





# *AX-497/AX-397*

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*Stereo Amplifier*

OWNER'S MANUAL

# IMPORTANT SAFETY INSTRUCTIONS

	<b>CAUTION</b> <b>RISK OF ELECTRIC SHOCK</b> <b>DO NOT OPEN</b>	
<p><b>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.</b></p>		

## • Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert you 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 you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## IMPORTANT


Please record the serial number of this unit in the space below.

MODEL:

Serial No.:

The serial number is located on the rear of the unit.

Retain this Owner’s Manual in a safe place for future reference.

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 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 are 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. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. 
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## We Want You Listening For A Lifetime

YAMAHA and the Electronic Industries Association’s Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion – and, most importantly, without affecting your sensitive hearing. Since hearing damage from loud sounds is often undetectable until it is too late, YAMAHA and the Electronic Industries Association’s Consumer Electronics Group recommend you to avoid prolonged exposure from excessive volume levels.



## FCC INFORMATION (for US customers)

### 1 **IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!**

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

### 2 **IMPORTANT:** When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product **MUST** be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

### 3 **NOTE:** This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices.

This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices.

Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Electronics Corp., U.S.A. 6660 Orangethorpe Ave, Buena Park, CA 90620.

The above statements apply **ONLY** to those products distributed by Yamaha Corporation of America or its subsidiaries.

# CAUTION: READ THIS BEFORE OPERATING YOUR UNIT.

- 1 To assure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
- 2 Install this sound system in a well ventilated, cool, dry, clean place – away from direct sunlight, heat sources, vibration, dust, moisture, and/or cold. Allow ventilation space of at least 30 cm on the top, 20 cm on the left and right, and 20 cm on the back of this unit.
- 3 Locate this unit away from other electrical appliances, motors, or transformers to avoid humming sounds.
- 4 Do not expose this unit to sudden temperature changes from cold to hot, and do not locate this unit in an environment with high humidity (i.e. a room with a humidifier) to prevent condensation inside this unit, which may cause an electrical shock, fire, damage to this unit, and/or personal injury.
- 5 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:
  - Other components, as they may cause damage and/or discoloration on the surface of this unit.
  - 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.
- 6 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.
- 7 Do not plug in this unit to a wall outlet until all connections are complete.
- 8 Do not operate this unit upside-down. It may overheat, possibly causing damage.
- 9 Do not use force on switches, knobs and/or cords.
- 10 When disconnecting the power cable from the wall outlet, grasp the plug; do not pull the cable.
- 11 Do not clean this unit with chemical solvents; this might damage the finish. Use a clean, dry cloth.
- 12 Only voltage specified on this unit must be used. Using this unit with a higher voltage than specified is dangerous and may cause fire, damage to this unit, and/or personal injury. YAMAHA will not be held responsible for any damage resulting from use of this unit with a voltage other than specified.
- 13 Do not attempt to modify or fix this unit. Contact qualified YAMAHA service personnel when any service is needed. The cabinet should never be opened for any reasons.
- 14 When not planning to use this unit for long periods of time (i.e. vacation), disconnect the AC power plug from the wall outlet.
- 15 Install this unit near the AC outlet and where the AC power plug can be reached easily.
- 16 Be sure to read the “TROUBLESHOOTING” section on common operating errors before concluding that this unit is faulty.
- 17 Before moving this unit, press STANDBY/ON to set this unit in the standby mode, and disconnect the AC power plug from the wall outlet.
- 18 **VOLTAGE SELECTOR** (Asia and General models only)  
The VOLTAGE SELECTOR on the rear panel of this unit must be set for your local main voltage BEFORE plugging into the AC main supply. Voltages are:  
General model .....AC 110/120/220/230–240 V, 50/60 Hz  
Asia model .....AC 220/230–240 V, 50/60 Hz

## WARNING

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

As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by POWER or set it to the standby mode by STANDBY/ON.

This unit enters the standby mode when you press POWER inward to the ON position and then press STANDBY/ON. In this state, this unit is designed to consume a very small quantity of power.

## FOR CANADIAN CUSTOMERS

To prevent electric shock, match wide blade of plug to wide slot and fully insert.  
This Class B digital apparatus complies with Canadian ICES-003.

## POUR LES CONSOMMATEURS CANADIENS

Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.  
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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INTRODUCTION


PREPARATION

OPERATION

ADDITIONAL  
INFORMATION

# FEATURES

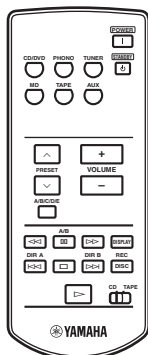
- ◆ Highly dynamic power, low impedance drive capability
  - ◆ Continuously variable loudness control
  - ◆ CD/DVD DIRECT AMP switch used to reproduce the purest CD and DVD sound
  - ◆ Remote control capability
- [ **AX-497** ]
- ◆ Minimum RMS output power  
85 W + 85 W (8 Ω), 0.019% THD, 20 Hz to 20 kHz
  - ◆ REC OUT selector independent of input source selection
  - ◆ PURE DIRECT switch used to reproduce the purest source sound
- [ **AX-397** ]
- ◆ Minimum RMS output power  
60 W + 60 W (8 Ω), 0.019% THD, 20 Hz to 20 kHz
  - ◆ TAPE MONITOR switch used to monitor the sound being recorded

- This document is the owner's manual for both AX-497 and AX-397. Model names are given where the details of functions are unique to each model. Illustrations for AX-497 are mainly used for explanations.
-  indicates a tip for your operation.
- Some operations can be performed by using either the buttons on the main unit or on the remote control. In cases when the button names differ between the main unit and the remote control, the names of the buttons on the remote control are given in parentheses.
- This manual is printed prior to production. Design and specifications are subject to change in part as a result of improvements, etc. In case of differences between the manual and the product, the product has priority.

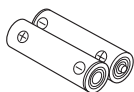
# SUPPLIED ACCESSORIES

Please check that you received all of the following parts.

## Remote control



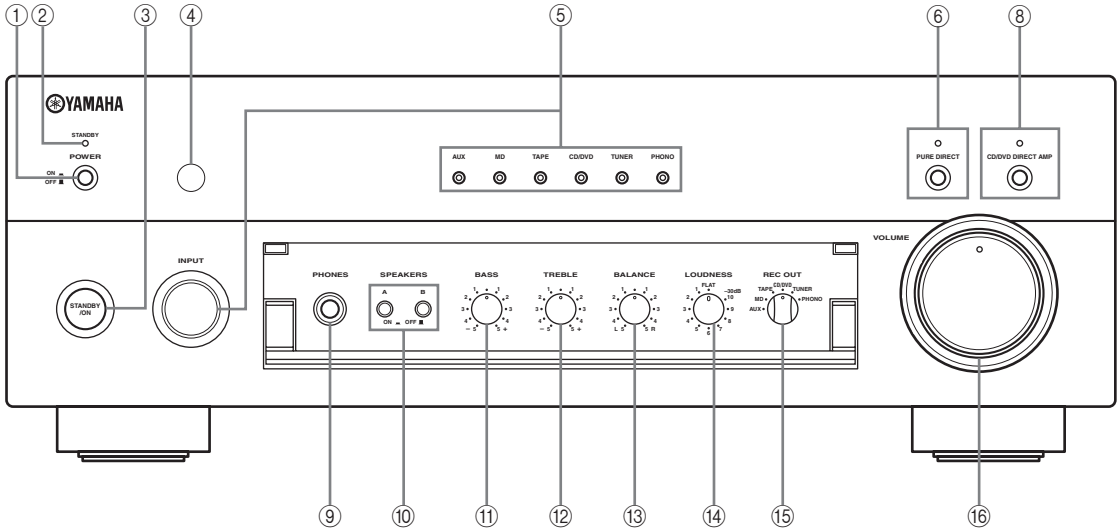
## Batteries (2) (AAA, R03, UM-4)



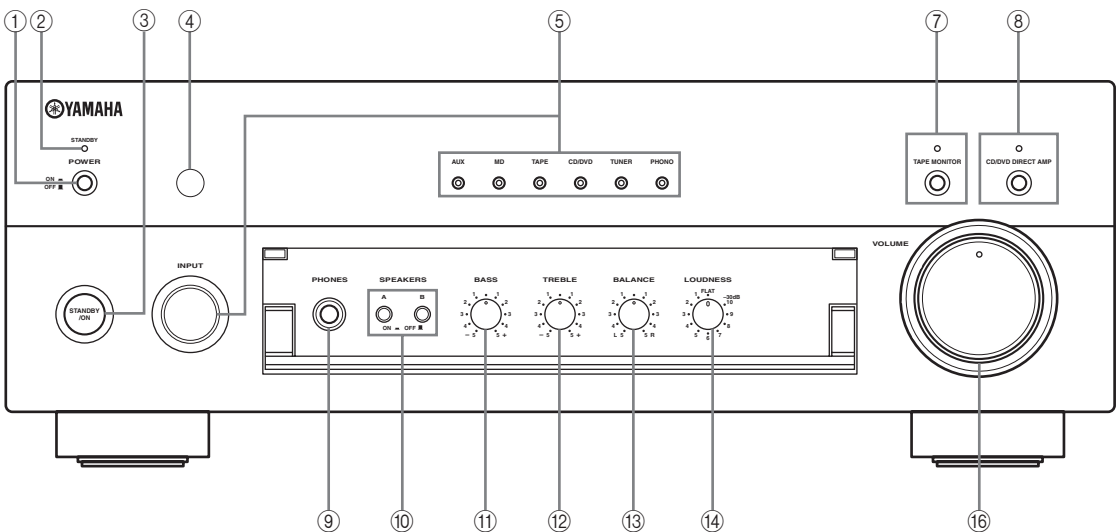
# CONTROLS AND FUNCTIONS

## Front panel

### ■ AX-497



### ■ AX-397



#### ① POWER

Press inward to the ON position to provide this unit with power supply from the AC wall outlet. In this state, you can turn on this unit or set it to the standby mode by pressing STANDBY/ON.

When you turn on this unit, there will be a few second delay before this unit can reproduce sound.

Press again to release it outward to the OFF position to completely cut off power supply from the AC wall outlet.

#### ② STANDBY indicator

Lights up when this unit is in the standby mode.

#### ③ STANDBY/ON

Turns on this unit or sets it to the standby mode.

#### Notes

- This switch is operational only when POWER is pressed inward to the ON position.
- In the standby mode, this unit consumes a small amount of power to receive infrared-signals from the remote control.

**④ Remote control sensor**

Receives signals from the remote control.

**⑤ INPUT selector and indicators**

Selects the input source you want to listen to. The input source indicators light up when the corresponding input sources are selected.

**⑥ PURE DIRECT and indicator (AX-497 only)**

Allows you to listen to a source in the purest possible sound.

The indicator above it lights up when this function is turned on.

See page 13 for details.

**⑦ TAPE MONITOR and indicator (AX-397 only)**

Allows you to listen to the sound played back on the tape deck connected to the TAPE terminals on the rear panel of this unit.

When the tape deck is used for recording, you can also monitor the sound being recorded.

The indicator above it lights up when this function is turned on.

**Notes**

- When this function is on (the indicator lights up), TAPE (tape deck) cannot be selected with the INPUT selector.
- To listen to the source selected with the INPUT selector, press again to turn off the function (the indicator turns off as a result).
- When TAPE (tape deck) is selected with the INPUT selector, this function will not turn on even if TAPE MONITOR is pressed.

**⑧ CD/DVD DIRECT AMP and indicator**

Allows you to listen to a CD or a DVD source in the purest sound.

The indicator above it lights up when this function is turned on.

See page 13 for details.

**⑨ PHONES jack**

Outputs audio for private listening with headphones. Press both SPEAKERS A and B switches on the front panel to release them outward to the OFF position.

**⑩ SPEAKERS A/B**

Turns on or off the speaker set connected to the SPEAKERS A and/or B terminals on the rear panel each time the corresponding button is pressed.

**⑪ BASS**

Increases or decreases the low frequency response. The 0 position produces a flat response.

See page 13 for details.

**⑫ TREBLE**

Increases or decreases the high frequency response. The 0 position produces a flat response.

See page 13 for details.

**⑬ BALANCE**

Adjusts the sound output balance of the left and right speakers to compensate for sound imbalances caused by speaker locations or listening room conditions.

See page 13 for details.

**⑭ LOUDNESS**

Retains a full tonal range at any volume level to compensate for the human ears' loss of sensitivity to high and low-frequency ranges at low volume.

See page 13 for details.

**⑮ REC OUT selector (AX-497 only)**

Selects a source for recording to the MD recorder or the tape deck independently of the INPUT selector setting, allowing you to record the selected source while listening to another source.

See page 14 for details.

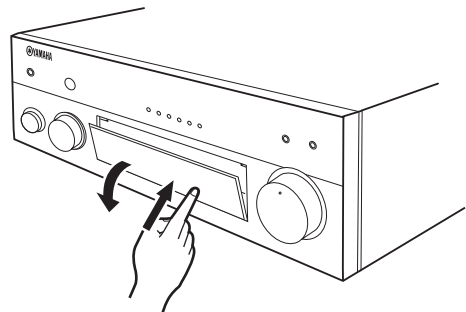
**⑯ VOLUME**

Controls the sound output level.

This does not affect the REC OUT level.

**■ Opening and closing the front panel door**

When you want to use the controls behind the front panel door, open the door by gently pressing on the lower part of the panel. Keep the door closed when not using these controls to protect the controls from dust, etc.



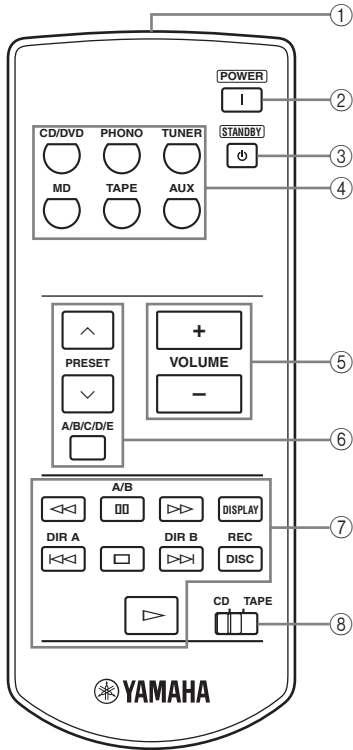


## Remote control

This section describes the function of each control on the remote control used to control this unit or a YAMAHA CD player, tuner, tape deck, etc. with the remote control capability.

### Note

Some components may not be controlled by this remote control.



### ■ Controlling this unit

#### ① Infrared signal transmitter

Sends signals to this unit.

#### ② POWER

Turns on this unit.

### Note

This button is operational only when POWER on the front panel is pressed inward to the ON position.

#### ③ STANDBY

Sets this unit to the standby mode.

### Notes

- This button is operational only when POWER on the front panel is pressed inward to the ON position.
- In the standby mode, this unit consumes a small amount of power in order to receive infrared-signals from the remote control.

#### ④ Input selector buttons

Select the input source you want to listen to.

#### ⑤ VOLUME +/-

Controls the sound output level.  
This does not affect the REC OUT level.

### ■ Controlling other components

The functions of the buttons to control other YAMAHA components are the same as those of the corresponding buttons on those components. Refer to those components' instruction manuals for details.

#### ⑥ Tuner buttons

Control various functions of the tuner.

#### PRESET +/-

Selects a preset station number (1 to 8).

#### A/B/C/D/E

Selects a preset station group (A to E).

#### ⑦ CD player / tape deck buttons

Control various functions of the CD player or the tape deck.

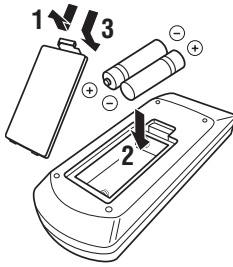
### Notes

- DIR B and A/B apply only to the double cassette tape deck.
- Pressing DIR A will reverse the tape direction on the single cassette tape deck with the automatic reverse function.

#### ⑧ CD/TAPE selector switch

Switches to control either CD player functions or tape deck functions.

## Installing batteries in the remote control



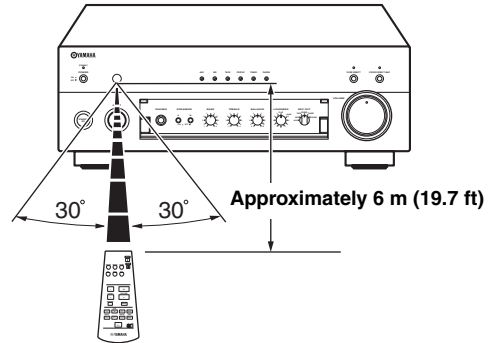
- 1** Open the battery compartment cover.
- 2** Insert two supplied batteries (AAA, R03, UM-4) according to the polarity markings (+ and -) on the inside of the battery compartment.
- 3** Close the cover back.

### ■ Notes on batteries

- Change all of the batteries if you notice the following conditions; the operation range of the remote control decreases, the indicator does not flash or its light becomes dim.
- Use AAA, R03, UM-4 batteries.
- Make sure that the polarities are correct. See the illustration inside the battery compartment.
- Remove the batteries if the remote control is not used for an extended period of time.
- Do not use old batteries together with new ones.
- Do not use different types of batteries (such as alkaline and manganese batteries) together. Read the packaging carefully as these different types of batteries may have the same shape and color.
- We strongly recommend using alkaline batteries.
- If the batteries have leaked, dispose of them immediately. Avoid touching the leaked material or letting it come into contact with clothing, etc. Clean the battery compartment thoroughly before installing new batteries.
- Do not throw away batteries with general house waste; dispose of them correctly in accordance with your local regulations.

## Using the remote control

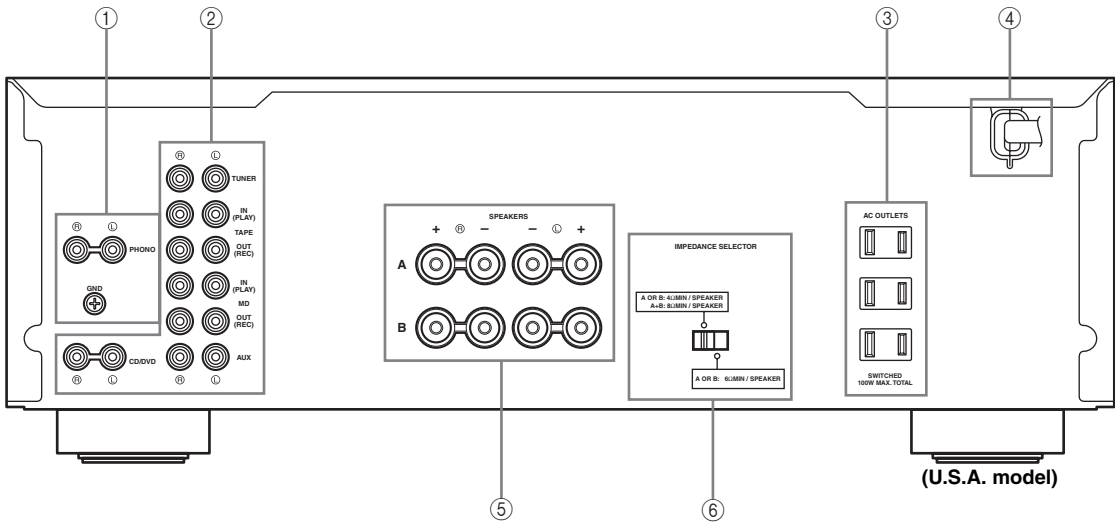
The remote control transmits a directional infrared beam. Be sure to aim the remote control directly at the remote control sensor on the front panel of this unit during operation.



### ■ Handling the remote control

- The area between the remote control and this unit must be clear of large obstacles.
- Do not spill water or other liquids on the remote control.
- Do not drop the remote control.
- Do not leave or store the remote control in the following types of conditions:
  - places of high humidity, such as near a bath
  - places of high temperature, such as near a heater or a stove
  - places of extremely low temperatures
  - dusty places
- Do not expose the remote control sensor to strong lighting, in particular, an inverter type fluorescent lamp; otherwise, the remote control may not work properly. If necessary, position this unit away from direct lighting.

## Rear panel



① **PHONO jacks and GND terminal**

See page 8 for connection information.

② **Audio input/output jacks**

See page 8 for connection information.

③ **AC OUTLET(S)**

Use to supply power to your other audio/video components.

See page 10 for details.

④ **AC power supply cord**

See page 10 for connection information.

⑤ **SPEAKERS terminals**

Connect one or two speaker sets.

See page 8 for connection information.

⑥ **IMPEDANCE SELECTOR**

See “IMPEDANCE SELECTOR switch” on this page.

■ **Asia and General models only**

VOLTAGE SELECTOR is only applicable to the Asia and General models.

**VOLTAGE SELECTOR**

See page 10 for details.

■ **IMPEDANCE SELECTOR switch**

**CAUTION**

Do not change the IMPEDANCE SELECTOR switch while the power of this unit is turned on, as doing so may damage the unit.

If this unit fails to turn on, the IMPEDANCE SELECTOR switch may not be fully slid to either position. If this is the case, slide the switch all the way to either position when this unit’s power supply is completely cut off.

Select the switch position (left or right) according to the impedance of the speakers in your system.

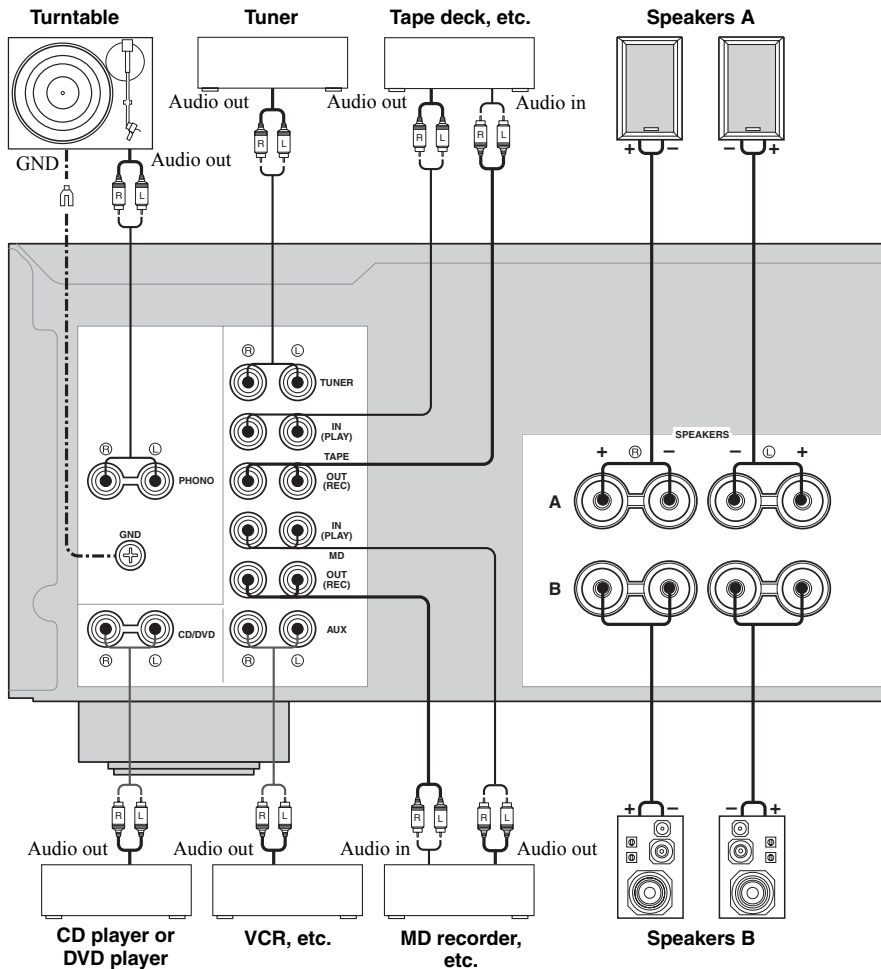
Switch position	Impedance level
Right	<b>Asia model</b> <ul style="list-style-type: none"> <li>If you use one set (A or B), the impedance of each speaker must be 8 Ω or higher.</li> <li>If you use two sets (A and B), the impedance of each speaker must be 16 Ω or higher.</li> </ul>
	<b>Canada model</b> <ul style="list-style-type: none"> <li>You can use one set (A or B), and the impedance of each speaker must be 6 Ω or higher.</li> </ul>
	<b>Other models</b> <ul style="list-style-type: none"> <li>If you use one set (A or B), the impedance of each speaker must be 6 Ω or higher.</li> <li>If you use two sets (A and B), the impedance of each speaker must be 12 Ω or higher.</li> </ul>
Left	<ul style="list-style-type: none"> <li>If you use one set (A or B), the impedance of each speaker must be 4 Ω or higher.</li> <li>If you use two sets (A and B), the impedance of each speaker must be 8 Ω or higher.</li> </ul>

# CONNECTIONS

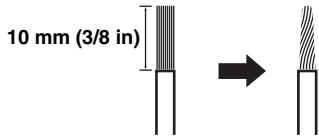
## Connecting speakers and other components

### CAUTION

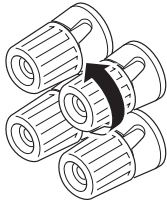
- Do not connect this unit or other components to the main power until all connections between components are complete.
- Do not let the bare speaker wires touch each other or do not let them touch any metal part of this unit. This could damage this unit and/or the speakers.
- All connections must be correct: L (left) to L, R (right) to R, “+” to “+” and “-” to “-”. If the connections are faulty, no sound will be heard from the speakers, and if the polarity of the speaker connections is incorrect, the sound will be unnatural and lack bass. Also, refer to the owner’s manual for each of your components.
- Use RCA type pin plug cables for audio/video units except speakers.
- Connect your turntable to the GND terminal to reduce noise in the signal. However, you may hear less noise without the connection to the GND terminal for some record players.



- 1 Remove approximately 10 mm (3/8 in) of insulation from the end of each speaker cable and twist the exposed wires of the cable together to prevent short circuits.

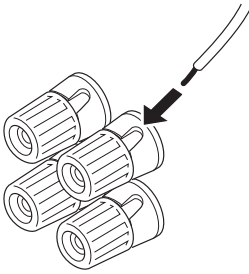


- 2 Unscrew the knob.



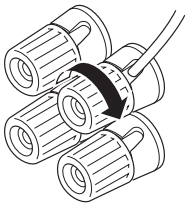
Red: positive (+)  
Black: negative (-)

- 3 Insert one bare wire into the hole in the side of each terminal.



Red: positive (+)  
Black: negative (-)

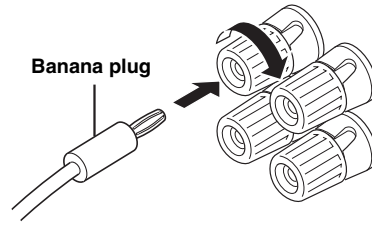
- 4 Tighten the knob to secure the wire.



Red: positive (+)  
Black: negative (-)

### ■ Connecting the banana plug (With the exception of Asia, Korea, U.K. and Europe models)

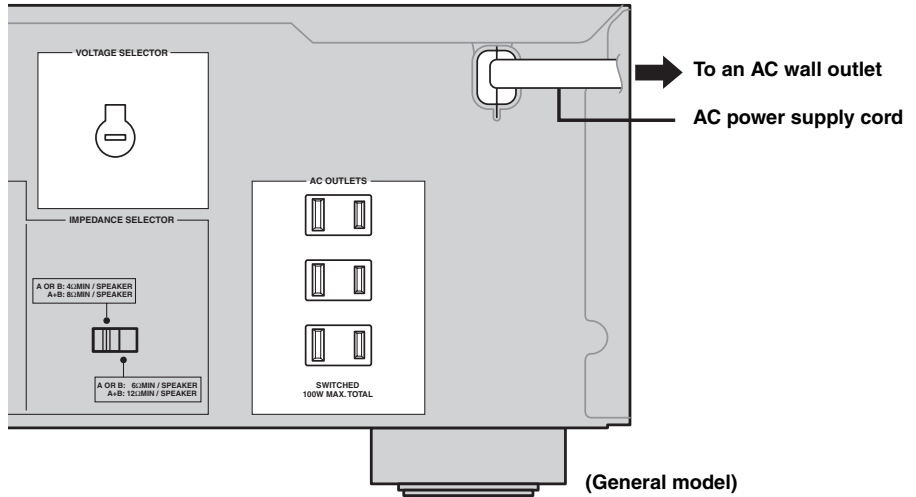
First, tighten the knob and then insert the banana plug into the end of the corresponding terminal.



#### Notes

- One or two speaker sets can be connected to this unit. If you use only one speaker set, connect it to either the SPEAKERS A or B terminals.
- Use speakers with the specified impedance shown on the rear panel of this unit.

## Connecting the power supply cord



### ■ Connecting the AC power supply cord

Plug the power supply cord into the AC wall outlet after all other connections are complete.

### ■ AC OUTLET(S) (SWITCHED)

U.K. and Australia models .....	1 outlet
Korea model .....	None
Other models .....	3 outlets

Use these outlets to connect the power cords from your other components to this unit. The power to the AC OUTLET(S) is controlled by POWER or STANDBY/ON on the front panel of this unit (or on the remote control). The outlet(s) supply power to any connected component whenever the power of this unit is turned on. For information on the maximum power (total power consumption of components), see “SPECIFICATIONS” on page 18.

### ■ VOLTAGE SELECTOR (Asia and General models only)

The VOLTAGE SELECTOR on the rear panel of this unit must be set for your local main voltage BEFORE plugging the power supply cord into the AC wall outlet.

Voltages are as follows:

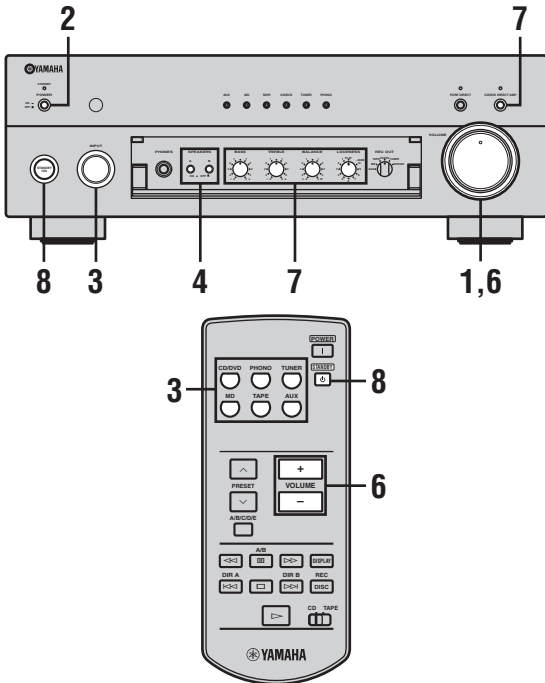
Asia model.....	AC 220/230–240 V, 50/60 Hz
General model .....	AC 110/120/220/230–240 V, 50/60 Hz

# PLAYING AND RECORDING

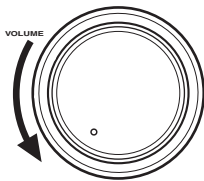
## Playing a source

### Note

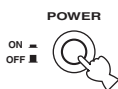
As for AX-397 only, if the TAPE MONITOR indicator on the front panel lights up when you listen to a source, press TAPE MONITOR on the front panel to turn off the TAPE MONITOR function (the TAPE MONITOR indicator turns off as a result).



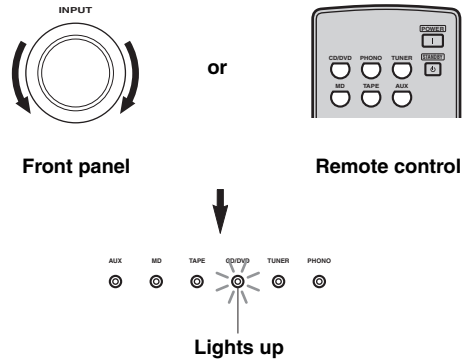
- 1 Set **VOLUME** on the front panel counterclockwise to the extreme end.



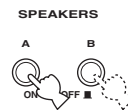
- 2 Press **POWER** on the front panel inward to the ON position.



- 3 Rotate the **INPUT** selector on the front panel (or press one of the input selector buttons on the remote control) to select the input source you want to listen to.



- 4 Press **SPEAKERS A** and/or **B** on the front panel to select speakers A and/or B.

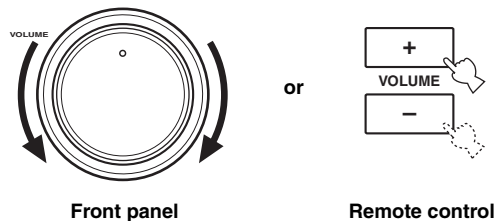


### Notes

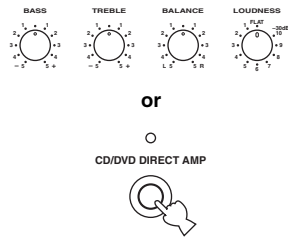
- Both **SPEAKERS A** and **B** can be selected.
- If you listen with headphones, press both switches to release them outward to the **OFF** position.

- 5 Play the source.

- 6 Rotate **VOLUME** on the front panel (or press **VOLUME +/-** on the remote control) to adjust the sound output level.



- 7 Adjust the tonal quality by using the BASS, TREBLE, BALANCE and LOUDNESS controls or the CD/DVD DIRECT AMP switch on the front panel.**

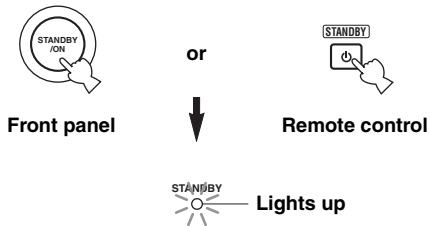


**Note**

As for AX-497 only, you can also adjust the tonal quality by using PURE DIRECT on the front panel.

- 8 Press STANDBY/ON on the front panel again (or STANDBY on the remote control) to finish using this unit and set it to the standby mode.**

The STANDBY indicator lights up.



**Note**

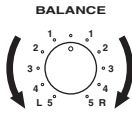
To completely cut off power supply from the AC wall outlet, press POWER on the front panel to release it outward to the OFF position.



## Adjusting the tonal quality

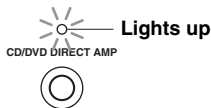
### ■ Adjusting the BALANCE control

Adjusts the sound output balance of the left and right speakers to compensate for sound imbalance caused by speaker locations or listening room conditions.



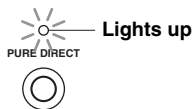
### ■ Using the CD/DVD DIRECT AMP switch

Routes input signals from your CD or DVD player directly to the specially built-in amplifier for the CD or DVD player. As a result, the input signals bypass the INPUT selector and the BASS, TREBLE, BALANCE and LOUDNESS controls (and the TAPE MONITOR switch for AX-397 only) and then sent to the power amplifier, thus eliminating any alterations to the CD or DVD signals and creating the purest possible sound.



### ■ Using the PURE DIRECT switch (AX-497 only)

Routes input signals from your audio sources. As a result, the input signals bypass the BASS, TREBLE, BALANCE and LOUDNESS controls, thus eliminating any alterations to the audio signals and creating the purest possible sound.



#### Note

As for AX-497 only, if both the CD/DVD DIRECT AMP and the PURE DIRECT switches are turned on, only the CD/DVD DIRECT AMP switch will function.

### ■ Adjusting the BASS and TREBLE controls

Adjusts the high and low frequency response.

#### BASS

Increases or decreases the low frequency response.

#### TREBLE

Increases or decreases the high frequency response.



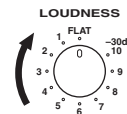
### ■ Adjusting the LOUDNESS control

Retains a full tonal range at any volume level, thus compensating for the human ears' loss of sensitivity to high and low-frequency ranges at low volume.

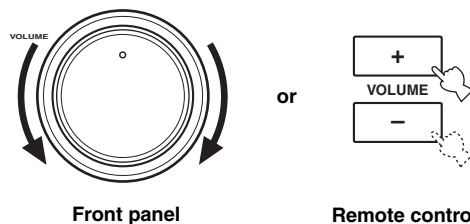
#### CAUTION

If the CD/DVD DIRECT AMP switch (or the PURE DIRECT switch for AX-497 only) is turned on with the LOUDNESS control set at a certain level, the input signals bypass the LOUDNESS control, resulting in a sudden increase in the sound output level. To prevent your ears or the speakers from being undesirably damaged, be sure to press the CD/DVD DIRECT AMP switch (or the PURE DIRECT switch for AX-497 only) AFTER lowering the sound output level or AFTER checking that the LOUDNESS control is properly set.

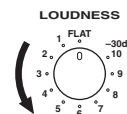
#### 1 Set the LOUDNESS control to the FLAT position.



#### 2 Rotate VOLUME on the front panel (or press VOLUME +/- on the remote control) to set the sound output level to the loudest listening level that you would listen to.



#### 3 Rotate the LOUDNESS control until the desired volume is obtained.

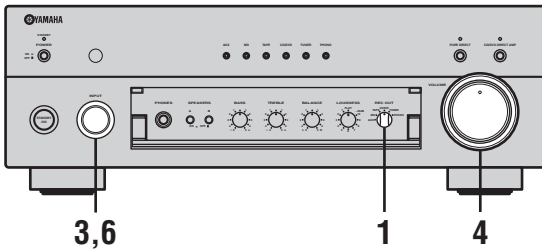


## Recording a source to a tape or an MD

### Notes

- The VOLUME, BASS, TREBLE, BALANCE and LOUDNESS controls and the CD/DVD DIRECT AMP switch (and the PURE DIRECT switch for AX-497 only) have no effect on the source being recorded.
- Check the copyright laws in your country to record from records, CDs, radio, etc. Recording copyright-protected material may infringe on copyright laws.

### ■ AX-497

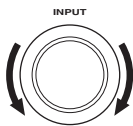


- 1 Rotate the REC OUT selector on the front panel to select the source you want to record.



- 2 Play the source.

- 3 Rotate the INPUT selector on the front panel (or press one of the input selector buttons on the remote control) to select the input source you want to listen to.



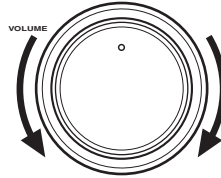
Front panel

or



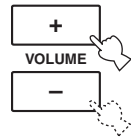
Remote control

- 4 Rotate VOLUME on the front panel (or press VOLUME +/- on the remote control) to adjust the sound output level.



Front panel

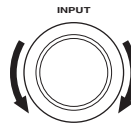
or



Remote control

- 5 Begin recording on the tape deck or the MD recorder.

- 6 Rotate the INPUT selector on the front panel (or press TAPE or MD on the remote control) to select TAPE or MD and then monitor the sound being recorded on the tape deck or the MD recorder.



Front panel

or

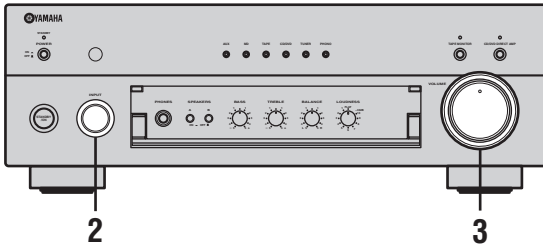


Remote control

### Note

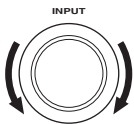
Selecting another source with the INPUT selector on the front panel (or the corresponding input selector button on the remote control) while recording is in progress will not affect the recording.

## ■ AX-397



**1** Play the source.

**2** Rotate the INPUT selector on the front panel (or press one of the input selector buttons on the remote control) to select the input source you want to listen to.



Front panel

or

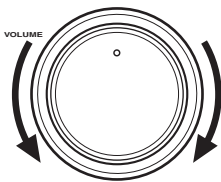


Remote control

### Note

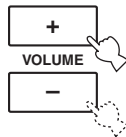
You cannot select any input source while the TAPE MONITOR indicator on the front panel lights up.

**3** Rotate VOLUME on the front panel (or press VOLUME +/- on the remote control) to adjust the sound output level.



Front panel

or



Remote control

**4** Begin recording on the tape deck or the MD recorder.



If the 3-head tape deck is used for recording, you can monitor the sound of recording by pressing TAPE MONITOR.

# TROUBLESHOOTING

Refer to the chart below if this unit does not function properly. If the problem you are experiencing is not listed below or if the instructions below do not help, set this unit to the standby mode, disconnect the power cord, and contact the nearest authorized YAMAHA dealer or service center.

## ■ General

Problem	Cause	Remedy	Refer to page
<b>This unit fails to turn on.</b>	The power supply cord is not connected or the plug is not completely inserted.	Connect the power supply cord firmly.	—
	The impedance setting is incorrect.	Set the impedance to match your speakers.	7
	The protection circuitry has been activated because of a short circuit, etc.	Check that the speaker wires are not touching each other and then turn the power of this unit back on.	8
	The IMPEDANCE SELECTOR switch on the rear panel is not set to either end.	Set the IMPEDANCE SELECTOR switch to either end when the power of this unit is turned off.	7
	This unit has been exposed to a strong external electric shock (such as lightning or strong static electricity).	Set this unit to the standby mode, disconnect the power supply cord, plug it back in after 30 seconds, then use it normally.	—
<b>No sound</b>	Incorrect input or output cable connections.	Connect the cables properly. If the problem persists, the cables may be defective.	8
	No appropriate input source has been selected.	Select an appropriate input source with the INPUT selector on the front panel (or one of the input selector buttons on the remote control).	11
	The TAPE MONITOR function is turned on.	Turn off the TAPE MONITOR function.	4
	The SPEAKERS A/B switches are not set properly.	Set the corresponding SPEAKERS A or B switch to the ON position.	11
	Speaker connections are not secure.	Secure the connections.	8
<b>The sound suddenly goes off.</b>	The protection circuitry has been activated because of a short circuit, etc.	Check that the IMPEDANCE SELECTOR setting is correct.	7
		Check that the speaker wires are not touching each other and then turn the power of this unit back on.	8
<b>Only the speaker on one side can be heard.</b>	Incorrect cable connections.	Connect the cables properly. If the problem persists, the cables may be defective.	8
	Incorrect setting for the BALANCE control.	Set the BALANCE control to the appropriate position.	13
<b>There is a lack of bass and no ambience.</b>	The + and – wires are connected in reverse at the amplifier or the speakers.	Connect the speaker wires to the correct + and – phase.	8
<b>A “humming” sound can be heard.</b>	Incorrect cable connections.	Connect the audio plugs firmly. If the problem persists, the cables may be defective.	8
	No connection from the turntable to the GND terminal.	Make the GND connection between the turntable and this unit.	8
<b>The volume level is low while playing a record.</b>	The record is being played on a turntable with an MC cartridge.	The turntable should be connected to this unit through the MC head amplifier.	—
<b>The volume level cannot be increased, or the sound is distorted.</b>	The component connected to the TAPE OUT or the MD OUT terminals of this unit is turned off.	Turn on the power of the component.	—

<b>The sound is degraded when listening with the headphones connected to the CD player or the tape deck connected to this unit.</b>	The power of this unit is turned off, or this unit is set to the standby mode.	Turn on the power of this unit.	11
<b>The sound level is low.</b>	The LOUDNESS control is functioning.	Set the LOUDNESS control to the FLAT position.	13
<b>The input source cannot be changed although the INPUT selector is rotated.</b>	The CD/DVD DIRECT AMP switch is turned on.	Turn off the CD/DVD DIRECT AMP switch.	13
	The TAPE MONITOR function is turned on.	Turn off the TAPE MONITOR function.	4
<b>Using the BASS, TREBLE, BALANCE and LOUDNESS controls does not affect the tonal quality.</b>	The CD/DVD DIRECT AMP switch (or the PURE DIRECT switch for AX-497 only) is turned on.	The CD/DVD DIRECT AMP switch (or the PURE DIRECT switch for AX-497 only) must be turned off to use those controls.	13

## ■ Remote control

Problem	Cause	Remedy	Refer to page
<b>The remote control does not work nor function properly.</b>	Wrong distance or angle.	The remote control will function within a maximum range of 6 m (19.7 ft) and no more than 30 degrees off-axis from the front panel.	6
	Direct sunlight or lighting (from an inverter type of fluorescent lamp, etc.) is striking the remote control sensor of this unit.	Reposition this unit.	—
	The batteries are weak.	Replace all batteries.	6

# SPECIFICATIONS

## POWER SECTION

- Minimum RMS Output Power  
(8 Ω, 20 Hz to 20 kHz, 0.019% THD)  
[AX-497] ..... 85 W + 85 W  
[AX-397] ..... 60 W + 60 W  
(6 Ω, 20 Hz to 20 kHz, 0.038% THD)  
[AX-497] ..... 100 W + 100 W  
[AX-397] ..... 70 W + 70 W
- Dynamic Power (IHF) (8/6/4/2 Ω)  
[AX-497] ..... 130/150/185/220 W  
[AX-397] ..... 100/120/140/150 W
- Maximum Output Power  
(1 kHz, 0.7% THD, 4 Ω) [U.K. and Europe models only]  
[AX-497] ..... 120 W  
[AX-397] ..... 95 W  
(1 kHz, 10% THD, 8/6 Ω)  
[AX-497]  
[Asia, General, China and Korea models only] .... 130/150 W  
[AX-397]  
[Asia, General and China models only] ..... 100/110 W
- IEC Output Power [U.K. and Europe models only]  
(1 kHz, 0.019% THD, 8 Ω)  
[AX-497] ..... 100 W  
[AX-397] ..... 75 W
- Power Band Width  
[AX-497] (0.04% THD, 42.5 W, 8 Ω) ..... 10 Hz to 50 kHz  
[AX-397] (0.04% THD, 30 W, 8 Ω) ..... 10 Hz to 50 kHz
- Damping Factor  
20 Hz to 20 kHz, 8 Ω ..... 240 or more
- Maximum Input Signal  
PHONO (1 kHz, 0.003% THD) ..... 115 mV or more  
CD, etc. (1 kHz, 0.5% THD) ..... 2.2 V or more
- Frequency Response  
CD, etc. (20 Hz to 20 kHz) ..... 0 ± 0.5 dB  
CD/DVD DIRECT AMP ON (10 Hz to 100 kHz) ..... 0 ± 1.0 dB
- RIAA Equalization Deviation  
PHONO ..... ± 0.3 dB
- Total Harmonic Distortion  
PHONO to REC OUT  
(20 Hz to 20 kHz, 3 V) ..... 0.003% or less  
CD, etc. to SP OUT  
(20 Hz to 20 kHz, 42.5 W, 8 Ω) ..... 0.009% or less
- Signal to Noise Ratio (IHF-A Network)  
PHONO (input shorted) ..... 88 dB or more  
CD (input shorted)  
CD/DVD DIRECT AMP ON ..... 110 dB or more
- Residual Noise (IHF-A Network)  
[AX-497]  
CD/DVD DIRECT AMP ON ..... 35 μV  
PURE DIRECT ON ..... 90 μV  
[AX-397]  
CD/DVD DIRECT AMP ON ..... 35 μV  
CD/DVD DIRECT AMP OFF ..... 100 μV

## CONTROL SECTION

- Input Sensitivity/Input Impedance  
PHONO ..... 2.5 mV/47 kΩ  
CD, etc. .... 150 mV/47 kΩ
- Output Level/Output Impedance  
REC OUT  
[AX-497] ..... 195 mV/1.6 kΩ or less  
[AX-397] ..... 165 mV/1.6 kΩ or less
- Headphone Output/Impedance  
CD, etc. (Input 1 kHz, 150 mV, 8 Ω, 0.019% THD)  
[AX-497] ..... 0.3 V/680 Ω  
[AX-397] ..... 0.25 V/680 Ω
- Channel Separation  
CD, etc. (5.1 kΩ input shorted, 1/10 kHz) ..... 65/50 dB or more
- Tone Control Characteristics  
BASS  
Boost/Cut (20 Hz) ..... ±10 dB  
Turnover Frequency ..... 350 Hz  
TREBLE  
Boost/Cut (20 kHz) ..... ±10 dB  
Turnover Frequency ..... 3.5 kHz
- Continuous Loudness Control  
Attenuation (1 kHz) ..... -30 dB

## GENERAL

- Power Supply  
[U.S.A. and Canada models] ..... AC 120 V, 60 Hz  
[Asia model] ..... AC 220/230–240 V, 50/60 Hz  
[General model] ..... AC 110/120/220/230–240 V, 50/60 Hz  
[China model] ..... AC 220 V, 50 Hz  
[Korea model] (AX-497 only) ..... AC 220 V, 60 Hz  
[Australia model] ..... AC 240 V, 50 Hz  
[U.K. and Europe models] ..... AC 230 V, 50 Hz
- Power Consumption  
[AX-497]  
[U.S.A. and Canada models] ..... 220 W, 300 VA  
[Asia model] ..... 190 W  
[Other models] ..... 220 W  
[AX-397] ..... 170 W
- Standby Power Consumption  
[Asia and General models]  
(110/120 V) ..... 1.1 W  
(220/230–240 V) ..... 2.7 W  
[Other models] ..... 1.1 W  
(The power consumption is 0 W when the POWER switch is released outward to the OFF position.)
- Maximum Power Consumption [General models only]  
(1 kHz, 6 Ω, 10% THD)  
[AX-497] ..... 490 W  
[AX-397] ..... 400 W
- AC Outlets  
[U.K. and Australia models] ..... 1 (Total 100 W maximum)  
[Korea model] ..... None  
[General model] ..... 3 (Total 50 W maximum)  
[Other models] ..... 3 (Total 100 W maximum)
- Dimensions (W x H x D) ..... 435 x 151 x 390 mm  
(17-1/8" x 5-15/16" x 15-11/32")
- Weight  
[AX-497] ..... 9.1 kg (20 lbs. 1 oz.)  
[AX-397] ..... 8.3 kg (18 lbs. 5 oz.)

\* Specifications are subject to change without notice.



This product mainly uses lead-free solder.

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Printed in Malaysia  WG02700