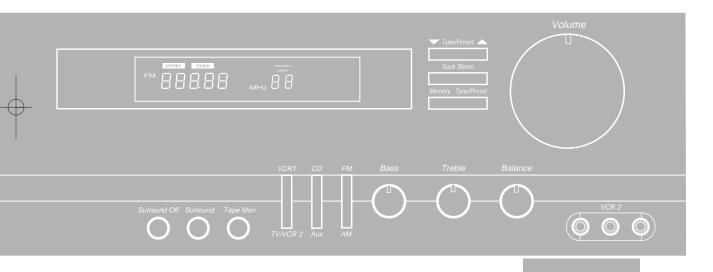


harman/kardon

Н

Service and Parts Office: 80 Crossways Park West, Woodbury, New York (800) 422-8027 8500 Balboa Blvd, Northridge CA 91329 A Harman International Company





# harman/kardon

Audio Video Receiver Audio und Video Receiver Ampli-tuner audio/vidéo Receptor de audio y video Audio/video ontvanger Receptor de Audio/video OWNER'S MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
MANUAL DEL USUARIO
GEBRUIKSAANWIJZING
MANUAL DE INSTRUÇÕES

Sintoamlificatore Audio/Video Pαδιοενισχυτής Audio/Video Audio-och videomottagare Audio- og videoreceiver Audio/videovahvistin ISTRUZIONI PER L'USO
ΟΔΗΓΙΕΣ ΧΡΗΣΗΣ ΕΛΛΗΝΙΚΑ
BRUKSANVISNING
BRUGSANVISNING
KÄYTTÖOPAS



# CAUTION

### RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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 appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

### Harman Kardon AVR10

Date of purchase

Purchased from

Address of business purchased from

Installed by

Date Installed

Serial No.

### NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Thank you for choosing a Harman Kardon Audio/Video Receiver.
Your new Unit is an exceptionally well-engineered product that will give you years of superb performance.

### Save all packing material.

It is essential for shipping should you move, or in the event the unit needs repair.

# HANDLE THE POWER CORD GENTLY

- To disconnect the plug from the AC outlet, pull on the plug itself, not on the cord.
- Disconnect the plug from the AC outlet whenever the unit is to be left unused for an extended period of time.
- Do not place furniture or other heavy objects on the cord, and avoid dropping heavy objects on it. Also do not make a knot in the cord.

# PLACE THE UNIT ON A FIRM AND LEVEL SURFACE

Avoid installing it:

- In moist or humid places
- Close to heating equipment or in places exposed to direct sunlight
- In a direct draft from an air conditioner or in other very cold locations
- In places subject to excessive vibration or dust
- In poorly ventilated places

### MOVING THE UNIT

Before moving the unit, be sure to unplug the power cord from the AC outlet and disconnect all wires to antennas and other components.

### DO NOT OPEN THE CABINET

Do not attempt to service this unit. Tampering with internal components can cause fire or shock, and may void your guarantee. If water or a small object enters the unit, unplug the power cord immediately and consult an authorized Harman Kardon service center. Using the unit under such conditions may cause a fire or shock hazard.

### **CLEANING**

Remove dust by wiping the unit with a soft, dry cloth. If necessary, use a soft cloth lightly dampened with mild soapy water; then wipe with a dry cloth. Never use benzene, thinner, alcohol or other volatile agents, and avoid spraying insecticides near the unit.

### TABLE OF CONTENTS

Front Panel Controls
Rear Panel Connections
Surround Sound Effects
Operation
AVR10 System Remote Control
Trouble Shooting
Specifications

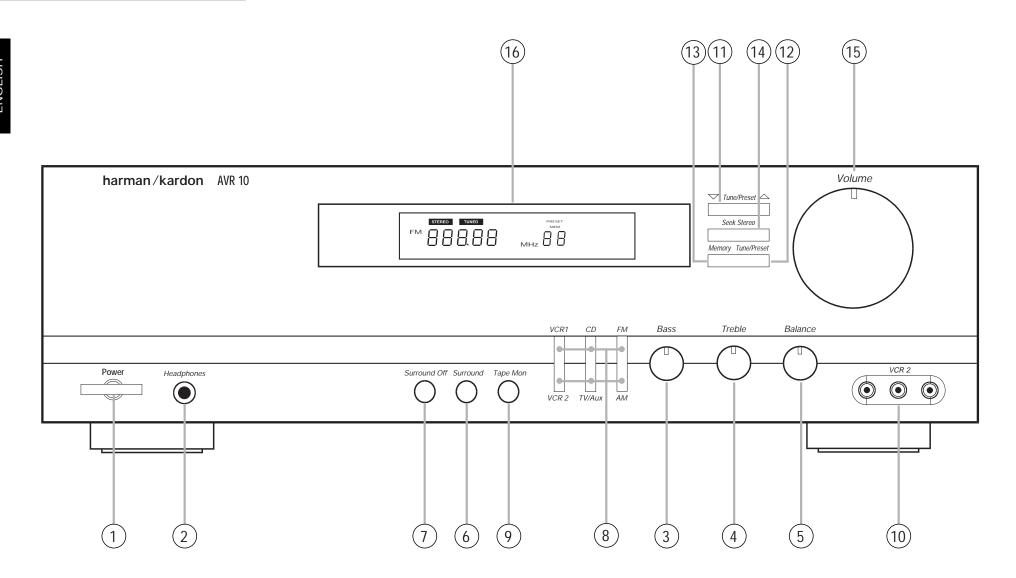
### **FCC INFORMATION**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

**CAUTION:** Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# **Front Panel Controls**



# Front Panel Controls

### 1. POWER BUTTON

Press this button to turn the power on. Press again to turn the power off (Stand by). If you connect the other components to the switched outlet, it can also be used as a system power button.

### 2. HEADPHONE JACK

Stereo headphones can be plugged into this jack for private listening. Headphone impedance should be between 8 ohms and 2K ohms with best results between 200 and 400 ohms.

### 3. BASS CONTROL

Modifies the low-frequency sound of the left and right channels as much as ±10dB. Set this control at a suitable position for your taste and room acoustics.

### 4. TREBLE CONTROL

Modifies the high-frequency sound of the left and right channels as much as ±10dB. Set this control at a suitable position for your taste and room acoustics.

### **5.BALANCE CONTROL**

This control is used for balancing the relative sound volume of the left and right channel speakers. Clockwise rotation reduces the volume from the left speaker, counterclockwise rotation reduces the volume from the right speaker.

# 6. SURROUND MODE SELECTOR

Press this button to select the desired surround mode. The mode is changed between normal DOLBY Pro-Logic and DOLBY 3-STEREO.

### 7. BYPASS SELECTOR

Defeats all surround modes.

# 8. INPUT FUNCTION SELECTOR BUTTONS

Press these buttons to select the desired input source.

### 9. TAPE MONITOR BUTTON

Press this button to select input from a tape deck and listen to its monitor function (with 3 head decks).

### 10. VCR2 INPUT JACKS

Connect these jacks to the corresponding output jacks of a VCR or Camcorder (only playback) (Yellow: Video, Red/White: Audio).

# 11. TUNE / PRESET UP/DOWN BUTTONS

When PRESET and AUTO is not lit, the Tune/Preset UP/DOWN buttons will allow you to tune to a station manually.

### 12. TUNE / PRESET BUTTON

Press this Tune/Preset button to light up the preset mode then use the up/down buttons (11) momentarily to scan the preset station frequencies. The receiver stops at each preset location from 1-30 that has been entered in memory. Hold the buttons (11) down to skip through the presets quickly. In the TUNE mode (selected by the TUNE/PRESET button (12)) press these buttons to change selected frequencies.

### 13. MEMORY BUTTON

Use this button to store an AM or FM frequency. Press this button and select one of 30 preset locations to store the frequency with the UP / DOWN buttons while the memory indicator blinks, press MEMORY again to store preset station.

**NOTE:** When you store a frequency in a memory location that already contains a frequency, you replace the previous frequency. If your receiver is disconnected from AC power for more than about 2 weeks, it loses all stored frequencies.

### 14. SEEK STEREO BUTTON

Press this button, "Auto" will illuminate in the display. Then press the uP or DOWN button. The tuner will automatically seek for stations upwards or downwards in your area that have enough signal strength to be listenable. The tuner will stop on stations until the Seek Stereo button is pressed again.

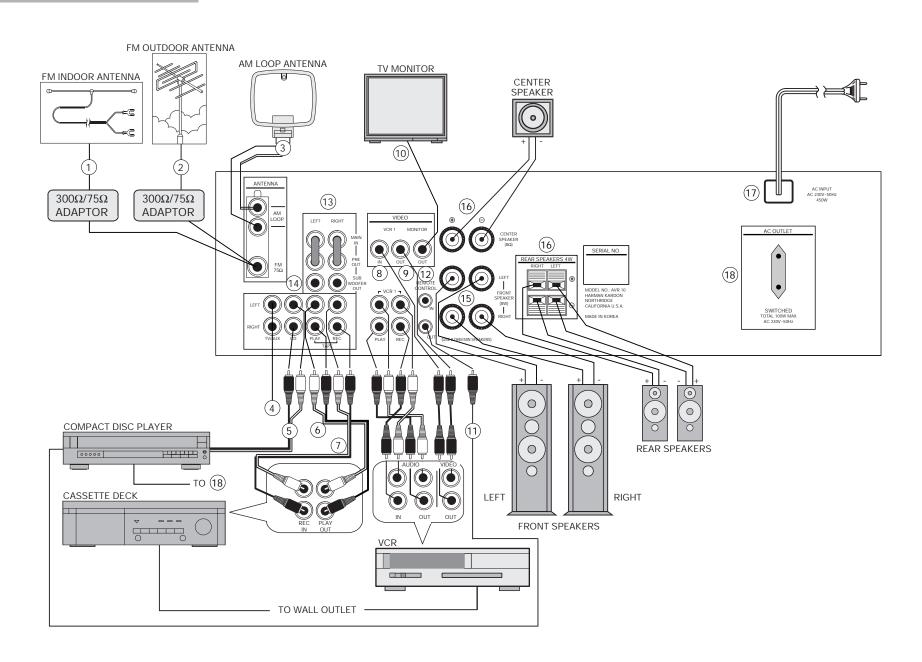
### 15. VOLUME CONTROL

Turn the VOLUME clockwise to increase the volume and counterclockwise to decrease it. The volume of the front, center, and rear channels is changed at the same time.

### **16. DISPLAY WINDOW**

This window shows the state of operation for easier control of the receiver. It also contains the IR Remote Sensor.

# **Rear Panel Connections**



# **Rear Panel Connections**

### 1. FM INDOOR ANTENNA

Connect the supplied antenna (the wire lead) to a  $300\Omega/75\Omega$  adapter and connect the adapter to the  $75\Omega$  T-shaped FM antenna terminal, as shown in the Rear Panel Connection Diagram. Change the position of the antenna until you get the best reception of your favorite stations.

### 2. FM OUTDOOR ANTENNA

An outdoor FM antenna may be used to further improve the quality of reception. Disconnect the indoor antenna before replacing it with the outdoor one. A  $75\Omega/300\Omega$  adaptor must be used only, if your antenna system has no  $75\Omega$  coaxial cable.

### 3. AM LOOP ANTENNA

Tune in your favorite AM station and position the loop antenna for best reception. Try other stations and find the position that gives the best overall reception. When this unit is mounted in a rack or placed on a shelf with sufficient space behind, hang the antenna on a wall in the direction which gives the best reception.

NOTE: If noise is heard during AM reception, move the antenna for better reception. To prevent undesired noise, the AM LOOP ANTENNA should be located away from the remote control cord over 12 inches (30 cm).

# AM LOOP ANTENNA SETTING Stand and place it on a shelf or hang it on a wall.

### 4. TV / AUX INPUT JACKS

This input is provided for any source you want to hear. An additional compact disc player, tape recorder, TV video cassette recorder (VCR), etc. can be plugged into these jacks (only for playback).

### 5. CD INPUT JACKS

Connect the output cables of a compact disc player to these jacks.

### 6. TAPE PLAY JACKS

Connect the line output of your CASSETTE DECK to these jacks.

### 7. TAPE REC JACKS

Connect the line input of your CASSETTE DECK to these jacks.

# 8. VIDEO / AUDIO INPUT (PLAY) JACKS OF VCR1

Connect these jacks to the corresponding OUTPUT jacks of your VCR.

# 9. VIDEO / AUDIO OUTPUT (REC) JACKS OF VCR1

Connect these jacks to the corresponding INPUT jacks of a VCR. VIDEO VCR1 OUT jack: Connect this jack to the VIDEO INPUT jack of the VCR.

VCR1 REC jack: Connect these jacks to the AUDIO INPUT jacks of the VCR.

### 10. VIDEO MONITOR JACK

Connect this jack to the VIDEO INPUT jack of a TV/MONITOR.

# 11. REMOTE CONTROL OUT JACK

Connect this jack to the REMOTE IN jack on a Harman Kardon component. Use one of the accessory mini-plug cables. You can control many other Harman Kardon components in your system using the AVR 10 remote commander.

# 12. MULTI-ROOM REMOTE IN JACK

Connect a Harman Kardon HE 1000 remote IR sensor to this jack. You can operate the unit by remote commander through the adaptor. It is convenient when the unit is located in a separate room.

# 13. FRONT PRE OUT AND MAIN IN JACKS

### Pre Out

When a separate power amplifier is used to drive the front speakers, connect the power amplifier input to these jacks (see page 8).

### Main In

When a separate pre-amplifier is connected and this unit is used as a power amplifier, connect the pre-amplifier output to these jacks.

**NOTE:** When you do not use the PRE OUT and MAIN IN separately, always connect the PRE OUT and MAIN IN jacks with the jumper plugs.

# 14. SUBWOOFER OUTPUT JACKS

Connect a powered subwoofer to these jacks. This output may also be used for any external component requiring a full range volume level input.

### 15. SPEAKER TERMINALS

Connect the front left (L) and right (R) speakers to the corresponding terminals. Make sure that the positive (+ or red) and negative (- or black) terminals on the speakers are connected to the corresponding terminals on the receiver.

### 16. CENTER/REAR SPEAKER TERMINALS

Connect the center and rear speakers to the corresponding terminals. Make sure that the positive (+ or red) and negative (- or black) terminals on the speakers are connected to the corresponding terminals on the receiver. When you connect the rear speakers, connect both L and R speakers.

PLEASE NOTE: Sound will not be provided through the rear speakers unless both speakers are connected.

### 17. AC INPUT CORD

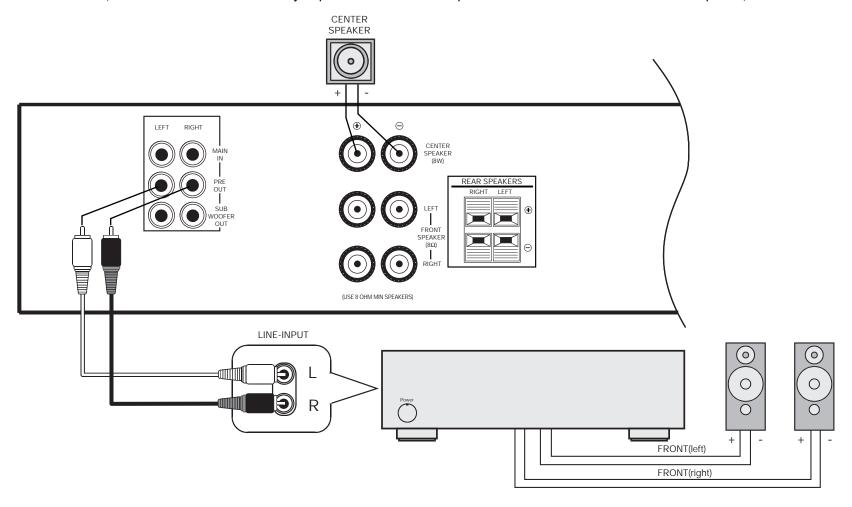
Plug this cord in AC outlet on a wall.

### 18. AC SWITCHED OUTLET

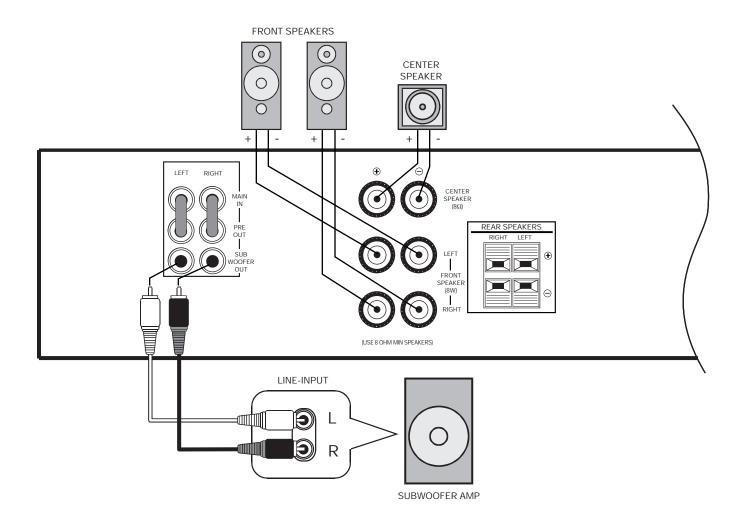
These outlets provides AC power. The AC power is switched by the power button of this receiver. Use this outlet for a CD player or a cassette deck.

### WHEN YOU DRIVE THE FRONT SPEAKERS WITH ANOTHER AMPLIFIER

(Remove PRE-OUT/MAIN IN jumpers when the front speakers are connected to external amplifier.)



### WHEN YOU DRIVE THE SUBWOOFER AMP



# **Surround Sound Effects**

### SURROUND PROCESSING

### Dolby 3 Stereo (3 channel mode)

Combines the front and rear signals so that you can enjoy a regenerated sound field which has comparatively more presence and a more expansive feeling from the front 3 channels (front L, front R, center speaker) than that of ordinary stereo regeneration.

### **Dolby Pro Logic Surround**

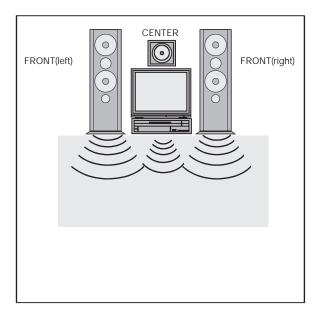
A great number of movies made in recent times have the sound track specially encoded with the Dolby Surround Mode (carrying the [Dolby Stereo] or [Dolby Surround] trademark\*).

The front speakers provide the dialogue and the normal stereo effect, while the rear speakers reproduce the surround signals. This mode provides excellent results when watching television programs, video software, video discs or video tapes of stereo television broadcasts encoded with Dolby Surround. Dolby Stereo films have dramatically changed the role of the movie-goer from that of observer to that of participant. Clearer dialogue, richer music, enveloping ambience and making high-fidelity, multi-dimensional sound are essential parts of cinematic presentations. Imagine recreating the same sort of audio-visual experience right in your own home.

\*Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", "Pro Logic" and the double D symbol are trademarks of Dolby Laborities Licensing Corporation.

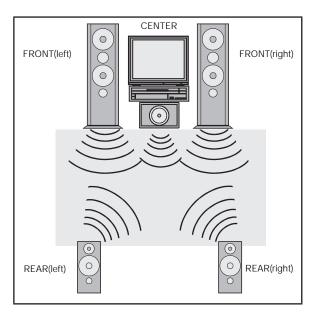
### SPEAKER INSTALLATION

The AVR 10 incorporates a decoder which reproduces the specially encoded surround sound of Dolby Surround video programs. In Dolby Surround mode, select the speaker operation mode which best suits your speaker system,:



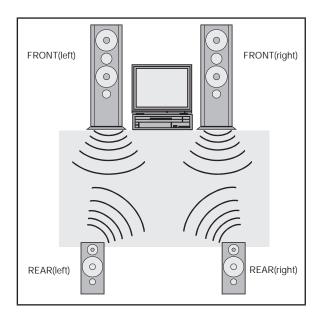
### 3 STERO mode

Select this mode when you play back a Dolby Surround program or a normal Stereo source only with the front and center speakers. The sound of the rear channels is output from the front (L and R) speakers.



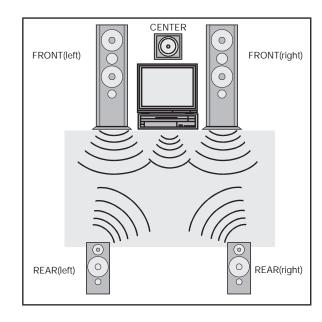
### **WIDEBAND** mode

Select this mode if you use a center speaker big enough for reproducing all bass frequencies.



### **PHANTOM mode**

Select this mode when you play back a Dolby Surround program source without using a center speaker. The sound of the center channel is redirected to the front (L and R) speakers.



### **NORMAL** mode

Select this mode if you use a medium to small center speaker. The bass sound of the center channel is output from the front speakers, as a small speaker cannot produce enough bass.

# **Operation**

### **BASIC OPERATION**

- Press the POWER button to ON.
   The display panel will light up.
   Note: If you prefer to turn the unit off and on with the remote control, this button must be left in the ON position. The remotes Standby button will then turn the unit "ON" and "OFF" by taking it in and out of standby mode.
- Select the desired program source with the INPUT FUNCTION SELECTOR buttons. The selected input function will appear in the display.
- 3. Operate the selected component for playback.
  - When a video source is selected, the picture will appear on the television and sound will be heard from the speakers.
  - When playing back a video source with surround sound effects, refer to the "Surround Sound Effects" of this manual.
  - When the TAPE MONITOR button is set to ON so that the TAPE MONITOR indicator lights up, selected program sources other than TAPE cannot be heard from the speakers.

To listen to a program source other than cassette deck be sure to set the TAPE MONITOR button to OFF.

- Adjust the volume to a comfortable listening level with the VOLUME control or MASTER VOLUME UP/DOWN buttons on the remote control.
- 5. For private listening, insert a 6,3 mm plug of the headphone into the HEADPHONE jack.
  - When the headphones are plugged in, sound from the speakers is cut off.

### LISTENING TO BROADCASTS

Press the AM or FM button and use auto, manual or preset tuning to select a radio station.

### **AUTO TUNING**

If broadcast signals are strong enough, auto tuning is possible.

- 1. Press the FM or AM button to select the desired band.
- 2. Press the Seek Stereo button so that AUTO lights up in the display.
- 3. Press the UP or DOWN TUNE/PRESET button. Tuning will start automatically and stop at a broadcast station frequency with sufficient signal strength.

### **MANUAL TUNING**

Auto tuning may not be possible if the broadcast signal is weak. If so, use manual tuning.

- 1. Press the FM or AM button to select the desired band.
- 2. Press SEEK STEREO to delete the AUTO in the display.
- 3. Press the UP or DOWN TUNE/PRESET button until the desired station frequency is reached.
  - Each time the button is pressed, the frequency changes by a step.
  - When the button is kept pressed, the frequency changes continuously in sequence.

### PRESET TUNING

The receiver has a memory for up to 30 preset stations.

If the station frequencies are stored in this memory, they can be tuned in by a simplified procedure:

### MANUAL PRESETTING

Up to 30 stations can be preset at random, regardless of the reception band.

- Tune in the station to be stored in memory using the auto or manual tuning.
- Press the MEMORY button. The MEMORY indicator will light up for 5 seconds.
- Select the preset number with the UP or DOWN TUNE/PRESET button or the numeric buttons on the remote while the MEMORY indicator is lit.
- 4. Press the MEMORY button to store the station.
  - When using the NUMERIC buttons on the remote, the station is stored in memory without pressing the MEMORY button again.
  - When selecting single digit preset numbers with the NUMERIC buttons on the remote, press the corresponding number without pressing "0" first.
- 5. Repeat steps 1 to 4 to preset other stations.

### RECALLING THE PRESET STATIONS

Select the preset number of the desired preset station with the UP or DOWN TUNE/PRESET (in the PRESET mode) or NUMERIC buttons on the remote control unit.

# SCANNING THE PRESET STATIONS IN SEQUENCE

- Press the PRESET SCAN button on the remote control unit to listen to a brief sample of each preset station.
- The receiver will start scanning the stations in the preset sequence and each station is received for 4 seconds.
- 3. At the desired station, press again to stop scanning.

### NOTES:

- If the end of the frequency range is reached during the auto or manual tuning, tuning will continue from the opposite end.
- When FM stereo broadcasts are poor, select the FM mono mode with the SEEK STEREO button so that the AUTO indicator goes off.
- When storing a new station preset, the previously memorized station on the same preset is cleared.

 In the event of a power failure or when the receiver is disconnected from the AC outlet, the memorized stations are maintained for approximately 2 weeks.

# RECORDING WITH A CASSETTE DECK

- Select the program source to be recorded with the INPUT FUNCTION SELECTOR buttons.
- 2. Start recording on the cassette deck.
- Play back the desired program source and start recording on the cassette deck.
  - The volume, balance, bass and treble settings have no effect on the recording.
  - When recording is performed on a 3-head cassette deck, the recorded sound can be monitored through the speakers by pressing the TAPE MONITOR button to ON.

# DUBBING FROM VCR2 TO VCR1

- Press the VCR2 INPUT FUNCTION SELECTOR button and play back on the VCR connected to VCR2. The video and audio signals from VCR2 will be dubbed auto VCR1.
- 2. Start recording on the VCR connected to VCR1.

# RECORDING WITH SEPARATE VIDEO AND AUDIO SOURCES

When dubbing from VCR2 to VCR1, you can replace the audio signal from VCR2 with the audio signal from other program sources.

- 1. Press the VCR2 as a video source to be recorded.
- Select the audio source (CD, TV/AUX, FM/AM) to be recorded with the INPUT FUNCTION SELECTOR buttons.
- 3. Start recording on the VCR connected to VCR1.
- 4. This allows you to watch the picture from the video component on the television and listen to the sound from the audio component through the speakers while recording.

**NOTE:** Be sure to observe the order of steps 1 and 2.

# **AVR10 System Remote Control**

# 1. INFRARED TRANSMITTER WINDOW

The infrared beam is emitted forward from this window when you press any button on the commander. For the remote controls to function properly, always face this window toward the remote sensor window on the receiver and do not obstruct this window with any material.

### 2. STANDBY BUTTON

Press this button to turn the power on and off.

**NOTE:** For the Standby Button to work, the power switch on the AVR 10 must be set to ON.

Automatic power on: When you press the input function buttons (CD, TUNER, TAPE, TV/AUX, VCR1, VCR2) in STANDBY mode, the power is automatically turned on and the function is selected.

### 3. TUNING UP/DOWN

Press these buttons to tune the receiver up or down.

### 4. PRESET SCAN BUTTON

Button for scanning preset station frequencies (see page 13).

### 5. NUMERIC BUTTONS

These buttons can be used for preset tuning in TUNER mode.

Preset tuning: Select one of 30 preset locations by pressing the numeric buttons directly, thereby the input of the receiver automatically is changed to TUNER.

### 6. CD FUNCTION BUTTONS

For a CD PLAYER: DISC (DISC SELECTOR is available for the Harman Kardon FL8400, FL8450CD changer), PLAY, PAUSE, STOP, BACKWARD SEARCH, FORWARD SEARCH, A-B and INTRO buttons are available.

When selecting a disc, press the DISC button.

# 7. CASSETTE DECK FUNCTION BUTTONS

For a cassette deck: PAUSE/RECORD, STOP, REVERSE PLAY, FORWARD PLAY, REWIND, FAST FORWARD buttons are available.

### 8. DELAY TIME BUTTON

This button operates only in Dolby Pro Logic mode. In this mode the output signal from the surround speakers is delayed slightly from that of the front speakers. Select appropriate delay time to achieve the best surround sound effect. For Dolby Surround sound, we recommend a 20ms delay. The delay time is changed as below, when the button is pressed in succession.

### **DOLBY PRO LOGIC MODE**

 $\longrightarrow$  15 ms  $\longrightarrow$  20 ms  $\longrightarrow$  25 ms  $\longrightarrow$  30 ms -

# 9. INPUT FUNCTION SELECTOR

Press the button to select the desired input function. The available buttons are CD, TUNER, TAPE MON, TV/AUX, VCR1, and VCR2.

# 10. CENTER LEVEL UP/DOWN BUTTONS

Use these buttons to adjust the sound level of the center speaker to that of the front speakers. These buttons work only in Dolby Pro Logic and Dolby 3 Stereo mode. These buttons do not work in PHANTOM mode.

### 11. CENTER MODE BUTTON

Selects the center mode (see page 11).

### 12. TEST TONE BUTTON

Generates test sounds in all channels (Left, Center, Right and Surround) in succession.

# 13. REAR LEVEL UP/DOWN BUTTONS

These buttons operate only in Dolby PRO LOGIC mode. Use these buttons to adjust the sound level of the surround speakers. Set the MASTER VOLUME control at the desired level and press the REAR LEVEL up or down button until you get the optimum surround effect at your listening position.

# 14. MASTER VOLUME BUTTONS

Adjust the overall (Front, Center, and Rear) volume level.

### 15. DISPLAY BUTTON

Press once and the display dims, press again and it turns off. Press a third time and it goes on.

### 16. SLEEP BUTTON

Set the receiver to automatically turn off after 10, 20, 30, 60, or 90 minutes. Each time the button is pressed, the setting is advanced as below.

 $\longrightarrow$  15 ms  $\longrightarrow$  20 ms  $\longrightarrow$  25 ms  $\longrightarrow$  30 ms -

The display will dim when the sleep function has been set.

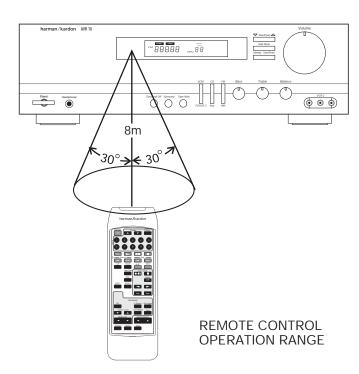
### 17. MUTE BUTTON

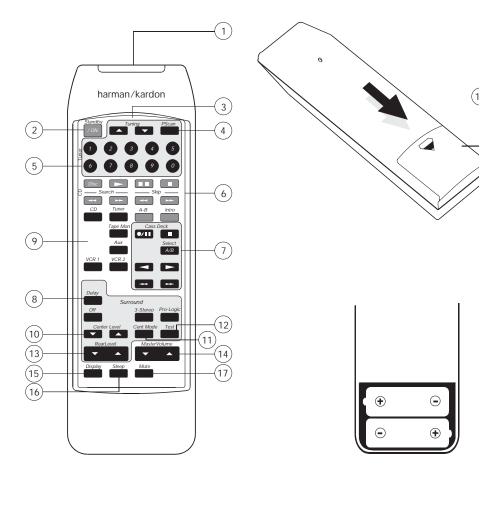
Press this button to silence the speakers temporarily. The volume indicator blinks. Press again to restore the same listening level as before.

### 18. BATTERY COMPARTMENT

This battery case is provided as the power source for the commander. To

remove the cover, press it down with your thumb and pull it towards the back side. Two UM-3, size "AA" or R6 1.5V dry batteries are used. When loading the batteries, make sure that the polarity is correct. Remove the batteries from the case if the remote commander will not be used for a long time.





# **Troubleshooting**

This unit is designed for trouble-free operation. Most problems users encounter are due to operating errors. So, if you have a problem, first check this list for a possible solution. If the problem persists, consult your authorized Harman Kardon Service Center.

IF THE PROBLEM IS	MAKE SURE THAT THE
No lights illuminate when POWER button is pressed	1. Unit is plugged into a live outlet
No sound is heard	<ol> <li>Correct input function selector button has been pressed</li> <li>Volume is turned up</li> <li>Speakers are connected properly</li> <li>TAPE MON is not selected</li> <li>Selected source is playing and functioning properly</li> </ol>
Dolby Surround does not work on center and rear channels	<ol> <li>Correct surround mode is selected</li> <li>Rear and Center levels are turned up</li> <li>Selected source is providing Dolby encoded signal</li> <li>Software is encoded with Dolby Pro Logic signal</li> </ol>
Selecting video component produces sound but no picture	<ol> <li>Video cables are connected properly</li> <li>Appropirate input or channel is selected on TV</li> <li>Video/Antenna Switch on TV is set to Video</li> </ol>
The TV picture does not match the sound	<ol> <li>Video sources are properly connected to receiver</li> <li>Video/Antenna Switch on TV is set to Video</li> </ol>
No output from one or more channels	<ol> <li>Cables are not defective: Check/replace speaker cables</li> <li>The signal source is operating and providing proper signal output to the AVR10.</li> </ol>
No center channel output	Dolby surround or 3-Stereo is turned on     Phantom mode is not active
Tuner sound has a large amount of interference, or The "Stereo" display is not illuminated, or Tuner sound distorts and/or volume level is too low	<ol> <li>The antenna is properly connected</li> <li>The antenna is properly located</li> <li>The antenna is set in the proper direction</li> <li>The antenna is adequate to receive the desired station</li> </ol>
Tuner is intermittent or continuously buzzing or hissing	<ol> <li>The unit is away from fluorescent lights, TVs, motors and other electrical appliances</li> <li>Other components are not causing interference. Try rearranging the order components are stacked in or unplugging/disconnecting components until the interference stops</li> </ol>
Stations cannot be preset	<ol> <li>After pressing the Memory button, the PRESET button on the remote is pressed while the MEMORY indicator blinks.</li> </ol>

# **Specifications**

### STEREO MODE

Continuous Average Power (FTC)

35 Watts from 20Hz-20kHz: @<0.09% THD,

both channels driven into 8 Ohms

### **FIVE CHANNEL SURROUND MODE**

Continuous average power per channel (FTC)

Front L&R channels

30 Watts from 20Hz-20kHz: @<0.3% THD,

both channels

driven into 8 Ohms

Center channel

30 Watts at 1kHz: @<0.3% THD,

driven into 8 Ohms

Rear channels

20 Watts at 1kHz: @<1.0% THD,

both channels

driven into 8 Ohms

### AMPLIFIER SECTION

High-Instantaneous Current Capability

(HCC):  $\pm 20 \text{ Amps}$ 

Negative Feedback: 20dB

Frequency Response

@1W (+0/-3dB): 0.5Hz - 100kHz

Rise Time: 1.8µSec

Transient Intermodulation

Distortion (TIM): Unmeasurable

### PREAMPLIFIER SECTION

Signal-to-Noise Ratio (ref. 1 Volt, A-Wtd)

CD: 92dB Video 83dB

Input Sensitivity/Impedance

Video, CD, Tape:  $150\text{mV}/22\text{k}\Omega$ 

Tone Control Range

Bass @ 50Hz: ±10dB Treble @ 10kHz: ±10dB

TUNER SECTION: FM (Normal mode)

Usable Sensitivity, Mono (dBf): 11.2

50dB Quieting Sensitivity,

Stereo (dbf): 40.3

Signal-to-Noise Ratio

@ 65dBf, mono/stereo: 70dB/65dB

Capture Ratio: 2.0dB

Selectivity, Adjacent/Alternate

Channel: 5dB/65dB

IF Rejection: 90dB AM Rejection @ 45dBf: 55dB

Stereo Separation

@ 1kHz, 65dBf: 45dB

THD @ 1kHz, 65dBf,

mono/stereo (%): 0.2/0.4

**TUNER SECTION: AM** 

Sensitivity, External Antenna: 25µV Alternate Channel Selectivity 38dB Image Rejection: 35dB IF Rejection: 50dB

Dimensions (W  $\times$  H  $\times$  D):

inches:  $17^{5}/_{16} \times 4^{7}/_{8} \times 14^{15}/_{16}$  mm:  $440 \times 138 \times 360$  Weight (lbs/kgs): 18 lbs, 8.2 kg

Depth measurement includes knobs, buttons and jacks.

Height measurement includes feet.

All features and specifications are subject to change

without notice.

**DECLARATION OF CONFORMITY** 



We, harman kardon Europe a/s

Kongevejen 194B DK-3460 Birkerød DANEMARK

declare that the product described in

this owner's manual is in compliance

with technical standards:

EN 55020/6. 1988, EN 55013/6, EN 60555/2, EN 60555/3

Accredited test laboratory:

MIKES PRODUCT SERVICE GmbH

Ohmstrasse 2-4

D-94342 Strasskirchen

**GERMANY** 

95/7, Steen Michaelsen harman kardon Europe a/s

The appliance conforms with EEC directive 87/308/EEC regarding interference suppression