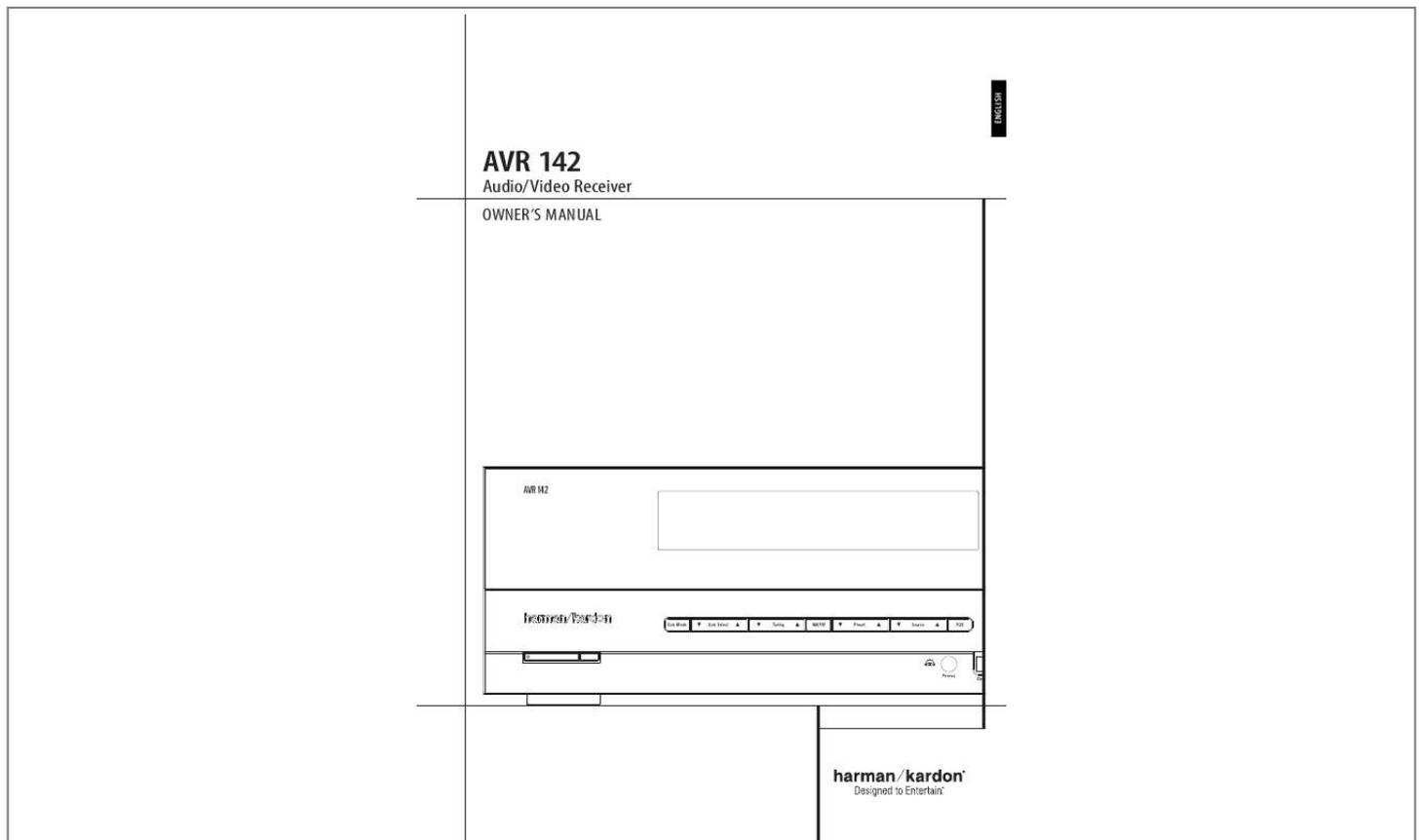# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for HARMAN KARDON AVR 142. You'll find the answers to all your questions on the HARMAN KARDON AVR 142 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual HARMAN KARDON AVR 142
User guide HARMAN KARDON AVR 142
Operating instructions HARMAN KARDON AVR 142
Instructions for use HARMAN KARDON AVR 142
Instruction manual HARMAN KARDON AVR 142

ENGLISH

AVR 142
Audio/Video Receiver

OWNER'S MANUAL

AVR 142

harman/kardon

harman/kardon
Designed to Entertain

Manual abstract:

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. @@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 is 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. @@13. @@14. Refer all servicing to qualified service personnel. @@15.

@@16. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle. 17. The mains plug of the power supply cord shall remain readily operable. 18. Do not expose batteries to excessive heat such as sunshine, fire or the like. The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Install this unit near the AC outlet and where the AC power plug can be reached easily.
This unit is not disconnected from the AC power source as long as the Main Power Switch is ON. This state is called the standby mode. In this state, this unit is designed to consume a very small quantity of power. ENGLISH Do Not Open the Cabinet There are no user-serviceable components inside this product. Opening the cabinet may present a shock hazard, and any modification to the product will void your guarantee.
If water or any metal object such as a paper clip, wire or a staple accidentally falls inside the unit, disconnect it from the AC power source immediately, and consult an authorized service station. Installation Location To assure proper operation and to avoid the potential for safety hazards, place the unit on a firm and level surface. When placing the unit on a shelf, be certain that the shelf and any mounting hardware can support the weight of the product. Make certain that proper space is provided both above and below the unit for ventilation. If this product will be installed in a cabinet or other enclosed area, make certain that there is sufficient air movement within the cabinet.
Under some circumstances a fan may be required. Do not place the unit directly on a carpeted surface. Avoid installation in extremely hot or cold locations, or an area that is exposed to direct sunlight or heating equipment. READ THIS BEFORE OPERATING YOUR UNIT. Do not install this equipment in a confined space such as a case or similar Install it away from direct sunlight, heat sources, vibration, dust, moisture, and/ or cold. Avoid installing this unit where foreign objects may fall onto this unit and/or this unit may be exposed to liquid dripping or splashing. On the top of this unit, do not place: Burning objects (i.e. candles), as they may cause fire, damage to this unit, and/or personal injury. Containers with liquid in them, as they may fall and liquid may cause electrical shock to the user and/or damage to this unit.

Do not cover this unit with a newspaper, tablecloth, curtain, etc. in order not to obstruct heat radiation. If the temperature inside this unit rises, it may cause fire, damage to this unit, and/or personal injury. Cleaning When the unit gets dirty, wipe it with a clean, soft, dry cloth. If necessary, wipe it with a soft cloth dampened with mild soapy water, then a fresh cloth with clean water. Wipe dry immediately with a dry cloth. NEVER use benzene, aerosol cleaners, thinner, alcohol or any other volatile cleaning agent. Do not use abrasive cleaners, as they may damage the finish of metal parts. Avoid spraying insecticide near the unit. Moving the Unit Before moving the unit, be certain to disconnect any interconnection cords with other components, and make certain that you disconnect the unit from the AC outlet.
Unpacking The carton and shipping materials used to protect your new receiver during shipment were specially designed to cushion it from shock and vibration. We suggest that you save the carton and packing materials for use in shipping if you move, or should the unit ever need repair. SAFETY INFORMATION 3 Remote Control Functions 01 2 Power On Button 34 Not active IR Transmitter Window Power Off Button Mute Input Selectors 6-Channel Direct Input g f e d c b a Z Y X W V U T S R Q P O N 5 Volume Up/Down HD Mode Selector Speaker Select/Setup OK Button Delay/Status Button Memory/Angle Button Clear Button Preset Up/Down RDS Select/Info Button Playlist A-B DTS Neo:6 Mode Selector Stereo Mode Selector Logic 7 Selector Dim Button Transport Buttons Skip Up/Down Buttons (DWN)/(UP) Night Mode DTS Digital Mode Selector 6 7 8 9 A B C E D Dolby Mode Selector Repeat Random Tone Mode/Progressive Scan/Interlaced Button Tuning Up/Down Direct Button Tuner Mode/Zoom Numeric Keys Digital Select/Audio Mode Navigation Buttons Channel Select /Disc Menu Button V.OFF/Test Button Surround Mode Selector/Program Down/ Subtitle Button Sleep/Program Up/Audio Select Button Title AM/FM Tuner Select AVR Selector F G H I J K L M 4 REMOTE CONTROL FUNCTIONS Remote Control Functions, common for AVR 142 and a HK DVD Player IMPORTANT NOTE: The combined AVR and DVD remote has some buttons that perform different functions. If you press the AVR Button , one set of functions is active, identical to the functions for buttons CD, Tape, Video 1/2/3.
If you press the DVD/ HDMI1 Button , some of the buttons change their function as indicated above the button itself, and explained below. Refer to the function table for an overview of functions in both modes. NOTE that activate pressing the HDMI1 and DVD Buttons the alternative commands as seen in the Function List on page 7. The DVD functions work with harman/ kardon DVD players only. Power On Button: Press this button to turn on the power to the AVR or the DVD selected by pressing either the AVR or the DVD/HDMI1 Button or .
This indicator is not active. IR Transmitter Window: Point this window towards the AVR when pressing buttons on the remote to make certain that infrared commands are properly received.

Power Off Button: Press this button to place the AVR or a selected device unit in the Standby mode. If held for more than 3 seconds, both the AVR and the DVD switch to Standby. Mute: Press this button to momentarily silence the AVR or TV set being controlled, depending on which device has been selected. Input Selectors: Pressing one of these buttons will perform three actions at the same time. First, if the AVR is not turned on, this will power up the unit. Next, it will select the source shown on the button as the input to the AVR. Finally, the DVD/HDMI1 Button will switch the double-function remote buttons to their DVD functions. After pressing the DVD/HDMI1 Button, you must press the AVR Selector button again to operate all the AVR's functions with the remote.

Note that pressing the DVD Button switches on BOTH the AVR and the DVD, whereas pressing the AVR Button just switches on the AVR. 6-Channel Direct Input: Press this button to select the component connected to the 6-Channel Direct Input as the audio. Note that when you wish to use the Six Channel Direct Input in conjunction with a video source, you must first select the video source by pressing one of the Input Selectors . Then press this button to choose the 6-Channel Direct Input as the audio source. Volume Up/Down: Press these buttons to raise or lower the system volume. HD Mode Selector (DVD): This function is active with harman/kardon DVD players only. Speaker Select/Setup: Press this button to begin the process of configuring the AVR's Bass Management System for use with the type of speakers used in your system. Once the button has been pressed, use the buttons to select the channel you wish to set up. Press the OK button and then select the speaker type (see page 12 for more information.) For DVD: Press this button to use the DVD's on-screen menu system to adjust the player's configuration settings.

Note that the Info Button must be pressed to access the DVD's Information menu to obtain detailed disc information, and to configure the playback mode of the disc. OK Button: This button is used to enter settings into the AVR's memory. It is also used in the setup procedures for delay time, speaker configuration and channel output level adjustment. Delay/Status Button: Press this button to begin the process for setting the delay times used by the AVR when processing surround sound. After pressing this button, the delay times are entered by pressing the OK button and then using the buttons to change the setting. Press the Set button again to complete the process (See page 14 for more information). For DVD: Press while a disc is playing to view banner display. Use the ARROW buttons to move through the different features in the Banner Display. When a sy each press of this button will move the image forwards frame by frame. Night Mode: Press this button to activate the Night mode.

This mode is available only with Dolby Digital encoded digital sources, and it preserves dialog (center channel) intelligibilty at low volume levels (See page 14 for more information). DTS Digital Mode Selector: When a DTS source is in use the AVR will select the appropriate mode automatically and no other mode will be available. Pressing this button will display the mode currently selected by the AVR´s decoder, depending on the surround material played and the speaker setting. Dolby Mode Selector: This button is used to select one of the available Dolby Surround processing modes. Each press of this button will select one of the Dolby Pro Logic II modes, Dolby 3 Stereo or Dolby Digital. Note that the Dolby Digital mode is only available with a digital input selected and the other modes only as long as a Dolby Digital source is not playing. Repeat (DVD): Each press of this button changes the playback mode to repeat a chapter or track or the entire disc. A repeat icon will appear in the upper right corner of the screen indicating the current repeat mode. If the Player Information Screen is active, the changes will be displayed on screen. Random (DVD): Press for RANDOM playback in random order.

Tone Mode/Progressive Scan/Interlaced Button: Pressing this button enables or disables the Bass and Treble tone controls. When the button is pressed so that the words appear in the Main Information Display , the settings of the Bass and Treble controls will affect the output signals. When the button is pressed so that the words appear in the Main Information Display , the output signal will be "flat," without any bass or treble alteration. For DVD: Press this button to change the resolution of the Component Video Output between standard definition and progressive definition (PAL interlaced and PAL progressive; NTSC interlaced and NTSC progressive). The new setting will become effective after quitting the Setup menu. Tuning Up/Down: When the tuner is in use, these buttons will tune up or down through the selected frequency band. If the Tuner Mode button has been pressed or the Band button on the front panel was held pressed so that appears in the Main Information Display , pressing either of the buttons will cause the tuner to seek the next stationESET Up TUNING Down TONE / P/I RDS / INFO PRESET Down RANDOM REPEAT A-B PLAYLIST DOLBY SUR DTS SUR DTS NEO:6 NIGHT LOGIC 7 STEREO SKIP DOWN SKIP UP DIM Rew( ) Play( ) FF( ) Open/Close Stop Pause HK AVR Remote Command AVR/TAPE/CD/AUX/VID1/VID2/VID3/HDMI2/HDMI3 Power On Power Off (press and release) Power Off (press and hold) Mute AVR Power On DVD VID 1 HDMI 1 AM/FM CD VID 2 HDMI 2 AUX TAPE VID 3 HDMI 3 Sleep 6CH Vol Up Surround Mode Test Tone Vol Down Channel Select Speaker Select Level+/Up Left SET Right Level-/Down Digital Select Delay 1 2 3 4 5 6 7 8 Tuner Mode 9 0 Memory Tuning Up Direct Tuning Clear Preset Up Tuning Down Tone Mode RDS Preset Down HK DVD Remote Command DVD/HDMI1 Power On Power Off (press and release) Power Off (press and hold) Mute(AVR) AVR(AVR) DVD(AVR) VID 1(AVR) HDMI 1(AVR) AM/FM(AVR) CD(AVR) VID 2(AVR) HDMI 2(AVR) AUX(AVR) TAPE(AVR) VID 3(AVR) HDMI 3(AVR) Audio Title 6CH(AVR) Vol Up(AVR) Subtitle Video Off HD Mode Vol Down(AVR) Disc Menu Setup Up Left Enter Right Down Audio Mode Status 1 2 3 4 5 6 7 8 Zoom 9 0 Angle Hold the button pressed for two seconds to turn off the Sleep mode setting. DVD: Press to access various audio languages on a DVD (If the DVD contains multiple audio streams). Title: When a disc is playing, press to make the DVD-player go back to the first section of the disc. If you are playing a DVD-Audio disc that contains other formats the DVD is capable of playing, such as linear PCM or Dolby Digital 5.

1, pressing this button may enable you to switch playback from one audio format to another. AM/FM Tuner Select: Press this button to select the AVR's tuner as the listening choice. Pressing this button when the tuner is in use will select between the AM and FM bands. AVR Selector: Pressing this button will switch the remote so that it will operate the AVR's functions.

If the AVR is in the Standby mode, it will also turn the AVR on.

Clear Slow Up P/I Info Slow Down Random Play Repeat Play A-B Repeat Play Playlist Dolby Surround(AVR) DTS Surround(AVR) DTS NEO:6(AVR) Night(AVR) Logic7(AVR) Stereo(AVR) Skip Down Skip Up Dimmer Rew Play FF Open/Close Stop Pause Dolby Surround DTS Surround DTS NEO:6 Night Mode Logic7 Stereo Skip Down(DVD) Skip Up(DVD) Dimmer Rew(DVD) Play(DVD) FF(DVD) Open/Close(DVD) Stop(DVD) Pause(DVD) REMOTE CONTROL FUNCTIONS 7 ENGLISH AVR Audio/Video Receiver Front Panel Controls F E D AVR 142 12 0 6 C 7 8 9 A 3 B4 G 5 H Main Power Switch: Press this button to apply power to the AVR. When the switch is pressed in, the unit is placed in a Standby mode, as indicated by the orange LED . This button MUST be pressed in to operate the unit. To turn the unit off completely and prevent the use of the remote control, this switch should be pressed until it pops out from the front panel so that the word "OFF" may be read at the top of the switch. NOTE: This switch is normally left in the "ON" position.

System Power Control: When the Main Power Switch is "ON," press this button to turn on the AVR; press it again to turn the unit off (to Standby). Note that the Power Indicator will turn blue when the unit is on. Power Indicator: This LED will be illuminated in orange when the unit is in the Standby mode to signal that the unit is ready to be turned on. When the unit is in operation, the indicator will turn blue. Headphone Jack: This jack may be used to listen to the AVR's output through a pair of headphones. Be certain that the headphones have a standard 6.3 mm stereo phone plug. Note that the speakers will automatically be turned off when the headphones are connected. Digital Optical 3 Input: Connect the optical digital audio output of an audio or video product to this jack. Aux input stereo minijack: Connect this minijack to any audio source, typically MP3 players or portable CD players.

An analog headphone output jack or line level out jack may be used. Surround Mode Group Selector: Press this button to select the top-level group of surround modes. Each press of the button will select a major mode grouping in the following order: Dolby Modes DTS Digital Modes DSP Modes Stereo Modes Logic 7 Modes Once the button is pressed so that the name of the desired surround mode group appears in the Lower Display Line , press the Surround Mode Selector to cycle through the individual modes available. For example, press this button to select Dolby modes, and then press the Surround Mode Selector to choose from the various mode options. Tuning Selector: Press the left side of the button to tune lower frequency stations and the right side of the button to tune higher frequency stations. When a station with a strong signal is reached, or will appear in the Main Information Display (see page 20 for more information on tuning stations). Tuner Band Selector: Pressing this button will automatically switch the AVR to the Tuner mode. Pressing it again will switch between the AM and FM frequency bands, holding it pressed for some seconds will switch between stereo and mono receiving and between automatic and manual tuning mode (See page 20 for more information on the tuner). Preset Stations Selector: Press this button to scroll up or down through the list of stations that have been entered into the preset memory. (See page 20 for more information on tuner programming.

) Input Source Selector: Press this button to change the input by scrolling through the list of input sources. RDS Select Button: Press this button to display the various messages that are part of the RDS data system of the AVR's tuner. (See page 20 for more information on RDS). Surround Mode Selector: Press this button to select from among the available surround mode options for the mode group selected. The specific modes will vary based on the number of speakers available, the mode group and if the input source is digital or analog.

For example, press the Surround Mode Group Selector to select a mode grouping such as Dolby or Logic 7, and then press this button to see the mode choices available. For more information on mode selection, see page 13. Volume Control: Turn this knob clockwise to increase the volume, counterclockwise to decrease the volume. If the AVR is muted, adjusting volume control will automatically release the unit from the silenced condition. Remote Sensor Window: The sensor behind this window receives infrared signals from the remote control.

Aim the remote at this area and do not block or cover it unless an external remote sensor is installed. Main Information Display: This display delivers messages and status indications to help you operate the receiver. Digital Coax 3 Input: This jack is normally used for connection to the output of portable digital audio devices, video game consoles or other products that have a coax digital jack. Video 3 Input Jacks: These audio/video jacks may be used for temporary connection to video games or portable audio/video products such as camcorders and portable audio players. 8 FRONT PANEL CONTROLS Rear Panel Connections ENGLISH AVR 142/230 Tape Inputs: Connect these jacks to the PLAY/ OUT jacks of an audio recorder. Tape Outputs: Connect these jacks to the RECORD/INPUT jacks of an audio recorder. Video 1 Audio Inputs: Connect these jacks to the PLAY/OUT audio jacks on a TV or other video source. AM Antenna: Connect the AM loop antenna supplied with the receiver to these terminals. If an external AM antenna is used, make connections to the AM and GND terminals in accordance with the instructions supplied with the antenna. Video 1 Audio Outputs: Connect these jacks to the RECORD/INPUT audio jacks on a VCR or any other Audio recorder.

DVD Audio Inputs: Connect these jacks to the analog audio jacks on a DVD or other video source. FM Antenna: Connect the supplied indoor or an optional external FM antenna to this terminal. CD Inputs: Connect these jacks to the analog output of a compact disc player or CD changer. Video 1 Component Video Inputs: Connect the Y/Pr/Pb component video outputs of an HDTV Settop convertor, satellite receiver, or other video source device with component video outputs to these jacks. Coaxial Digital Inputs: Connect the coax digital output from a DVD player, HDTV receiver, LD player, MD player or CD player to these jacks. The signal may be either a Dolby Digital signal, DTS signal or a standard PCM digital source. Do not connect the RF digital output of an LD player to these jacks. Subwoofer Output: Connect this jack to the line-level input of a powered subwoofer. If an external subwoofer amplifier is used, connect this jack to the subwoofer amplifier input. Video Monitor Output: Connect these jacks to the composite input of a TV monitor or video projector to view the output of any video source selected by the receiver's video switcher.

HDMI Inputs: Connect the HDMI output of video sources such as a DVD player, set-top box or HDTV tuner to either of these three jacks.

HDMI Output: Connect this jack to the HDMI input on a compatible HDMI-equipped video display. Monitor Component Video Outputs: Connect these outputs to the component video inputs of a video projector or monitor. When a source connected to one of the two Component Video Inputs is selected the signal will be sent to these jacks. Video 2 Component Video Inputs: Connect the Y/Pr/Pb component video outputs of a DVD player to these jacks. Note: All component inputs/outputs can be used for RGB signals too, in the same way as described for the Y/Pr/Pb signals, then connected to the jacks with the corresponding color. RGB connection is not possible if the source outputs a separate sync signal (see page 11). AC Power Cord: Connect the AC plug to an unswitched AC wall output. DVD Video Inputs: Connect these jacks to the composite output jacks on a DVD player or other video source. Video 1 Video Outputs: Connect these jacks to the RECORD/INPUT composite jack on a VCR.

Video 2 Audio Inputs: Connect these jacks to the PLAY/OUT audio jacks on a VCR or other video source. Video 2 Video Inputs: Connect these jacks to the PLAY/OUT composite jacks on a second VCR or other video source. Optical Digital Inputs: Connect the optical digital output from a DVD player, HDTV receiver, LD player, MD player or CD player to these jacks. The signal may be either a Dolby Digital signal, a DTS signal or a standard PCM digital source. Video 1 Video Inputs: Connect these jacks to the PLAY/OUT composite jacks on a TV or other video source. 6-Channel Direct Inputs: These jacks are used for connection to source devices such as DVD-Audio or SACD players with discrete analog outputs. Digital Audio Output: Connect this jack to the matching digital input connector on a digital recorder. Front/Center Speaker Outputs: Connect these outputs to the matching + or terminals on your front/center speakers. When making speaker connections, always make certain to maintain correct polarity by connecting the red (+) terminals on the AVR to the red (+) terminals on the speaker and the black () terminals on the AVR to the black () terminals on the speakers. (See page 12 for more information on speaker polarity.

) Surround Speaker Outputs: Connect these outputs to the matching + or terminals on your left and right surround speakers. When making speaker connections always make certain to maintain correct polarity by connecting the red (+) terminals on the AVR to the red (+) terminals on the speakers and the black () terminals on the AVR to the black () terminals on the speakers. See page 12 for more information on speaker polarity. REAR PANEL CONNECTIONS 9 Installation and Connections After unpacking the unit, and placing it on a solid surface capable of supporting its weight, you will need to make the connections to your audio and video equipment. 7. Connections to a subwoofer are normally made via a line level audio connection from the Subwoofer Output to the line-level input of a subwoofer with a built-in amplifier. When a passive subwoofer is used, the connection first goes to a power amplifier, which will be connected to one or more subwoofer speakers. If you are using a powered subwoofer that does not have line-level input connections, follow the instructions furnished with the speaker for connection information. Note: Speaker sets with two front satellites and a passive subwoofer must be connected to the front speaker outputs only rather than to the Subwoofer Output . 8.

If an external multi-channel audio source with 5.1 outputs such as an external digital processor/ decoder, DVD-Audio or SACDTM player is used, connect the outputs of that device to the 6-Channel Direct Inputs . Audio Equipment Connections We recommend that you use high-quality interconnect cables when making connections to source equipment and recorders to preserve the integrity of the signals. When making connections to audio source equipment or speakers it is always a good practice to unplug the unit from the AC wall outlet. This prevents any possibility of accidentally sending audio or transient signals to the speakers that may damage them.

Important Note: In order to clearly identify all connectors and simplify nstallation, as per the new EIA/CEA-863 standard, all connections are colour coded as follows: For Speakers and Audio In/Outputs: White (Left, speakers front) and Red (Right, speakers front). For Speakers: Green (Center), Blue (Left Surround) and Grey (Right Surround). For Audio Output: Purple (Subwoofer). For Composite Video In/Outputs: Yellow. For Digital Audio In/Outputs: Orange.

1. Connect the analog output of a CD player to the CD inputs . NOTE: When the CD player has both fixed and variable audio outputs it is best to use the fixed output unless you find that the input to the receiver is so low that the sound is noisy, or so high that the signal is distorted. 2. Connect the analog Play/Out jacks of a cassette deck, MD, CD-R or other audio recorder to the Tape Input jacks . Connect the analog Record/ In jacks on the recorder to the Tape Output jacks on the AVR. 3. Connect the output of any digital sources to the appropriate input connections on the AVR rear panel. Note that the Optical and Coaxial digital inputs may be used with a Dolby Digital or DTS source or the output of a conventional CD, MD or LD player's PCM (S/P-DIF) output. 4.

Assemble the AM Loop Antenna supplied with the unit as shown below. Connect it to the AM and GND screw terminals . 5. Connect the supplied FM antenna to the FM (75 ohm) connection . The FM antenna may be an external roof antenna, an inside powered or wire lead antenna or a connection from a cable system. Note that if the antenna or connection uses 300-ohm twin-lead cable, you must use a 300-ohm-to-75-ohm adapter to make the connection. 6. Connect the front, center and surround speaker outputs to the respective speakers. To assure that all the audio signals are carried to your speakers without loss of clarity or resolution, we suggest that you use high-quality speaker cable. Many brands of cable are available and the choice of cable may be influenced by the distance between your speakers and the receiver, the type of speakers you use, personal preferences and other factors.

Your dealer or installer is a valuable resource to consult in selecting the proper cable. Regardless of the brand of cable selected, we recommend that you use a cable constructed of fine, multistrand copper with an area greater than 2 mm2. Cable with an area of 1.5 mm2 may be used for short runs of less than 4 m. We do not recommend that you use cables with an area less than 1mm2 due to the power loss and degradation in per formance that will occur. When connecting wires to the speakers, be certain to observe proper polarity. Remember to connect the "negative" or "black" wire to the same terminal on both the receiver and the speaker. Similarly, the "positive" or "red" wire should be connected to like terminals on the AVR and speaker.

NOTE: While most speaker manufacturers adhere to an industry convention of using black terminals for negative and red ones for positive, some manufacturers may vary from this configuration. To assure proper phase and optimal performance, consult the identification plate on your speaker or the speaker's manual to verify polarity.

If you do not know the polarity of your speaker, ask your dealer for advice before proceeding, or consult the speaker's manufacturer. We also recommend that the length of cable used to connect speaker pairs be identical. For example, use the same length piece of cable to connect the frontleft and front-right or surround-left and surround-right speakers, even if the speakers are a different distance from the AVR. Video Equipment Connections Video equipment is connected in the same manner as audio components. Again, the use of high-quality interconnect cables is recommended to preserve signal quality. 1. Connect a VCR's audio and video Play/Out jacks to the Video 2 In jacks on the rear panel. The Audio and Video Record/In jacks on the VCR should be connected to the Video 1 Out jacks on the AVR. 2. Although any video device may be connected to these jacks, we recommend connecting your TV to the Video 1 Audio/Video Input Jacks so that you may take advantage of the fact that the remote control is preprogrammed with TV product codes for the Video 1 device.

For the same reason, we recommend connecting your video recorder, cable TV converter or satellite receiver to the Video 2 Audio/Video Input Jacks . 3. Connect the analog audio and video outputs of a . This is valid only DVD to the DVD jacks if your DVD player does not have a HDMI Output. If a HDMI Output is available on the DVD player, connect it to the HDMI Inputs . Please note that these Inputs are Video only. Audio must be connected separately. 4. Connect the digital audio outputs of a CD, MD or DVD player, satellite receiver, cable box or HDTV converter to the appropriate Optical or Coaxial Digital Inputs . Remember that the DVD source defaults to the Coaxial 1 Digital Input .

All other sources default to their analog inputs, although any source may be assigned to any digital audio input on the receiver. 10 INSTALLATION AND CONNECTIONS Installation and Connections 5. Connect the Composite Monitor Output jacks on the receiver to the composite input of your television monitor or video projector. 6. If your DVD player and monitor both have component video connections, connect the component outputs of the DVD player to the Video 1 Component Video Inputs .

Note that even when component video connections are used the audio connections must still be made to either the analog DVD Audio Inputs or any of the Coaxial or Optical Digital Input jacks . 7. If another component video device is available, connect it to the Video 2 Component Video Input jacks . The audio connections for this device should be made to either the Video 2 Input jacks or any of the Coaxial or Optical Digital Input jacks . 8.

If the component video inputs are used, connect the Component Video Output to the component video inputs of your TV, projector or display device. 9. If you have a camcorder, video game or other audio/ video device that is connected to the AVR on a temporary, rather than permanent basis, connect the audio, video and digital audio outputs of that device to the Front Panel Inputs . A device connected to the Video 3 jacks is selected as the Video 3 input, and connected to the digital jacks it is selected as "Optical 3" or "Coaxial 3" input. (See page 14 for more information on input configuration.) 10. Connect the AVR to your video display using one of the following connections, even if you will also use an HDMI connection: If your video display has component video inputs (Y/Pr/Pb), connect the ComponentVideo Output . If your display does not have component video inputs, connect the Video Monitor Output (Composite) on the AVR to the matching input on your display. Only one connection is needed. HDMI Connections HDMITM is the abbreviation for High-Definition Multimedia Interface, which is quickly becoming the standard connection point between advanced video/ audio source products and displays, particularly for high-definition video signals.

HDMI is a digital connection, eliminating the need to convert signals back and forth from digital to analog. Some source or display components in your system may use DVI (Digital Video Interface) for digital video connections. DVI carries the same digital video signals as HDMI but uses a larger connector and does not transport audio or control signals. In most cases, you may mix and match DVI and HDMI digital video connections by using optional connector adapters. Note, however, that some DVI-equipped video displays are not compatible with the HDCP copy protection coding that is increasingly carried with signals connected via HDMI. If you have an HDMI source and a DVI-equipped display, you may occasionally be unable to view a program if the display does not include HDCP. This is not the fault of the AVR or your source; it simply indicates that the video display is not compatible. The AVR 142 is equipped for HDMI switching, which means that it is able to select either of the three HDMI inputs as the source that feeds your system's video display. This preserves the digital signal in its original form by passing it directly through from source to display. However, this also means that the AVR does not have access to the signal and thus it is not able to add menus or on-screen messages to HDMI signals, or to process the audio that may be part of the signal in an HDMI connection.

Therefore, the following connections are required when the AVR is used with HDMI sources: Connect the HDMI output of a source to either of the HDMI Inputs . Connect the HDMI Output HDMI input on your display. of the AVR to an Connect either an optical or coaxial digital audio output from the source to the AVR. The default connections are Coaxial 2 for a source connected to HDMI 1 and Optical 2 for a source connected to HDMI 2 . You may use any digital or analog audio source in conjunction with the HDMI inputs, but if it varies from the default you must make a change to the input's setting, as shown on page 18.

Even when HDMI inputs are used, it is important to make sure that a component or composite video connection is made between the AVR and your display. This is needed to view both the setup menus and onscreen messages, and to view other (non-HDMI) video sources. The AVR does not convert analog video signals to HDMI. All component inputs/outputs can be used for RGB signals too, in the same way as described for the Y/Pr/Pb signals, then connected to the jacks with the corresponding color. But this is only correct as long as only the three RGB video signals are output by the video source, with a sync signal in the "G" signal only, without any sync signal output separately by the source.

Video Connection Notes: Y/Pr/Pb Component, RGB, or Composite video signals may only be viewed in their native formats and will not be converted to the other formats.

All component inputs/outputs can be used for RGB signals too, in the same way as described for the Y/Pr/Pb signals, then connected to the jacks with the corresponding color. But this is only correct as long as only the three RGB video signals are output by the video source, with a sync signal in the "G" signal only, without any sync signal output separately by the source. INSTALLATION AND CONNECTIONS 11 ENGLISH System Configuration Once the speakers have been placed in the room and connected, the remaining steps are to program the system configuration memories. With the AVR two kind of memories are used, those associated individually with the input selected, e.g. surround modes, and others working independently from any input selected like speaker output levels, or delay times used by the surround sound processor. Settings to be Made With Each Input Used The AVR features an advanced memory system that enables you to establish different settings for the speaker configuration, digital input, surround mode, delay times and output levels for each input source. This flexibility enables you to custom tailor the way in which you listen to each source and have the AVR memorize them. This means, for example, that you may associate different surround modes and analog or digital inputs with different sources, or set different speaker configurations with the resultant changes to the bass management system or the use of the Center speaker.

Once these settings are made, they will automatically be recalled whenever you select an input. The default settings for the AVR, as it is shipped from the factory, have all inputs set for an analog source (except for the DVD input, which has the Coaxial Digital Input 1 as the default), with Logic 7 Music as the surround mode, all speaker positions set to "small", and a subwoofer connected. Before using the unit, you will probably want to change these settings for most inputs so that they are properly configured to reflect the use of digital or analog inputs, the type of speakers installed and the surround mode associated with the input. Speaker Setup This setup tells the AVR which type of speakers are in use. This is important as it adjusts the settings that determine which speakers receive low frequency (bass) information and whether a Center speaker should be used or not, separately for each input used. For each of these settings use the setting if the speakers for a particular position are traditional full-range loudspeakers that are capable of reproducing sounds below 100Hz. Use the setting for smaller, frequency-limited satellite speakers that do not reproduce sounds below 100Hz. Note that when "small" front (left and right) speakers are used, a subwoofer is required to reproduce low frequency sounds. If you are in doubt as to which category describes your speakers, consult the specifications in the speakers' owner's manual, or ask your dealer. With the AVR turned on, follow these steps to configure the speakers: 1. Press the Speaker button on the remote. The words will appear in the Main Information Display . 2. Press the OK button 3. Press the . buttons on the remote to select or , matching the type of speakers you have at the leftfront and right-front positions, as described by the definitions shown in preceding section. First Turn On You are now ready to power up the AVR to begin these final adjustments. 1. Plug the Power Cable AC outlet. into an unswitched 2. Press the Main Power Switch in until it latches and the word "OFF" on the top of the switch disappears inside the front panel. Note that the Power Indicator will turn orange, indicating that the unit is in the Standby mode. 3. Remove the protective plastic film from the frontpanel lens. If left in place, the film may affect the performance of your remote control. 4. Install the three supplied AAA batteries in the remote as shown. Be certain to follow the (+) and () polarity indicators that are on the bottom of the battery compartment. Input Setup The first step in configuring the AVR is to select an input. This may be done by pressing the front panel Input Source Selector until the desired input's name appears in the Main Information Display .

The input may also be selected by pressing the appropriate Input Selector on the remote control . The second step is to associate one of the digital inputs with the selected input source (if this is needed, otherwise the selected analog input will remain). Press the Digital Input Select button on the remote. Within five seconds, make your input selection using the buttons on the remote until the desired digital or analog input is shown in the Main Information Display . Then press the OK button to enter the new digital input assignment. After the setting has been made with one input, repeat as described above with all inputs in use. The digital input associated with the input selected can also be changed at any time later and the AVR's memory system will keep the settings until they are changed again. 5. Turn the AVR on either by pressing the System Power Control or the Input Source Selector on the front panel, or via the remote by pressing the AVR Selector or any of the Input Selectors on the remote. The Power Indicator will turn blue to confirm that the unit is on, and the Main Information Display will also light up. NOTE: After pressing one of the Input Selector buttons to turn the unit on, press the AVR Selector to have the remote control the AVR functions. is selected, low frequency front When channel sounds will be sent only to the subwoofer output. Note that if you choose this option and there is no subwoofer connected, you will not hear any low frequency sounds from the front channels. @@@@@@@@4. @@@@@@@@@@@@@This mode is needed if no Center speaker is used. @@6. @@again, and then use the 7. @@@@@@@@@@@8. @@, and then press the 9. @@@@@@@@@@@@@@@@@@@@@@@@@@@@This allows you to use both your main and subwoofer speakers to take advantage of the special bass created for certain movies. To select that option press the arrow buttons so that appears in the display. If a subwoofer is connected and you wish to use it for bass reproduction in conjunction with the main front left/right speakers, regardless of the type of program source or surround mode you are listening to, press the arrow buttons so that appears in the display. When this option is selected, a "complete" feed will be sent to the front left/right "main" speakers, and the subwoofer will receive the front left and right bass frequencies under the crossover frequency 80 Hz, additionally to the LFE soundtrack (see above). 10. When all speaker selections have been made for the input selected, press the OK button twice or simply wait for three seconds until the display returns to the normal mode. Configuring the Surround Off (Stereo) Modes For superior reproduction of two-channel program materials, the AVR offers two Stereo modes: an analog Stereo-Direct mode that bypasses the digital signal processing circuitry for a completely analog signal path that preserves the purity of the original signal, and a digital mode that is capable of providing bass management for optimal distribution of the low frequencies between smaller speakers and a subwoofer.

Stereo-Direct (Bypass) Mode When the analog Stereo-Direct mode is selected by pressing the Stereo Mode Selector until appears in the Main Information Display the AVR will pass the analog source material directly through to the front left and right speakers, bypassing the digital processing circuitry. In this mode, the front left and right speakers will automatically be configured as ; it is not possible to configure these speakers as . SYSTEM CONFIGURATION 13 ENGLISH System Configuration When the AVR is in the Stereo Bypass mode you may still configure the subwoofer output so that it is either turned off, with a full-range signal going to the front left/right speakers, or you may configure it so that the subwoofer feed is activated. The factory default setting is to have the subwoofer turned off for this mode, but you may change that setting by following these steps: 1.

Press the Speaker Button 2. Press the OK Button configuration menu. . to activate the To resynchronize the front, center and surround channels, follow these steps: 1. Measure the distance from the listening/viewing position to the front speakers in meters. 2. Measure the distance from the listening/viewing position to the surround speakers. 3. Press the Delay Button 4. When Information Display .

. appears in the Main press the OK Button Next press the Night button on the remote. When the button is pressed, the words (Dynamic Range) followed by the current setting (MID, MAX, OFF) will appear in the Main Information Display . Press the buttons within five seconds to select the desired setting: : When OFF is shown in the display, the Night mode will not function. : When MID is shown in the display, a mild compression will be applied.

: When MAX is shown in the display, a more severe compression algorithm will be applied. When you want to use the Night mode feature, we recommend that you select the MID setting as a starting point and change to the MAX setting later, if desired. 3. Press the Buttons on the remote to select the desired option. turns off the feed to the subwoofer, while turns it on.

4. When the desired setting has been entered, press the OK Button to return to normal operation. 5. Press the Buttons on the remote to enter the distance from the front left/right speakers to your listening position. Press the OK Button when this is complete. Buttons on the remote so 6. Press the that appears in the Main Information Display and press the OK Button (After , you will see). Buttons on the remote 7. Press the the to enter the distance from the center speaker to your listening position. Press the OK Button when this is complete.

8. Press the so that on the remote and after that appears in the Lower Display Line and press the OK Button . Buttons Output Level Adjustment Output level adjustment is a key part of the configuration process for any surround sound product. @@@@@@@@@@@@@@@@@@@@@@To listen to programs in the two-channel stereo mode while taking advantage of the bass management system, press the Stereo Mode Selector until appears in the Main Information Display . When this mode is in use, the front left/right speakers and subwoofer may be configured to meet the requirements of your specific speakers using the steps shown in the Speaker Setup section. 9. Press the the Buttons on the remote to enter the distance from the surround speakers to your listening position. Press the OK Button when this is complete. 10. When all adjustments have been made, the unit will return to normal operation in five seconds.

Night Mode Settings The Night mode is a feature of Dolby Digital that uses special processing to preserve the dynamic range and full intelligibility of a movie sound track while reducing the peak level. This prevents abruptly loud transitions from disturbing others, without reducing the sonic impact of a digital source. Note that the Night mode is only available when the Dolby Digital surround mode is selected. To adjust the Night mode setting press the Input on the front or on the Source Selector remote and select an input that is associated with a digital input and the Dolby Digital surround mode. Delay Settings Only for the Dolby or DTS modes, you will need to adjust the delay time setting.

Note that the delay time is not adjustable for any other modes. Due to the different distances between the listening position for the front channel speakers and the surround speakers, the amount of time it takes for sound to reach your ears from the front or surround speakers is different. You may compensate for this difference through the use of the delay settings to adjust the timing for the specific speaker placement and acoustic conditions in your listening room or home theater. The factory setting is appropriate for most rooms, but some installations create an uncommon distance between the front and surround speakers that may cause the arrival of front channel sounds to become disconnected from surround channel sounds. 14 SYSTEM CONFIGURATION System Configuration Before beginning the output level adjustment process, make certain that all speaker connections have been properly made.

The system volume should be turned down at first. For the easiest set-up, follow these steps while seated in the listening position that will be used most often: 1. Make certain that all speaker positions have been properly configured for their "large" or "small" settings (as outlined above). 2. Adjust the volume so that it is at , as shown in the on-screen display or Main Information Display . To adjust and calibrate the output levels, follow these steps. For accurate calibration, it is a good idea to make these adjustments while seated in your favorite listening position. As the adjustment must be made for each surround mode, it is best to select any input associated with any Dolby Pro Logic II mode, make the adjustment for that surround mode, then step through all inputs you´re using (and thus through all surround modes associated with the inputs) and repeat the adjustment when any surround mode appears that has not yet been adjusted. 1. Select any input associated with any Dolby Pro Logic II surround mode by pressing the until Input Source Selector is shown in the Main Information Display .

on the remote. The 2. Press the Test button words will appear in the Main Information Display . 3. The test noise will immediately begin to circulate in the speakers in a clockwise rotation, pausing at each position for two seconds. As the test noise rotates the speaker positions , , , , (Front Left, Center, Front Right, Surround Right, Surround Left) will be shown in the Main Information Display . Turn up the volume now until you can hear the noise clearly. IMPORTANT NOTE: Because this test noise will have a much lower level than normal music, the volume must be lowered after the adjustment for all channels is made, BEFORE you turn the test tone off. NOTE: This is a good time to verify that the speakers have been properly connected. As the test noise circulates, listen to make certain that the sound comes from the speaker position shown in the Main Information Display.

If the sound from a speaker location does NOT match the position indicated in the display, turn the AVR off using the Main Power Switch and check the speaker wiring to make certain that each speaker is connected to the correct output terminal. After checking for speaker placement, let the test noise circulate again, and listen to see which channels sound louder than the others. Using the front left speaker as a reference, press the buttons on the remote to bring all speakers to the same volume level. Note that when one of the buttons is pushed, the test noise circulation will pause on the channel being adjusted to give you time to make the adjustment. When you release the button, the circulation will resume after five seconds.

Continue to adjust the individual speakers until they all have the same volume. Note that adjustments should be made with the buttons on the remote only, NOT the main volume controls. When all channels have the same output level, turn the Volume down to about 40dB, otherwise the listening level may be too high as soon as the source's music starts to play. After wards press the Test Button again to turn the test tone off and complete the process. IMPORTANT NOTE: The Output level adjustment made will be effective for the surround mode currently selected, also when other inputs are selected using the same surround mode.

To adjust the output level with all other surround modes used, step through all inputs you´re using by pressing the Source Selector buttons on the front panel or the appropriate Input Selectors on the remote. When the indicator for any surround mode for which the level adjustment has not yet been made lights in the Main Information Display , repeat the level adjustment described above. This will also allow you to compensate level differences between speakers, that may be different with each surround mode, or to increase or decrease the level of certain speakers intentionally, depending on the surround mode selected. Once the settings outlined on the previous pages have been made, the AVR is ready for operation. While there are some additional settings to be made, these are best done after you have had an opportunity to listen to a variety of sources and different kinds of program material. In addition, any of the settings made in the initial configuration of the unit may be changed at any time. As you add new or different sources or speakers, or if you wish to change a setting to better reflect your listening taste, simply follow the instructions for changing the settings for that parameter as shown above. Note that any settings changed at any time, will be stored in memory in the AVR, also if it´s turned off completely, unless reset (see page 22). Having completed the setup and configuration process for your AVR, you are about to experience the finest in music and home theater listening. Enjoy! ENGLISH SYSTEM CONFIGURATION 15 Operation Basic Operation Once you have completed the setup and configuration of the AVR, it is simple to operate and enjoy.

The following instructions should be followed for you to maximize your enjoyment of your new receiver: Source Selection To select a source, press any of the Source Selector buttons on the remote . During a listening session you may wish to adjust the Bass Control and Treble Control to suit your listening tastes or room acoustics. To set the output of the AVR so that the output is "flat," with the Tone controls de-activated, press the Tone Mode button once or twice so that the words appear momentarily in the Main Information Display . To return the tone controls to an active condition, press the Tone Mode button once or twice so that the words momentarily appear in the Main Information Display . To change the Bass or Treble Control settings press the Tone Mode Button until the word Bass or Treble appear momentarily in the Main Information Display . Press the OK Button followed by the / Buttons to adjust the setting. When done, press the Tone Mode Button again to exit the Tone Mode Menu. For private listening, plug the 6.3 mm stereo phone plug from a pair of stereo headphones into the front panel Headphone Jack . Note that when the headphone's plug is connected, the word will scroll once across the Main Information Display and all speakers will be silenced.

When the headphone plug is removed, the audio feed to the speakers will be restored. When the headphones are in use, you may take advantage of the Dolby Headphone modes to bring added spaciousness to headphone listening. Press the Dolby Mode Select Button or the Surround Mode Group Selector to cycle through the three Dolby Headphone modes to select the one that you prefer. Turning the AVR On or Off When using the AVR for the first time, you must press the Main Power Switch on the front panel to turn the unit on. This places the unit in a Standby mode, as indicated by the orange color of the Power Indicator . Once the unit is in Standby, you may begin a listening session by pressing the System Power Control or the Source button on the front panel, or the AVR Selector on the Remote Control . Note that the Power Indicator will turn blue. This will turn the unit on and return it to the input source that was last used. The unit may also be turned on from Standby by pressing any of the Source Selector buttons on the remote . Note: After pressing the the DVD or HDMI 1 Button to turn the unit on, press the AVR Selector to have the remote control all of the AVR functions.

Please refer to the Remote Function List on page 7 for an overview. To turn the unit off at the end of a listening session, simply press the System Power Control on the front panel or the Power Off Button on the remote. When the remote is used to turn the unit "off" it is actually placing the system in a Standby mode, as indicated by the orange color of the Power Indicator . When away from home for an extended period of time it is always a good idea to completely turn the unit off with the front panel Main Power Switch . Note: All preset memories may be lost if the unit is left turned off with the Main Power Switch for more than two weeks. Note: After pressing the DVD or HDMI 1 Button you must press the AVR Selector to have the remote control all of the AVR functions. The input source may also be changed by pressing the front-panel Input Source Selector button . Each press of the button will move the input selection through the list of available inputs. As the input is changed, the AVR will automatically switch to the digital input (if selected), surround mode and speaker configuration that were entered during the configuration process for that source. The front-panel Video 3 Inputs , Optical Digital 3 Input or the Coaxial Digital 3 Input may be used to connect a device such as a video game or camcorder to your home entertainment system on a temporary basis.

As the input source is changed, the new input name will appear in the Main Information Display . When a pure audio input (CD, Tuner, Tape, 6/8 Channel Input) is selected, the last video input used remains routed to the Video Outputs and Video Monitor Output .

This permits simultaneous viewing and listening to different sources. When a Video source is selected, its audio signal will be fed to the speakers and the video signal for that input will be routed to the appropriate Monitor Output Jack and will be viewable on a TV monitor connected to the AVR. If a component video source is connected to the Video 1 or Video 2 Component Inputs, it will be routed to the Component Video Outputs . Make certain that your TV is set to the proper input to view the appropriate video signal (composite or component video). Surround Mode Selection One of the most important features of the AVR is its ability to reproduce a full multichannel surround sound field from digital sources, analog matrix surround encoded programs and standard stereo or even mono programs. In all, a total of fifteen listening modes are available on the AVR. Selection of a surround mode is based on personal taste, as well as the type of program source material being used. For example, motion pictures, CD's or TV programs bearing the logo of one of the major surround encoding processes, such as Dolby Surround should be played in either the Dolby Pro Logic II Movie (with movies) or Music (with music) surround mode or with the Harman Kardon exclusive Logic 7 Movie Mode, to create a full range discrete 5.

1 channel surround signal from surround encoded programs with a stereophonic left and right rear signal, just as it was recorded in real life (e.g. sound being recorded from left rear side will be heard from that side only. Controls and Use of Headphones Adjust the volume to a comfortable level using the front panel Volume Control or remote Volume Up/Down buttons. To temporarily silence all speaker outputs press the Mute button .

This will interrupt the output to all speakers and the headphone jack, but it will not affect any recording or dubbing that may be in progress. Press the Mute button again to return to normal operation. Using the Sleep Timer To program the AVR for automatic turn-off, press the Sleep Button on the remote. Each press of the button will increase the time before shut down in the following sequence: When the programmed sleep time has elapsed, the unit will automatically turn off (to Standby mode). Note that the front panel display will dim to one half brightness when the Sleep function is programmed.

To cancel the Sleep function, press and hold the Sleep Button until the information display returns to normal brightness and the message appears in the Main Information Display . 16 OPERATION Operation When no rear speakers are in use, the Dolby 3 Stereo mode should be selected with all surround recordings. Note that when Dolby Digital 2.0 signals (e.g. "D.D. 2.0" tracks from DVD), that are encoded with Dolby Pro Logic information, are received via any digital input, the Dolby Pro Logic II Movie mode will be selected automatically (in addition to the Dolby Digital mode) and will decode a full range 5.1 channel surround sound even from those recordings.

To create wide, enveloping sound field environments and defined pans and flyovers with all analog stereo recordings select the Dolby Pro Logic II Music mode or the exclusive Harman Kardon Logic 7 Music mode for a dramatic improvement in comparison to the Dolby Pro Logic (I) mode of former times. NOTE: Once a program has been encoded with matrix surround information, it retains the surround information as long as the program is broadcast in stereo. Thus, movies with surround sound may be decoded via any of the analog surround modes such as Dolby Pro Logic II or Logic 7, when they are broadcast via conventional TV stations, cable, pay TV and satellite transmission. In addition, a growing number of madefor-television programs, sports broadcasts, radio dramas and music CDs are also recorded in surround sound. You may view a list of these programs at the Dolby Laboratories Web site at www.dolby.com. Even when a program is not listed as carrying intentional surround information, you may find that the Dolby Pro Logic II, Dolby 3 Stereo or Logic 7 modes often deliver enveloping surround presentations through the use of the natural surround information present in all stereo recordings. However, for stereo programs without any surround information the Theater, Hall and 5CH Stereo modes should be tried (effective particularly with old "extreme" stereo recordings) and for mono programs, we suggest that you try the Theater or Hall modes. Dolby Virtual Speaker technology uses a nextgeneration advanced algorithm to reproduce the dynamics and surround sound effects of a precisely placed 5.

1-channel speaker system using only front left and right speakers. In the Reference Mode, the apparent width of the sound across the front image is defined by the distance between the two speakers. The Wide Mode provides a wider, more spacious front image when the two speakers are close together. The Dolby Surround Button switches between Dolby PL II (Movie, Music or Game), Dolby Pro Logic, Dolby 3 Stereo, 2 Speaker Mode/Dolby VS Ref, 3 Speaker Mode/Dolby VS Ref, 2 Speaker Mode/Dolby VS Wide, 3 Speaker Mode/Dolby VS Wide, 4 Speaker Mode/Dolby VS Wide, 5 Speaker Mode/Dolby VS Wide. When selecting 2, 3, 4 and 5 Speaker Modes, please wait about two seconds for the display to show which Dolby Virtual Speaker function is active. Surround modes are selected using either the front panel controls or the remote. To select a surround mode from the front panel, press the Surround Mode Group Selector Button to scroll through the list of available surround groups (for example, any Dolby mode or Logic 7 mode). Next press the Surround Mode Selector Button to choose the specific mode within the desired group (for example, within the Dolby mode group the options are Dolby Pro Logic, Dolby Pro Logic II Music, Dolby Pro Logic II Movies and Dolby 3 Stereo). To select a surround mode using the remote, press any of the surround mode selector buttons until the desired mode appears. As you press the buttons, the Surround mode name will appear in the Main Information Display .

Note that any time a surround mode is changed it remains associated with the input just selected until another choice is made. NOTE: The name of each Surround Mode will scroll through the Main Information Display while the modes are being selected. To avoid exiting from the surround mode selection process, be certain to push the buttons while a mode name is still visible. Note that the Dolby Digital or DTS modes may only be selected when a digital input is in use. In addition, when a digital source is present, the AVR will automatically select and switch to the correct mode (Dolby Digital or DTS), regardless of the mode that has been previously selected. For more information on selecting digital sources, see the following section of this manual. To listen to a program in traditional two channel stereo, using the front left and front right speakers only (plus the subwoofer if installed and configured), follow the instructions shown above for using the remote until appears in the Main Information Display .