mode is available when both the side and rear speakers are present and THX ULTRA2 decoding is engaged. THX Ultra2 decoding is engaged when the SURROUND EX parameter is set to OFF or AUTO and a non-flagged 5.1-channel Dolby Digital source with or without THX Surround EX encoding is detected.
- The THX SurEX listening mode is available when both the side and rear speakers are present and THX Surround EX decoding is engaged. THX Surround EX decoding is engaged when the SURROUND EX parameter is set to ON or AUTO and a *flagged* 5.1-channel Dolby Digital source with THX Surround EX encoding is detected.
- The THX listening mode is available when both Ultra2 and THX Surround EX decoding are deactivated.

Note:

Some EX-encoded sources are not flagged, and require manually setting the SURROUND EX parameter to ON for EX decoding.

When THX Ultra2 decoding is active:

- Adaptive de-correlation is applied to increase the perceived width of the listening space. De-correlation of the mono surround channel increases the perceived width of the surround field in home theaters.

	Input Source		
Parameter Setting	**5.1-Channel Dolby Digital**	**5.1-Channel THX Surround EX Dolby Digital (Flagged)**	**5.1-Channel THX Surround EX Dolby Digital (Non-Flagged)**
SURROUND EX: AUTO	THX ULTRA2	THX SurEX	THX ULTRA2
SURROUND EX: ON	THX SurEX	THX SurEX	THX SurEX
SURROUND EX: OFF	THX ULTRA2	THX ULTRA2	THX ULTRA2

- ASA processing is applied to signals sent to the rear speakers. Refer to the ASA parameter description on page 3-31 for more information.

When THX Surround EX decoding is active:

Matrix decoding is applied to derive three surround channels from 5.1-channel Dolby Digital sources.

Parameter	Default Setting	Possible Settings
RE-EQUALIZER	ON	ON, OFF
SURROUND EX	AUTO	AUTO, ON, OFF
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–10.0 to +0.0dB
OUTPUT LEVELS	Refer to page 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

Note:

The THX UL2Cin listening mode is a dynamic listening mode and cannot be assigned *as a preferred listening mode for Dolby Digital sources. Activate this listening mode with the front-panel or remote control Mode buttons.*

When the DOLBY D parameter is set to USE LAST, the MC-8 will automatically activate a THX UL2Cin listening mode if this mode was activated the last time a Dolby Digital source was present.

THX MUSIC

MODE ADJUST ▶ THX MUSIC

This listening mode is designed for playback of 5.1-channel Dolby Digital music sources, and cannot be activated unless side and rear speakers are present. ASA processing is applied to signals sent to the rear speakers. See "ASA" on page 3-32 for more information. For best results, place the rear speakers close together in your home theater.

Parameter	Default Setting	Possible Settings
COMPRESSION	OFF	AUTO, ON, OFF
LFE MIX	+0.0dB	–10.0 to +0.0dB
OUTPUT LEVELS	Refer to page 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

Note:

The THX MUSIC listening mode is a dynamic listening mode and cannot be assigned *as a preferred listening mode for Dolby Digital sources. Activate this listening mode with the front-panel or remote control Mode arrow buttons.*

When the DOLBY D parameter is set to USE LAST, the MC-8 will automatically activate a THX MUSIC listening mode if this mode was activated the last time a Dolby Digital source was present.

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 5.1 PLIIx MOVIE listening mode can also be used with other types of Dolby Digital sources with mixed results.) 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.

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.

Note:

The MC-8 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 MC-8 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5.1 PLIIx MUSIC listening mode can also be used with other types of Dolby Digital sources with mixed results.) 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.

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.

Note:

The MC-8 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 MC-8 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

Note:

The MC-8 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 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 MC-8 automatically activates the 5.1 MONO LOGIC listening mode.*
- *When the Shift command bank is activated, pressing the TV button activates the 5.1 MONO LOGIC listening mode for 5.1-channel sources.*

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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32
CUSTOM	Refer to page 5-32

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

DTS-ES THX & DTS THX UL2Cin

MODE ADJUST ▸ dts ES THX OR dts THX UL2Cin

The DTS THX UL2Cin (ULTRA2 CINEMA) and DTS-ES THX listening modes allow 7-channel playback of 5.1-channel DTS sources that lack DTS-ES encoding. They are designed for playback of 5.1-channel DTS, 5.1-channel matrix-encoded DTS-ES, or 6.1-channel DTS-ES discrete-encoded film sources. DTS THX UL2Cin and DTS-ES THX are recommended for home theaters with THX-certified speakers. These modes apply:

- THX re-equalization to simulate high-frequency rolloffs that occur in movie theaters. Most films are mixed for movie theaters, and might sound too bright when played back in home theaters without re-equalization.
- THX timbre matching to minimize timbre differences between the front and surround channels, which results in smoother sound movements between them.

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

The DTS THX UL2Cin listening mode

The DTS THX UL2Cin listening mode is available when both side and rear speakers are present and THX Ultra2 decoding is activated.

To activate DTS THX UL2Cin decoding:

1. Press MODE ADJUST ▸ dts ES THX ▸ ES DECODING.
2. Use the ▲ or ▼ arrow to select either AUTO (the default) or OFF.

   When the ES DECODING parameter is set to OFF, the DTS-ES THX UL2 Cin listening mode is always active. When the parameter is set to AUTO, the DTS-ES THX UL2 Cin listening mode activates when a 5.1-channel DTS source is detected.

When THX UL2Cin decoding is activated:

- Adaptive de-correlation is applied to increase the perceived width of the listening space. De-correlation of the mono surround channel increases the perceived width of the surround field in home theaters.
- ASA processing is applied to signals sent to the rear speakers. Refer to the ASA parameter description on page 3-32 for more information.

The DTS-ES THX listening mode

The DTS-ES THX listening mode is available when both the side and rear speakers are present and DTS-ES decoding is active.

DTS-ES decoding is activated when the ES DECODING parameter is set to AUTO (the default) or ON and a 5.1-channel matrix-encoded or 6.1-channel discrete-encoded DTS-ES source is detected.

The table on the next page shows the conditions for the behavior of the DTS THX UL2Cin and DTS-ES THX modes when activated:

Option/Parameter	Default Setting	Possible Settings
RE-EQUALIZER	ON	ON, OFF
LFE MIX	+0.0dB	–10.0 to +0.0dB
ES DECODING	AUTO	AUTO, ON, OFF
OUTPUT LEVELS	Refer to page 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

DTS-ES THX & DTS THX UL2CIN *(continued)*

	Input Source		
Parameter Setting	**5.1-Channel DTS**	**5.1-Channel Matrix-Encoded DTS-ES**	**6.1-Channel Discrete-Encoded DTS-ES**
ES DECODING: AUTO	DTS THX UL2Cin	DTS-ES THX	DTS-ES THX
ES DECODING: ON	DTS-ES THX	DTS-ES THX	DTS-ES THX
ES DECODING: OFF	DTS THX UL2Cin	DTS THX UL2Cin	DTS THX UL2Cin

DTS THX MUSIC

MODE ADJUST ▶ dts THX MUSIC

The DTS THX MUSIC listening mode is designed for playback of 5.1-channel DTS music sources when the side and rear speakers are present. ASA processing is applied to signals sent to the rear speakers. Refer to the ASA parameter description on page 3-32 for more information. This mode is recommended for home theaters with THX-certified speaker setups.

Option/Parameter	Default Setting	Possible Settings
LFE MIX	+0.0dB	–10.0 to +0.0dB
OUTPUT LEVELS	Refer to page 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

Note:

The DTS THX MUSIC is a dynamic listening mode and can only be activated with the front-panel or remote control Mode ▲ and ▼ buttons.

DTS & DTS(-ES) Discr

MODE ADJUST ▶ dts 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 5-25 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 5-32	
CUSTOM	Refer to page 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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 5-32	

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 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.
- The 5.1a BYPASS listening mode is automatically activated whenever the 5.1-channel analog audio input connector is assigned to the selected input. The 5.1a BYPASS listening mode is only available for 5.1-channel analog sources.
- Pressing the remote control SHIFT 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 5-32	
CUSTOM	Refer to page 5-32	

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 SHIFT 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.

LIVE! SMALL, LIVE! MED & LIVE! LARGE

MODE ADJUST ▶ LIVE! SMALL OR LIVE! MED OR LIVE! LARGE

LIVE! (Lexicon Intelligent Variable Environment) is a proprietary mode designed to transform the way your listening room sounds. It provides a realistic illusion of a larger, more reverberant listening space. LIVE! SMALL simulates the reverberations of a room that is small, but larger than an average living room. LIVE! MED simulates the reverberations of a small hall. LIVE! LARGE simulates the reverberations of a large hall. LIVE! requires two permanently mounted microphones. (See "LIVE! CALIBRATION" on page 3-70 for placement and calibration instructions.) LIVE! cannot be used with prerecorded sources such as CDs or DVDs.

LIVE! SMALL parameter settings:

Parameter	Default Setting	Possible Settings
MID RT	597ms	115ms to 15.4s
BASS RT	597ms	23ms to 30.8ms
ROLLOFF	3.1kHz	500Hz to 20kHz
TREB CUT RT	3.1kHz	500Hz to 20kHz
PRE-DELAY	10ms	10ms to 100ms
ADVANCED		
CUSTOM	Refer to page 5-32	

LIVE! SMALL ADVANCED parameter settings:

Parameter	Default Setting	Possible Settings
REVERB LVL	+0dB	–80dB to +0dB
EARLY RFLX LVL	–13dB	–80dB to +12dB
BASS XOVER	156Hz	30Hz to 19.9kHz, OFF
SHAPE	0	0 to 4
SPREAD	0%	0% to 100%
SIZE	19m	4m to 60m

LIVE! MED parameter settings:

Parameter	Default Setting	Possible Settings
MID RT	1.84s	115ms to 15.4s
BASS RT	2.76s	23ms to 30.8ms
ROLLOFF	2.4kHz	500Hz to 20kHz
TREB CUT RT	3.1kHz	500Hz to 20kHz
PRE-DELAY	18ms	10ms to 100ms
ADVANCED		
CUSTOM	Refer to page 5-32	

LIVE! MED ADVANCED parameter settings:

Parameter	Default Setting	Possible Settings
REVERB LVL	–4dB	–80dB to +0dB
EARLY RFLX LVL	–14dB	–80dB to +12dB
BASS XOVER	156Hz	30Hz to 19.9kHz, OFF
SHAPE	2	0 to 4
SPREAD	25%	0% to 100%
SIZE	30m	4m to 60m

LIVE! LARGE parameter settings:

Parameter	Default Setting	Possible Settings
MID RT	4.71s	115ms to 30.8s
BASS RT	4.71s	23ms to 30.8ms
ROLLOFF	3.1kHz	500Hz to 20kHz
TREB CUT RT	2.4kHz	500Hz to 20kHz
PRE-DELAY	20ms	10ms to 100ms
ADVANCED		
CUSTOM	Refer to page 5-32	

LIVE! LARGE ADVANCED parameter settings:

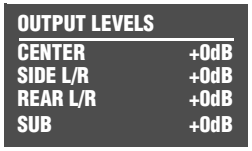
Parameter	Default Setting	Possible Settings
REVERB LVL	–6dB	–80dB to +0dB
EARLY RFLX LVL	–17dB	–80dB to +12dB
BASS XOVER	156Hz	30Hz to 19.9kHz, OFF
SHAPE	2	0 to 4
SPREAD	28%	0% to 100%
SIZE	38m	4m to 60m

See "Listening Mode Menu Option and Parameter Descriptions" on page 5-34 for detailed descriptions.

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 5-34 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

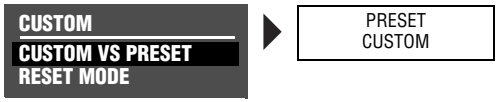
MODE ADJUST ▶ (Listening Mode) ▶ CUSTOM ▶ CUSTOM VS PRESET

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 MC-8 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 MC-8 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 MC-8 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 5-13 for more information.

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.

LISTENING MODE MENU OPTION and PARAMETER DESCRIPTIONS *(continued)*

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.
- When the Shift command bank is activated, pressing the remote control DTS button while a DTS-ES source is present adjusts the ES DECODING parameter, cycling through the AUTO, ON and OFF settings.
- 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 MC-8 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.
- 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.

LISTENING MODE MENU OPTION and PARAMETER DESCRIPTIONS *(continued)*

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 5-13).

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 MC-8 applies a high-frequency filter. When set to OFF, the MC-8 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.

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.

LISTENING MODE MENU OPTION and PARAMETER DESCRIPTIONS *(continued)*

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 5-13 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 5-13 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 MC-8. 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.

When AUTO is selected, THX Surround EX decoding is engaged when a flagged 5.1-channel Dolby Digital source with THX Surround EX encoding is detected. THX Surround EX decoding is not engaged when a non-flagged 5.1-channel Dolby Digital source with or without THX Surround EX encoding is detected.

Note:

The MC-8 cannot automatically detect THX Surround EX encoding in non-flagged 5.1-channel Dolby Digital sources. A non-flagged input source does not include information in the input signal that identifies THX Surround EX encoding.

THX Surround EX listening modes are available when Dolby Digital Surround EX decoding is engaged. THX or THX ULTRA2 listening modes are available when THX Surround EX decoding is not engaged. Refer to the 5.1 THX ULTRA2, 5.1 THX SurEX and 5.1 THX listening mode descriptions that begin on page 5-18, or the DTS THX ULTRA2 and DTS-ES THX listening mode descriptions that begin on page 5-27 for more information.

Note the following:

- Toggling the SURROUND EX parameter setting produces low level clicks in the front speakers.
- THX Surround EX decoding cannot be engaged unless both side and rear speakers are present.
- When the Shift command bank is activated, pressing the remote control THX button while a 5.1-channel Dolby Digital source is present activates the 5.1 THX ULTRA2, 5.1 THX SurEX or 5.1 THX listening mode. Subsequent presses adjust the SURROUND EX parameter, cycling through the AUTO, ON and OFF settings.
- When the Shift command bank is activated, pressing the remote control THX button while a 5.1-channel analog source is present toggles the SURROUND EX parameter between the ON and OFF settings.

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

MODE – PARAMETER RELATIONSHIPS *(continued)*

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
SUBLEVEL	All except LIVE! modes
SPREAD	All LIVE! modes
SUB L/R & SUB L/R LVL	All except LIVE! modes
SURR ROLLOFF	All L7 modes
SURROUND DLY	Dolby PLII MUSIC and Dolby PLIIx MUSIC
SURROUND EX	THX ULTRA2, THX SurEX, THX
SURROUND MIX	5.1 2-CHANNEL and DTS(-ES) 2-CHAN
TREB CUT RT	All LIVE! modes
VOCAL ENHANCE	All L7 modes

6

Troubleshooting and Maintenance

TROUBLESHOOTING

The MC-8 does not power on.

1. Make sure the rear-panel power switch is set to the | ("on") position.
2. Attempt to power on the MC-8 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 MC-8 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 MC-8.

The MC-8 is powered on, but there is no audio.

1. Examine the audio cables to ensure a good connection between the MC-8 and all associated power amplifiers.
2. Make sure volume level is audible. Volume level can be increased with the front-panel volume knob or the remote control VOL ▲ and ▼ buttons.
3. 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.
4. Check the INPUT SETUP menu DIGITAL IN and ANALOG IN parameters to ensure the appropriate audio connector is assigned to the selected input.
5. Make sure the MC-8 is receiving an audio signal. To do this, follow the instructions that begin on page 2-19 to open the STATUS menu for the current input source.
6. Make sure all associated power amplifiers are powered on.

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 3-28).

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 MC-8.

The MC-8 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 MC-8 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 MC-8 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 MC-8 configuration tool to download the current MC-8 configuration to a personal computer (PC) or document all user-defined settings on the installation worksheet that begins on page A-20. 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 A-20. Then, follow the instructions on page 6-4 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.

ROUTINE MAINTENANCE

The bulleted items below describe routine maintenance that should be performed on a periodic basis.

- Clean the MC-8 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 MC-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 two AA batteries. When these batteries are low on power, the remote control enters a low-voltage condition that prevents it from operating the MC-8. 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 A-20.

To restore factory-default settings:

1. Record all user-defined settings on the installation worksheet that begins on page A-20. When factory-default settings are restored, all parameters and user-defined values are restored to their factory-default settings.
2. If the MC-8 is powered on, press the front-panel standby button or the remote control **Off** button to activate standby mode and deactivate the MC-8. If the MC-8 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 MC-8.
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 MC-8.
   - 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

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) and eight balanced (XLR, MC-8 Balanced only) connectors for Front L/R, Center, Subwoofer, Side L/R and Rear L/R
Zone 2 Audio Outputs	• One pair unbalanced (RCA variable output level) connectors and one pair balanced connectors (XLR, variable output level, MC-8 Balanced only) • One S/PDIF coaxial (RCA) connector

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	• 10Hz to 20kHz, +0.05dB/–0.1dB, –0.5dB at 40kHz, reference 1kHz
THD + Noise	• Below 0.008% at 1kHz, maximum output level
Dynamic Range	• 108dB minimum, 111dB typical, 22kHz bandwidth
Signal-to-Noise Ratio	• 108dB minimum, 111dB typical, 22kHz bandwidth
Input Sensitivity	• 200mV Rms (2V Rms for maximum output level) at 0dB input gain
Input Impedance	• 100kΩ in parallel with 150pF

Main Zone Audio Performance	
Output Level	• 150mV Rms typical, 6V Rms maximum (RCA connectors) • 300mV Rms typical, 12V Rms maximum (XLR connectors, MC-8 Balanced only) • Maximum value with full-scale input signal and volume at +12dB
Output Impedance	• 100Ω in parallel with 150pF (RCA connectors) • 50Ω in parallel with 150pF (XLR connectors, MC-8 Balanced only)

Zone 2 Audio Performance	
A/D Conversion	• 24-Bit, 44.1 to 96kHz, dual-bit ΔΣ architecture
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, maximum output level
Dynamic Range	• 103dB minimum, 108dB typical, 22kHz bandwidth
Signal-to-Noise Ratio	• 103dB minimum, 108dB typical, 22kHz bandwidth
Input Sensitivity	• 200mV Rms (4V Rms for maximum output level)
Input Impedance	• 100kΩ in parallel with 150pF
Output Level	• 200mV Rms typical, 4V Rms maximum (RCA connectors) • 400mV Rms typical, 8V Rms maximum (XLR connectors, MC-8 Balanced only) • Maximum value with full-scale input signal and volume at 0dB
Output Impedance	• 100Ω in parallel with 150pF (RCA connectors) • 50Ω in parallel with 150pF (XLR connectors, MC-8 B alanced only)

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
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

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)

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	• 90-250 VAC, 50-60Hz, 60W (universal line input), detachable power cord
MC-8 Dimensions & Weight	• Height (with feet): 3.81 inches (97mm) • Width: 17.3 inches (440mm) • Depth: 14.85 inches (377mm) • Weight: 17 lb (7.6kg)
MC-8 Balanced Dimensions & Weight	• Height (with feet): 5.04 inches (128mm) • Width: 17.3 inches (440mm) • Depth: 14.85 inches (377mm) • Weight: 24 lb (10.7kg)
Rack-Mounting	• Optional brackets are available for installation in a standard 19" equipment rack (two rack units required for MC-8; three rack units required for MC-8 Balanced)
Environment	• Operating temperature: 0° to 35°C (32° to 95°F) • Storage temperature: –30° to 75°C (–22° to 167°F) • Relative humidity: 95% maximum without condensation
Remote Control	• Handheld, backlit infrared remote control unit • Requires 2 AA batteries (alkaline batteries recommended)

Specifications are subject to change without notice.

DECLARATION OF CONFORMITY

Application of Council Directive(s):
89/336/EEC and 93/68/EEC

Standard(s) to Which Conformity is Declared:
EN55022:1994 + A1:1995 + A2:1997,EN55024:1998, EN61000-3-2: 2000, EN61000-3-3:2000, and EN60065: 1998

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.

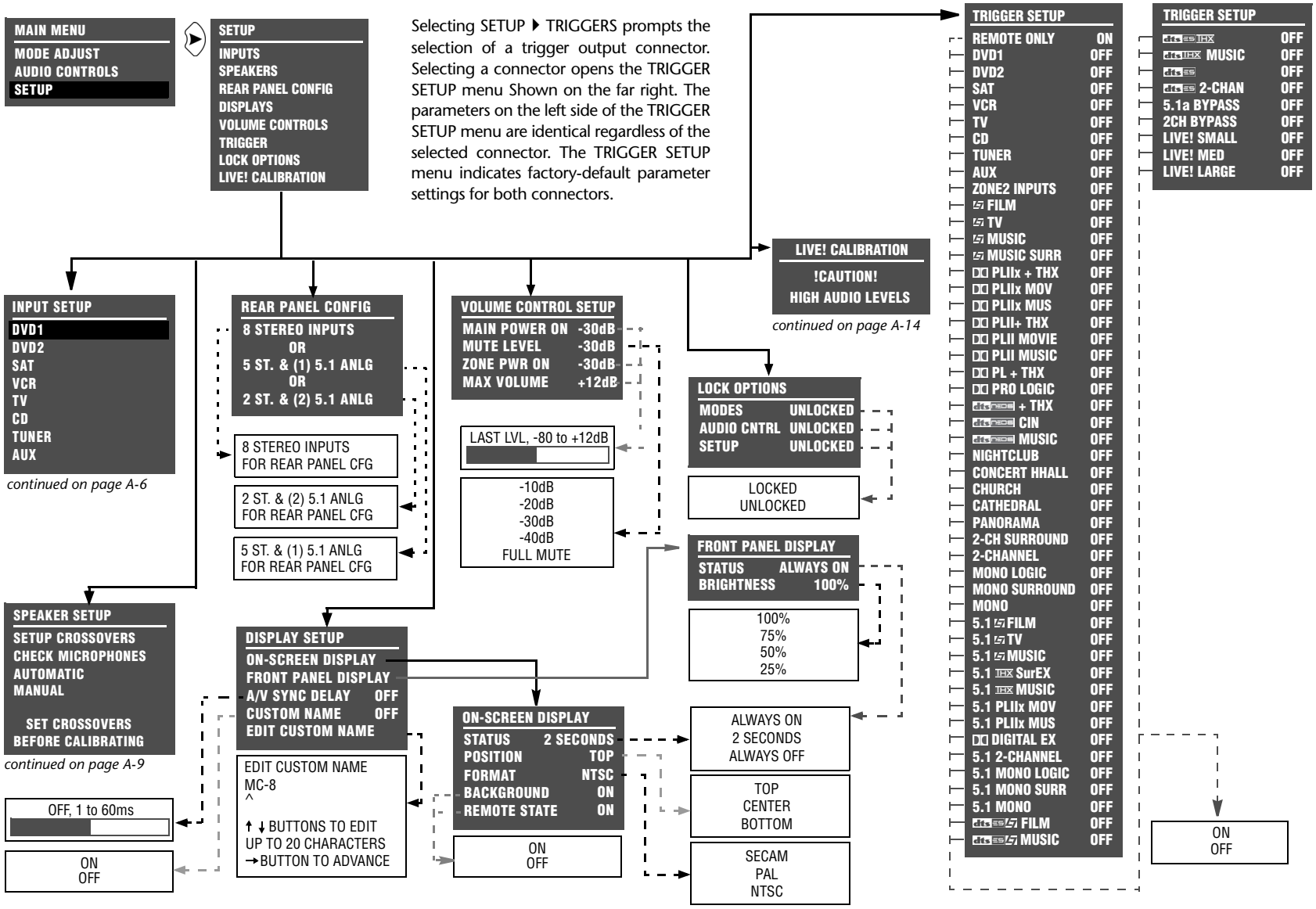
Type of Equipment: Digital Controller

Model: Lexicon MC-8

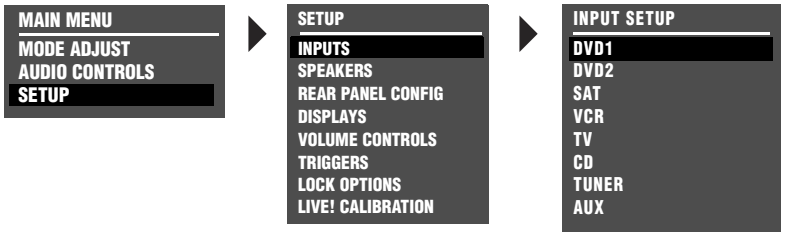
Date: August 2005

Harman Specialty Group
Vice President of Engineering
3 Oak Park
Bedford, MA 01730-1413 USA
Tel: 781-280-0300
Fax: 781-280-0490

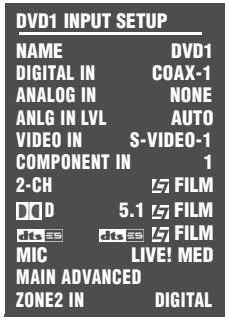
MENU TREE

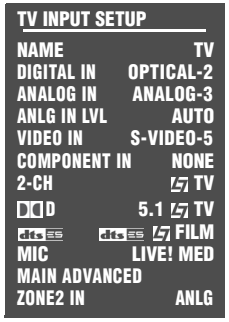

MAIN MENU
MODE ADJUST
AUDIO CONTROLS
SETUP
SETUP
INPUTS
SPEAKERS
REAR PANEL CONFIG
DISPLAYS
VOLUME CONTROLS
TRIGGER
LOCK OPTIONS
LIVE! CALIBRATION
Selecting SETUP ▸ TRIGGERS prompts the selection of a trigger output connector. Selecting a connector opens the TRIGGER SETUP menu Shown on the far right. The parameters on the left side of the TRIGGER SETUP menu are identical regardless of the selected connector. The TRIGGER SETUP menu indicates factory-default parameter settings for both connectors.
TRIGGER SETUP
REMOTE ONLY ON
DVD1 OFF
DVD2 OFF
SAT OFF
VCR OFF
TV OFF
CD OFF
TUNER OFF
AUX OFF
ZONE2 INPUTS OFF
FILM OFF
TV OFF
MUSIC OFF
MUSIC SURR OFF
PLIIx + THX OFF
PLIIx MOV OFF
PLIIx MUS OFF
PLII+ THX OFF
PLII MOVIE OFF
PLII MUSIC OFF
PL + THX OFF
PRO LOGIC OFF
+ THX OFF
CIN OFF
MUSIC OFF
NIGHTCLUB OFF
CONCERT HHALL OFF
CHURCH OFF
CATHEDRAL OFF
PANORAMA OFF
2-CH SURROUND OFF
2-CHANNEL OFF
MONO LOGIC OFF
MONO SURROUND OFF
MONO OFF
5.1 FILM OFF
5.1 TV OFF
5.1 MUSIC OFF
5.1 SurEX OFF
5.1 MUSIC OFF
5.1 PLIIx MOV OFF
5.1 PLIIx MUS OFF
DIGITAL EX OFF
5.1 2-CHANNEL OFF
5.1 MONO LOGIC OFF
5.1 MONO SURR OFF
5.1 MONO OFF
FILM OFF
MUSIC OFF
TRIGGER SETUP
THX OFF
MUSIC OFF
OFF
2-CHAN OFF
5.1a BYPASS OFF
2CH BYPASS OFF
LIVE! SMALL OFF
LIVE! MED OFF
LIVE! LARGE OFF
ON
OFF
LIVE! CALIBRATION
!CAUTION!
HIGH AUDIO LEVELS
continued on page A-14
INPUT SETUP
DVD1
DVD2
SAT
VCR
TV
CD
TUNER
AUX
continued on page A-6
REAR PANEL CONFIG
8 STEREO INPUTS
OR
5 ST. & (1) 5.1 ANLG
OR
2 ST. & (2) 5.1 ANLG
8 STEREO INPUTS FOR REAR PANEL CFG
2 ST. & (2) 5.1 ANLG FOR REAR PANEL CFG
5 ST. & (1) 5.1 ANLG FOR REAR PANEL CFG
VOLUME CONTROL SETUP
MAIN POWER ON -30dB
MUTE LEVEL -30dB
ZONE PWR ON -30dB
MAX VOLUME +12dB
LAST LVL, -80 to +12dB
-10dB
-20dB
-30dB
-40dB
FULL MUTE
LOCK OPTIONS
MODES UNLOCKED
AUDIO CNTRL UNLOCKED
SETUP UNLOCKED
LOCKED
UNLOCKED
FRONT PANEL DISPLAY
STATUS ALWAYS ON
BRIGHTNESS 100%
100%
75%
50%
25%
SPEAKER SETUP
SETUP CROSSOVERS
CHECK MICROPHONES
AUTOMATIC
MANUAL
SET CROSSOVERS
BEFORE CALIBRATING
continued on page A-9
DISPLAY SETUP
ON-SCREEN DISPLAY
FRONT PANEL DISPLAY
A/V SYNC DELAY OFF
CUSTOM NAME OFF
EDIT CUSTOM NAME
EDIT CUSTOM NAME
MC-8
^
↑ ↓ BUTTONS TO EDIT
UP TO 20 CHARACTERS
→BUTTON TO ADVANCE
OFF, 1 to 60ms
ON
OFF
ON-SCREEN DISPLAY
STATUS 2 SECONDS
POSITION TOP
FORMAT NTSC
BACKGROUND ON
REMOTE STATE ON
ON
OFF
ALWAYS ON
2 SECONDS
ALWAYS OFF
TOP
CENTER
BOTTOM
SECAM
PAL
NTSC

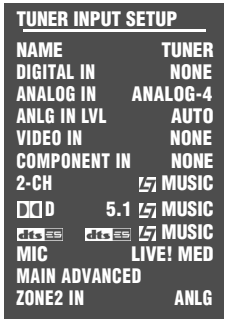
MENU TREE *(continued)*

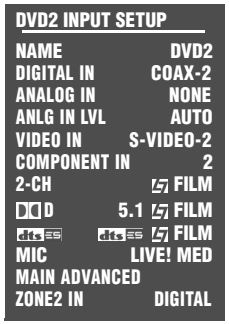


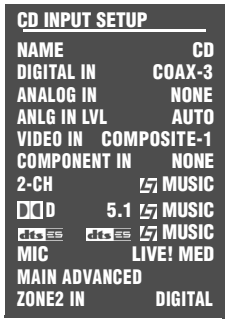
Selecting SETUP ▸ INPUTS prompts the selection of the desired input (for example, DVD1). Selecting an input opens the corresponding INPUT SETUP menu shown below. The parameters on the left side of the INPUT SETUP menus are identical regardless of which input is selected. The parameter settings on the right side are adjustable. Default parameter settings differ from input to input. The INPUT SETUP menus shown below indicate default parameter settings for each input.

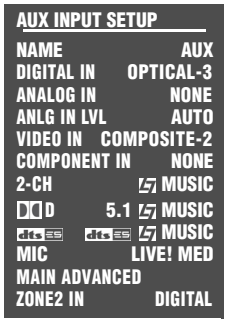


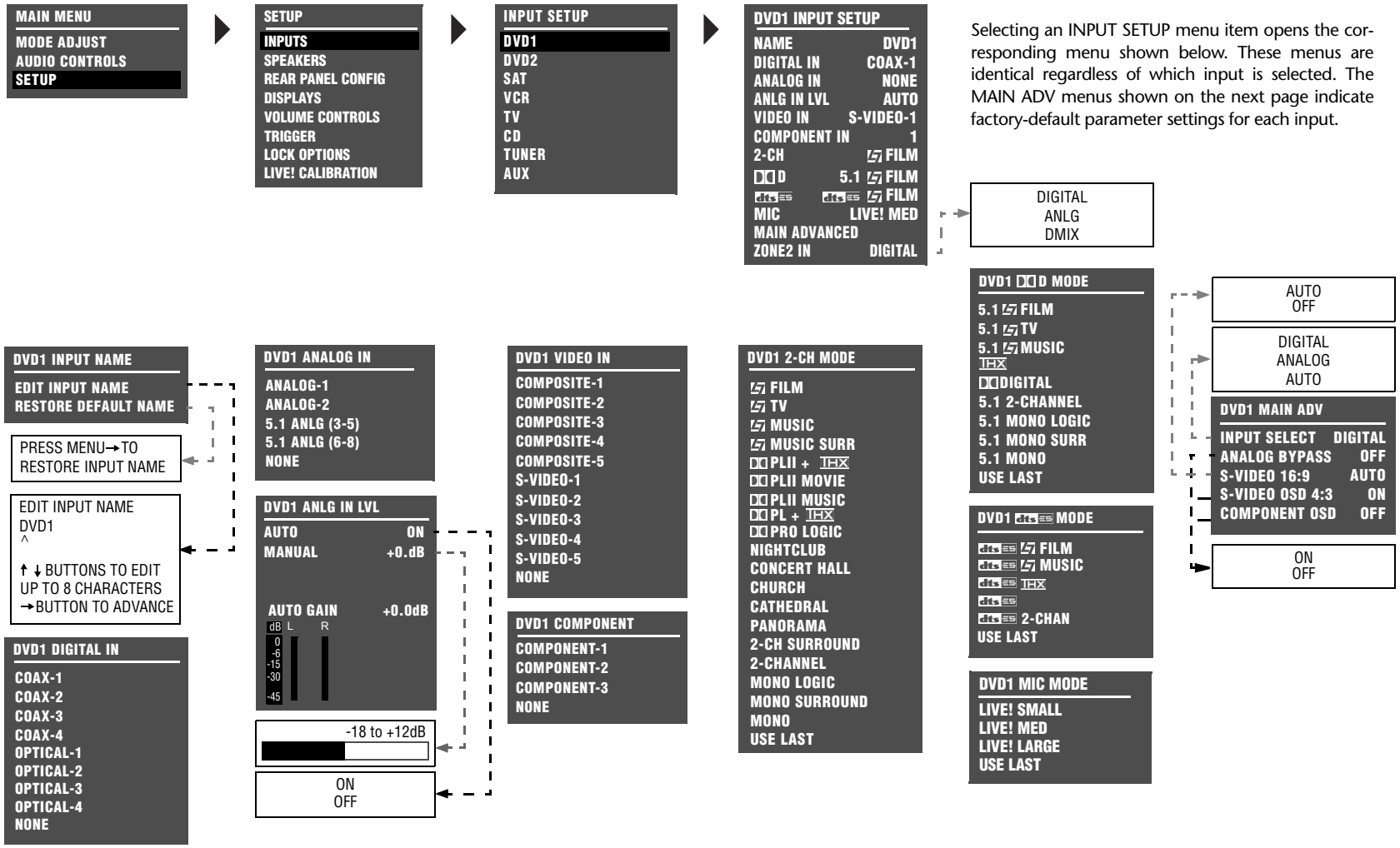






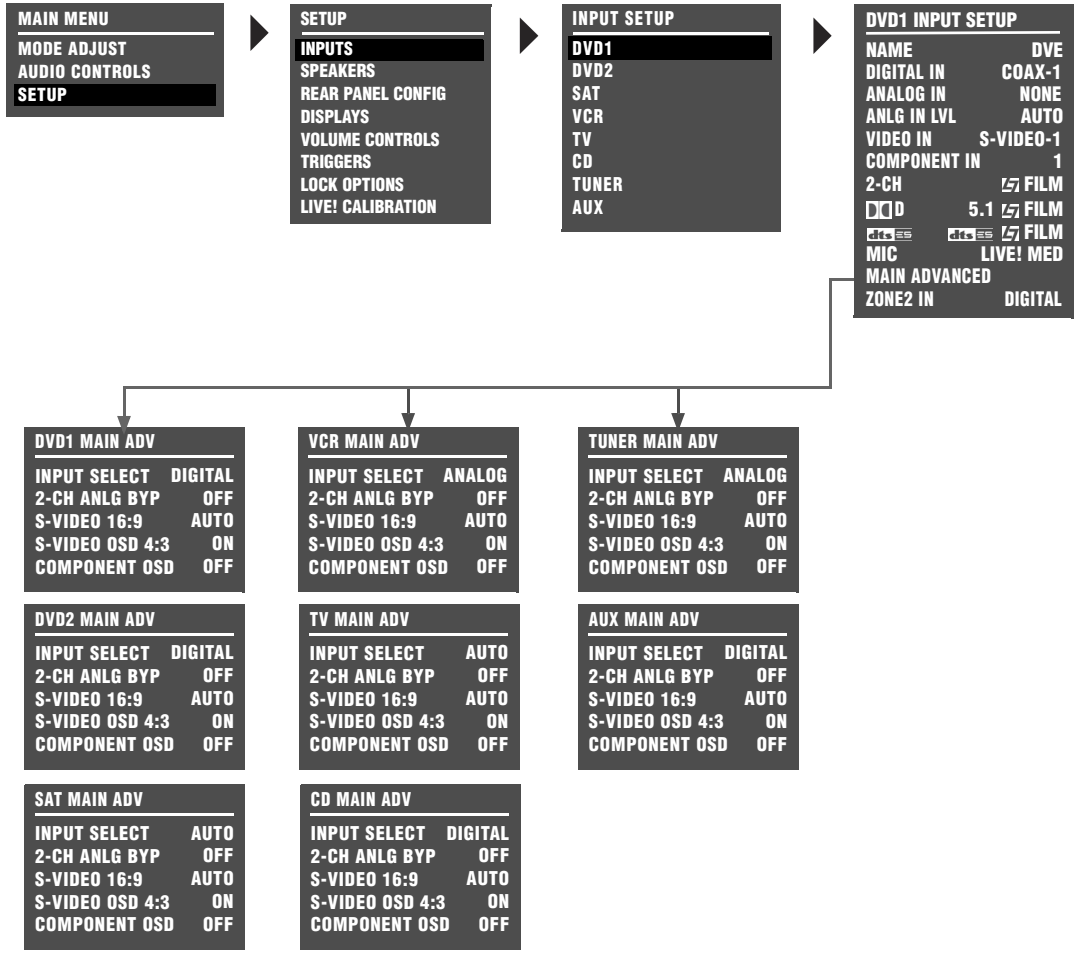




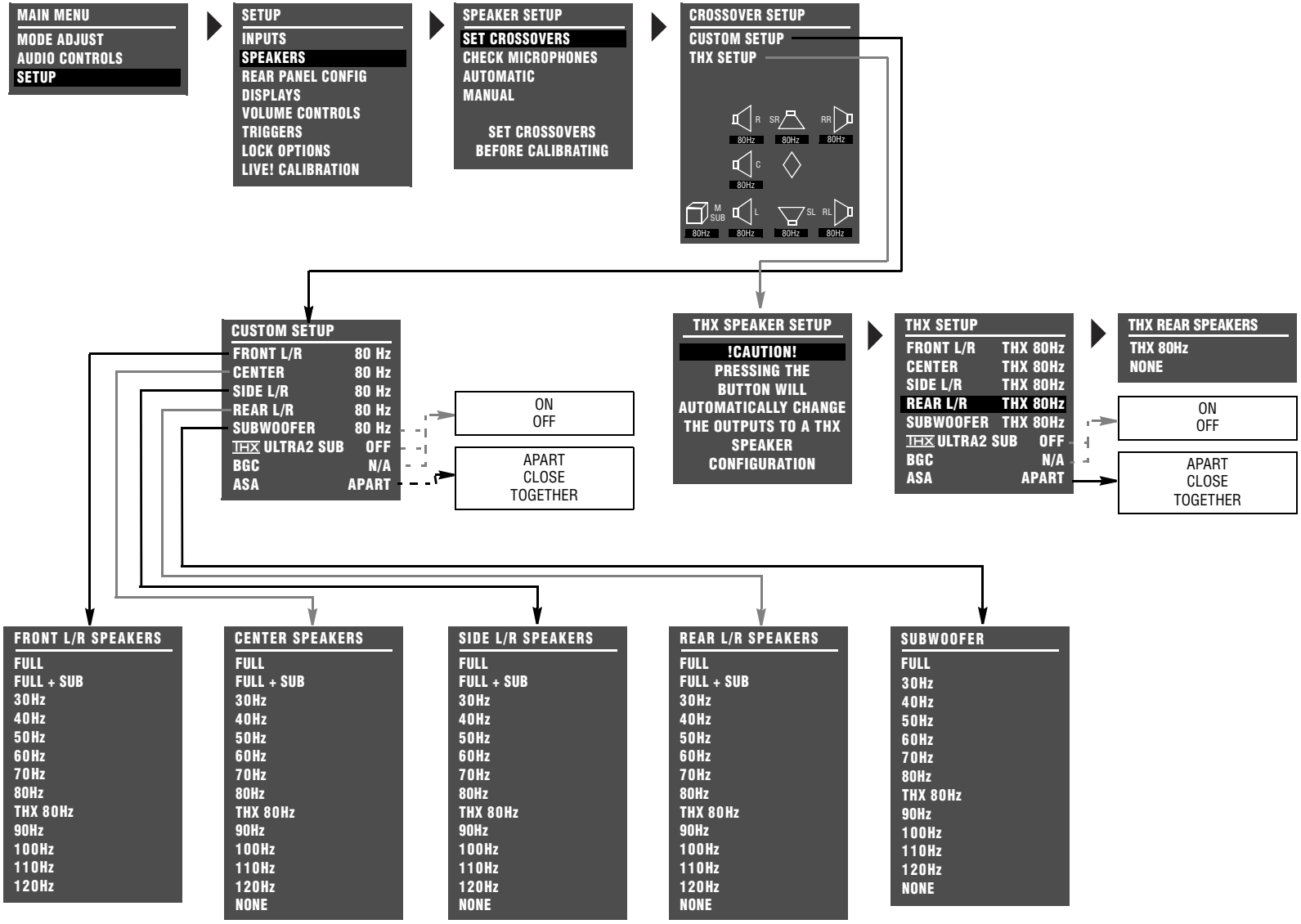


Selecting an INPUT SETUP menu item opens the corresponding menu shown below. These menus are identical regardless of which input is selected. The MAIN ADV menus shown on the next page indicate factory-default parameter settings for each input.

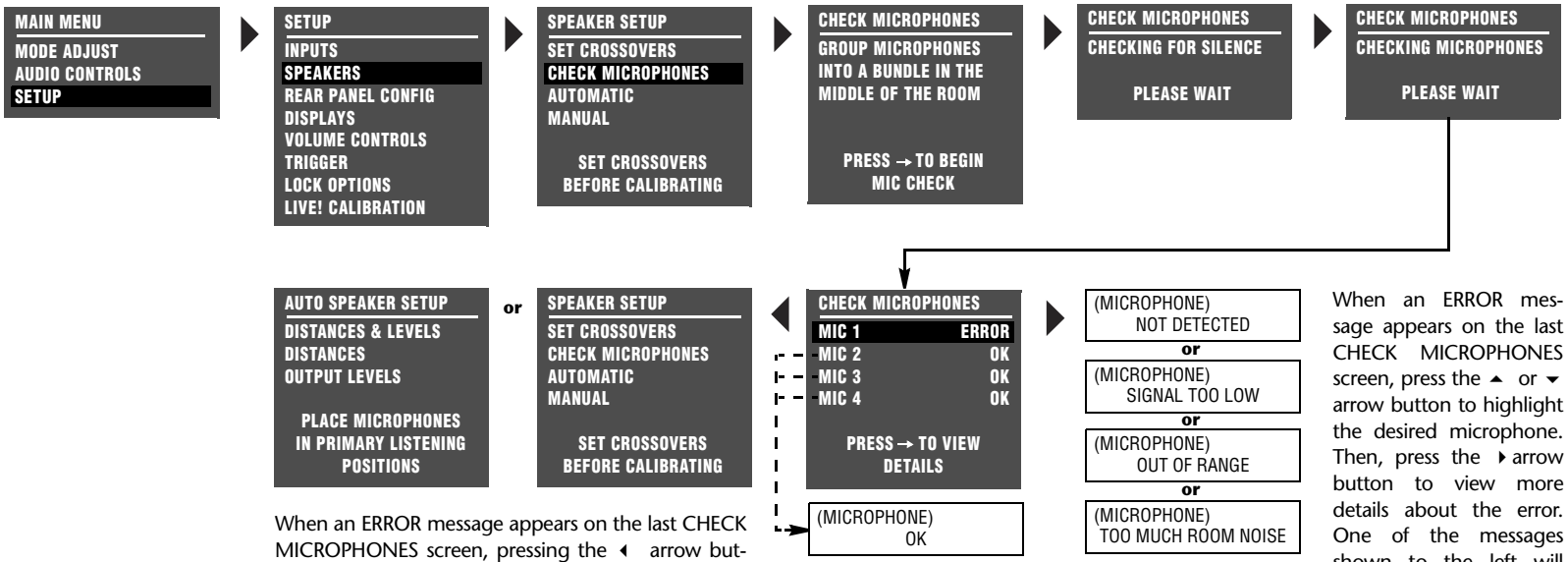
MENU TREE *(continued)*



The MAIN ADV menu indicates factory-default parameter settings for each input.

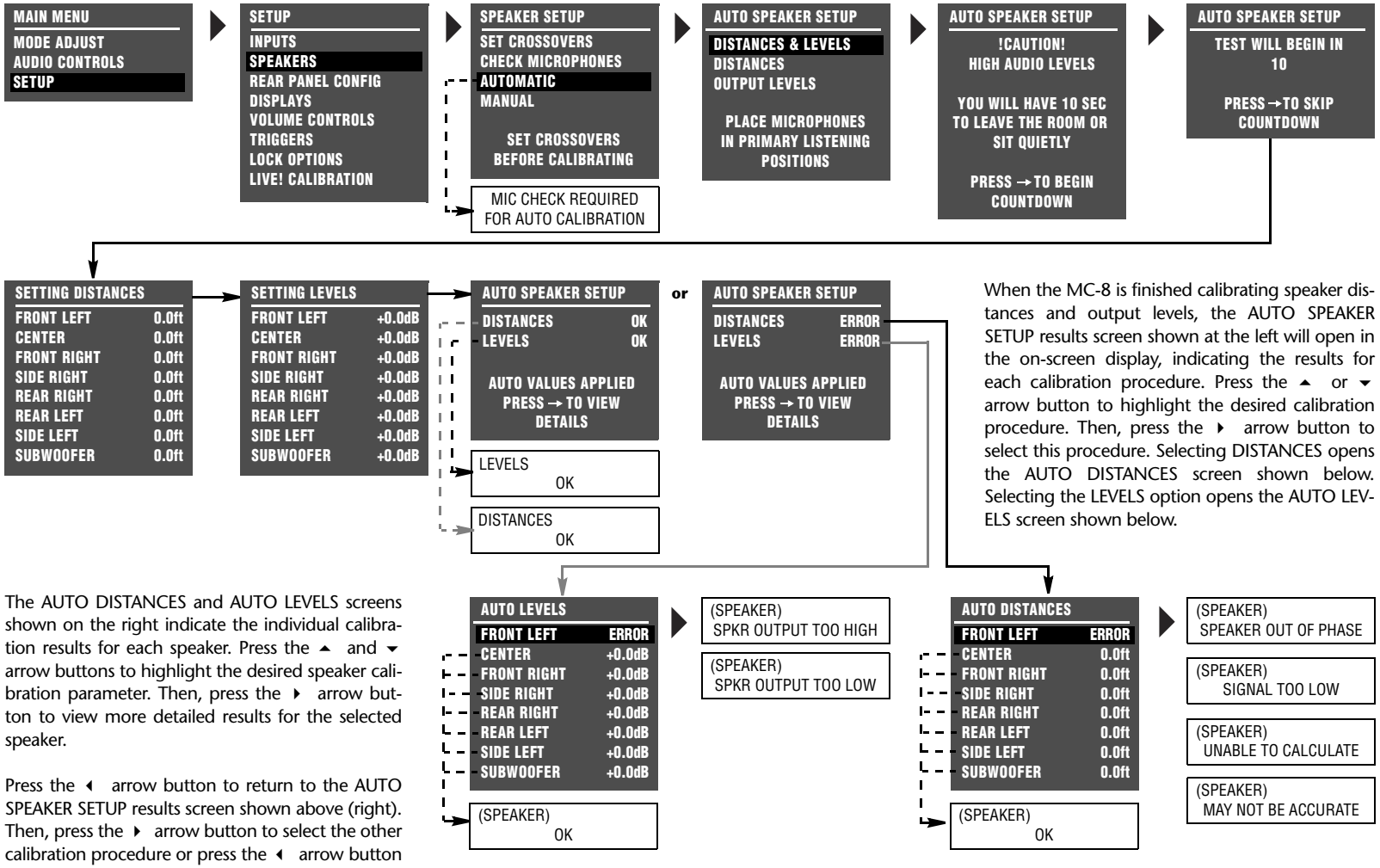

MAIN MENU
MODE ADJUST
AUDIO CONTROLS
SETUP
SETUP
INPUTS
SPEAKERS
REAR PANEL CONFIG
DISPLAYS
VOLUME CONTROLS
TRIGGERS
LOCK OPTIONS
LIVE! CALIBRATION
SPEAKER SETUP
SET CROSSOVERS
CHECK MICROPHONES
AUTOMATIC
MANUAL
SET CROSSOVERS
BEFORE CALIBRATING
CROSSOVER SETUP
CUSTOM SETUP
THX SETUP
R
SR
RR
C
M
SUB
L
SL
RL
80Hz
CUSTOM SETUP
FRONT L/R 80 Hz
CENTER 80 Hz
SIDE L/R 80 Hz
REAR L/R 80 Hz
SUBWOOFER 80 Hz
THX ULTRA2 SUB OFF
BGC N/A
ASA APART
ON
OFF
APART
CLOSE
TOGETHER
THX SPEAKER SETUP
!CAUTION!
PRESSING THE
BUTTON WILL
AUTOMATICALLY CHANGE
THE OUTPUTS TO A THX
SPEAKER
CONFIGURATION
THX SETUP
FRONT L/R THX 80Hz
CENTER THX 80Hz
SIDE L/R THX 80Hz
REAR L/R THX 80Hz
SUBWOOFER THX 80Hz
THX ULTRA2 SUB OFF
BGC N/A
ASA APART
THX REAR SPEAKERS
THX 80Hz
NONE
ON
OFF
APART
CLOSE
TOGETHER
FRONT L/R SPEAKERS
FULL
FULL + SUB
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
CENTER SPEAKERS
FULL
FULL + SUB
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
NONE
SIDE L/R SPEAKERS
FULL
FULL + SUB
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
NONE
REAR L/R SPEAKERS
FULL
FULL + SUB
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
NONE
SUBWOOFER
FULL
30Hz
40Hz
50Hz
60Hz
70Hz
80Hz
THX 80Hz
90Hz
100Hz
110Hz
120Hz
NONE

MENU TREE *(continued)*



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.

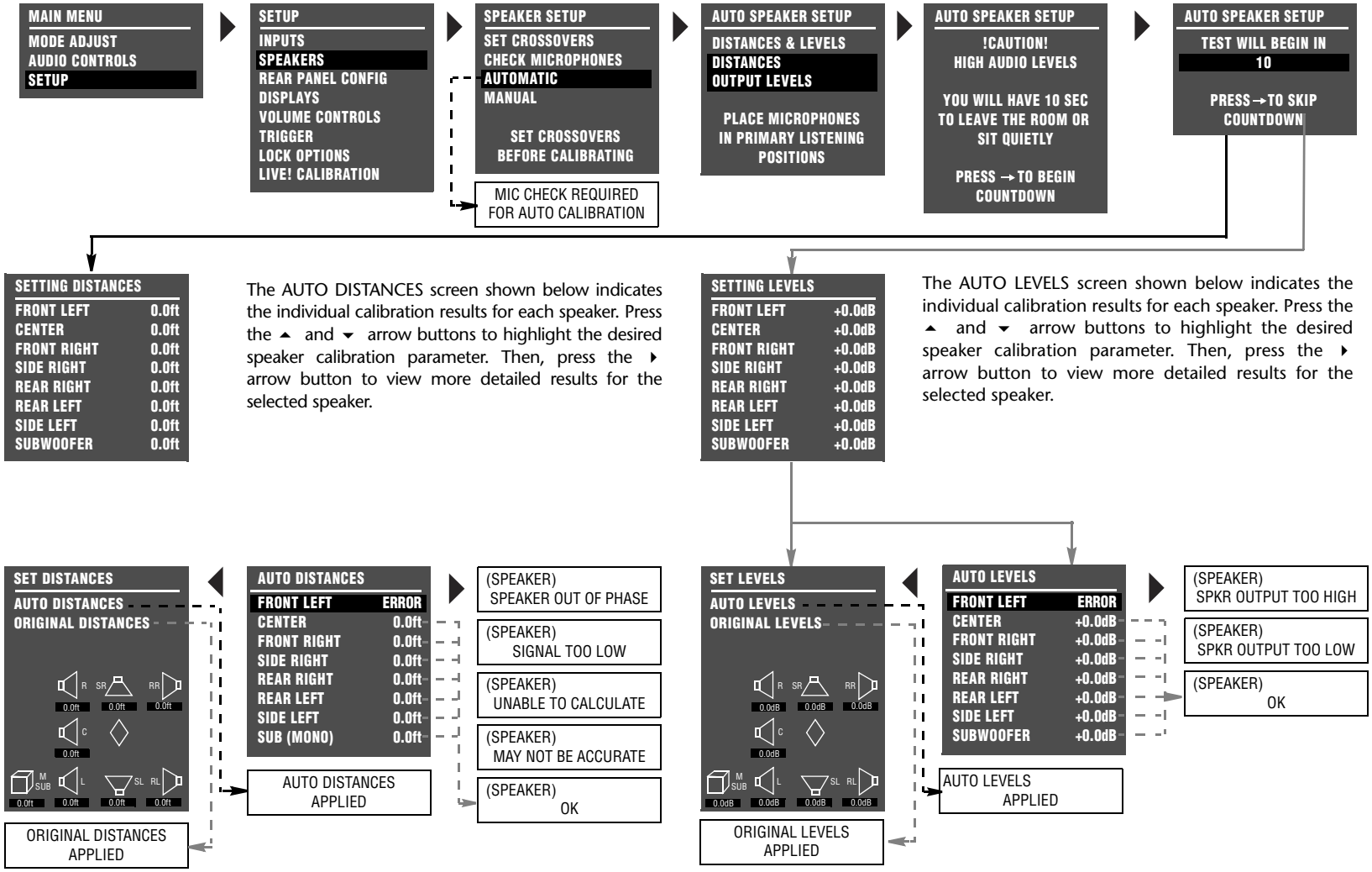


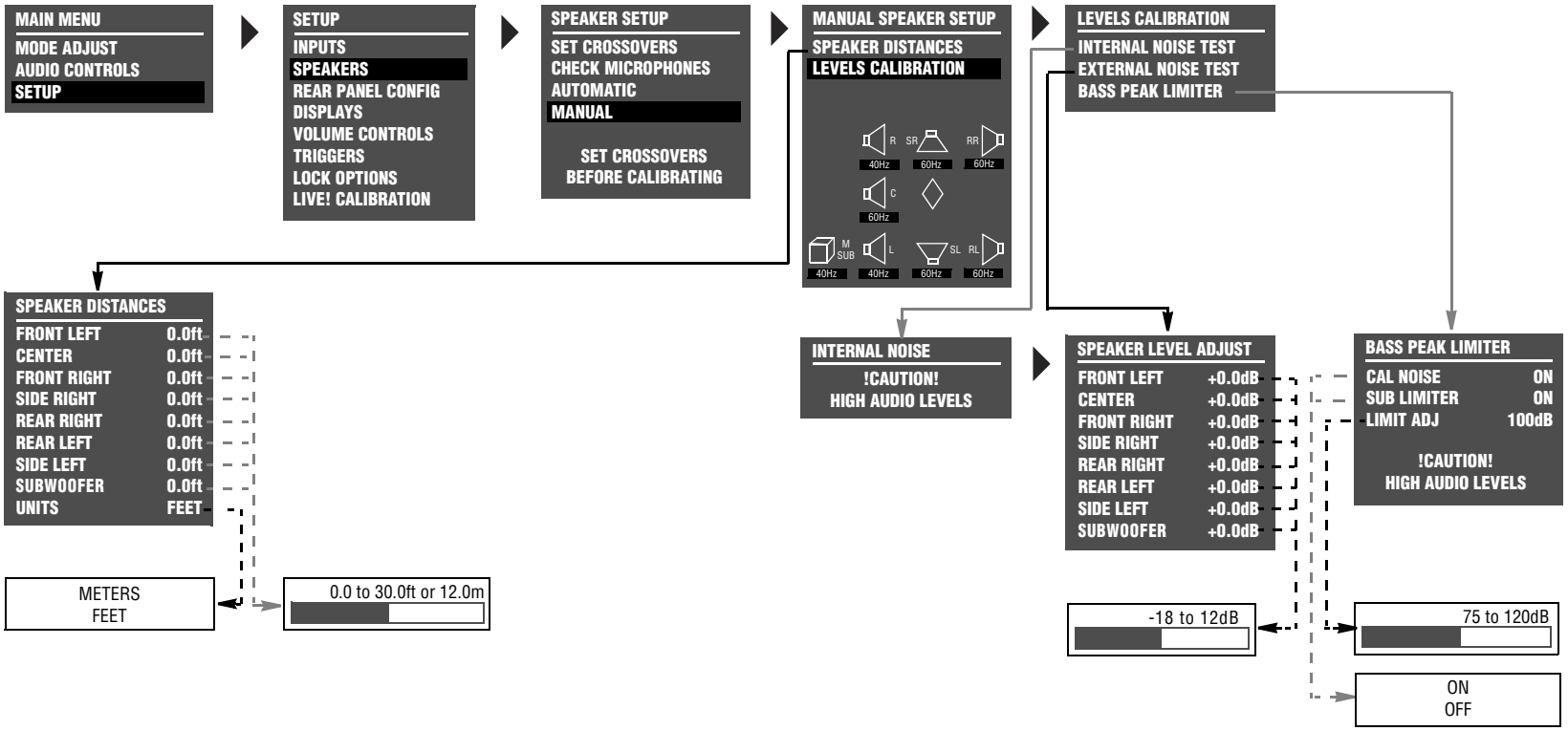
When the MC-8 is finished calibrating speaker distances and output levels, the AUTO SPEAKER SETUP results screen shown at the left will open in the on-screen display, indicating the results for each calibration procedure. Press the ▲ or ▼ arrow button to highlight the desired calibration procedure. Then, 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.

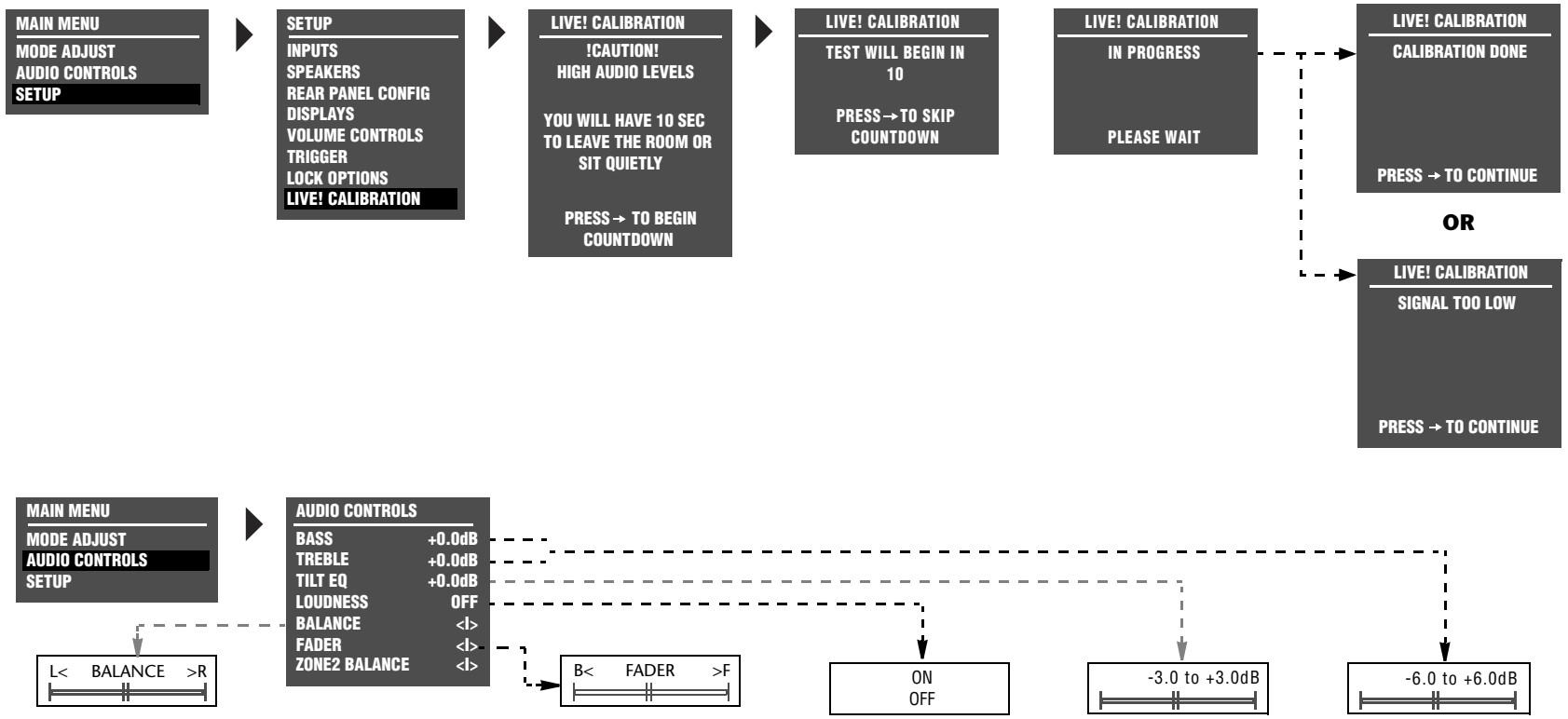
Press the ◀ arrow button to return to the AUTO SPEAKER SETUP results screen shown above (right). Then, press the ▶ arrow button to select the other calibration procedure or press the ◀ arrow button to return to the SPEAKER SETUP menu.

MENU TREE *(continued)*




MAIN MENU
MODE ADJUST
AUDIO CONTROLS
SETUP
SETUP
INPUTS
SPEAKERS
REAR PANEL CONFIG
DISPLAYS
VOLUME CONTROLS
TRIGGERS
LOCK OPTIONS
LIVE! CALIBRATION
SPEAKER SETUP
SET CROSSOVERS
CHECK MICROPHONES
AUTOMATIC
MANUAL
SET CROSSOVERS
BEFORE CALIBRATING
MANUAL SPEAKER SETUP
SPEAKER DISTANCES
LEVELS CALIBRATION
R
SR
RR
40Hz
60Hz
60Hz
C
60Hz
M
SUB
L
SL
RL
40Hz
40Hz
60Hz
60Hz
LEVELS CALIBRATION
INTERNAL NOISE TEST
EXTERNAL NOISE TEST
BASS PEAK LIMITER
SPEAKER 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
UNITS FEET
METERS
FEET
0.0 to 30.0ft or 12.0m
INTERNAL NOISE
!CAUTION!
HIGH AUDIO LEVELS
SPEAKER LEVEL ADJUST
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
-18 to 12dB
BASS PEAK LIMITER
CAL NOISE ON
SUB LIMITER ON
LIMIT ADJ 100dB
!CAUTION!
HIGH AUDIO LEVELS
75 to 120dB
ON
OFF

MENU TREE *(continued)*



Selecting a listening mode opens the corresponding listening mode menu (pages A-15 to A-17). The parameters on the left side of the listening mode menus differ from mode to mode. The parameter settings on the right side are adjustable. The listening mode menus shown here indicate factory-default parameter settings for each listening mode. Listening mode menu parameter drop-down menus are shown on pages A-17 to A-18.

MAIN MENU
- MODE ADJUST
- AUDIO CONTROLS
- SETUP

MODE ADJUST
- FILM
- TV
- MUSIC
- MUSIC SURR
- PLIIx + THX
- PLIIx MOV
- PLIIx MUS
- PLII + THX
- PLII MOVIE
- PLII MUSIC
- PL + THX
- PROLOGIC
- CIN
- + THX
- 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
- THX
- THX MUSIC
- 5.1 PLIIx MOV
- 5.1 PLIIx MUS
- DIGITAL
- 5.1 2-CHANNEL
- 5.1 MONO LOGIC
- 5.1 MONO SURR
- 5.1 MONO
- FILM
- MUSIC
- THX
- THX MUSIC

MODE ADJUST
- 2-CHAN*
- 5.1a BYPASS
- 2CH BYPASS
- LIVE! SMALL
- LIVE! MED
- LIVE! LARGE

FILM

AUTO AZIMUTH	ON
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
OUTPUT LEVELS	
CUSTOM	

TV

AUTO AZIMUTH	ON
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
OUTPUT LEVELS	
CUSTOM	

MUSIC

VOCAL ENHANCE	+0.0dB
FRONT STEERING	MUSIC
SOUND STAGE	NEUTRAL
5 SPKR ENHANCE	ON
BASS ENHANCE	OFF
SURR ROLLOFF	7.0kHz
REAR DLY OFFSET	15ms
OUTPUT LEVELS	
CUSTOM	

MUSIC SURR

VOCAL ENHANCE	+0.0dB
FRONT STEERING	MSURR
SOUND STAGE	NEUTRAL
5 SPKR ENHANCE	ON
BASS ENHANCE	OFF
SURR ROLLOFF	7.0kHz
REAR DLY OFFSET	15ms
OUTPUT LEVELS	
CUSTOM	

PLIIx + THX

RE-EQUALIZER	ON
OUTPUT LEVELS	
CUSTOM	

PLIIx MOV

OUTPUT LEVELS	
CUSTOM	

PLIIx MUS

PANORAMA	OFF
CTR WIDTH	3
DIMENSION	NEUTRAL
SURROUND DLY	10ms
OUTPUT LEVELS	
CUSTOM	

PLII + THX

RE-EQUALIZER	ON
OUTPUT LEVELS	
CUSTOM	

PLII MOVIE

OUTPUT LEVELS	
CUSTOM	

PLII MUSIC

PANORAMA	OFF
CTR WIDTH	3
DIMENSION	NEUTRAL
SURROUND DLY	10ms
OUTPUT LEVELS	
CUSTOM	

PL + THX

RE-EQUALIZER	ON
OUTPUT LEVELS	
CUSTOM	

PRO LOGIC

OUTPUT LEVELS	
CUSTOM	

+ THX

RE-EQUALIZER	ON
OUTPUT LEVELS	
CUSTOM	

CIN

OUTPUT LEVELS	
CUSTOM	

MUSIC

OUTPUT LEVELS	
CUSTOM	

NIGHTCLUB

CENTER DEPTH	11
SPEECH DETECT	ON
SIZE	5m
LIVENESS	196ms
PRE-DELAY	5ms
ROLLOFF	9.0kHz
EFFECT LVL	+3dB
OUTPUT LEVELS	
CUSTOM	

CONCERT HALL

CENTER DEPTH	12
SPEECH DETECT	ON
SIZE	20m
LIVENESS	1.72ms
PRE-DELAY	OFF
ROLLOFF	2.4kHz
EFFECT LVL	-2dB
OUTPUT LEVELS	
CUSTOM	

CHURCH

CENTER DEPTH	5
SPEECH DETECT	ON
SIZE	20m
MID RT	1.56s
BASS RT	1.87s
PRE-DELAY	24ms
ROLLOFF	2.4kHz
EFFECT LVL	-3dB
OUTPUT LEVELS	
CUSTOM	

CATHEDRAL

CENTER DEPTH	12
SPEECH DETECT	ON
SIZE	30m
MID RT	3.72s
BASS RT	4.47s
PRE-DELAY	23ms
ROLLOFF	3.1kHz
EFFECT LVL	-8dB
OUTPUT LEVELS	
CUSTOM	

PANORAMA

EFFECT LVL	+4dB
BASS CONTENT	STEREO
LOW FREQ WIDTH	+0
SURR ROLLOFF	3.1kHz
REAR DLY OFFSET	15ms
INPUT BALANCE	<I>
CALIBRATION	
OUTPUT LEVELS	
CUSTOM	

2-CH SURROUND

OUTPUT LEVELS	
CUSTOM	

2-CHANNEL

SUB L/R LVL	+0dB
CUSTOM	

MONO LOGIC

EFFECT LVL	-9dB
ACADMY FILTER	ON
SURR ROLLOFF	3.1kHz
OUTPUT LEVELS	
CUSTOM	

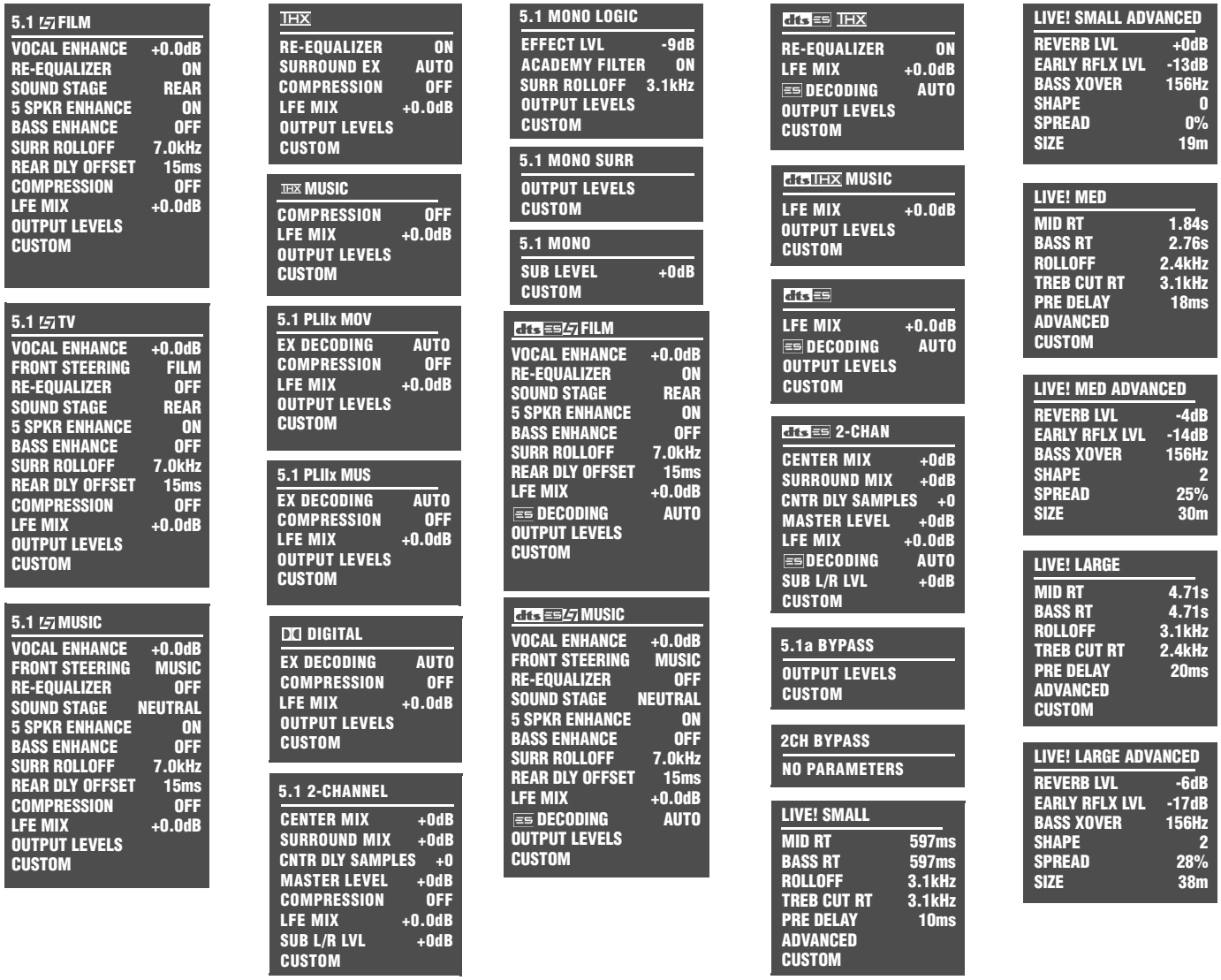
MONO SURROUND

OUTPUT LEVELS	
CUSTOM	

MONO

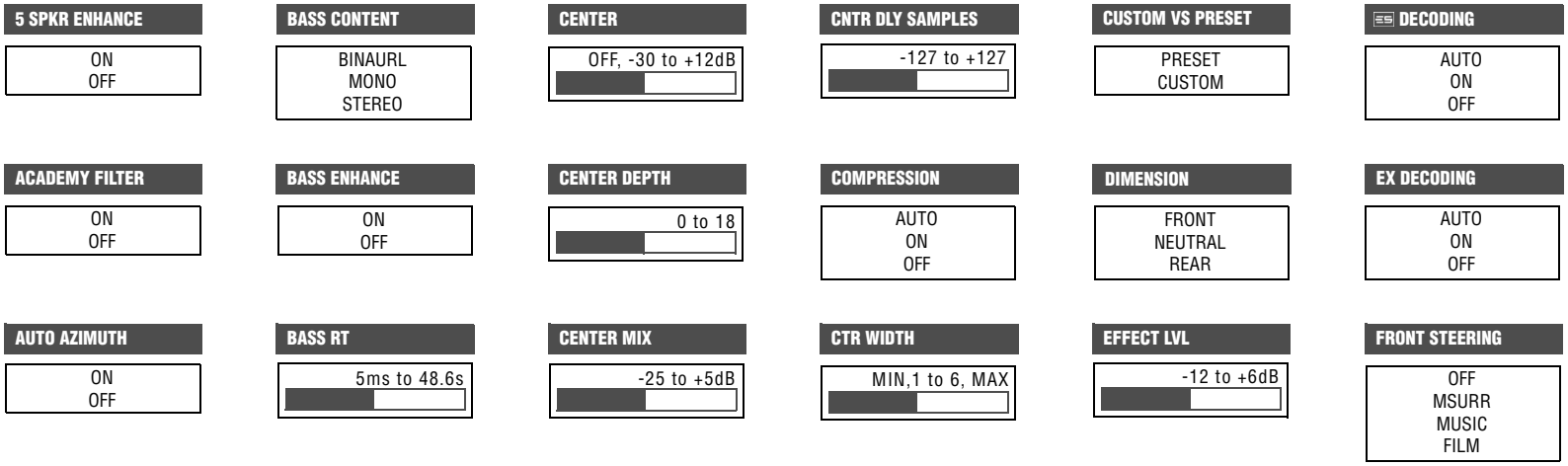
SUB LEVEL	+0dB
CUSTOM	

MENU TREE *(continued)*

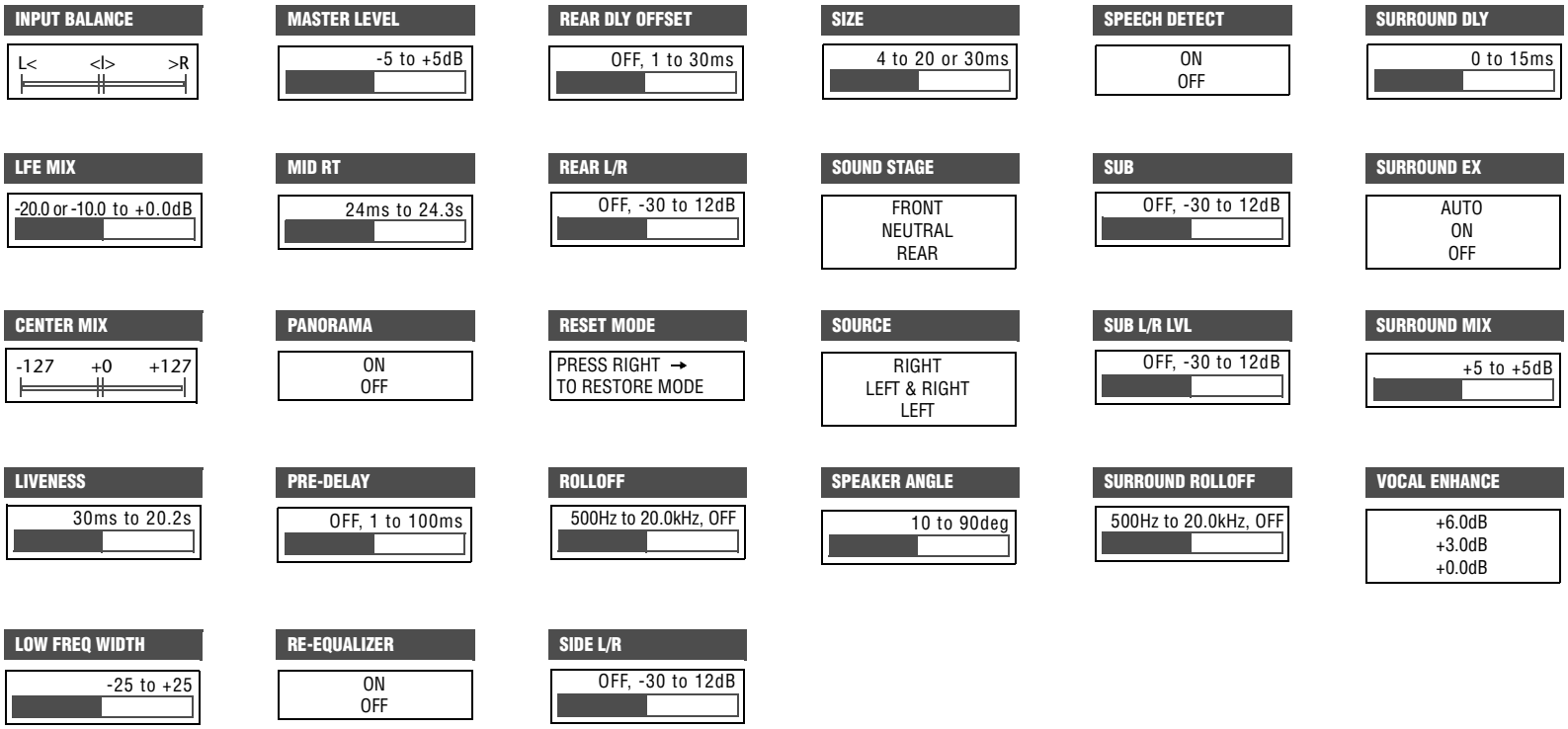


Selecting the listening mode menu CALIBRATION, OUTPUT LEVELS or CUSTOM option opens the corresponding menu path shown below. The CALIBRATION option is available for the PANORAMA listening mode. The OUTPUT LEVELS and CUSTOM options are available for most listening modes. These menus are identical regardless 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.

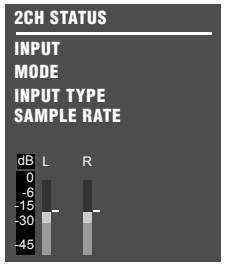


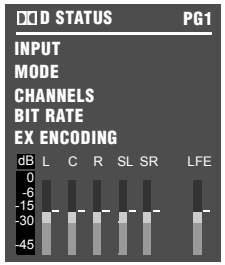
MENU TREE *(continued)*

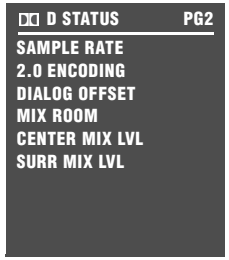


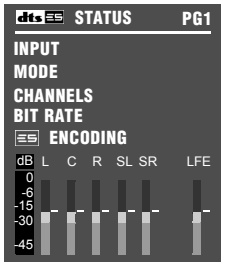
Refer to the Restoring Factory-Default Settings section that begins on page 6-4 for more information.

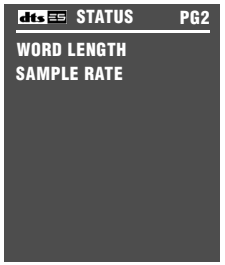
Refer to the Status Menus section that begins on page 2-19 for more information.

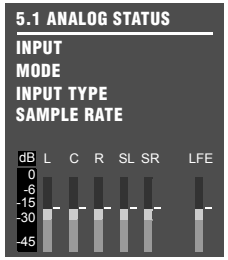


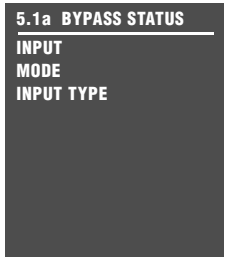


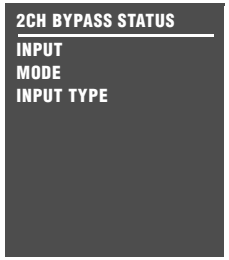


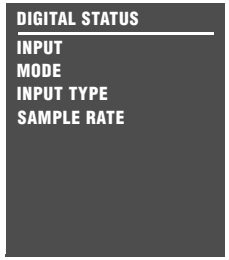


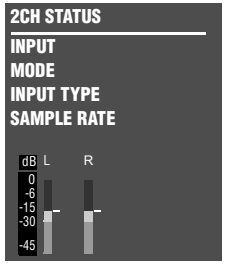












INSTALLATION WORKSHEET

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												

SPEAKER SETUP	CUSTOM SETUP	THX SETUP	SPEAKER DISTANCES	LEVELS CALIBRATION
FRONT LEFT/RIGHT		THX 80Hz		
CENTER		THX 80Hz		
SIDE LEFT/RIGHT		THX 80Hz		
REAR LEFT/RIGHT				
SUBWOOFER		THX 80Hz		
THX ULTRA2SUB				
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			

INSTALLATION WORKSHEET *(continued)*

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 LS FILM LS TV LS MUSIC LS MUSIC SURR DD PLIIx + THX DD PLIIx MOV DD PLIIx MUS DD PLII + THX DD PLII MOVIE DD PLII MUSIC DD PL + THX DD PRO LOGIC dts NEO + THX dts NEO CIN dts NEO MUSIC NIGHTCLUB CONCERT HALL CHURCH CATHEDRAL PANORAMA	2-CH SURROUND 2-CHANNEL MONO LOGIC MONO SURROUND MONO 5.1 LS FILM 5.1 LS TV 5.1 LS MUSIC THX THX MUSIC 5.1 PLIIx MOV 5.1 PLIIx MUS DD DIGITAL EX 5.1 2-CHANNEL 5.1 MONO LOGIC 5.1 MONO SURR 5.1 MONO dts ES LS FILM dts ES LS MUSIC dts ES THX dts ES THX MUSIC dts ES dts ES 2-CHAN 5.1a BYPASS 2CH BYPASS LIVE! SMALL LIVE! MED LIVE! LARGE

Index

LIMITED WARRANTY

Harman Specialty Group offers the following warranty on this product:

What is the Duration of this Warranty?

This warranty will remain in effect for three (3) years from the original date of purchase.

Who is Covered?

This warranty may be enforced by the original purchaser and subsequent owners during the warranty period, provided the original dated sales receipt or other proof of warranty coverage is presented at time of service.

What is Covered?

This warranty covers all defects in material and workmanship on this product, except as specified below. The following are not covered:

1. Damage resulting from
   A. Accident, misuse, abuse, or neglect.
   B. Failure to follow instructions contained in the user guide.
   C. Repair or attempted repair unauthorized by Harman Specialty Group.
   D. Failure to perform recommended periodic maintenance.
2. Causes other than product defects, including lack of skill, competence, or experience on the part of the owner.
3. Damage occurring during any shipment of this product. Claims for shipping damages must be made with 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)

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PRODUCT REGISTRATION

Please register this product within 15 days purchase. To do so, complete and return this or register online at www.lexicon.com. Retain sales receipt for proof of coverage.

○ Mr. ○ Mrs. ○ Ms. ○ Miss
○ Single ○ Married ○ Divorced ○ Widowe

First Name Last Name
Company Title
Mailing Address
City State Zip
Telephone Number Fax Number
Email Address
Product Model Purchase Date
Version Serial Number
Where did you purchase this product?

Age	Education	Household Income
○ Under 18	○ High School	○ Under $20,000
○ 18-24	○ College	○ $20,000 to $34,999
○ 25-34	○ Graduate School	○ $35,000 to $49,000
○ 35-49	○ Certificate:	○ $50,000 to $74,999
○ 50-64		○ $75,000 to $99,000
○ 65+		○ $100,000+

How did you learn about this product? Choose one:

○ Friend	○ Store salesperson	○ Advertisement
○ Colleague	○ Store display	○ Magazine Article
○ Teacher	○ Received as a gift	○ Own other Lexicon products

Which of the following were most important in the selection of this product?
○ Sound ○ Quality ○ Value for price ○ Durability
○ Features ○ Brandname ○ Other:

What are your three favorite magazines?
1. 2. 3.

What are your three favorite websites?
1. 2. 3.

What features would you like to see added to this product in the future?

MC-8 08/05

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
16 Progress Road
Billerica, MA 01821-5730 USA

Part No. 070-15481 | Rev 1 | 08/05