DE 4348

multichannel processor | owners manual

DE-4348 DOLBY/DTS HD DECODER

VOLUME

MIC SET-UP

HDMI IN

STANDBY ON/OFF

PHONES

SONODYNE

BLUETOOTH

INPUT MODE

STEREO

COUPLED EFFECT

STEREO DIRECT

HDMI

SOURCE

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contents

DE 4348

SONODYNE®
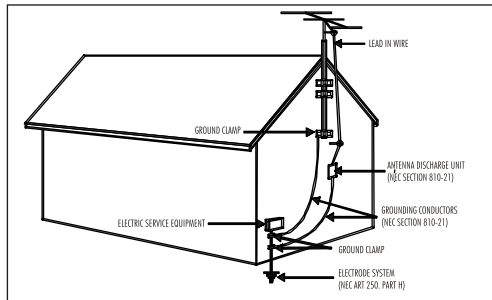
Caution: Read This Before Operating Your Unit.

1. READ AND FOLLOW INSTRUCTIONS: All the safety and operation instructions should be read before the product is operated. Follow all operation instructions within this manual.

2. RETAIN INSTRUCTIONS: The safety and operation instructions should be retained for future reference.

3. HEED WARNINGS: Comply with all warnings on the product and in the operation instructions.

4. CLEANING: Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

5. GROUNDING: This product is supplied with a IEC type mains cord. This should be plugged into a 3 pin grounded AC 230V mains socket. Proper grounding of the mains socket should be ensured by you in the interests of your own safety. Also ensure that the ground is not shared by noisy appliances like air-conditioners etc which may cause noise or disturbance.

6. OVERLOADING: Do not overload wall outlets or extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cables, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in electric shock or fire hazard. Periodically examine the power cable - if its appearance indicates damage or deteriorated receptacles have it replaced by your service technician.

7. POWER SOURCES: This product should be operated only from AC230V 50Hz as printed on the rear panel For products intend to be operated from battery power, or other sources, refer to the operation instructions.

8. ACCESSORIES: Do not place this product on an unstable surface or support. The product may fall, causing serious injury to a child or adult as well as serious damage to the product. Any mounting of the product should follow the manufacturer's instructions. Use a mounting accessory recommended by the manufacturer. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
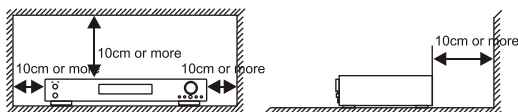
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9. OUTDOOR ANTENNA GROUNDING: If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. The example below is for reference only. Correct grounding should always be installed by an electrician.

LEAD IN WIRE

GROUND CLAMP

ANTENNA DISCHARGE UNIT (NEC SECTION 810-21)

GROUNDING CONDUCTORS (NEC SECTION 810-21)

ELECTRIC SERVICE EQUIPMENT

GROUND CLAMP

ELECTRODE SYSTEM (NEC ART 250. PART H)

10. POWER-CORD PROTECTION: The power supply cables should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cables at plugs and the point where they exit from the product.

11. ATTACHMENTS: Do not use unauthorized attachments as they may cause faults with the unit.

12. CONDITIONS REQUIRING SERVICE: Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
   a) If the unit exhibits sudden unusual operation or unusual display characteristics.
   b) If liquid has been spilled, or objects have fallen into the product.
   c) If the product has been exposed to rain or water.
   d) If the product does not operate normally by following the operation instructions, adjusting only those controls that are covered by the operation instructions.
      (NOTE: improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation).
   e) If the product has been dropped or damaged in any way.
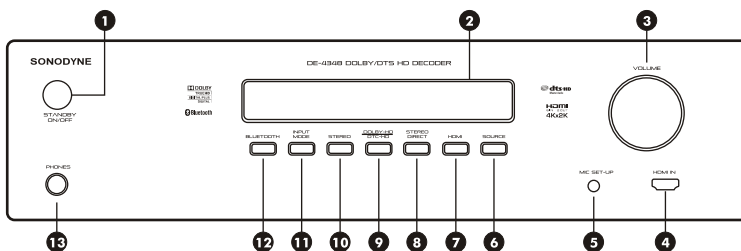   f) If the product exhibits a distinct change in performance.

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13. SERVICING: Do not attempt to service this product yourself as removing cover may expose you to dangerous voltages or other hazards. Refer all servicing to qualified service personnel.

14. LIGHTNING: For added protection for this product during a thunderstorm, or when it is left unattended and unused for long period of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power line surges.

15. REPLACEMENT PARTS: Should replacement parts be required, have the service technician verify that the replacement parts he uses have the same safety characteristics as the original parts. Use of unauthorized replacement parts can cause fire or electric shock.

16. SAFETY CHECK: Upon completion of any service or repairs to this product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the product is in a safe operating condition.

17. HEAT DISSIPATION---Leave at least 10 cm of space between the top, back and sides of the unit and the wall or other components for proper ventilation.

18. Do not let the apparatus be exposed to dripping or splashing and do not place any object filled with liquids, such as vases, on the apparatus.

19. NOTES ON USE
    • Avoid high temperatures. Allow sufficient heat dispersion when installed on a rack
    • Keep the set free from moisture, water and dust
    • Do not let foreign objects on the set
    • Unplug the power cord when the set is not in use for a long time
    • Do not spray with insecticides, benzene or thinner
    • Handle the power plug carefully. Hold the cord when unplugging
    • Do not obstruct the ventilation holes
    • Never disassemble or modify the set in any way

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DE-4348 DOLBY/DTS HD DECODER

STANDBY ON/OFF

PHONES

VOLUME

HDMI 4K×2K

BLUETOOTH | INPUT MODE | STEREO | COAX/HD STREAM | STEREO DIRECT | HDMI | SOURCE
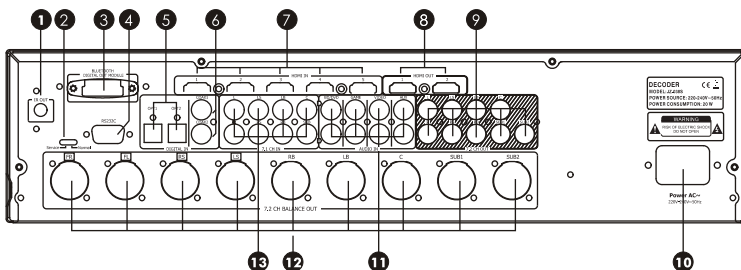
MIC SET-UP

HDMI IN

1. **STANDBY/ ON/ OFF:** This button is used to set the decoder to On or Standby

2. **VFD:** This displays the various functions selected

3. **VOLUME:** This control is used to adjust the volume of the decoder

4. **HDMI IN:** The HDMI inputs are for connecting components with an HDMI output, such as a DVD player, Blu-ray Disc Player, DVD recorder, or DVR (digital video recorder). There are a total of 6 HDMI inputs- 5 on the rear, and one on the front

5. **MIC SET-UP:** Connect the Speaker Setup microphone to this socket. See #10 under Basic Operations

6. **SOURCE:**
   - The DE-4348 has a feature which allows you to pre-assign any one of the inputs COAX1, COAX2, OPT1, OPT2, HDMI and ANALOG to 4 presets named as BD/DVD, GAME, VIDEO, and AUX. This makes input selection easy since you can now recall a source by its name rather than the input socket to which it is connected
   - Other than these inputs, the SOURCE button allows selection of 3 more inputs, viz, Direct in, Bluetooth and ARC. Direct In denotes the 7.1 analog input, and ARC is the audio return channel from the selected HDMI input
   - For the analog inputs there are 4 stereo analog inputs on the rear panel also called BD/DVD, GAME, VIDEO, and AUX. When you assign ANALOG to any one of the 4 presets, the corresponding analog input with the same name as the preset, will be selected. Hence, if you have selected BD/DVD as source, and have assigned ANALOG to this, the analog input marked BD/DVD will be selected

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front panel

7. HDMI: This button is used to select one out of the 6 HDMI inputs: HDMI 1, HDMI 2, HDMI 3, HDMI 4, HDMI 5 and HDMI 6. The selected HDMI input gets assigned to the HDMI preset under SOURCE

8. STEREO DIRECT: Press this button to choose stereo-direct listening. This bypasses any circuit block and hard assigns the left and right channel inputs to the corresponding outputs

9. SURROUND: This allows you to select special effects like Cinema, Music, Hall, Room, Stadium, Theater and Movie when any of the analog inputs is selected. It will not work with digital inputs. To select between options, press the surround button repeatedly

10. STEREO: Stereo listening mode, only for front left and front right and bass

11. INPUT MODE: This button is used to select from the following input mode: HDMI, Analogue, Coaxial1, Coaxial2, Optical1, Optical 2. These inputs can be pre-assigned to 4 presets, which are selected by the SOURCE button - please see under #6

12. BLUETOOTH: This allows you to select the Bluetooth input from the supplied Bluetooth dongle which is connected to a dedicated socket on the rear

13. PHONES jack: You can connect a pair of headphones or earphones equipped with a 1/4-inch phone jack to this socket for stereo mode listening.

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rear panel

1. IR OUT: The signal from this mono 1/8" phones type socket can be used as a trigger signal to switch on an amplifier or any other device whenever the DE-4348 is switched on. A constant DC voltage of V appears across the terminals of this socket (tip +, sleeve - ground) whenever it is plugged into a mains outlet. As soon as power is pressed, the voltage momentarily falls to zero

2. UPDATE/OPERATE: For dealer use only - Switches the unit between OPERATE (default) mode and UPDATE mode for updating the   software. Do not change the mode to UPDATE or make RS232 connections to it as damage may occur

3. BLUETOOTH MODULE: This is a dedicated socket for connecting the supplied Bluetooth module

4. RS232C: Terminal for control. Please see #2

5~6. DIGITAL IN: OPTICAL DIGITAL: These optical digital audio inputs are for connecting audio equipments with optical digital audio outputs, such as CD and DVD/BD (Blu-Ray Disc) players.
COAXIAL DIGITAL: These coaxial digital audio inputs are for connecting components with coaxial digital audio outputs, such as CD and DVD/BD players.

7~8. HDMI 5 IN 2 OUT: HDMI (High Definition Multimedia Interface) connections carry digital audio and digital video.
The HDMI inputs are for connecting components with an HDMI output, such as a DVD player, Blu-ray Disc Player, DVD recorder, or DVR (digital video recorder). The HDMI outputs are for connecting to the HDMI inputs of a TV or a projector with an HDMI input

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9. 7.1 CH OUT: With a 7.1 input source connected to any of the HDMI inputs, 8 analog output channels - front left, front right, left surround, right surround, left back, right back, center and subwoofer will be available from these RCA sockets These are of unbalanced type.

10. AC POWER: This is a IEC type mains socket. Connect the female end of the supplied mains cord to this socket, and the other end to a 230V 50 Hz AC wall outlet capable of supplying the rated power to this equipment (for power rating, please see under Specifications)

11. AUDIO IN: These are 4 RCA type stereo analog inputs marked BD/DVD, GAME. VIDEO, AUX.

12. 7.2 CH BALANCED OUT: These are the same outputs as described under #9, however, these are fully balanced type outputs through 3 pin male XLR sockets

13. 7.1 CH IN: This set of 8 analog multichannel inputs is for connecting an audio equipment with a 5.1/7.1-channel analog audio output, such as a DVD player, DVD-Audio or Super Audio CD player, or an MPEG decoder.

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POWER: This button sets the unit to On or Standby

MUTE: This button mutes or un-mutes the unit

DISPLAY: This button displays information about the current input source

STATION +/-
ST/MONO
PTY Search
MEMORY
APS
TUNING +/-
TUNER: These buttons are not applicable to the DE-4348

AUDIO IN: This button selects any one of the audio inputs - HDMI, Analogue, Coaxial1, Coaxial2, Optical1, Optical 2. It has the same function as the INPUT MODE button on the front panel of the unit

7.1 DIRECT: This button selects 7.1 direct listening mode. The analog inputs connected to the RCA sockets labeled "7.1 IN" on the rear panel will be selected. To exit "7.1 IN" mode, press any of BD/DVD, GAME, VIDEO or CD/AUX
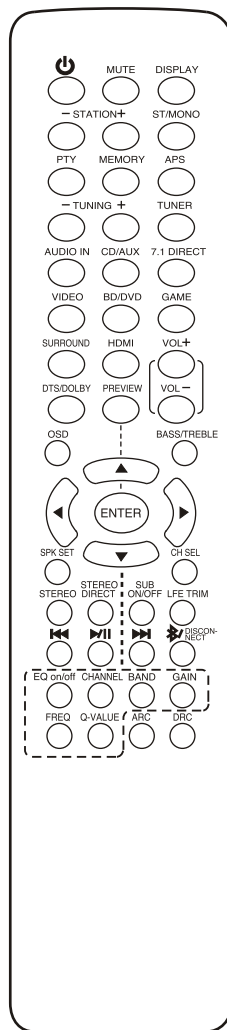
CD/AUX
VIDEO
BD/DVD
GAME: These buttons have the same function as the SOURCE button on the front panel of the unit. These buttons, together with the INPUT button, can be used to pre-assign any of the inputs to any one of 4 presets named CD/AUX, VIDEO, BD/DVD and GAME. The individual presets can then be recalled by pressing the corresponding button.

SURROUND: This allows you to select special effects like Cinema, Music, Hall, Room, Stadium, Theater and Movie when any of the analog inputs is selected. It will not work with digital inputs. To select between options, press the SURROUND button as many times as required.

HDMI: This button is used to select one out of the 6 HDMI inputs from HDMI 1~6

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remote control

DTS/DOLBY: When only 2 channels are present in any multi-channel input (coaxial/ optical/ HDMI), you can listen in stereo or stereo + sub mode, by pressing the STEREO button. If 5.1 channels are detected, you can press the DOLBY/DTS button to switch to 5.1 channel playback.

PREVIEW: When you have more than one HDMI inputs connected, and you want to preview any HDMI input other than the one you are watching you can press the preview button which will open a small window on the main screen of your TV showing the content of the preview channel. If you have 6 live HDMI inputs, each further press of preview button will open 5 windows.

VOLUME +/-: Adjusts the volume of the unit

OSD (On-screen display): Turns on the display on the TV screen to view and change settings

BASS/TREBLE: Press this button for Bass/Treble adjustment and then press the CH+/- key to adjust the level.

ENTER: Used to select and adjust settings

CH SEL: Press the button repeatedly to cycle through the channels. Use the directional control up/down buttons to raise or lower that channel's level.

SPK SETUP: Press this button repeatedly to select the speaker's settings you want to change. Use the directional control up/down buttons to select Large, Small or None for each speaker

STEREO: With the unit in the STEREO mode, only front left and front right speakers are working

STEREO DIRECT: Use this mode when you want to hear the truest possible reproduction of a source. All unnecessary signal processing is by- passed.

SUB ON/OFF: This button is used to turn the subwoofer on or off.

LFE TRIM: This button lets you adjust the level of the low-frequency effects (LFE) channel in a movie soundtrack or multi-channel music recording. Press to activate the control, then use the directional control up/down buttons to raise or lower the LFE level. Note that this is an LFE level control, not a subwoofer level control, so it will work only on 5.1 and 7.1 soundtracks that contain an LFE channel.

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remote control

[|◄◄]/[►►|]
|◄◄/ ►►|: These buttons are used to select the previous or the next track while using Bluetooth mode

►/II: These buttons are used to start or stop playback while using Bluetooth mode

B.T. /DISCONNECT: These buttons are used to select /de-select Bluetooth connection

EQ ON/OFF: There is a built-in parametric equalizer which can be applied to any or all of the 7.1 channels. This button turns the parametric EQ on or off.

CHANNEL: This button selects any of the 7.1 channels to which you want to apply the parametric EQ

BAND: This button, along with 3 other buttons -GAIN, FREQ and Q-VALUE, allow you to adjust the parameters of the EQ. To select the frequency, first press this button. The audible frequency is divided into 10 bands, as follows. Select the band which contains your desired frequency.
Band1 - 20 ∼ 80 Hz
Band2 - 81 ∼ 140 Hz
Band3 - 141 ∼ 200 Hz
Band4 - 210 ∼ 650 Hz
Band5 - 660 ∼ 1110 Hz
Band6 - 1110 ∼ 1550 Hz
Band7 - 1560 ∼ 2000 Hz
Band8 - 2100 ∼ 8000 Hz
Band9 - 8100 ∼ 14000 Hz
Band10 - 14100 ∼ 20000 Hz

GAIN: This allows you to select the amount of cut/boost. The level can be varied from -20 to +5, in 25 steps, with the help of the up/down switch.

FREQ: Select the center frequency of the parametric EQ with this button. Use the up/down keys (▼▲) to change the frequency. For the first 3 bands starting with band1, you can vary the frequency in 60 steps. For the next 4 bands, there are 44 steps, while the last three again have 60 steps.
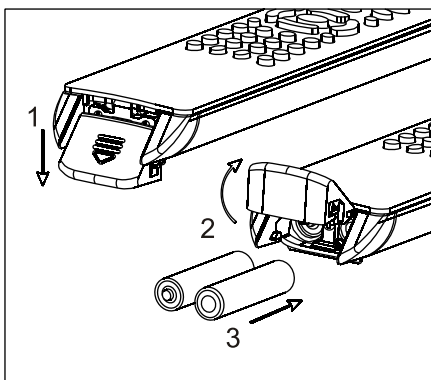
[Q-VALUE: This button allows you to vary the Q-factor of the parametric EQ. A higher Q makes the frequency band narrow, while a lower Q increases the frequency band over which the EQ takes place. The Q values are 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0 and 10.0. Use the up/down keys (▼▲) to change the Q.

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ARC: Press this button to select the ARC channel (audio return channel) from TV or any other device that you have connected to the HDMI output.

DRC: Press this button to select DRC (Dynamic range Control). For details, please under Basic Operations.

INSTALL BATTERIES IN THE REMOTE AREA:

1. Push the cover as shown by the arrow to open battery compartment cover
2. Insert two batteries (AAA/R03P) according to the polarity markings (+ and -) on the inside of battery compartment
3. Pull back the cover

CAUTION
• Change the batteries if remote control does not work.
• Do not mix old and new batteries. o If remote control is not used for a long time, take out the batteries to avoid leakage.

USING THE REMOTE CONTROL
• Please point the remote control to remote   sensor of the decoder for reliable operation.
• The remote control may not work correctly in strong light, such as sunlight or reflective fluorescent lights.
• Having other remote-controlled devices working in the vicinity of the DE-4348 may come in the way of remote control operation and give rise to false operations.
• Do not put any object on the remote control which might cause the buttons to be pressed causing discharge of battery. o If the decoder is installed in a rack having a colored glass cover, it might affect the remote control operation.
• If there is an obstacle between the remote control and the remote sensor decoder, the remote control may not work.

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• connection •

Before making any AV connections, read the manuals supplied with your other AV components.
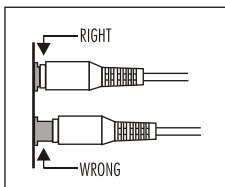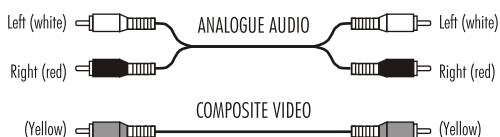Do not connect the power cord until you have completed and double-checked all AV connections.

CONNECTION COLOR CODING

RCA-type connections are usually color-coded: red, white, and yellow. Use red plugs to connect right-channel audio inputs and outputs (typically labeled "R"). Use white plugs to connect left-channel audio inputs and out-puts (typically labeled "L") and yellow plugs to connect composite video inputs and outputs.

• Push plugs in all the way to make good connections (loose connections can cause noise or malfunctions).

• To prevent interference, keep audio and video cables away from power cords and speaker cables.

Left (white)   ANALOGUE AUDIO   Left (white)

Right (red)   Right (red)

          COMPOSITE VIDEO

(Yellow)   (Yellow)

RIGHT

WRONG

CABLES & JACKS

Video/ Audio

Cable		Jack	Description
HDMI		HDMI	HDMI connections carry uncompressed standard or high-definition digital video and audio and offer the best picture and sound quality.

Audio

Cable		Jack	Description
Optical Digital Audio cable		OPTICAL	This carries digital audio signal only. It allows you to enjoy high quality surround sound (e.g., Dolby Digital, DTS). The audio quality is the same as that for coaxial. Optical cable also ensures electrical isolation.

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Cable	Jack	Description
Coaxial Digital Audio cable	COAXIAL	This carries digital audio signal only. It allows you to enjoy high quality surround sound (e.g., Dolby Digital, DTS). The audio quality is the same as that for optical.
Balanced XLR cable	INPUT PREOUT	This cable carries analog audio. Balanced XLR cables are used for better noise immunity and longer cable runs.
Analogue Audio cable RCA	L R	This cable carries analog audio. It is the most common connection format for analog audio, and can be found on virtually all AV components.
Multi-channel Analogue Audio cable RCA		This cable carries multichannel analog audio and is typically used to connect DVD players with a 7.1-channel analog audio output. Several standard analog audio cables can be used instead of a multichannel cable.

CONNECTING COMPONENTS WITH HDMI

Designed to meet the increased demands of digital TV, HDMI (High Definition Multimedia Interface) is a new digital interface standard for connecting TVs, projectors, DVD/BD players, set-top boxes, and other video components.

1. Use HDMI cables to connect the decoder's HDMI jacks to your HDMI-compatible DVD/BD player, TV, projector, and so on
2. Assign each HDMI IN to an input selector in the HDMI Input Setup

Digital photography equipment

BD / DVD player ,TV box, ect.

TV or other Video Display Device Connections

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AUDIO CONNECTION

1. Use audio cables to connect the decoder's audio jacks to your compatible CD player or other audio playback device.
2. Select the input source for audio playback.

DIGITAL AUDIO CONNECTION

This decoder has two digital audio connections: Optical digital connection and coaxial digital connection.

CD player or other
Audio Playback Device Connections

OPTICAL DIGITAL JACKS

The decoder's optical digital jacks have shutter-type covers that open when an optical plug is inserted and close when it is removed. Push plugs in all the way. Caution: To prevent shutter damage, hold the optical plug straight when inserting and removing.

ANALOG AUDIO CONNECTION

This decoder has four analogue audio input terminals: BD/DVD, GAME, VIDEO, AUX.

BD / DVD player ,TV box, ect.

CONNECTING A POWER AMPLIFIER

Connecting a Power Amplifier with RCA Inputs
You can connect the decoder to a multichannel power amplifier with RCA input jacks by using a multichannel RCA audio cable or several stereo RCA audio cables. See your multichannel power amplifier's instruction manual for more information on connecting speakers

External Amplifier

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CONNECTING A POWER AMPLIFIER WITH XLR INPUTS

You can connect the decoder to a multichannel power amplifier with balanced XLR input jacks by using several XLR audio cables.

External Amplifier

CONNECTING POWERED SUBWOOFERS

Using a suitable cable, connect the decoder's SUB1, SUB2 to an input on your powered sub-woofer, as shown. If your subwoofer is unpowered and you're using an external amplifier, connect the SUB1, SUB2 to an input on the amp.
You can connect the powered subwoofer with each jack respectively. Level and distance can be set individually for each output. If you use one subwoofer, connect it to SUB1

Powered Subwoofer

Powered Subwoofer

Balanced XLR cable

Balanced XLR cable

BLUETOOTH CONNECTION

When the Bluetooth module is connected to this unit, a product equipped with Bluetooth wireless technology (portable cell phone, digital music player, etc.) can be used to listen to music wirelessly. Also, by using a commercially available transmitter supporting Bluetooth wireless technology, you can listen to music on a device not equipped with Bluetooth wireless technology. The Bluetooth module supports SCMS-T contents protection, so music can also be enjoyed on devices equipped with SCMS-T type Bluetooth wireless technology.

BLUETOOTH

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Before you begin, make certain that the AC power cord supplied with this unit is firmly inserted into the socket on the unit's rear panel, then plug the power cord into an AC wall outlet or surge protection device. The ring around the power button on the front panel will light up.

POWER

► To turn the unit on or turn to standby:

1. To turn the unit on, press the power button on the front panel or remote control. The front panel display will illuminate and the light around the power button will glow brighter.
2. To turn the unit into standby mode, press the power button on the front panel or the remote control a second time.

Please turn down the volume before turning off the unit.

OSD MENU

Before you begin, you will need to know how your devices are connected.

1. VIDEO INPUT SELECT
   (1) Press the OSD button on the remote control. The menus will be shown on your video display (TV screen).
   (2) Use the UP and DOWN arrow keys (▼▲) on the remote control to highlight "Video In. Select" and press the ENTER button to select
   (3) Use the UP and DOWN arrow keys (▼▲) to highlight the input source you want to configure and the LEFT and RIGHT arrow keys (◄►) to select one of the available HDMI Input.
   (4) When you have finished, press the OSD button to return to the previous menu level.
   (5) To exit the Setup Menu, keep pressing the OSD button until the OSD disappears.

Video In. Assign	BD/ DVD	HDMI1 < >
Audio In. Assign	GAME	HDMI2 < >
ToneSub Config.	VIDEO	HDMI3 < >
Speaker Config.	AUX	HDMI4 < >
Speaker Distance	7.1 Direct	HDMI5 < >
Speaker Level		
Speaker Xover		
Advanced Setup		
OSD Setup		
Auto Setup		
	Quit: (OSD)	Enter: (ENTER)

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basic operation

2. AUDIO INPUT SELECT
   (1) Press the OSD button on the remote control. The menus will be shown on your video display
   (2) Use the UP and DOWN arrow keys (▼▲) on the remote control to highlight "Audio In. Select" and press the ENTER button to select
   (3) Use the UP and DOWN arrow keys (▼▲) to highlight the input source you want to configure and the LEFT and RIGHT arrow keys (◄►) to select one of the available Input
   (4) When you have finished, press the OSD button to return to the previous menu level

Video In. Assign	BD/ DVD	HDMI < >
Audio In. Assign	GAME	HDMI < >
ToneSub Config.	VIDEO	HDMI < >
Speaker Config.	AUX	HDMI < >
Speaker Distance		
Speaker Level		
Speaker Xover		
Advanced Setup		
OSD Setup		
Auto Setup		
	Quit: (OSD)	Enter: (ENTER)

Input selection and assignment with remote or through front panel switches
   (1) Press any of the the 4 buttons on the remote to select between BD/DVD, GAME, VIDEO and AUX. For front panel operation, press the SOURCE button repeatedly to select the desired preset.
   (2) Next press the INPUT button on the remote, or the INPUT MODE button on the front panel repeatedly, to select the input that you want to assign to the preset that you have selected.
   (3) If you have selected HDMI, you need to select between HDMI 1-6, by pressing the HDMI button repeatedly.
   (4) If you have selected ANALOG as the input, one out of the 4 analog inputs labeled BD/DVD, GAME, VIDEO and AUX will be assigned, depending upon the preset selected. For instance, if you have selected BD/DVD, and have assigned ANALOG to this, the analog input marked BD/DVD will be selected

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3.   TONE CONFIGURATION
(1)   Press the OSD button on the remote control. The menus will be
       shown on your video display
(2)   Use the UP and DOWN arrow keys (▼▲) on the remote control to
       highlight "Tone Sub Config." and press the ENTER button to
       select
(3)   Use the UP and DOWN arrow keys (▼▲) to highlight the item you
       want to configure and the LEFT and RIGHT arrow keys (◄►) to
       adjust
(4)   When you have finished, press the OSD button to return to the
       previous menu level

Video In. Assign	Bass	0dB < >
Audio In. Assign	Treble	0dB < >
ToneSub Config.	LEF Trim	0dB <
Speaker Config.	DTS/Dolby Sub Trim	0dB < >
Speaker Distance	DTS/Dolby Bass Aug	OFF < >
Speaker Level	Surr. Sub Trim	0dB < >
Speaker Xover	Surr. Bass Aug	OFF < >
Advanced Setup	Stereo + Sub Trim	0dB < >
OSD Setup		
Auto Setup		
	Quit: (OSD)	Enter: (ENTER)

BASS: Use this control to boost or cut bass

TREBLE: Use this control to boost or cut treble

LFE TRIM: This control reduces the level of the LFE (or ".1") component in a 5.1 or
7.1 soundtrack. It does not affect signals from other channels. Use it if you find
the bass in movie soundtracks to be too loud. There is no "proper" setting,
whatever sounds good to you is correct.

The unit incorporates a couple of advanced Bass Management features. The
overall Sub Level for DD/DTS modes, PLII/x/Neo:6 modes and Stereo + Sub
mode can be set to different levels. This can be useful if you prefer to have a high
level of Sub whilst watching movies but a lower level for music playback. The
three levels are simply adjusted by up to +/-10 dB in the OSD. The second
feature is that the way Bass Management is applied can be changed.

4. SPEAKER CONFIGURATION
    (1) Press the OSD button on the remote control. The menus will be shown on your video display.
    (2) Use the UP and DOWN arrow keys (▼▲) on the remote control to highlight "Speaker Config" and press the ENTER button to select.
    (3) Use the remote control to set the appropriate surround mode for your system.
        The selection you make here also affects the options for setting up your back surround speakers. The available choices are:
        5.1_7.1
    (4) Use the UP and DOWN arrow keys (▼▲) to highlight the speaker you want to configure and the LEFT and RIGHT arrow keys (◄►) to adjust.
    (5) When you have finished, press the OSD button to return to the previous menu level.

Video In. Assign	Decode Mode	7.1 < >
Audio In. Assign	Front L/R	Large < >
ToneSub Config.	Centre	Small < >
Speaker Config.	Surr. L/R	Small < >
Speaker Distance	Surr. LB/RB	Small < >
Speaker Level	Subwoofer	Yes < >
Speaker Xover		
Advanced Setup		
OSD Setup		
Auto Setup		
	Quit: (OSD) Enter: (ENTER)	

5. SPEAKER DISTANCE
    Here you can specify the distance from each speaker to the listening position so that the sound from each speaker arrives at the listener's ears as the sound designer intended.

1. Front Left Speaker
2. Front Right Speaker
3. Center Speaker
4. Surround Left Speaker
5. Surround Right Speaker
6. Surround Back Speaker
7. Surround Back Left Speaker
8. Surround Back Right Speaker
9. Subwoofer

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SPEAKER DISTANCE SETUP STEPS

(1)   Press the OSD button on the remote control. The menus will be shown on your video display.

(2)   Use the UP and DOWN arrow keys (▼▲) on the remote control to highlight "Speaker Distance" and press the ENTER button to select.

(3)   Use the UP and DOWN arrow keys (▼▲) to highlight "Unit" and the LEFT and RIGHT arrow keys (◄►) to choose whether you are using feet or meters to measure the speaker distances from the Unit menu

(4)   Use the UP and DOWN arrow keys (▼▲) to highlight the speaker you want to configure and the LEFT and RIGHT arrow keys (◄►) to adjust the distance.

(5)   When you have finished, press the OSD button to return to the previous menu level

Video In. Assign	Unit	Meters < >
Audio In. Assign	Front L	2.9 < >
ToneSub Config.	Front R	2.9 < >
Speaker Config.	Surr. L	2.0 < >
Speaker Distance	Surr. R	2.0 < >
Speaker Level	Centre	2.9 < >
Speaker Xover	Subwoofer	2.9 < >
Advanced Setup	Surr. LB	2.0 < >
OSD Setup	Surr. RB	2.0 < >
Auto Setup		
	Quit: (OSD)	Enter: (ENTER)

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6. LEVEL CALCULATION

Here you can adjust the level of each speaker with the built-in test tone so that the volume of each speaker is the same at the listening position.

(1)   Press the OSD button on the remote control. The menus will be shown on your video display.

(2)   Use the UP and DOWN arrow keys (▼▲) on the remote control to highlight "Level Cal" and press the ENTER button to select.

(3)   Use the LEFT and RIGHT arrow keys (◄►) to active the test signal, front left speaker will have pink noise

(4)   DOWN arrow keys (▼▲) to highlight the speaker you want to configure and the LEFT and RIGHT arrow keys (◄►) to adjust until the level of all speakers are same.

(5)   When you have finished, press the OSD button to return to the previous menu level.

Video In. Assign	Test Signal	OFF < >
Audio In. Assign	Front L	0dB < >
ToneSub Config.	Front R	0dB < >
Speaker Config.	Surr. L	0dB < >
Speaker Distance	Surr. R	0dB < >
Speaker Level	Centre	0dB < >
Speaker Xover	Subwoofer	0dB < >
Advanced Setup	Surr. LB	0dB < >
OSD Setup	Surr. RB	0dB < >
Auto Setup		
	Quit: (OSD)	Enter: (ENTER)

7. SPEAKER CROSSOVER

With these settings, you can specify a crossover frequency for each speaker.

(1)   Press the OSD button on the remote control. The menus will be shown on your video display.

(2)   Use the UP and DOWN arrow keys (▼▲) on the remote control to highlight "Speaker Crossover" and press the ENTER button to select.

(3)   Use the UP and DOWN arrow keys (▼▲) to highlight the item you want and the LEFT and RIGHT arrow keys (◄►) to adjust.

(4)   When you have finished, press the OSD button to return to the previous menu level

Video In. Assign	Front L/R	150Hz < >
Audio In. Assign	Centre	150Hz < >
ToneSub Config.	Surr. L/R	150Hz < >
Speaker Config.	Surr. LB/RB	150Hz < >
Speaker Distance		
Speaker Level		
Speaker Xover		
Advanced Setup		
OSD Setup		
Auto Setup		
	Quit: (OSD)	Enter: (ENTER)

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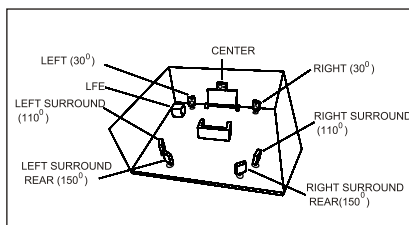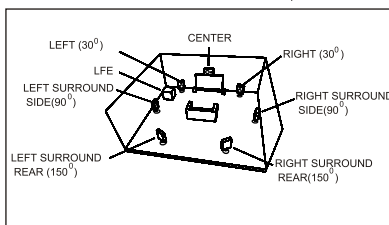
8. ADVANCED SET-UP

(1) Press the OSD button on the remote control. The menus will be shown on your video display.

(2) Use the UP and DOWN arrow keys (▼▲) on the remote control to highlight "Advanced Setup" and press the ENTER button to select.

(3) Use the UP and DOWN arrow keys (▼▲) to highlight the item you want to configure and the LEFT and RIGHT arrow keys (◄►) to adjust.

(4) When you have finished, press the OSD button to return to the previous menu level

Video In. Assign	Panorama	OFF < >
Audio In. Assign	Centre Width	3 < >
ToneSub Config.	Dimension	7 < >
Speaker Config.	DTS Spkr Remap	1 < >
Speaker Distance	DRC	OFF < >
Speaker Level	CentreGain	2 < >
Speaker Xover		
Advanced Setup		
OSD Setup		
Auto Setup		
	Quit: (OSD)	Enter: (ENTER)

a) PANORAMA: This feature provides a more "wraparound" effect when Dolby Pro Logic II Music mode is engaged.

b) CENTER WIDTH: This control operates only when Dolby Pro Logic II Music mode is engaged. It adjusts the mix of the right and left channels into the center channel. A setting of 7 provides no center-channel sound at all. A setting of 0 provides the strongest center-channel sound.

c) DIMENSION: Use this control to increase or decrease the surround effect in Pro Logic II Music mode. A setting of 0 gives the least surround effect, while 6 gives the most surround effect. We recommend starting with a setting of 0 and adjusting from there to your taste.

d) REMAP: Since there is no standard speaker layout for 7.1 mixing, DTS-HD Master Audio 7.1 soundtracks can carry metadata that tells the surround processor what speaker configuration was used for mixing. The processor can then adjust the sound to allow your speakers to simulate the surround effect you would hear on the actual speaker system on which the soundtrack was mixed. A setting of 1 should be selected if your surround L/R speakers are placed to the sides of the listening position. A setting of 5 should be selected if your surround speakers are located behind the listener, just outside of the surround back speakers.

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DRC (DYNAMIC RANGE CONTROL)
This setting controls the dynamic range of Dolby Digital movie soundtracks by compressing the audio to limit the difference in level between loud and quiet passages in the movie.
This can be a useful feature when watching movies late at night for instance. Three settings are possible:

AUTO - Compression is always applied for Dolby Digital and Dolby Digital Plus soundtracks. The application and amount of compression to Dolby True HD soundtracks is dictated by the soundtrack itself.

OFF - No Compression (normal full dynamic range playback)

ON - Compression is always applied for all Dolby soundtracks (reduced dynamic range playback)

CENTERGAIN 0 TO 5 (DEFAULT: 2)
The DTS Neo:6 Music listening mode creates 6-channel surround sound from 2-channel stereo sources. With this setting, you can specify by how much the front left and right channel output is attenuated in order to create the center channel. Setting a value "0" in the middle is set to hear a sound. Sound is spread in left and right (the outside) so that the set value is made large. Please adjust according to preference.

9. OSD SETUP
    (1) Press the OSD button on the remote control. The menus will be shown on your video display.
    (2) Use the UP and DOWN arrow keys (▼▲) to highlight "OSD setup" and press the ENTER button to select.
    (3) Use the UP and DOWN arrow keys (▼▲) to highlight "Language" and the LEFT and RIGHT arrow keys (◄►) to choose "English" or "Chinese".
    (4) When you have finished, press the OSD button to return to the previous menu level.

Video In. Assign	Language	English < >
Audio In. Assign	OSD Format	576P
ToneSub Config.	SoftWare Version	2.6E
Speaker Config.		
Speaker Distance		
Speaker Level		
Speaker Xover		
Advanced Setup		
OSD Setup		
Auto Setup		
	Quit: (OSD)	Enter: (ENTER)

10.   AUTO SET-UP

This allows auto setting of the speaker distance and level. To use this feature, place the supplied set-up MIC at the listening position, and connect the jack at the other end of the MIC cable, to the socket marked MIC SET-UP on the front panel. Proceed as follows

(1)   Press the OSD button on the remote control. The menus will be shown on your video display.

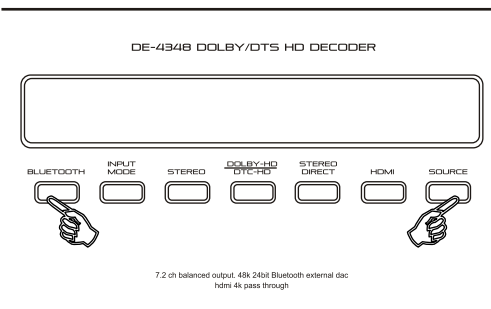(2)   Use the UP and DOWN arrow keys (▼▲) to highlight "Auto setup" and press enter to start.

Video In. Assign	Please place ENTER to start auto setup
Audio In. Assign	
ToneSub Config.	
Speaker Config.	
Speaker Distance	
Speaker Level	
Speaker Xover	
Advanced Setup	
OSD Setup	
Auto Setup	
	Quit: (OSD) Enter: (ENTER)

(3)   You will be prompted to connect the MIC. Press "continue". You will hear test tones coming from each speaker sequentially. The DE-4348 compares the received signal with the reference, calculates the difference in level and delay between these two, and automatically sets the distance and level.
After the calibration process is over, disconnect the set-up MIC.

RESET THE SYSTEM

Press the power button to turn on the unit, hold the BLUETOOTH and SOURCE buttons at the same time for about 3 seconds, the system will be reset.

Note: If you hold the BLUETOOTH and SOURCE buttons at the same time for more than 3 seconds, all the memory will be deleted.

DE-4348 DOLBY/DTS HD DECODER

BLUETOOTH   INPUT MODE   STEREO   DOLBY-HD DTC-HD   STEREO DIRECT   HDMI   SOURCE

7.2 ch balanced output. 48k 24bit Bluetooth external dac
hdmi 4k pass through

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BLUETOOTH OPERATION

OPERATION
(1)   Turn on power to the supported device
(2)   Press the button " Bluetooth"
(3)   Perform Bluetooth pairing
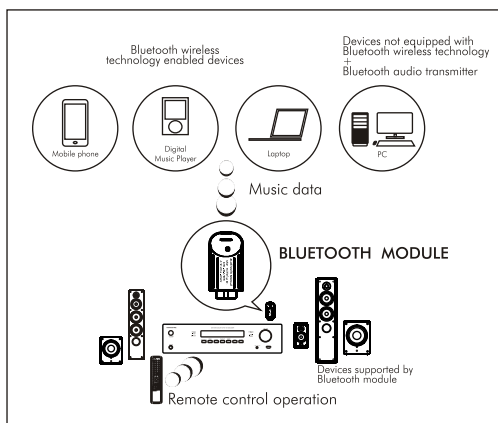(4)   Begin to play music on the Bluetooth wireless technology device

PAIRING
(1)   Open the blue-tooth pairing interface in your device equipped with Bluetooth wireless technology (portable cell phone, digital music player, etc.)
(2)   Search for the supported device
(3)   Switch on the device that you want to pair with, place it near the system and set it into the pairing mode. For first time pairing, some products may need a PIN code, in this situation, please fill in "0000".
(4)   Check to see that the Bluetooth module is detected by the Bluetooth wireless technology device. When Bluetooth wireless technology device is connected: Bluetooth wireless technology device name appears in the receiver display.

REMOTE CONTROL OPERATION
The remote control supplied with this unit allows you to pause or stop media, return to previous song or skip to the next song.
Note:
1.   It is necessary that the Bluetooth wireless technology enabled device supports AVRCP profiles.
2.   Remote control operations cannot be guaranteed for all Bluetooth wireless technology enabled devices.

Bluetooth wireless technology enabled devices

Devices not equipped with Bluetooth wireless technology + Bluetooth audio transmitter

Mobile phone

Digital Music Player

Laptop

PC

Music data

BLUETOOTH MODULE

Devices supported by Bluetooth module

Remote control operation

If you have any trouble using decoder, look for a solution in this section. If you cannot resolve the issue yourself, contact your dealer.

POWER
PROBLEM: Cannot turn on the unit
SUGGESTION:
• Make sure that the power cord is properly plugged into the wall outlet.
• Unplug the power cord from the wall outlet, wait five seconds or more, then plug it in again.

AUDIO
PROBLEM: There is no sound, or it is very quiet
SUGGESTION:
• Make sure that your multichannel power amplifier is turned on and set up correctly and connected to the unit properly.
• Make sure that the digital input source is selected properly.
• Make sure that all audio connecting plugs are pushed in all the way.
• Make sure that the inputs and outputs of all components are connected properly.
• Make sure that the input source is properly selected.
• Make sure that the speaker cables are not shorting.

PROBLEM: The subwoofer produces no sound
SUGGESTION:
• When you play source material that contains no information in the LFE channel, the subwoofer may produce no sound.
• Make sure the speakers are configured correctly.

PROBLEM: Noise can be heard
SUGGESTION:
• Using cable ties to bundle audio cables with power cords, speaker cables, and so on may degrade the audio performance, so do not do it.
• An audio cable may be picking up interference. Try repositioning your cables.

PROBLEM: The beginning of audio received by an HDMI IN cannot be heard
SUGGESTION:
Since it takes longer to identify the format of an HDMI signal than it does for other digital audio signals, audio output may not start immediately.

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VIDEO
PROBLEM: There is no picture
SUGGESTION:
Make sure that all video connecting plugs are pushed all the way in.
If the video source is connected to an HDMI input, you must assign that input to an input selector, and your TV must be connected to the HDMI outputs

PROBLEM: The onscreen menus do not appear
SUGGESTION:
On your TV, make sure that the video input to which the unit is connected is selected.

REMOTE CONTROL
PROBLEM: The remote control does not work
SUGGESTION:
• Make sure that the batteries are installed with the correct polarity.
• Install new batteries.
• Do not mix different types of batteries, or old and new batteries.
• Make sure that the remote control is not too far away from the unit, and that there is no obstruction between the remote controller and the unit's remote control sensor.
• When using the remote controller to control other manufacturers' AV components, some buttons may not work as expected.

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FEATURES

- HDMI 1.4 (1080P)
- Aluminum Panel, VFD display
- On Screen Display (OSD)
- High performance Pre-amplifier
- Low Magnetic Flux Leakage Massive Toroidal Transformer
- Power Consumption during Standby < 0.5W (Complied with EuP standard)
- 32 bit DSP decoding:Dolby True HD / Dolby Digital Plus / Dolby Digital /DTS-HD Master Audio / DTS ES)
- Speaker Auto-Setup
- 10 Band P-EQ for Each Channel
- Bass Management and Auto-Setup
- L/R Channel Balance Adjustment
- Inputs Sensitivity: 250 mV
- Inputs Impedance: 47 kohm
- Dolby high Performance Class A
- Full remote control

BLUETOOTH MODULE FEATURE & SPECIFICATION:

Below data is tested under these formats: AAC / WAV / FLAC / APE
- Sampling: 44.1 k or 48 k/24 bit
- THD: 0.003 at 1 k
- S/N: 95 dB
- Frequency Range: 20 Hz $\sim$ 20 kHz, $\pm$ 0.5 dB (MP3 frequency response below 16 kHz)
- Remote handset function:Play/Pause, Forward Skip/Reverse Skip, Disconnect
- Transmission Distance: over 10 barrier free
- Bluetooth Size: 49.6 (L) x 29(W) x 13.8(H) mm

TERMINAL

- HDMI: 6 in, 2 out
- Digital Coaxial: 2 in
- Digital Optical: 2 in
- Bluetooth digital: 1 in
- Analogue Audio Inputs: 4sets (BD/DVD, GAME, VIDEO, AUX)
- 7.2 Line out, 2 Subwoofer Line out (after Dolby, DTS decoded)
- 7.2 Balance Line Out

GENERAL

Mains Voltage: 220-240 V~50 Hz
Dimension: 430 (L) x 240 (W) x 115(H) mm

Design and specifications are subject to change without notice

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