AVR 1700, AVR 170, AVR 170/230C

Audio/video receiver

harman/kardon®
by HARMAN

AVR

Introduction

Thank you for choosing a Harman Kardon product!

This quick-start guide contains all the information you need to connect and set up your new Harman Kardon audio/video receiver (AVR).
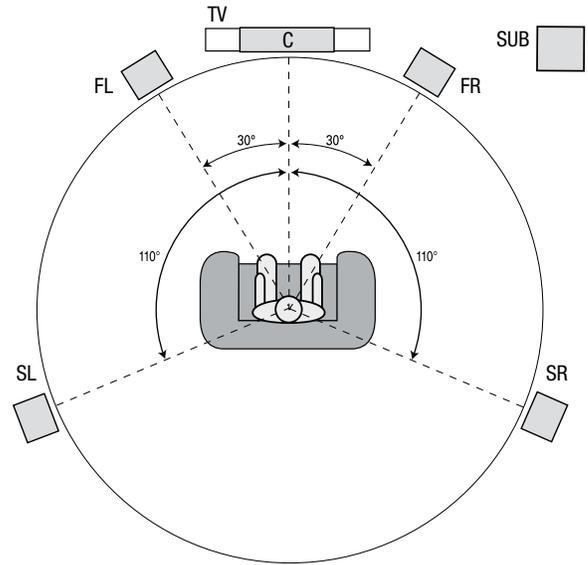
To conserve our natural resources, your AVR does not include a printed owner's manual. An owner's manual containing complete information about operating all of your new AVR's features is available at our Web site. Go to www.harmankardon.com and download the *AVR 1700, AVR 170, AVR 170/230C Owner's Manual*.

Place the Receiver

- Place the AVR on a firm and level surface. Be certain that the surface and any mounting hardware can support the AVR's weight.

- Provide proper space above and below the AVR for ventilation. Recommended clearance distances are 30cm above the unit, 30cm behind the unit and 30cm on each side of the unit.

- If you install the AVR in a cabinet or other enclosed area, provide cooling air within the cabinet. Under some circumstances, a fan may be required.

- Do not obstruct the ventilation slots on the top of the AVR or place objects directly over them.

- Do not place the AVR directly on a carpeted surface.

- Do not place the AVR in moist or humid locations, in extremely hot or cold locations, in areas near heaters or heat registers, or in direct sunlight.

Connections

CAUTION: Before making any connections to the AVR, ensure that the AVR's AC cord is unplugged from the receiver and the AC outlet. Making connections with the AVR plugged in and turned on could damage the speakers.

Place Your Speakers

Determine the locations for your system's speakers according to their manufacturer's directions and the layout of your listening room. Use the illustrations below as a guide for 5.1-channel systems.
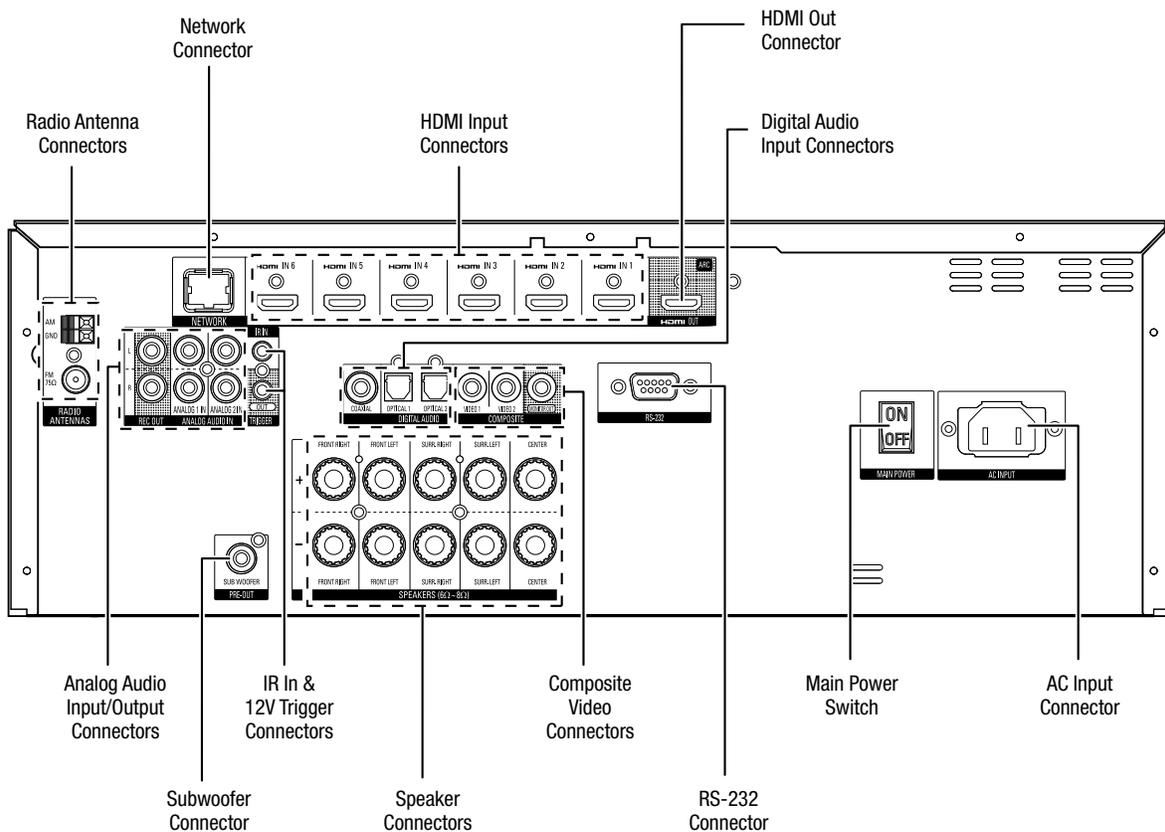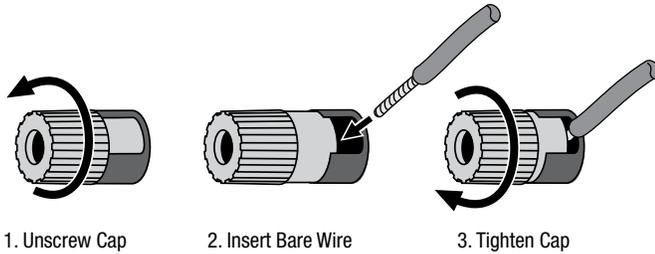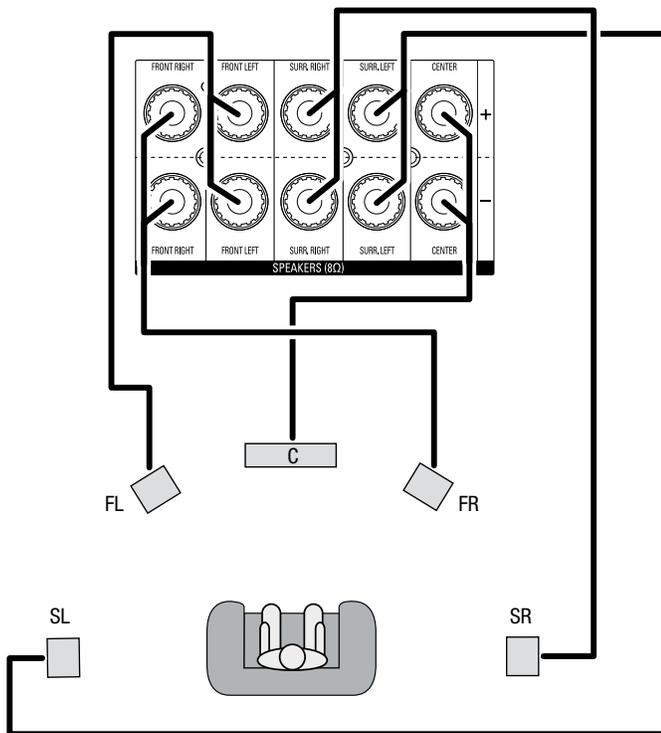

Speaker Positioning for 5.1-Channel Systems

For more detailed speaker placement information, download the complete *AVR 1700, AVR 170, AVR 170/230C Owner's Manual* from www.harmankardon.com.

Network Connector

Radio Antenna Connectors

HDMI Input Connectors

HDMI Out Connector

Digital Audio Input Connectors

Analog Audio Input/Output Connectors

IR In & 12V Trigger Connectors

Composite Video Connectors

Main Power Switch

AC Input Connector

Subwoofer Connector

Speaker Connectors

RS-232 Connector

AVR

Connect Your Speakers

How to use the AVR speaker terminals:

1. Unscrew Cap 2. Insert Bare Wire 3. Tighten Cap

Always connect the colored (+) terminal on the AVR to the (+) terminal on the speaker (usually red), and the black (−) terminal on the AVR to the (−) terminal on the speaker (usually black).
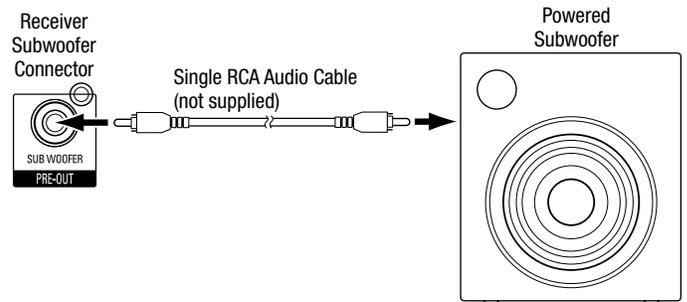
IMPORTANT: Make sure the (+) and (−) bare wires do not touch each other or the other terminal. Touching wires can cause a short circuit that can damage your AVR.

Connect the speakers as shown in the illustration.

Connect Your Subwoofer

Use a single RCA audio cable to connect the AVR's Subwoofer Pre-Out connector to your subwoofer. Consult your subwoofer's user manual for specific information about making connections to it.
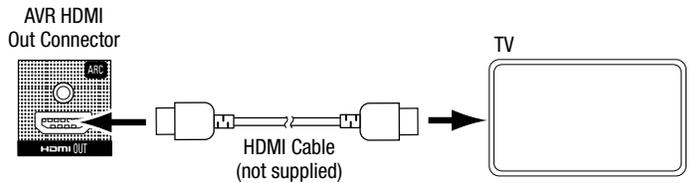
Connect Your TV
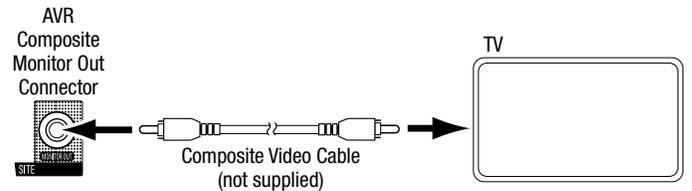
HDMI Out Connector

If your TV has an HDMI connector and you have HDMI source devices, use an HDMI cable (not supplied) to connect your TV to the AVR's HDMI Out connector. It will provide the best possible video quality.

IMPORTANT: The AVR's on-screen display (OSD) only appears through the HDMI Out connector. If you want to use the AVR's OSD menus you need to connect its HDMI Out connector to your TV even if you are not connecting any HDMI video source devices to the AVR.

Composite Video Monitor Out Connector

If your TV does not have an HDMI connector, *or if your TV does have an HDMI connector but you are connecting some source devices with only composite video connectors,* use a composite video cable (not supplied) to connect the AVR's Composite Monitor Out connector to your TV's composite video connector.

Connect Your Audio and Video Source Devices

Source devices are components where a playback signal originates, e.g. a Blu-ray Disc™ or DVD player; a cable, satellite or HDTV tuner; etc. Your AVR has several different types of input connectors for your audio and video source devices: HDMI, composite video, optical digital audio, coaxial digital audio and analog audio.

Your AVR's various Source Selector buttons have default assignments to different input connectors (listed in the "Default AVR Input Connector" column of the table below). For ease of setup, you should connect each source device to the connector where the corresponding default source button is assigned (e.g., connect your Cable/Satellite tuner box to HDMI 1).

However, you can connect your source devices as you wish and re-assign any of the video and audio input connectors to any of the Source Selector buttons listed in the table according to where you actually connect each of your source devices.

As you connect your various source components, fill out the "Connected Device" and "Assigned AVR Input Connector(s)" columns in the table – it will make it easier for you to assign the connectors to the Source Selector buttons after you have completed making all of the connections. (You will make any changes to the connector assignments later in the setup process.)
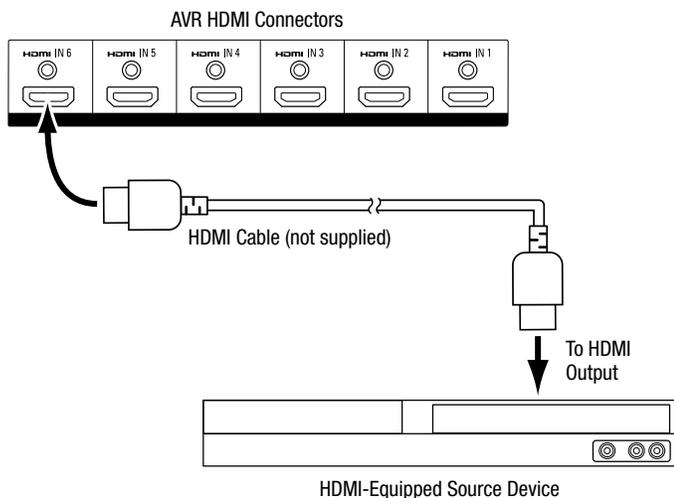
Source Selector Button	Default AVR Input Connector	Connected Device	Assigned AVR Input Connector(s)	
			Video	Audio
Cable/Sat	HDMI 1			
TV	HDMI ARC			
Disc	HDMI 2			
Server	HDMI 3			
Aux	HDMI 4			
Game	HDMI 5			
STB	HDMI 6			
Audio	COMP. VID. 1/ANA. AUD. 1			
Network	NETWORK	Home Network	– – – –	– – – –

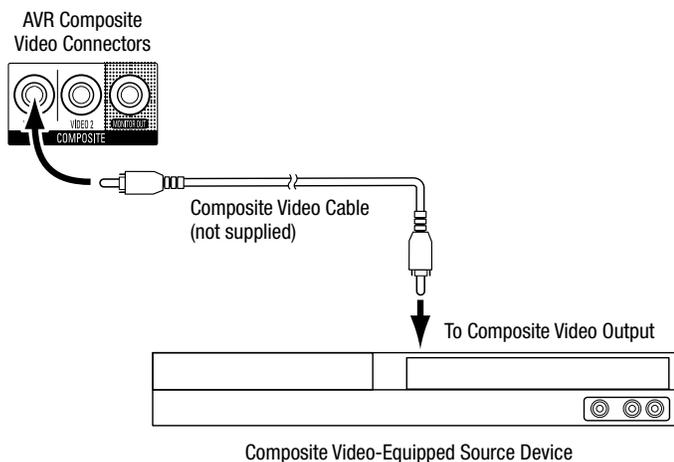Input Connections and Assigned Source Buttons

HDMI Devices

If any of your source devices have HDMI connectors, using them will provide the best possible video and audio performance quality. Since the HDMI cable carries both digital video and digital audio signals, you do not have to make any additional audio connections for source devices you connect via HDMI connectors.

Note: If you have a TV or other source device equipped with the HDMI Audio Return Channel Function, its sound will be fed to the AVR via the HDMI Monitor Out connection's Audio Return Channel, and it will not require additional audio connections to the AVR. Refer to the complete *AVR 1700, AVR 170, AVR 170/230C Owner's Manual*, downloadable at www.harmankardon.com.

AVR HDMI Connectors

HDMI Cable (not supplied)
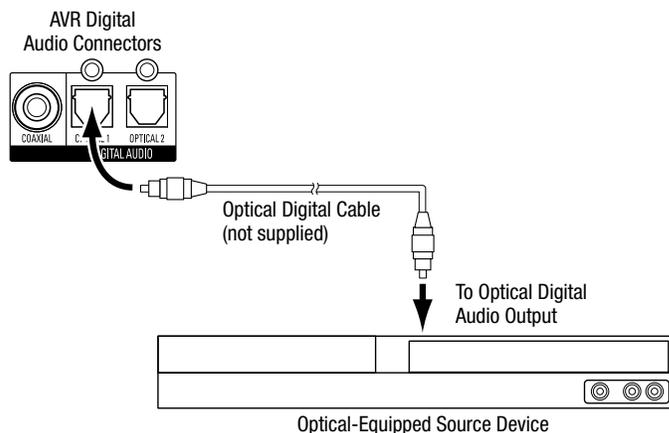
To HDMI Output

HDMI-Equipped Source Device

Composite Video Devices

Use composite video connectors for video source devices that don't have HDMI connectors. You will also need to make an audio connection from the source device to the AVR.
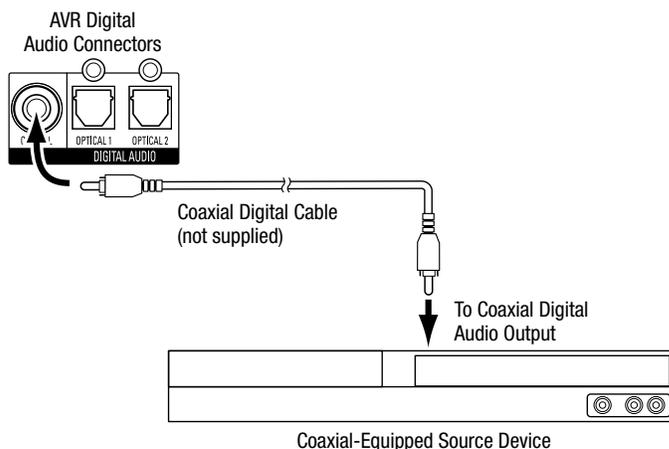
AVR Composite Video Connectors

Composite Video Cable (not supplied)

To Composite Video Output

Composite Video-Equipped Source Device

Optical digital audio devices

If your non-HDMI source devices have optical digital outputs, connect them to the AVR's optical digital audio connectors. NOTE: Make only one type of digital connection (HDMI, optical or coaxial) from each source device.

AVR Digital Audio Connectors

Optical Digital Cable (not supplied)

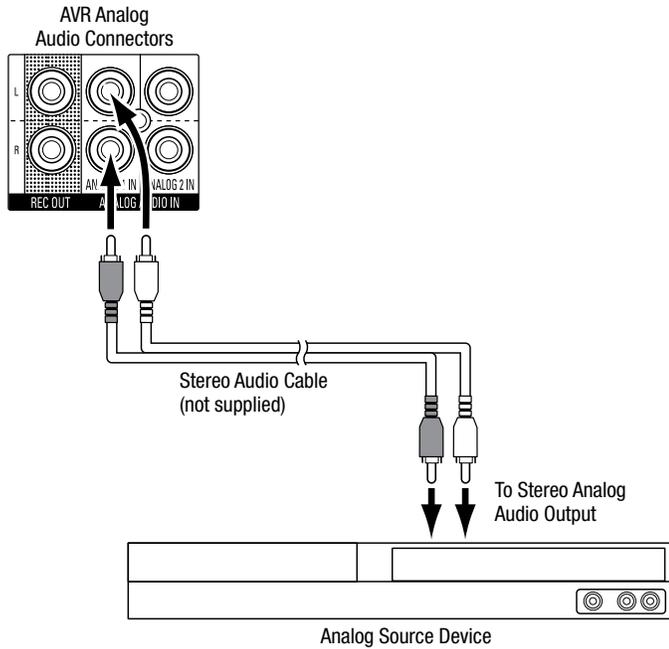To Optical Digital Audio Output

Optical-Equipped Source Device

Coaxial digital audio devices

If your non-HDMI source devices have coaxial digital outputs, connect them to the AVR's coaxial digital audio connectors. NOTE: Make only one type of digital connection (HDMI, optical or coaxial) from each source device.
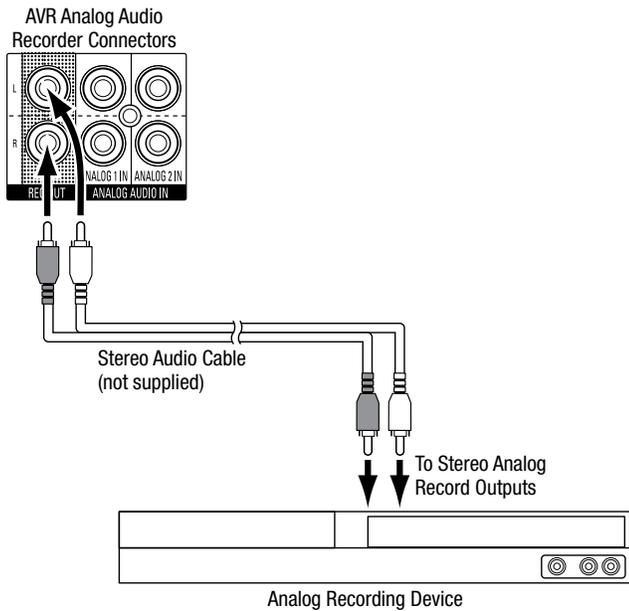
AVR Digital Audio Connectors

Coaxial Digital Cable (not supplied)

To Coaxial Digital Audio Output

Coaxial-Equipped Source Device

Analog Audio Devices

Use the AVR's analog audio connectors for source devices that don't have HDMI or digital audio connectors.

AVR Analog
Audio Connectors

Stereo Audio Cable
(not supplied)
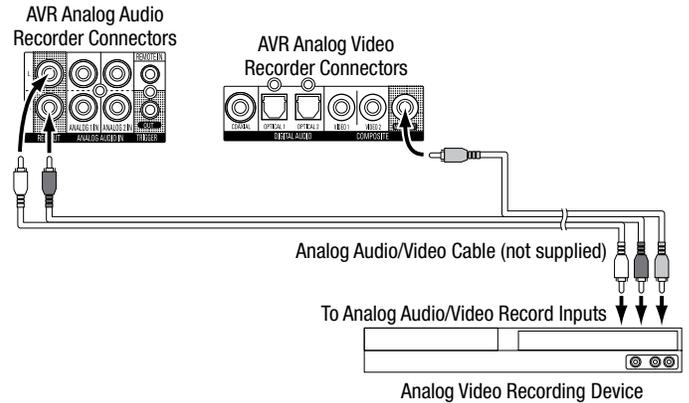
To Stereo Analog
Audio Output

Analog Source Device

Audio Recorders

Connect an analog audio recorder's inputs to the AVR's analog audio Rec Out connectors. You can record any analog audio input signal.
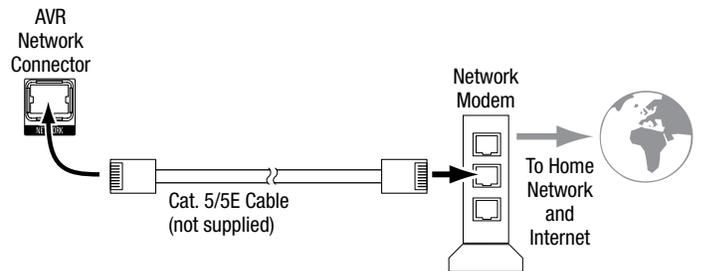
AVR Analog Audio
Recorder Connectors

Stereo Audio Cable
(not supplied)

To Stereo Analog
Record Outputs

Analog Recording Device

Video Recorders

Connect an analog video recorder's video input connector to the AVR's Composite Monitor Out connector. You can record any composite video signal. To record the audio and video from the source device, connect the AVR's Analog Rec Out connectors to the analog video recorder's audio inputs. NOTE: If you have connected the AVR's Composite Monitor Out video connector to your TV you cannot connect a VCR to the AVR for recording.

AVR Analog Audio
Recorder Connectors

AVR Analog Video
Recorder Connectors

Analog Audio/Video Cable (not supplied)

To Analog Audio/Video Record Inputs
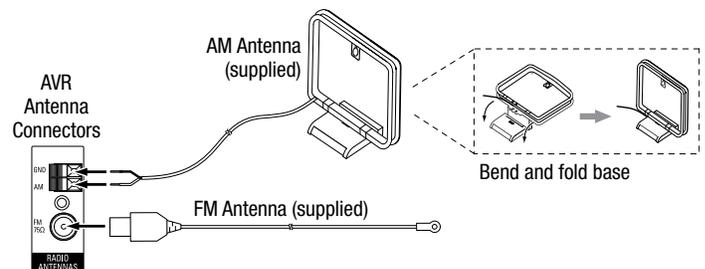
Analog Video Recording Device

Connect Your Home Network

Use a Cat. 5 or Cat. 5E cable (not supplied) to connect the AVR's Network connector to your home network to enjoy Internet radio and content from DLNA®-compatible devices that are connected to the network.

AVR
Network
Connector

Network
Modem

Cat. 5/5E Cable
(not supplied)

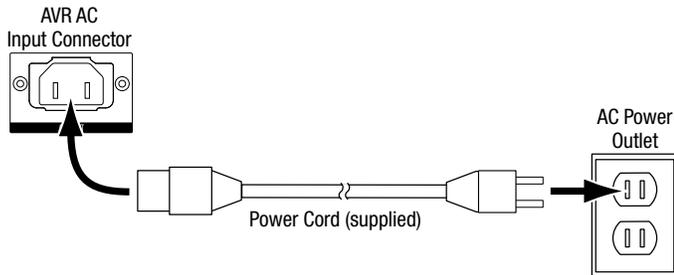To Home
Network
and
Internet

Connect the Radio Antennas

• Connect the supplied FM antenna to the AVR's FM 75Ω antenna connector. For the best reception, extend the FM antenna as far as possible.

• Bend and fold the base of the supplied AM antenna as shown and connect the antenna wires to the AVR's AM and Gnd connectors. Rotate the antenna as necessary to maximize reception quality.

AM Antenna
(supplied)

AVR
Antenna
Connectors

Bend and fold base

FM Antenna (supplied)

NOTE: To connect RS-232, remote IR and trigger equipment, please download the *AVR 1700, AVR 170, AVR 170/230C Owner's Manual* from www.harmankardon.com.
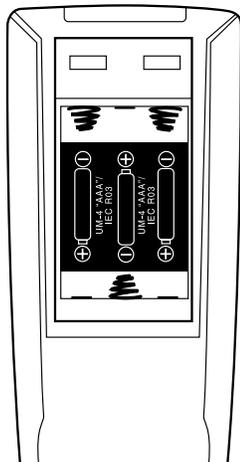
Connect to AC Power

Connect the AC power cord to the AVR's AC Input connector and then to a working, non-switched AC power outlet. IMPORTANT: Before connecting the AC power cord, make sure that the AC voltage listed on the AVR's back panel matches the AC voltage used in your country.

AVR AC Input Connector

AC Power Outlet

Power Cord (supplied)

Set Up the AVR
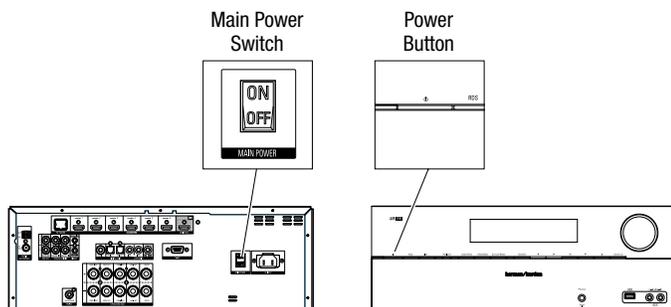
Install the Batteries in the Remote Control

Remove the remote control's battery cover, insert the three supplied AAA batteries as shown in the illustration, and replace the battery cover.

NOTE: Remove the protective plastic from the AVR's front panel so it doesn't reduce the remote control's effectiveness.

Turn On the AVR
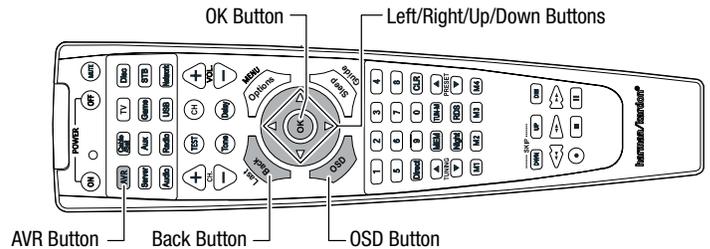
1. Set the rear-panel Main Power switch to "On." (The front-panel Power indicator will glow amber.)

2. Press the front-panel Power button.

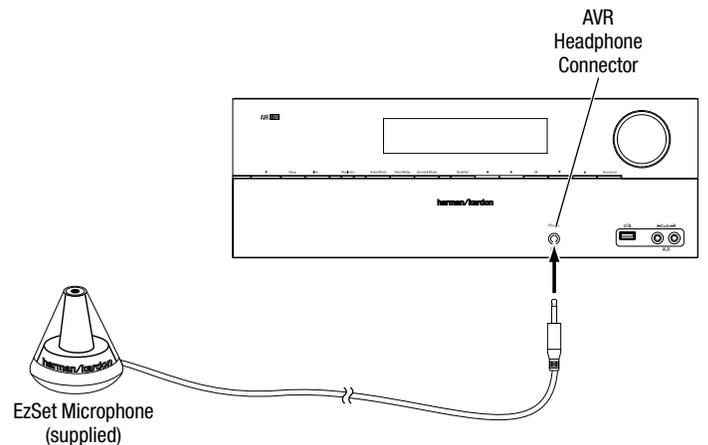Main Power Switch

Power Button

Configure the AVR for Your Speakers

One of the most important steps in setting up a home theater system is to calibrate the AVR to match your loudspeakers, optimizing sound reproduction. Your AVR features the Harman Kardon EzSet/EQ™ system, which performs this calibration automatically using the supplied EzSet microphone.

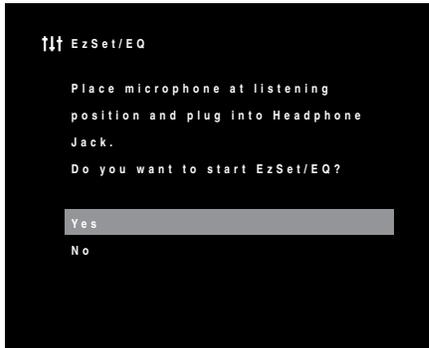You will be using the following remote cotnrol buttons to configure your AVR:

OK Button

Left/Right/Up/Down Buttons

AVR Button

Back Button

OSD Button

1. Plug the supplied EzSet/EQ™ microphone into the AVR's Headphone connector.

AVR Headphone Connector

EzSet Microphone (supplied)

2. Place the microphone at ear height in your listening position.

3. Turn on your TV and select the TV input where you connected the AVR in *Connect Your TV*, on page 3.

4. Press the remote control's AVR button, then press the OSD button. The AVR's on-screen display (OSD) Master Menu will appear on the TV. (Note: If you have only used a composite video connection to your TV, the OSD menus will not appear on your TV. Follow the steps below using the receiver's front-panel display.)

MASTER MENU

Source Select
Source Setup
Surround Mode
EzSet/EQ
Manual Setup
Network
System Setup

5. Use the remote's arrow and OK buttons to select "EzSet/EQ."

↑↓↑ EzSet/EQ

Place microphone at listening
position and plug into Headphone
Jack.
Do you want to start EzSet/EQ?

Yes

No

6. Select "Yes." The Speaker Configuration menu wlll appear.

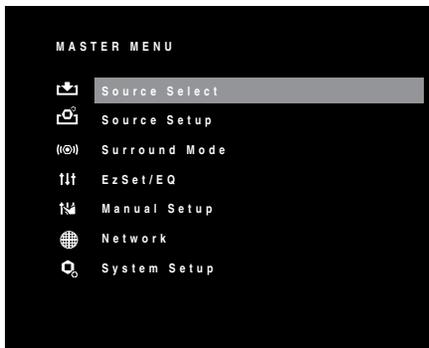**↑↓↑ EzSet/EQ**

Speaker configuration.
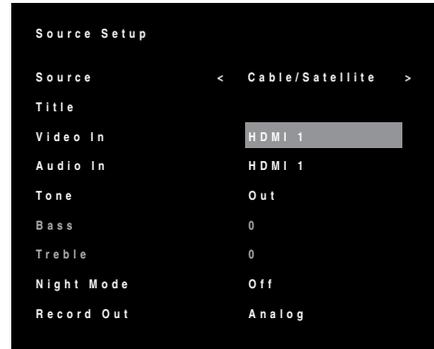5.1

Cancel

7. Select "5.1."

8. Remain silent while the test noise plays through your system's speakers. When the calibration has completed, press the OSD button to exit.

Assign the AVR Input Connections

1. Review the input connections you listed on the connection table, on page 4. Note what changes (if any) you have made from the default AVR Input Connector assignments that appear on the list. If you connected your source devices according to the entries in the "Default AVR Input Connector" column of the table on page 4, you can skip this section.

2. Turn on your TV and select the TV input where you connected the AVR in *Connect Your TV*, on page 3.

3. Press the remote control's OSD button. The AVR's on-screen display (OSD) setup menu will appear on the TV. (Note: If you have used a composite video connection to your TV, the OSD menus will not appear on your TV. Follow the steps below using the AVR's front-panel display.)

MASTER MENU

- Source Select
- Source Setup
- Surround Mode
- EzSet/EQ
- Manual Setup
- Network
- System Setup

4. Use the remote's arrow and OK buttons to select "Source Setup." If there is a Source Selector for which you want to assign different video or audio connections. use the left/right arrow buttons to select it, and press the OK button.

Source Setup

Source	< Cable/Satellite >
Title	
Video In	HDMI 1
Audio In	HDMI 1
Tone	Out
Bass	0
Treble	0
Night Mode	Off
Record Out	Analog

5. Select "Video In" and use the left/right arrow buttons to select the video input connector you want to assign to the Source Selector button. Press the OK button. (Note: If you select an HDMI connector for the Video connection the Audio connection will automatically change to the same HDMI connector.)

Source Setup

Source	< Cable/Satellite >
Title	
Video In	HDMI 2
Audio In	HDMI 2
Tone	Out
Bass	0
Treble	0
Night Mode	Off
Record Out	Analog

6. Select "Audio In" and use the left/right arrow buttons to select the audio input connector you want to assign to the Source button. (Note: If you have assigned an HDMI Video connector for the Source button you cannot assign a different Audio connector.)

Source Setup

Source	< Cable/Satellite >
Title	
Video In	Composite 1
Audio In	Optical 1
Tone	Out
Bass	0
Treble	0
Night Mode	Off
Record Out	Analog

7. Repeat steps 4 – 6 for the remaining audio/video connections that you want to re-assign.

You are now ready to enjoy your AVR!

IMPORTANT: For complete set up information, and for complete information about using all of your audio/video receiver's features and capabilities, download the *AVR 1700, AVR 170, AVR 170/230C Owner's Manual* from www.harmankardon.com.

General Specifications

Power consumption (AVR 1700):	260W
(AVR 170):	240W
(AVR 170/230C):	240W
Dimensions (W x H x D):	17-5/16" x 6-1/2" x 14-13/16" (440mm x 165mm x 377mm)
Weight (unit):	12.8 lb (5.8kg)
Weight (shipping):	18 lb (8.2kg)

www.harmankardon.com