

### Quick Setup Guide

## INTRODUCTION

Thank you for your purchase of the Krell® Evolution 707. The Evolution 707 is a state-of-the-art surround sound preamp/processor with remote control and dual-zone capabilities, fully utilizing the latest in video displays and audio/video source components. This component features a full complement of advanced Krell technologies including: discrete, complimentary, class A, direct-coupled circuitry. Proprietary Krell technologies include: Krell Current Mode™, Evolution CAST™ inputs and outputs, a custom 1080p video scaler and HDMI™ 1.3 encoder. The Evolution 707 also incorporates a bi-directional RS-232 port and RC5 control to ensure compatibility with third party controllers, also allowing software upgrades via Flash memory for future format or design enhancements.

A new, easy to access on-screen menu system available from all video outputs all the time makes customization a snap. The Evolution 707 features Dolby Digital Surround EX, Dolby Digital 5.1, DTS 6.1 ES DTS 5.1, DTS NEO:6, and Dolby Pro Logic II processing; Dolby TrueHD and DTS HD Master Audio lossless surround formats over HDMI™ 1.3; and nine proprietary Krell Music Surround modes.

## WARNINGS



This product complies with the EMC directive (89/336/EEC) and the low-voltage directive (73/23/EEC).



*The Evolution 707 must be placed on a firm, level surface where it is not exposed to dripping, splashing, or excessive moisture.*

*The ventilation grids on the top and bottom of the Evolution 707 must be unobstructed at all times during operation. Do not place flammable material on top of or beneath the preamplifier.*

*Before making connections to the Evolution 707, ensure that the unit is in stand-by and the associated components are in mute or stand-by mode as well. Make sure all cable terminations are of the highest quality, free from frayed ends, short circuits, or cold solder joints.*

**THERE ARE NO USER-SERVICEABLE PARTS INSIDE AN Evolution 707.**

## UNPACKING

*Save the shipping box and all packing materials. If you need to ship the Evolution amplifier in the future, repack the Evolution 707 in its original packaging to prevent shipping damage.*

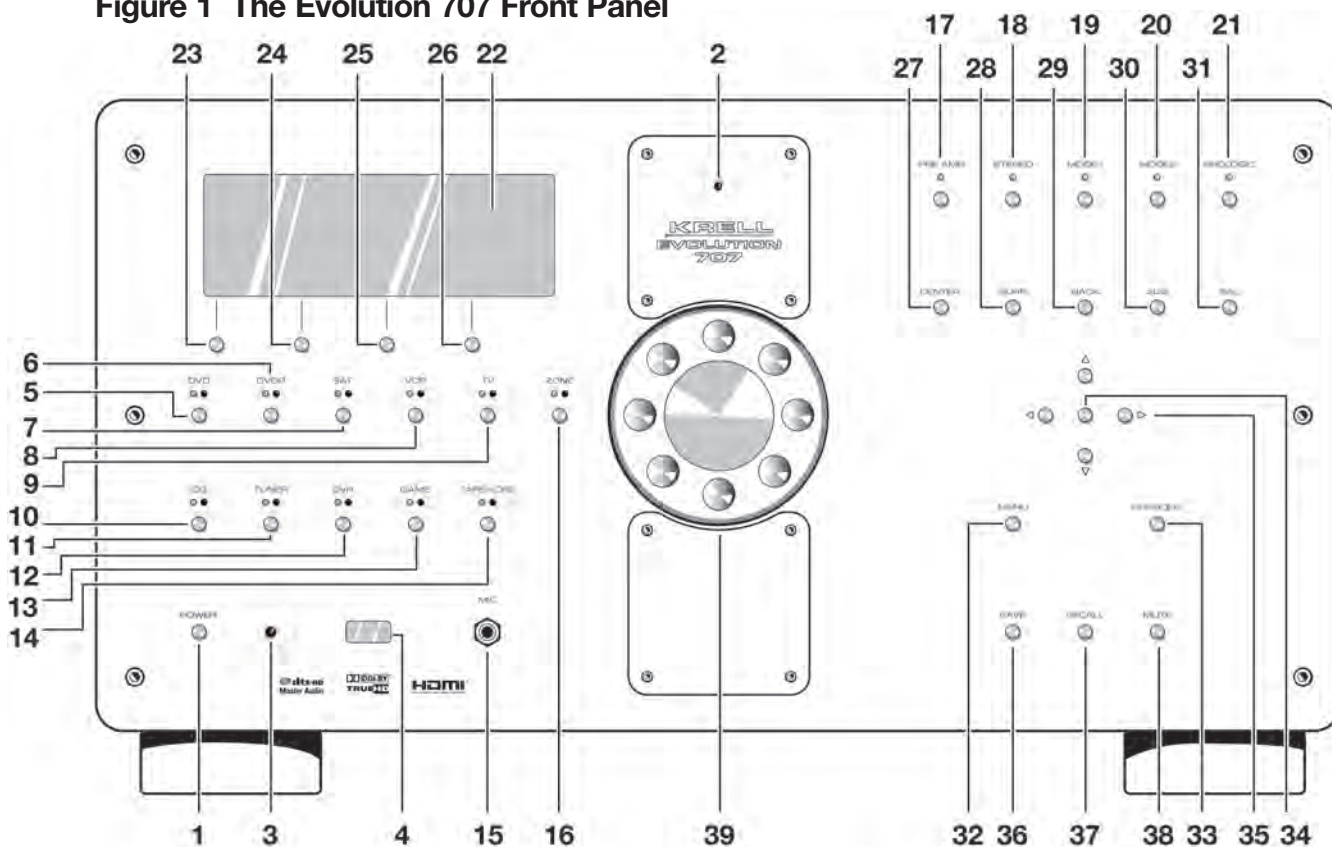
Two people are needed to remove an Evolution 707 from its shipping box safely and easily. The Evolution 707 weighs 49 lbs (22 kg).

1. Place the shipping box right side up, near the installation area.
2. Open the shipping box. You see:

- blue packing foam
- cardboard flaps containing cutout handles for lifting
- 1 Evolution 707 wrapped for shipping
- 1 accessory box containing:
  - 1 AC power cord
  - 1 12 VDC (12 V trigger) cable
  - 1 Evolution 707 hand held remote control
  - 2 AAA batteries for the remote
  - 1 T-10 wrench
  - 1 Quick Setup Guide and literature packet

3. Remove the accessory box from the accessory box well and set it aside.
4. Locate the cardboard cutout handles. The front and back of the surround preamp/processor face the cardboard cutout handles.
5. Position one person at the front of the surround preamp/processor and one person at the back of the surround preamp/processor, facing the cardboard cutout handles.
6. Each person grabs a pair of cardboard cutout handles and simultaneously lifts the surround sound/processor straight up, out of the carton.
7. Place the Evolution 707 in a safe location and remove the protective plastic wrapping.

**Figure 1 The Evolution 707 Front Panel**



## FRONT PANEL AND REMOTE FUNCTIONS

*Access functions via the buttons or knob on the front panel, or from the corresponding key on the remote.*

### BASIC OPERATION

#### 1 Power Button/Key

Turns the Evolution 707 from stand-by to operational mode, and turns the 12 VDC output (12 V trigger) on and off.

#### 2 Power/Stand-by LED

**Stand-by Mode.** When the AC power cord is plugged into the wall, and the back panel switch is in the on position, the LED illuminates in red: the Evolution 707 is in stand-by mode.

**Operational Mode.** When the power/stand-by button is pressed while the Evolution 707 is in stand-by, the LED illuminates in blue: the Evolution 707 is in the operational mode.

#### 3 Infrared Sensor

Receives commands from the Evolution 707 remote control.

#### 4 Infrared Emitter

Sends the Evolution 707 remote operation code to a learning remote.

### INPUT DEVICE SELECTION

The Evolution 707 is equipped with ten input device selection buttons on the front panel and corresponding keys on the remote control. Any video or audio function can be assigned to any one of these buttons. When properly configured, the Evolution 707 automatically engages the correct video and audio inputs when you press the device selection button.

#### 5 DVD Button/Key

#### 6 DVDR Button/Key

#### 7 SAT Button/Key

#### 8 VCR Button/Key

#### 9 TV Button/Key

#### 10 CD Button/Key

#### 11 Tuner Button/Key

#### 12 DVR Button/Key

#### 13 Game Button/Key

#### 14 Tape/VCR2 Button/Key

Playback pre-recorded tapes; compare the output signal of an analog tape recorder to an audio source.

### ALTERNATIVE INPUT SELECTION

#### 15 Microphone Connection

For use with a Krell-supplied microphone, to calibrate microphone equipment.

### ZONE INDICATOR

#### 16 Zone 2 Button/Key

The LED illuminates green on the left if the main zone is active, and illuminates red on the right if Zone 2 is active.

On the front panel, press the zone 2 button to activate and change zones. On the remote, press the main key to activate the main zone. Press the Z2 key to activate zone 2.

### PROCESSING MODE

#### 17 Preamp Button/Key

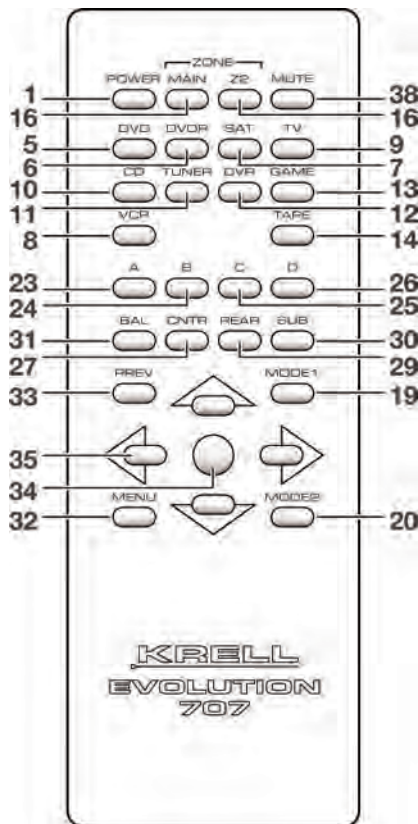
Sends the signal from an analog input directly to the volume control, with no digital processing, using the preamplifier analog stage. Used for components with a high quality signal, such as the Krell Evolution 505 CD Player to avoid possible digital signal degradation.

**Note:** This feature is available with a signal from an analog input. If you attempt to use it with a signal from a digital input, the OSD reads NOT ALLOWED

#### 18 Stereo Button/Key

Selects stereo decoding. The red LED illuminates when this function is engaged.

**Figure 2 The Evolution 707 Remote**



All functions on the remote control duplicate front panel functions.

**19 Mode 1 Button/Key**

**20 Mode 2 Button/Key**

Selects available processing modes (Dolby Digital, DTS, PLII Movie, etc.) for incoming signals from an audio source. The signal default mode is always stored in Mode 1. Use the Mode 1 button or key to select the default mode. All modes that are available for the same signal are automatically stored in Mode 2. Scroll through these modes using the Mode 2 button or key. The last mode displayed in the Mode 2 list is the selected mode. The Evolution 707 automatically selects the assigned mode for the available signal from the source.

**21 Pro Logic II Button/Key**

Selects Dolby Pro Logic II modes for Dolby Surround encoded material, including laser discs, videotapes, television broadcasts, and compact discs. The red LED

illuminates when Dolby Pro Logic II decoding is selected.

*Note: These modes are selected automatically if Dolby Digital source material is encoded for Pro Logic. To turn off these modes, press the Pro Logic II button.*

**DISPLAY WINDOW**

**22 Front Panel Display**

Provides status messages for Evolution 707 operations, including volume and balance level, decoding mode, and zone information. When a new device is selected, the physical inputs are displayed. The display turns off after 60 seconds of inactivity.

**SOFTKEY BUTTONS/KEYS**

**23-26 Softkeys** (For future use.)

**INDIVIDUALIZED CHANNEL TRIM**

The center, surr, back, and sub buttons and the center, sub, and rear keys make temporary loudspeaker output adjustments of

+/- 10 dB. These temporary adjustments revert to 0 dB when a new device is selected or when the system is powered down.

**27 Center Button/Key**

Adjusts the center loudspeaker volume. Press the center button or key, then use the volume knob or up and down directional keys to make adjustments.

**Phantom Center.** Press the center button or key twice activate. Press the center button twice again to deactivate.

**28 Surr Button**

Adjusts the volume of the surround loudspeakers from the front panel. Press the surr button; use the volume knob or up and down directional keys to adjust the surround loudspeakers. SURROUND TRIM appears on the front panel display.

**29 Back Button/Rear Key**

Adjusts the volume of the back loudspeakers. Press the back button once or the rear key twice, then use the volume knob or the up and down directional keys to adjust the volume of the back loudspeakers. BACK appears on the front panel display. Press the rear key once to access and adjust the surround loudspeakers.

**30 Sub Button/Key**

Adjusts the subwoofer volume. Press the sub button or key; use the volume knob or the up and down directional keys to adjust the volume.

**31 Balance Button/Key**

Adjust the main left/right loudspeaker balance. Press the balance button or key, then use the volume knob or the up and down directional keys to adjust the balance. Balance levels may be adjusted in .5 dB increments, up to 6 dB, and appear on the front panel display. The center position is displayed as BAL 0.

Balance level keys revert to

their original function as volume level controls after 3 seconds of inactivity.

**MENU FUNCTIONS**

**32 Menu Button/Key**

Accesses the setup menu and on-screen menu display.

**33 Previous Button/Key**

Return to the previously displayed setup menu screen.

**34 Enter Button/Key**

Accepts setup menu selections, accept an input device selection, or displays current system conditions.

**35 Directional Buttons/Keys**

**Up and Down Keys.** Adjust volume, and adjust balance if the balance function is activated. In the operational mode, the up and down directional keys select EQ memory.

**Right Key.** In the operational mode, the right arrow key engages Digital Room EQ.

**All Keys.** In the setup menu, all four directional keys navigate the on-screen menus.

**PROCESSOR FUNCTIONS**

**36 Save Button/Key**

Saves system configuration settings. Press and hold this button or key to activate. This function is also used to program a learning remote.

**37 Recall Button**

Recalls previously stored system configuration settings. To return configuration settings to factory default, hold the recall button and press the power button with the Evolution 707 in the operational mode.

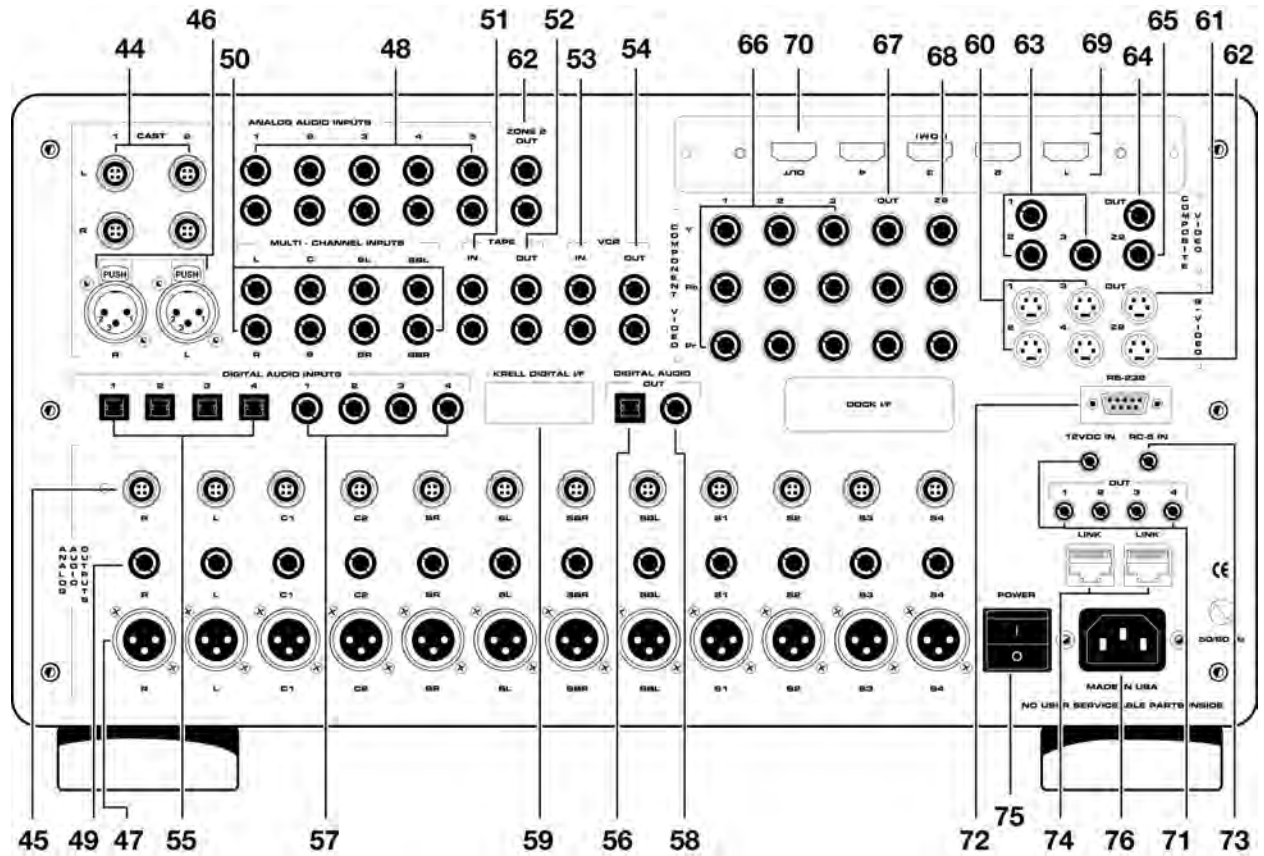
**38 Mute Button/Key**

Mutes the Evolution 707 output. When this function is active, VOLUME MUTE appears in the front panel display.

**39 Volume Knob/Keys**

Scrolls through menu selections, adjusts output for entire system, adjusts volume and balance levels for the center and surround/back loudspeakers, and subwoofer. Volume and balance levels appear in the front panel display.

Figure 3 The Evolution 707 Back Panel





## BACK PANEL CONNECTIONS

### ANALOG AUDIO

#### OUTPUTS AND INPUTS

##### 44 Evolution CAST Inputs

##### 45 Evolution CAST Outputs

##### 46 Balanced Inputs

One set of balanced inputs with XLR connectors.

##### 47 Balanced Outputs

Eight balanced analog audio channel outputs, with XLR connectors, for the left, center, subwoofer, surround left, surround right, back left, and back right.

##### 48 Single-ended Inputs

Seven sets of single-ended inputs with RCA connectors.

##### 49 Single-ended Outputs

Eight single-ended analog audio channel outputs, with RCA connectors, for the left, center, right, subwoofer, surround left, surround right, back left, and back right.

##### 50 7.1 Audio Inputs

Eight single-ended 7.1 inputs for multi-channel SACD and DVD audio devices. These inputs are analog pass-through inputs.

##### 51 Tape In Left and Right

One set of single-ended tape inputs with RCA connectors.

##### 52 Tape Out Left and Right

One set of single-ended tape outputs with RCA connectors.

##### 53 VCR In Left and Right

One set of single-ended inputs with RCA connectors, for a VCR audio source.

##### 54 VCR Out Left and Right

One set of single-ended outputs with RCA connectors, for a VCR audio source.

### DIGITAL AUDIO INPUTS AND OUTPUTS

##### 55 Toslink Optical Input

Four optical digital EIAJ inputs with TosLink connectors.

##### 56 Toslink Optical Output

One optical digital EIAJ output with TosLink connectors.

##### 57 Coaxial Inputs

Four coaxial digital audio inputs with RCA connectors.

##### 58 Coaxial Outputs

One digital coaxial output with an RCA connector.

##### 59 Krell Digital I/F

Krell-proprietary link.

### VIDEO INPUTS AND OUTPUTS

**Note:** On screen display (OSD) is available from all outputs. See also **HDMI™ Input and Output Considerations**, on page 6.

##### 60 S-video Inputs

Four S-video inputs with DIN connectors.

##### 61 S-video Main Output

One S-video output with DIN connectors.

##### 62 S-video Zone 2 Output

One S-video output with DIN connectors.

##### 63 Composite Video Inputs

Four RCA composite video inputs with RCA connectors.

##### 64 Composite Video Main Output

One composite video output with RCA connectors.

##### 65 Composite Video Zone 2 Output

One composite video output with RCA connectors.

##### 66 Component Video Inputs

Three sets of component video inputs. Component video conveys the video signal using three wires, labeled Y, Pr, and Pb on the back panel. These inputs are compatible with all wideband video sources.

##### 67 Component Video Main Output

One set of component video outputs via a RCA connector.

##### 68 Component Video Zone 2 Output

One set of component video outputs.

##### 69 HDMI™ Inputs

Four HDMI™ video inputs.

##### 70 HDMI™ Outputs

One HDMI™ video output.

### BACK PANEL

#### REMOTE CONTROL

##### 71 12 VDC In and Out

Four programmable 12 V outputs and one input. Sends a 12 V power on/off signal via a 12 V trigger cable to other Krell components and to other devices that incorporate 12 V power on/off trigger input.

When the Evolution 707 is in the operational mode and a trigger is enabled, the 12 VDC Out provides 12 V of DC output. When the Evolution 707 is in the stand-by mode or off, or if a trigger is not enabled, the DC output is 0 V. **Note:** Trigger 1 is enabled for all 10 devices.

##### 72 Comm Port RS-232

#### Connector

Sends operational instructions directly to the Evolution 707 using an external computer control system.

##### 73 RC-5 In

Makes custom installation easy and secure by accepting baseband RC-5 input commands from hardwired remote controllers.

##### 74 Link Control

Two proprietary Krell connectors, used exclusively for communication with other Krell components in your system.

### POWER CONNECTIONS

##### 75 Back Panel Power Switch

Switches the Evolution 707 from off to stand-by.

##### 76 IEC Connector

A standard IEC power connector, for use with the AC power cord.

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## PLACEMENT

The Evolution 707 does not require any type of special rack or cabinet for installation. The component measures 17.3w x 9.8h x 20.5d in. or 43.8w x 24.8h x 52d cm and requires at least two inches (5 cm) of clearance on each side and four inches (10.2 cm) of clearance above to provide adequate ventilation. The one-inch (2.5 cm) clearance below the component, provided by the feet, is adequate. For installations inside cabinetry, extra ventilation may be necessary.

## AC POWER GUIDELINES

The Evolution 707 has superb regulation and does not require a dedicated AC circuit. Avoid connections through extension cords or multiple AC adapters. High quality 15 amp grounded AC strips are acceptable. High quality AC line conditioners or filters may be used if they are grounded and meet or exceed the unit's power supply rating of 100 VA. Use the Evolution 707 only with the power cord supplied.

## QUICK SETUP STEPS

The Evolution 707 can be operated using the factory defaults shipped with the component. For best performance, play music after configuring the systems loudspeakers. This guide outlines the steps and connection considerations from initial setup through loudspeaker configuration.

### 1 CONNECTING TO YOUR SYSTEM

Connect the Evolution 707 to the rest of the components in your system. Connect analog and digital sources first, then connect the amplifier(s).

#### Enable On Screen Display (OSD)

You need OSD to view the setup menu. Connect any OSD output on the Evolution 707 to the appropriate input on your video display. OSD is available from all outputs.

#### HDMI™ Inputs and Output Considerations

The Evolution 707 has the ability to output 1080p/60 Hz digital video only from the HDMI™ output. If the installation intent is to take advantage of digital video, your monitor, panel, or projector must be able capable of receiving 1080p video via HDMI™ or DVI formats.

**Zone 2 only** has the ability to pass analog video output up to 1080i. When a source is connected to the Evolution 707, make sure that the output is not HDMI™ digital for zone 2 use. In most cases, there is more than one type of video output on your source component. Use the component, S-video, or composite video outputs for zone 2.

**IMPORTANT:** *If your video input is exclusively HDMI™/DVI, only HDMI™ digital video is output for viewing. There is no way to get analog video output via component, S-video, or composite connections from the Evolution 707, either in the main zone or in zone 2.*

#### Zone 2 Audio

The Evolution 707 does not have the ability to send digital audio information to zone 2 audio outputs. Only analog signal will function in zone 2. If the source is connected via digital only, run a separate analog input into the Evolution 707 specifically for zone 2, and configure it accordingly.

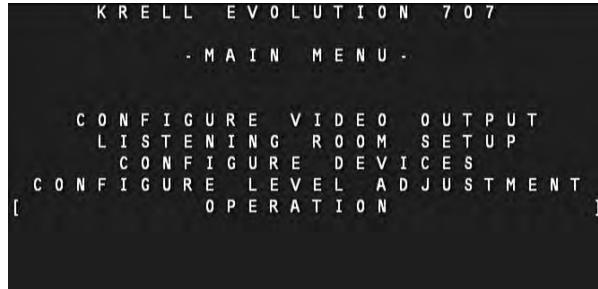
### 2 TURN ON THE EVOLUTION 707

Plug the AC power cord into the wall, and place the back panel switch (75) in the on position. The power/stand-by LED (2) illuminates red. Press the power button on the front panel or the power key on the remote control (1) to switch the Evolution 707 from stand-by to the operational mode. The power/stand-by LED illuminates blue.

### 3 ENTER THE MENU

Press the MENU button or remote control MENU key to enter the setup menu. The MAIN MENU screen appears on the video display. The front panel display reads MENU MODE and all OSD outputs activate simultaneously. Tune the video display input to match the selected OSD video connection.

Main Menu Screen



**IMPORTANT**  
Make sure that all source devices are off when you configure the Evolution 707.

### Menu Navigation Conventions

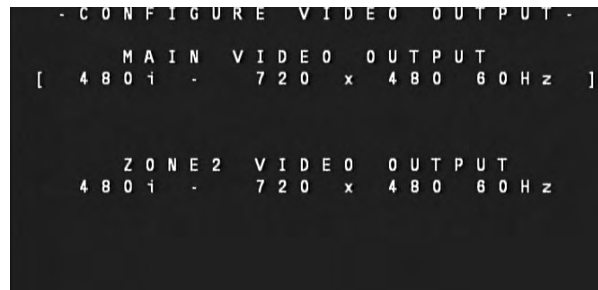
Navigate the setup menu using either the buttons on the front panel of the Evolution 707 or the keys on the Evolution 707 remote control:

1. Press the menu button or key (32) to enter and exit the setup menu.
2. Press the direction buttons or keys (35) to scroll from line to line, and to scroll through options within a line.
3. Press the enter button or key (34) to select a line and set an option.
4. Press the prev button or key (33) to return to the previous screen. Press the prev button or key a second time to exit the setup menu.

### 4 SELECT MONITOR RESOLUTION

Enter CONFIGURE VIDEO OUTPUT to view the video output screen and select a monitor resolution for the main zone. You have the option to set up a monitor resolution for Zone 2 from this screen.

Configure Video Screen



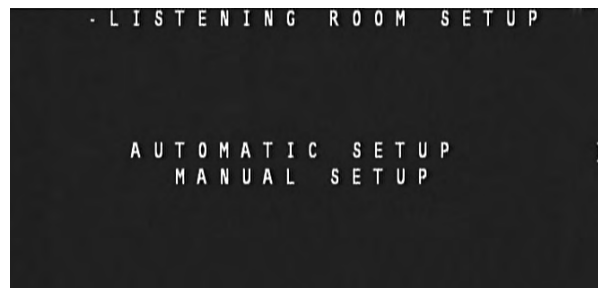
The main zone video output format default is set to 480p at 720 x 480 /60 Hz (576 P outside of the USA). The zone 2 video output format default is set to 480i at 720 X 480/60 Hz (576 P outside of the USA).

After setting your selections, press the prev button or key to return to the MAIN MENU screen.

### 5 LISTENING ROOM SETUP

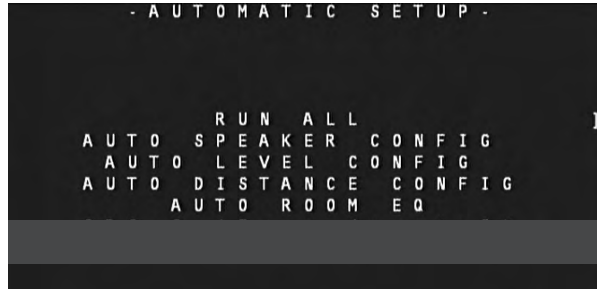
The Evolution 707 calibrates your listening room set up quickly, if you follow the procedure outlined below. Select LISTENING ROOM SETUP from the MAIN MENU screen. The LISTENING ROOM SETUP screen appears.

Listening Room Setup Screen



Select AUTOMATIC SETUP from the LISTENING ROOM SETUP screen. The AUTOMATIC SETUP screen appears.

Automatic Setup Screen



Select RUN ALL. This selection enables the Evolution 707 to obtain basic information about the loudspeakers connected to your system.

The CALIBRATION SCREEN appears. After a short period of time, the calibration process begins.

Calibration Screen



While the Evolution 707 is in the calibration mode, you hear white noise unless mute (38) is active. When the white noise stops, the calibration process has ended. Other functions of the component are inactive until calibration is complete.

#### RUN ALL

The RUN ALL function finds and sets all subwoofers connected to your system to ALL. You need to re-set each subwoofer for its required purpose.

#### AUTO ROOM EQ

Once AUTO ROOM EQ is set, the parameters cannot be altered or trimmed. Device EQ is a separate function, found in the CONFIGURE DEVICES section of the menu.

Press the previous button or key to return to the LISTENING ROOM SETUP screen. Select MANUAL SETUP from the LISTENING ROOM SETUP screen. The SPEAKER MAIN MENU screen appears.

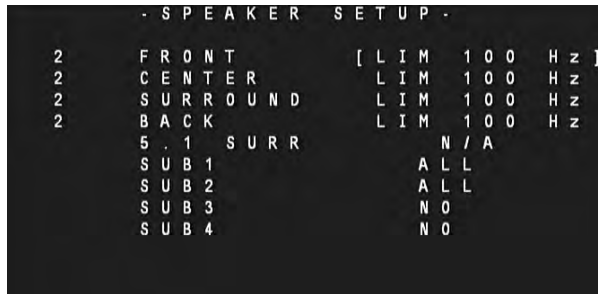
Speaker Main Menu



Select CALIBRATE SPEAKERS from the MANUAL SETUP MENU screen. The SPEAKER SETUP screen appears.



Speaker Setup Screen



Configure your subwoofers. Options are listed below.

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**SUB 1**

- FRONT            Front L + R only, no LFE. (L + R loudspeakers must be set to lim “xx” Hz)
- FRONT / LFE    Front L + R and LFE (L + R loudspeakers must be set to lim “xx” Hz)
- LFE             LFE information only. (All other loudspeakers are set to FULL)
- SMALL          Any loudspeakers set to lim “xx” Hz
- ALL             Any loudspeakers set to lim “xx” Hz and LFE
- LEFT            All loudspeakers on the left side. (Left loudspeakers must be set to lim “xx” Hz)
- LEFT / LFE     All loudspeakers on the left side and LFE. (Left loudspeakers must be set to lim “xx” Hz)

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**SUB 2**

- BACK            Back L + R only, no LFE. (L + R loudspeakers must be set to lim “xx” Hz)
- Back / LFE     Back L + R and LFE. (Back L + R loudspeakers must be set to lim “xx” Hz)
- LFE             LFE information only. (All other loudspeakers are set to FULL)
- SMALL          Any loudspeakers set to lim “xx” Hz
- ALL             Any loudspeakers set to lim “xx” Hz and LFE
- RIGHT          All loudspeakers on the right side. (Right loudspeakers must be set to lim “xx” Hz)
- RIGHT / LFE    All loudspeakers on the right side and LFE. (Right loudspeakers must be set to lim “xx” Hz)

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**SUB 3**

- LFE             LFE information only.
- SUB 1           Mimics the setting for SUB 1
- SUB 2           Mimics the setting for SUB 2

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**SUB 4**

- LFE             LFE information only.
  - SUB 1           Mimics the setting for SUB 1
  - SUB 2           Mimics the setting for SUB 2
- 

**6 PLAY MUSIC**

When the subwoofer selections are set, the quick setup procedure is done. Exit the setup menu by pressing the previous button or key (33) twice, or press the menu button or key (32) once. The Evolution 707 is ready to play music.

## OVERVIEW: MENU CONFIGURATION

This section briefly outlines the Evolution 707 configuration sequence and details some of the options available in the setup menu, to enable you to set up your component for optimum performance. Krell recommends that you configure your component in the sequence outlined on the main menu screen (see illustration on page 6), and listed below:

### 1. CONFIGURE VIDEO OUTPUT

This menu enables you to select the resolution of the monitor screen, for the main zone and for zone 2. (The configuration routine is on page 7 of this guide.)

### 2. LISTENING ROOM SETUP MENU/ MANUAL OPERATION

This menu has both automatic and manual options to enables you to define the number and type of loudspeakers in your system and allow you to select the bass range for each loudspeaker, control the subwoofer output and set the crossover frequency. (The subwoofer configuration routine is on page 7-9 of this guide.)

The SPEAKER DISTANCE menu enables you to define the exact location of each loudspeaker in the system, so that the Evolution 707 can synchronize the output to all loudspeakers, no matter where they are located in the room.

The CALIBRATE VOLUME menu enables you to set the volume to a reference level, to match the sensitivities of different loudspeakers and amplifiers in your system.

### 3. CONFIGURE DEVICES MENU

The configure devices menu enables you to assign each device inputs and configure modes and triggers using the setup menus for CONFIGURE VIDEO, CONFIGURE AUDIO, and CONFIGURE TRIGGER.

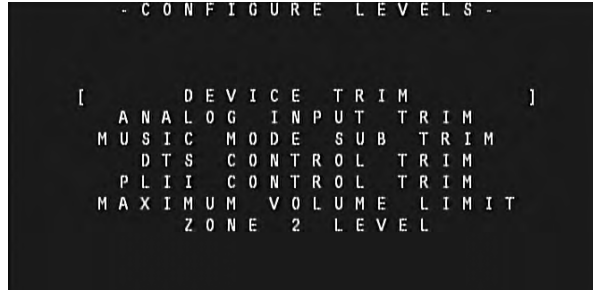


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**ADDITIONAL MENU  
CONFIGURATION,**  
*continued*

**4. CONFIGURE LEVEL ADJUSTMENT MENU**

The configure level menu enables you to set master volume trims for the components in your system. These fixed positive or negative volume offsets maintains level matching while switching between inputs with different output levels. The setup menus include: DEVICE TRIM, ANALOG INPUT TRIM, MUSIC MODE SUB TRIM, DTS CONTROL TRIM, PLII CONTROL TRIM, MAXIMUM VOLUME LIMIT, and ZONE 2 LEVEL.



**5. OPERATION MENU**

The operation menu enables you to select screen advanced setting for audio and video, and for system information, and enables you to access the device equalizer.

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**ADDITIONAL MENU  
CONFIGURATION,**

*continued*

**SAVE/RECALL  
CUSTOM SETTINGS**

To save the settings that you have configured, or to retrieve settings that you have saved, follow these steps:

**SAVE CUSTOM SETTINGS**

Press and hold the save button (36) on the front panel for approximately four seconds. The front panel displays SAVING SETUP while the settings are stored in nonvolatile memory.

**RECALL CUSTOM SETTINGS**

Press and hold the recall (37) button for approximately four seconds. The front panel displays RECALL SETUP while the settings are being retrieved from nonvolatile memory. Any settings that are saved are available using this recall procedure.

**Restore Factory Settings**

**RESTORE FACTORY DEFAULT SETTINGS**

1. Press the front panel power button (1) to put your system into the operational mode.
2. Simultaneously press the recall button (37) and the power button (1). The following phrases appear in the front panel display: PLEASE WAIT INITIALIZING. The customized settings revert to the factory default settings.

**Contact Krell**

Contact Krell at 203-298-4000 or [bdagostino@krellonline.com](mailto:bdagostino@krellonline.com) if you need more information about the Evolution 707 and its setup menus.

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MODEL

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SERIAL NUMBER