# YAMAHA

# AX-492/592/892

Natural Sound Stereo Amplifier

Amplificateur stéréo de la série "Natural Sound"

Thank you for selecting this YAMAHA stereo amplifier.

Nous vous remercions d'avoir porté votre choix sur cet amplificateur stéréo YAMAHA.

# SAFETY INSTRUCTIONS



### 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.

• 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.

#### WARNING

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

#### 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 Instructions All the safety and operating instructions should be read before the unit is operated.
- 2 Retain Instructions The safety and operating instructions should be retained for future reference.
- 3 Heed Warnings All warnings on the unit and in the operating instructions should be adhered to.
- 4 Follow Instructions All operating and other instructions should be followed.
- Water and Moisture The unit should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
- 6 Carts and Stands The unit should be used only with a cart or stand that is recommended by the manufacturer.
- 6A A unit and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the unit and cart combination to overturn.

- Wall or Ceiling Mounting The unit should be mounted to a wall or ceiling only as recommended by the manufacturer.
- 8 Ventilation The unit should be situated so that its location or position does not interfere with its proper ventilation. For example, the unit should not be situated on a bed, sofa, rug, or similar surface, that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
- 9 Heat The unit should be situated away from heat sources such as radiators, stoves, or other appliances that produce heat.
- 10 Power Sources The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the unit.
- 11 Power-Cord Protection Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.
- **12** Cleaning The unit should be cleaned only as recommended by the manufacturer.
- 13 Nonuse Periods The power cord of the unit should be unplugged from the outlet when left unused for a long period of time.
- 14 Object and Liquid Entry Care should be taken so that objects do not fall into and liquids are not spilled into the inside of the unit.
- 15 Damage Requiring Service The unit should be serviced by qualified service personnel when:
  - **A.** The power-supply cord or the plug has been damaged; or
  - **B.** Objects have fallen, or liquid has been spilled into the unit; or
  - C. The unit has been exposed to rain; or
  - **D.** The unit does not appear to operate normally or exhibits a marked change in performance; or
  - **E.** The unit has been dropped, or the cabinet damaged.
- 16 Servicing The user should not attempt to service the unit beyond those means described in the operating instructions. All other servicing should be referred to qualified service personnel.
- 17 Power Lines An outdoor antenna should be located away from power lines.
- 18 Grounding or Polarization Precautions should be taken so that the grounding or polarization is not defeated.

### **FCC INFORMATION**

### 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.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to coaxial type cable.

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.

## We Want You Listening For A Lifetime (for US customers only)

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.



### **CONTENTS**

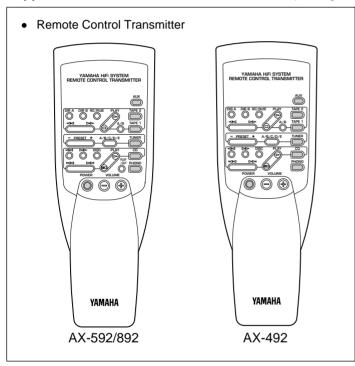
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### **FEATURES**

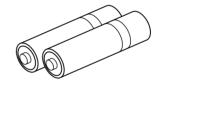
- AX-492 85W + 85W (8Ω) RMS Output Power, 0.019% THD, 20–20,000 Hz
- AX-592 100W + 100W (8Ω) RMS Output Power, 0.015% THD, 20–20,000 Hz
- AX-892 115W + 115W (8Ω) RMS Output Power, 0.015% THD, 20–20,000 Hz
- High Dynamic Power, Low Impedance Drive Capability
- Continuously Variable Loudness Control
- CD DIRECT AMP switch: used to reproduce the purest CD sound
- PURE DIRECT switch: used to reproduce the purest source sound
- SUBSONIC FILTER switch; used to eliminate undesirable ultra-low-frequency signals (AX-592 and AX-892 only)
- PRE OUT/MAIN IN terminals; useful for connecting an equalizer, sound processor, etc. (AX-592 and AX-892 only)
- Remote control capability

### Supplied accessories

• After unpacking, check that the following accessories are included.



• Batteries (size AA, R6, UM-3)



### CAUTION: READ THIS BEFORE OPERATING YOUR UNIT.

- To assure the finest performance, please read this manual carefully and keep it in a safe place for future use.
- Install this unit in a cool, dry and dust-free area. Do not place it in direct sunlight or near sources of heat (e.g., a stove, etc.). Make sure that it is well ventilated and not exposed to rain or moisture and that it is on a flat, stable surface, free from vibration.
- Never open the cabinet. If something drops into the unit, contact your dealer.
- **4.** When moving the unit, first disconnect the AC power plug and the cables which are connected to other equipment. Never pull the cables or use excessive force on switches or controls.
- 5. The openings on the cabinet assure proper ventilation of the unit. If these openings are obstructed, the temperature inside the cabinet will rise rapidly, damaging the unit or causing a fire. Avoid blocking the ventilation openings and make sure that the unit is well ventilated. Allow at least 30 cm (12 in) of space above the unit and 20 cm (8 in) of space on the sides and rear.
- 6. Always set the VOLUME control to "∞" before playing the source. Increase the volume gradually to a desired level after the source has started playing.
- Use a clean, dry cloth to clean the unit. Do not use chemical solvents which might damage the finish.
- **8.** Be sure to read the "TROUBLESHOOTING" section before deciding that the unit is faulty.
- When not planning to use this unit for long periods of time (e.g., vacation, etc.), disconnect the AC power plug from the electrical outlet
- **10.** To prevent damage from lightning, disconnect the AC power plug and antenna cable when there is an electrical storm.
- Make sure that the unit is always properly grounded and polarized.
- 12. Do not connect audio equipment to the AC outlet on the rear panel if the equipment requires more power than the outlet is rated to provide.

### 13. Voltage Selector (General Model only)

The voltage selector on the rear panel of this unit must be set for your local main voltage *before* plugging into the electrical outlet.

Voltages are 110/120/220/240 V AC, 60/50 Hz.

### WARNING

To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture.

### **IMPORTANT**

The serial number is located on the rear panel.

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

Serial No.

Keep this Owner's Manual in a safe place for future use.

#### Note

The unit is not disconnected from the AC power source as long as it is connected to the electrical outlet, even if the unit itself is turned off.

### **CAUTION (FOR CANADA MODEL)**

TO PREVEN'T ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT AND FULLY INSERT.

### FOR CANADIAN CUSTOMERS

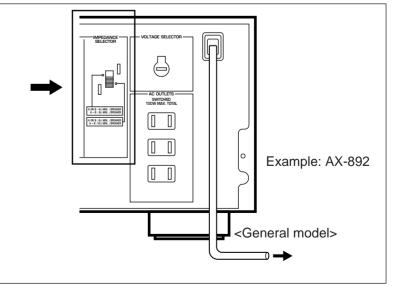
THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

### **WARNING**

Do not change the IMPEDANCE SELECTOR switch setting while the power to this unit is on, otherwise this unit may be damaged.

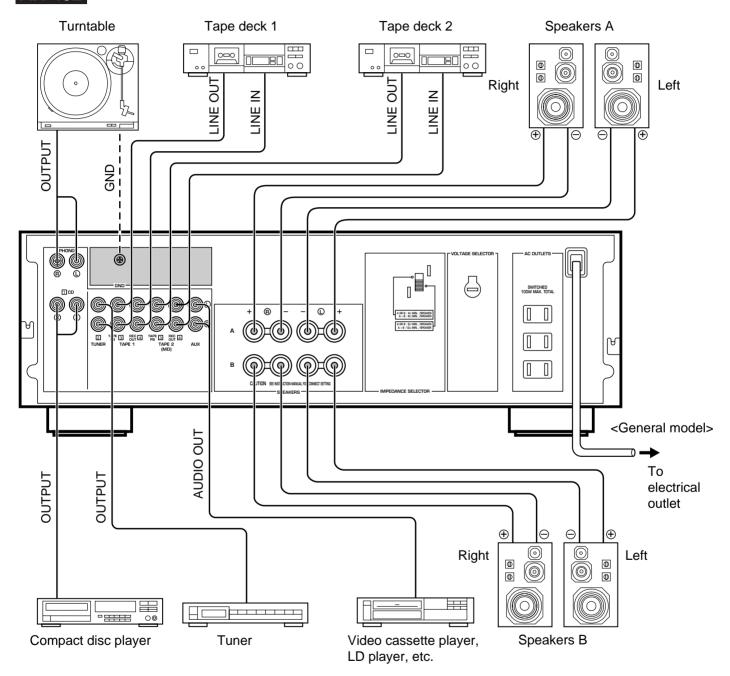
# IF THIS UNIT FAILS TO TURN ON WHEN THE POWER SWITCH IS PRESSED

The **IMPEDANCE SELECTOR** switch may not be set to either end closely. If so, set the switch to either end closely.

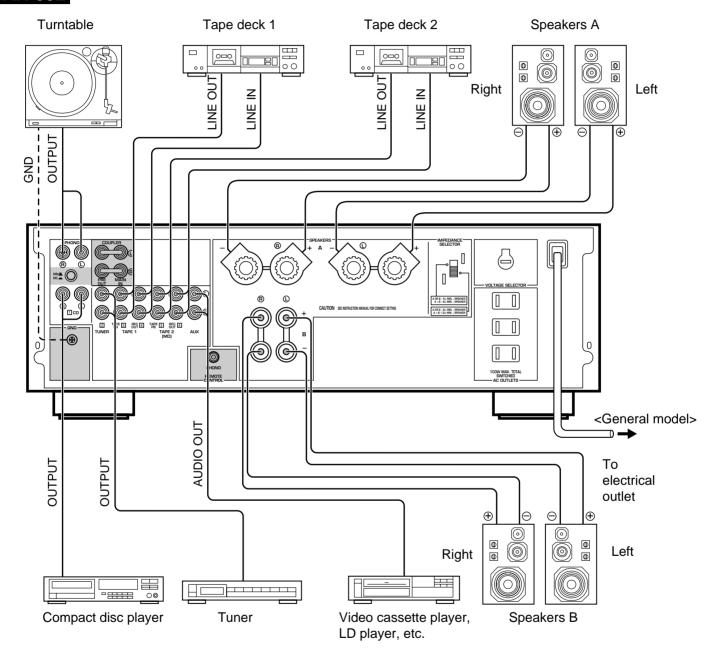


# **CONNECTIONS**

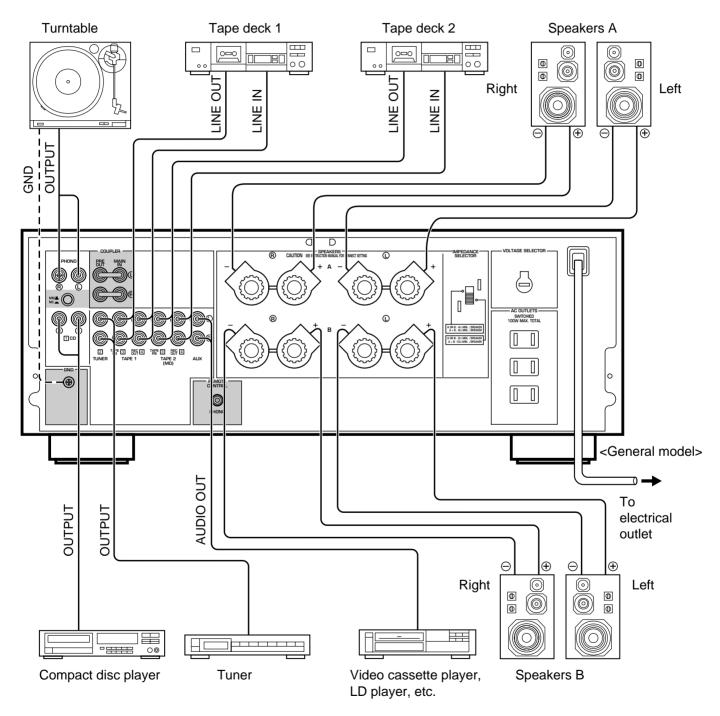
- Before making any connections to or from this unit, first switch it and any other connected components off.
- Properly connect this unit and other components, L (left) to L, R (right) to R, "+" to "+" and "-" to "-". Also, refer to the owner's manual of each component which is to be connected to this unit.
- If you have YAMAHA components numbered ①, ②, ③, etc. on the rear panel, connections can easily be made by connecting the output (input) terminals of each component to the same-numbered terminals on this unit.



<sup>\*</sup> For descriptions of the shaded areas, refer to page 10.



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### CONNECTING SPEAKERS

Connect the **SPEAKERS** terminals to your speakers with cable of the proper gauge, cut as short as possible. If the speakers are improperly connected, no sound will be heard. Connect each speaker making sure that the polarity (+ and –) is correct.

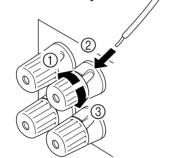
Red: positive (+)
Black: negative (-)

If the cables are reversed, the sound will be unnatural and will lack bass. Do not allow exposed wires to touch each other or metal parts; this could damage the unit and speakers.

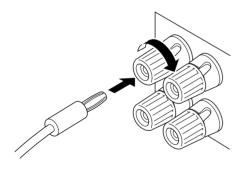
- One or two speaker systems can be connected to this unit.
   If you connect only one speaker system, connect it to either SPEAKERS A or B terminals.
- Use speakers with the specified impedance shown on the rear panel.

For AX-492's SPEAKERS A and B terminals and for AX-592's SPEAKERS B terminals only:

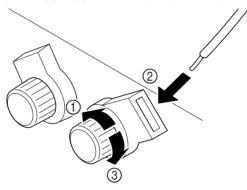
- 1 Unscrew the knob.
- ② Insert the exposed wire. [Remove approx. 5 mm (1/4 in) insulation from the speaker wires.]
- ③ Tighten the knob and secure the wire.

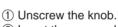


Banana plug connections are also possible. Simply insert the banana plug connector into the corresponding terminal. (except for UK and Europe models)



For AX-592's SPEAKERS A terminals only and for AX-892's SPEAKERS A and B terminals:





② Insert the exposed wire. [Remove approx. 5 mm (1/4 in) insulation from the speaker wires.]

3 Tighten the knob and secure the wire.

### **REAR PANEL PARTS**

### **AC OUTLETS (SWITCHED)**

Use these to connect the power cords from your components to this unit.

The power to the **SWITCHED** outlets is controlled by this unit's **POWER** switch or the remote control's **POWER** key. These outlets will supply power to the connected components whenever this unit is turned on.

The maximum power (total power consumption of components) that can be connected to the **AC OUTLETS (SWITCHED)** is 100 watts.

### **GND** terminal (for turntable use)

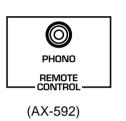
Connecting the ground wire of the turntable to this terminal will normally minimize hum, but in some cases better results may be obtained with the ground wire disconnected.

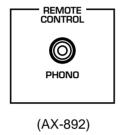


## **REMOTE CONTROL (PHONO) connector**

### AX-592 and AX-892 only

If you have a YAMAHA turntable with a terminal for remote control, connect it to this connector using the cable provided with the turntable. This connection allows you to control the turntable with the remote control.





### PHONO (MM/MC) switch

AX-592 and AX-892 only

Select either **MM** or **MC** depending on your phono cartridge. If you use a high-output MC cartridge, select **MM**. To select **MC**, press the switch so that it stays in. To select **MM**, press the switch again, so that it releases.

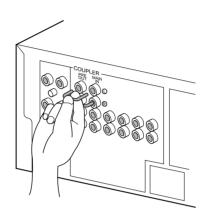


### PRE OUT/MAIN IN terminals AX-592 and AX-892 only

Removing the jumper pins enables this unit to independently perform the functions of a control amplifier and a power amplifier. These terminals are for connection of a signal-processing system such as a graphic equalizer or sound processor.

If a sound processor or other external unit is connected between these terminals, the **VOLUME** control of this unit can be used for overall adjustment of the sound level.

To connect such a unit, remove the jumper pins from the **PRE OUT/MAIN IN** terminals, connect the inputs of that unit to the **PRE OUT** terminals and its outputs to the **MAIN IN** terminals. For details, refer to the owner's manual included with the unit to be connected.



### Note

- If you will not use the PRE OUT/MAIN IN terminals, never remove the jumper pins. If removed, no sound will be output from this unit.
- If you will use this unit with an external unit connected between the PRE OUT and MAIN IN terminals, make sure that the CD DIRECT AMP and PURE DIRECT switches on the front panel are turned off.
- If you will use this unit as a power amplifier, connect the
  outputs of an external control amplifier, etc. to this unit's
  MAIN IN terminals. In this case, this unit's controls will not
  function, except the PHONES jack and the SPEAKERS
  switches, so use the controls on the external control
  amplifier to make volume adjustment, etc.

### **IMPEDANCE SELECTOR switch**

Make sure that the power to the unit is off, before you set the switch.

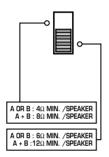
Select the appropriate setting for your speaker system.

### **Upper position**

- **4**  $\Omega$ : If you use either speaker system **A** or **B**, the impedance of each speaker must be 4  $\Omega$ , or higher.
- **8**  $\Omega$ : If you use both speaker systems **A** and **B** at the same time, the impedance of each speaker must be 8  $\Omega$ , or higher.

### Lower position

- **6**  $\Omega$ : If you use either speaker system **A** or **B**, the impedance of each speaker must be 6  $\Omega$ , or higher.
- 12  $\Omega$ :If you use both speaker systems **A** and **B** at the same time, the impedance of each speaker must be 12  $\Omega$ , or higher.



### **WARNING**

Do not change the IMPEDANCE SELECTOR switch setting while the power to this unit is on, otherwise this unit may be damaged.

# IF THIS UNIT FAILS TO TURN ON WHEN THE POWER SWITCH IS PRESSED

The **IMPEDANCE SELECTOR** switch may not be set to either end closely. If so, set the switch to either end closely.

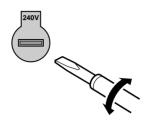
### **VOLTAGE SELECTOR switch (General model only)**

If the pre-set setting is incorrect, set the switch to the proper voltage for your area.

Consult your dealer if you are unsure of the correct setting.

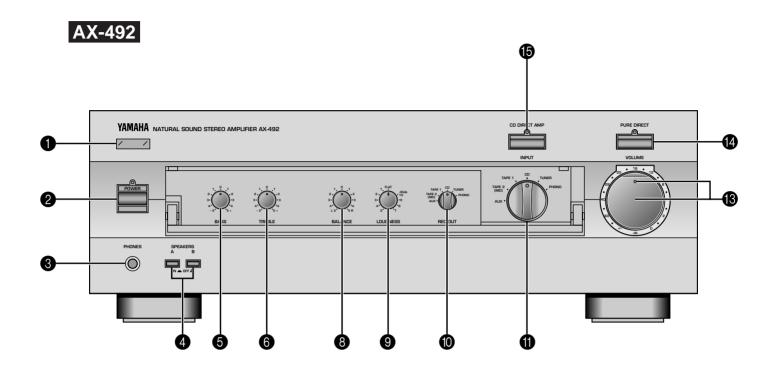
### WARNING

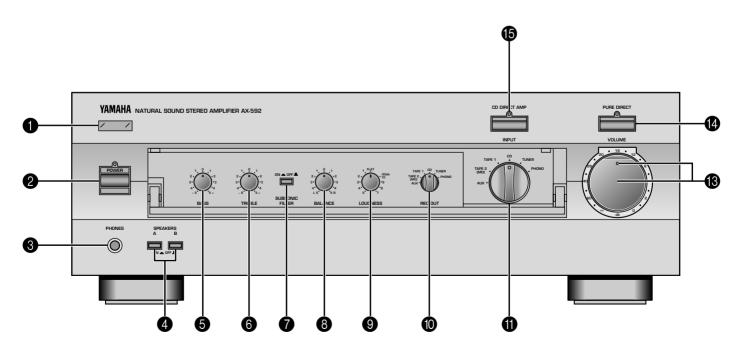
Be sure to unplug the unit before setting the **VOLTAGE SELECTOR** switch.



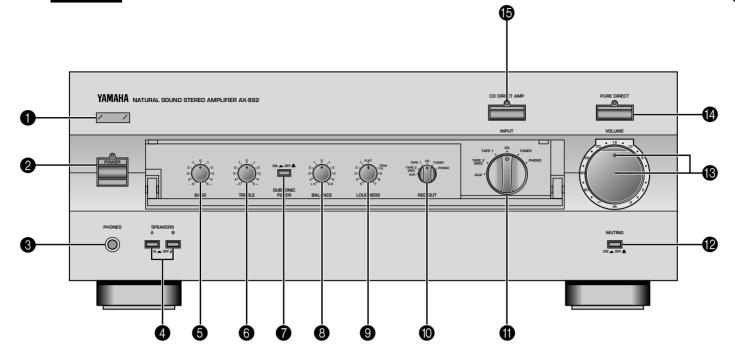
# **CONTROLS AND THEIR FUNCTIONS**

### **FRONT PANEL**





### AX-892



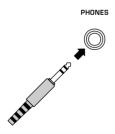
- Remote control sensor
  - Receives signals from the remote control.
- POWER switch

Press this switch to turn the power on and off. When the power is on, the indicator will be illuminated.

\*Standby mode <Except for U.S.A. and Canada models> While the power is on, pressing the **POWER** key on the remote control switches the unit to the standby mode. (In this mode, the power indicator on the unit is half-illuminated.)

3 PHONES jack

When you listen with headphones, connect the headphones to the **PHONES** jack and set both **SPEAKERS A** and **B** switches to **OFF**.



- 4 SPEAKERS switches
  - For the desired speaker system(s), set the switch(es) to **ON**. When using only one speaker system, set the other switch to **OFF**.
- **5** BASS control

Used to increase or decrease the low-frequency response. Selecting "0" produces a flat response.

**6** TREBLE control

Used to increase or decrease the high-frequency response. Selecting "0" produces a flat response.

7 SUBSONIC FILTER switch AX-592 and AX-892 only

Used to eliminate undesirable ultra-low-frequency signals caused by turntable rumble or warped records without losing sound quality.

**8** BALANCE control

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

- 9 Continuously variable LOUDNESS control Used to boost high and low-frequency ranges at low volume. (Refer to page 18.)
- **10** REC OUT selector

This switch can be used to select a source and send its signal directly to the **REC OUT** terminals on the rear panel, independently of the setting of the **INPUT** selector. This function allows you to record the selected source while listening to another source.

INPUT selector

Selects an input source to listen to.

12 MUTING switch AX-892 only

Press this switch to temporarily reduce the volume. Press again to cancel the MUTING function.

- (3) VOLUME control and indicator
  Used to raise or lower the volume level.

  AX-592 and AX-892 only
- PURE DIRECT switch

Press this switch (the indicator lights up) to listen to a source in the purest possible sound. (Refer to page 19.)

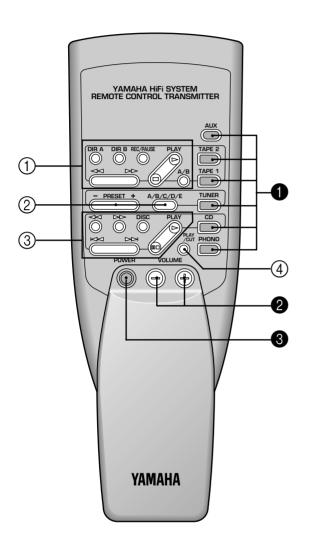
(5) CD DIRECT AMP switch

Press this switch (the indicator lights up) to listen in the purest possible sound from your CD. (Refer to page 19.)

# **REMOTE CONTROL**

The remote control provided with this unit is designed to control all the most commonly used functions of the unit. If the CD player, tuner, turntable and tape deck connected to this unit are YAMAHA components designed for remote control compatibility, then this remote control will also control the various functions of those components.

### **KEY FUNCTIONS**



\* The AX-492's remote control does not have a PLAY/CUT key.

### To control this unit

- Input selector keys
  Select an input source.
- 2 VOLUME +/- keys
  Adjust the volume level.
- **3** POWER key

Turns the power on and off.

<Except for U.S.A. and Canada models>
While the power is on, pressing the **POWER** key on the remote control switches the unit from the power-on mode to the standby mode and vice versa. (In this mode, the power indicator on the unit is half-illuminated.)

### To control other components

Identify the remote control keys with your component's keys. If the keys are identical, the functions will be the same. If the keys are different, refer to the component's manual for their functions.

1 Tape deck keys

Control the tape deck.

- DIR A, DIR B, and A/B are applicable only for a dual tape deck.
- For a single tape deck with an automatic reverse function, pressing DIR A will reverse the direction of the tape.
- 2 Tuner keys

Control the tuner.

- +: Selects a higher preset station number.
- -: Selects a lower preset station number.

A/B/C/D/E: Selects a group (A-E) of preset stations.

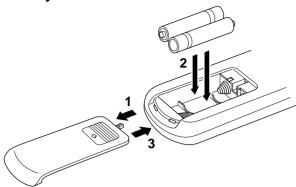
(3) CD player keys

Control the compact disc player.

- **DISC** is applicable only for a compact disc changer.
- 4 PLAY/CUT key AX-592 and AX-892 only

Press **PLAY/CUT** to lower the pick-up arm and press it again to raise the arm.

### **Battery installation**



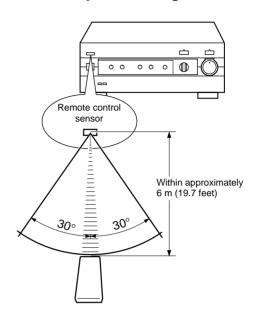
### **Battery replacement**

If you find that the remote control must be used closer to the unit, the batteries are weak. Replace both batteries with new ones.

### Note

- Use only AA, R6, UM-3 batteries for replacement.
- Be sure the polarities are correct. (See the illustration inside the battery compartment.)
- Remove the batteries if the remote control will not be used for an extended period of time.
- If batteries leak, dispose of them immediately. Avoid touching the leaked material or letting it come in contact with clothing, etc. Clean the battery compartment thoroughly before installing new batteries.

### Remote control operation range



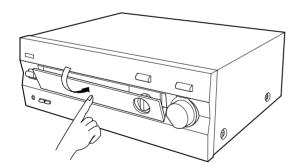
### Note

- There should be no large obstacles between the remote control and the unit.
- If the remote control sensor is directly illuminated by strong lighting (especially an inverter type of fluorescent lamp etc.), it might prevent the remote control from working. In this case, reposition the unit to avoid direct lighting.

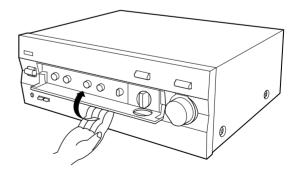
### Opening and closing the control door

When using the remote control or when it is not necessary to operate controls inside the control door, close it.

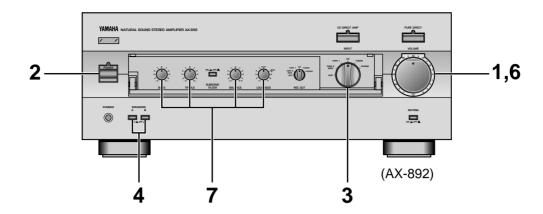
To open the door



To close the door

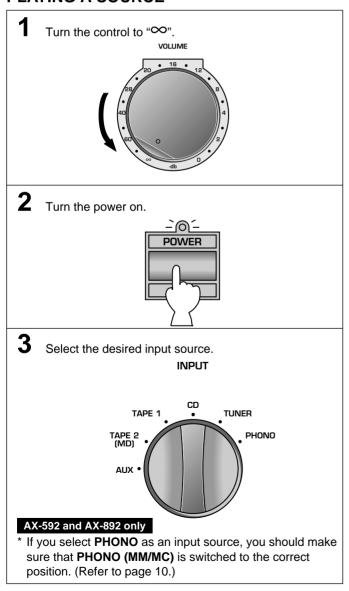


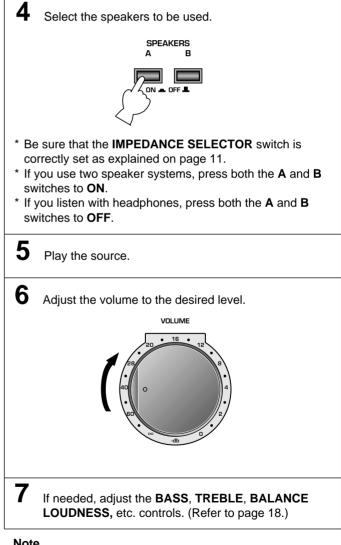
# **BASIC OPERATIONS**



- \* The AX-492 does not have a **SUBSONIC FILTER** and **MUTING** switch.
- \* The AX-592 does not have a **MUTING** switch.

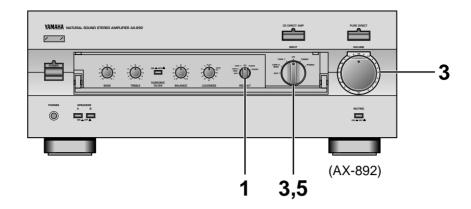
### **PLAYING A SOURCE**





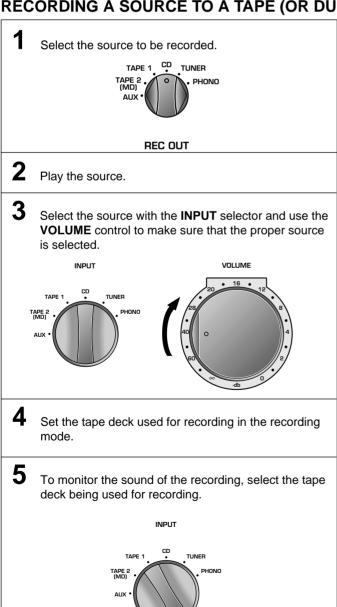
### Note

To turn off the power, press the **POWER** switch again.



- \* The AX-492 does not have a **SUBSONIC FILTER** and **MUTING** switch.
- \* The AX-592 does not have a **MUTING** switch.

### RECORDING A SOURCE TO A TAPE (OR DUBBING FROM TAPE TO TAPE)



### **REC OUT selector setting for dubbing tape to tape**

To tape from tape deck 1 to tape deck 2.	To tape from tape deck 2 to tape deck 1.
TAPE 1 CD TUNER TAPE 2 PHONO AUX	TAPE 1 CD TUNER TAPE 2 PHONO AUX
REC OUT	REC OUT

### Note

- If you want to listen to another source while recording, select it with the INPUT selector.
- VOLUME, BASS, TREBLE, BALANCE, and LOUDNESS controls and CD DIRECT AMP, PURE DIRECT, SUBSONIC FILTER (AX-592 and AX-892 only) and the MUTING switch (AX-892 only) have no effect on the material being recorded.

## **Adjusting the BALANCE control**

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



**BALANCE** 

### **Selecting the SPEAKER system**

One or two speaker systems can be connected to this unit, allowing you to select speaker system **A** or **B**, or both.

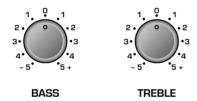


Be sure that the **INPEDANCE SELECTOR** switch is correctly set as explained on page 11.

# Adjusting the BASS and TREBLE controls

**BASS:** Turn this control clockwise to increase (or counterclockwise to decrease) the low-frequency response.

**TREBLE:** Turn this control clockwise to increase (or counterclockwise to decrease) the high-frequency response.



### Note

Selecting "0" produces a flat response.

# Adjusting the continuously variable LOUDNESS control

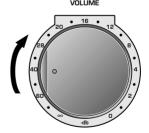
This control provides compensation for the human ears' loss of sensitivity to high and low-frequency ranges at low volume. This control is adjustable to retain full tonal range at any volume level.

1 Set the control to "FLAT".

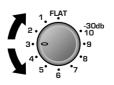


LOUDNESS

2 Set the volume to the highest desired listening level.



3 Turn until the desired volume is gained.



LOUDNESS

### Using the PURE DIRECT switch

You can enjoy the purest possible sound from your sources by setting this switch so that the indicator illuminates. The signals bypass the **BASS**, **TREBLE**, **BALANCE** and **LOUDNESS** controls, the **SUBSONIC FILTER** switch (AX-592 and AX-892 only), and the **PRE OUT/MAIN IN** terminals (AX-592 and AX-892 only), eliminating any alterations to the signals.



### **Setting the SUBSONIC FILTER switch**

AX-592 and AX-892 only

When this switch is set **ON**, undesirable ultra-low-frequency signals caused by turntable rumble or warped records can be eliminated without losing sound quality.



SUBSONIC FILTER

# **Using the CD DIRECT AMP switch**

For the best CD sound, set this switch so the indicator illuminates. The CD input signal is sent to a separate circuit, bypassing the INPUT selector, BASS, TREBLE, BALANCE and LOUDNESS controls, SUBSONIC FILTER switch (AX-592 and AX-892 only), and the PRE OUT/MAIN IN terminals (AX-592 and AX-892 only) and then goes directly to the amplifier. This signal routing ensures the purest CD sound, eliminating any alterations to the original CD signals.



### Note

If both the **CD DIRECT AMP** and **PURE DIRECT** switches are on, only the **CD DIRECT AMP** switch will function.

# **Using the MUTING switch**

AX-892 only

Selecting ON temporarily reduces the volume.

MUTING



### **WARNING**

When the **LOUDNESS** control has been set, if the **PURE DIRECT** switch or the **CD DIRECT AMP** switch is pressed, the sound will suddenly increase and may damage your ears or the speaker (the **LOUDNESS** control function may be bypassed). Therefore, only press the **PURE DIRECT** switch or the **CD DIRECT AMP** switch after lowering the volume or after checking that the **LOUDNESS** control is properly set.

# **TROUBLESHOOTING**

If the unit fails to operate normally, check the following points to determine whether the fault can be corrected by the simple measures suggested. If it cannot be corrected, or if the fault is not listed in the SYMPTOM column, disconnect the AC power plug and contact your authorized YAMAHA dealer or service center for help.

SYMPTOM	CAUSE	REMEDY
The unit fails to turn on when the POWER switch is pressed, or turns off suddenly	The AC power plug is not plugged in or is not completely inserted.	Firmly plug in the AC power plug.
soon after the power is turned on.	The <b>IMPEDANCE SELECTOR</b> switch on the rear panel is not set to the upper or the lower end exactly.	Set the switch to the upper or the lower end exactly.
No sound.	Incorrect output cable connections.	Connect the cables properly. If the problem persists, the cables may be defective.
	The appropriate input source is not selected.	Select an appropriate input source with the <b>INPUT</b> selector.
	The <b>SPEAKERS</b> switches are not set properly.	Set the <b>SPEAKERS</b> switch, which corresponds to the speakers to be used, to <b>ON</b> .
	Speaker connections are not secure.	Secure the connections.
	The jumpor pins <b>(PRE OUT/MAIN IN)</b> are not connected properly. (AX-592 and AX-892 only)	Connect the jumper pins properly. (AX-592 and AX-892 only)
Sound level is too low.	The <b>MUTING</b> switch is pushed in. (Muting is on) (AX-892 only)	Push the <b>MUTING</b> switch again. (Muting is off) (AX-892 only)
The sound suddenly goes off.	The protection circuit has been activated because of a short circuit, etc.	Turning the unit off and then on will reset the protection circuit.
Only one speaker outputs sound.	Incorrect setting of the BALANCE control.	Adjust it to the appropriate position.
	Incorrect cable connections.	Connect the cables properly. If the problem persists, the cables may be defective.
There is a lack of bass and no ambience.	The cable polarity is reversed at the amplifier or speakers.	Connect the speaker cables correctly.
The sound "hums".	Incorrect cable connections.	Firmly connect the cables. If the problem persists, the cables may be defective.
	No connection from the turntable to the <b>GND</b> terminal.	Make the <b>GND</b> connection between the turntable and this unit.
Sound level is low or sound is distorted while playing a record on the turntable.	The <b>LOUDNESS</b> control is functioning.	Set the <b>LOUDNESS</b> control to the <b>FLAT</b> position.
	The <b>PHONO (MM/MC</b> ) switch is set to the improper position (AX-592 and AX-892 only).	Set the <b>PHONO (MM/MC</b> ) switch to the proper position (AX-592 and AX-892 only).
The volume level cannot be increased, or sound is distorted.	The power to the component connected to the REC OUT terminals of this unit is off.	Turn the power to the component on.
Using the BASS, TREBLE, BALANCE, and LOUDNESS controls and SUBSONIC FILTER switch (AX-592 and AX-892 only) does not affect the tone.	The CD DIRECT AMP or PURE DIRECT switch is on.	The <b>CD DIRECT AMP</b> and <b>PURE DIRECT</b> switches must be switched off to use those controls.
The input source can not be changed, though the INPUT selector is turned.	The CD DIRECT AMP switch is on.	Switch off the CD DIRECT AMP switch.
The remote control does not work.	Direct sunlight or lighting (of an inverter type of fluorescent lamp etc.) is striking the remote control sensor of the unit.	Change the position of the unit.
The distance or range within which the remote control can be used decreases.	The batteries of the remote control are too weak.	Replace the batteries with new ones.
The sound is degraded when listening with the headphones connected to the compact disc player or cassette deck that are connected with this unit.	The power to this unit is off.	Turn the power to this unit on.

# **SPECIFICATIONS (AX-492)**

AUDIO SECTION  Minimum RMS Output Power per Channel 8 ohms, 20 Hz to 20 kHz, 0.019% THD
85W+85W 6 ohms, 20 Hz to 20 kHz, 0.038% THD 100W+100W
Dynamic Power per Channel (by IHF Dynamic Headroom measuring method) 8/6/4/2 ohms130/150/185/220W
DIN Standard Output Power per Channel [Europe model only] (4 ohms, 1 kHz, 0.7% THD)120W
IEC Power [Europe model only] (8 ohms, 1 kHz, 0.019% THD)100W
Power Band Width 8 ohms, 42.5W, 0.038% THD 10 Hz to 50 kHz
Damping Factor SP-A 8 ohms, 20 Hz–20 kHz240 or more
Maximum Output Power (EIAJ) [General model only] 8 ohms, 1 kHz, 10% THD130W 6 ohms, 1 kHz, 10% THD150W
Input Sensitivity/Impedance PHONO2.5 mV/47 k-ohms CD/TUNER/TAPE/AUX150 mV/47 k-ohms
Maximum Input Signal (1 kHz, 0.003% THD) PHONO115 mV

Output Level/Impedance REC OUT150 mV/0.6 k-ohms	To
Headphone Jack Rated Output/ Impedance Output Level (8 ohms, 0.019% THD)0.3V Impedance	Co
Frequency Response (20 Hz to 20 kHz) CD/TUNER/TAPE/AUX0±0.5 dB	G
RIAA Equalization Deviation PHONO0±0.3 dB	G
Total Harmonic Distortion (20 Hz to 20 kHz) PHONO to REC OUT (3V)0.003% CD/TUNER/TAPE/AUX to SP OUT (42.5W/8 ohms)0.008%	Po [
Signal-to-Noise Ratio (IHF-A Network) PHONO (5 mV Input Shorted)	Po A(
$\label{eq:residual} \begin{aligned} & \text{Residual Noise (IHF-A Network)} \\ & \text{CD (CD DIRECT AMP ON)} &35 \; \mu\text{V} \\ & \text{PURE DIRECT ON} &90 \; \mu\text{V} \end{aligned}$	[
Channel Separation CD/TUNER/TAPE/AUX (Input 5.1 k-ohms Terminated 1 kHz/10 kHz)65 dB/50 dB	Di
	W
	Ad

Tone Control Characteristics BASS: Boost/cut±10 dB (20 Hz) Turnover Frequency(350 Hz) TREBLE: Boost/cut±10 dB (20 kHz) Turnover Frequency(3.5 kHz)
Continuous Loudness Control Attenuation30 dB (1 kHz) (Level related equalization)
Gain Tracking Error (0 to -60 dB)2 dB
GENERAL Power Supply [Europe and U.K. models]AC 230V, 50 Hz [General model]AC 110/120/220/240V, 60/50 Hz
Power Consumption210W
AC Outlets [Europe and General models] 3 SWITCHED OUTLETS100W max. total [U.K. model] 1 SWITCHED OUTLET100W max. total
Dimensions (W x H x D) 435 x 151 x 391 mm (17-1/8" x 6.0" x 15-3/8")
Weight
AccessoriesRemote control transmitter Batteries

Specifications subject to change without notice.

# **SPECIFICATIONS (AX-592)**

AUDIO SECTION  Minimum RMS Output Power per Channel 8 ohms, 20 Hz to 20 kHz, 0.015% THD100W+100W	Output Level/Impedance REC OUT150 mV/0.6 k-ohms PRE OUT1 V/1.2 k-ohms	Tone Control Characteristics  BASS: Boost/cut±10 dB (20 Hz)  Turnover Frequency(350 Hz)  TREBLE: Boost/cut±10 dB (20 kHz)
6 ohms, 20 Hz to 20 kHz, 0.03% THD120W+120W	Headphone Jack Rated Output/ Impedance Output Level (8 ohms, 0.015% THD)	Turnover Frequency(3.5 kHz)
Dynamic Power per Channel (by IHF Dynamic Headroom measuring	Impedance	Filter Characterristics SUBSONIC FILTER15 Hz, –18 dB/oct
method) 8/6/4/2 ohms140/170/220/290W	Frequency Response (20 Hz to 20 kHz) CD/TUNER/TAPE/AUX0±0.5 dB MAIN IN0±0.5 dB	Continuous Loudness Control Attenuation30 dB (1 kHz) (Level related equalization)
DIN Standard Output Power per Channel [Europe model only] (4 ohms, 1 kHz, 0.7% THD)155W	RIAA Equalization Deviation PHONO MM0±0.3 dB	Gain Tracking Error (0 to -60 dB)2 dB
IEC Power [Europe model only] (8 ohms, 1 kHz, 0.015% THD)110W  Power Band Width	PHONO MC	GENERAL Power Supply [U.S.A. and Canada models]AC 120 V, 60 Hz
8 ohms, 50W, 0.03% THD10 Hz to 50 kHz	CD/TUNER/TAPE/AUX to PRE OUT (1 V)	[Australia model]AC 240 V, 50 Hz [Europe and U.K. models]AC 230 V, 50 Hz [General model]
Damping Factor SP-A 8 ohms, 20 Hz-20 kHz320 or more	(50W/8 ohms)	AC 110/120/220/240V, 60/50 Hz
Maximum Output Power (EIAJ) [General model only] 8 ohms, 1 kHz, 10% THD145W 6 ohms, 1 kHz, 10% THD170W	Signal-to-Noise Ratio (IHF-A Network) PHONO MM (5 mV Input Shorted) 92 dB PHONO MC (500 µV Input Shorted) 76 dB CD (CD DIRECT AMP ON Shorted) 110 dB Residual Noise (IHF-A Network)	Power Consumption
Input Sensitivity/Impedance PHONO MM2.5 mV/47 k-ohms PHONO MC160 μV/250 ohms	CD (CD DIRECT AMP ON)35 μV PURE DIRECT ON90 μV	[Australia and U.K. models] 1 SWITCHED OUTLET100W max. total
CD/TUNER/TAPE/AUX150 mV/47 k-ohms MAIN IN1 V/30 k-ohms	Channel Separation CD/TUNER/TAPE/AUX (Input 5.1 k-ohms Terminated 1 kHz/10 kHz)65 dB/50 dB	Dimensions (W x H x D) 435 x 151 x 396 mm (17-1/8" x 6.0" x 15-1/2")
Maximum Input Signal (1 kHz, 0.007% THD) PHONO MM150 mV PHONO MC10 mV		Weight10.6 kg (23 lbs. 4 oz.)
		AccessoriesRemote control transmitter Batteries

Specifications subject to change without notice.

# **SPECIFICATIONS (AX-892)**

AUDIO SECTION  Minimum RMS Output Power per Channel 8 ohms, 20 Hz to 20 kHz, 0.015% THD115W+115W	Output Level/Impedance REC OUT150 mV/0.6 k-ohms PRE OUT1 V/1.2 k-ohms	Tone Control Characteristics BASS: Boost/cut Turnover Frequenc TREBLE: Boost/cut
6 ohms, 20 Hz to 20 kHz, 0.03% THD140W+140W	Headphone Jack Rated Output/ Impedance Output Level (8 ohms, 0.015% THD)	Turnover Freque
	0.35V	Filter Characterristics
Dynamic Power per Channel	Impedance680 ohms	SUBSONIC FILTER15
(by IHF Dynamic Headroom measuring		
method)	Frequency Response (20 Hz to 20 kHz)	Continuous Loudness Control
8/6/4/2 ohms150/200/250/330W	CD/TUNER/TAPE/AUX0±0.5 dB MAIN IN0±0.5 dB	Attenuation(Level relate
DIN Standard Output Power per Channel	WAIN IN0±0.5 db	(Level relati
[Europe model only]	RIAA Equalization Deviation	AUDIO MUTING
(4 ohms, 1 kHz, 0.7% THD)190W	PHONO MM0±0.3 dB	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
( = =, , , = == ,	PHONO MC0±0.5 dB	Gain Tracking Error (0 to -60 of
IEC Power [Europe model only]		ů (
(8 ohms, 1 kHz, 0.015% THD)125W	Total Harmonic Distortion (20 Hz to 20 kHz)	
	PHONO MM to REC OUT (3V)0.003%	GENERAL
Power Band Width	PHONO MC to REC OUT (3V)0.007%	Power Supply
8 ohms, 57.5W, 0.03% THD	CD/TUNER/TAPE/AUX to PRE OUT (1 V)	[Europe model]
10 Hz to 50 kHz	0.005%	[General model]
	CD/TUNER/TAPE/AUX to SP OUT	AC 110/120/220/
Damping Factor SP-A	(57.5W/8 ohms)0.008%	
8 ohms, 20 Hz–20 kHz320 or more		Power Consumption
	Signal-to-Noise Ratio (IHF-A Network)	
Maximum Output Power (EIAJ)	PHONO MM (5 mV Input Shorted) 92 dB	AC Outlets
[General model only]	PHONO MC (500 µV Input Shorted) 76 dB	3 SWITCHED OUTLETS
8 ohms, 1 kHz, 10% THD160W 6 ohms, 1 kHz, 10% THD190W	CD (CD DIRECT AMP ON Shorted) 110 dB	Dimensions (W x H x D)
0 0111118, 1 K112, 10 /6 1111D190W	Residual Noise (IHF-A Network)	435
Input Sensitivity/Impedance	CD (CD DIRECT AMP ON) 35 μV	(17-1/8" x (
PHONO MM2.5 mV/47 k-ohms	PURE DIRECT ON90 μV	(17-1/6 X
PHONO MC160 µV/250 ohms	τ ότις βιτέστ ότι	Weight13 kg
CD/TUNER/TAPE/AUX150 mV/47 k-ohms	Channel Separation	g
MAIN IN1 V/30 k-ohms	CD/TUNER/TAPE/AUX (Input 5.1 k-ohms	AccessoriesRemote co
	Terminated 1 kHz/10 kHz)65 dB/50 dB	
Maximum Input Signal (1 kHz, 0.007% THD)		
PHONO MM150 mV		
PHONO MC10 mV		Specifications subject to change
		notice.

.....±10 dB (20 Hz) quency.....(350 Hz) .....±10 dB (20 kHz) equency....(3.5 kHz) .....15 Hz, -18 dB/oct ntrol .....-30 dB (1 kHz) related equalization) ..... 20dB -60 dB) .....2 dB .....AC 230V, 50 Hz )/220/240V, 60/50 Hz .....270W S ....100W max. total .435 x 171 x 396 mm /8" x 6-3/4" x 15-1/2") 13 kg (28 lbs. 10 oz.) ote control transmitter **Batteries** 

change without notice.

# **CARACTERISTIQUES TECHNIQUES (AX-892)**

SECTION AUDIO Puissance de sortie minimum RMS par canal 8 ohms, 20 Hz à 20 kHz, 0,015% de DHT115 W+115 W
6 ohms, 20 Hz à 20 kHz, 0,03% de DHT 140 W+140 W
Puissance dynamique par canal (Mesurée par la méthode IHF Dynamic Headroom) 8/6/4/2 ohms150/200/250/330 W
Puissance de sortie standard DIN par canal [Modèle pour l'Europe seulement] (4 ohms, 1 kHz, 0,7% de DHT)190 W
Puissance IEC [Modèle pour l'Europe seulement] (8 ohms, 1 kHz, 0,015% de DHT)125 W
Largeur de bande de puissance 8 ohms, 57,5W, 0,03% de DHT 10 Hz à 50 kHz
Facteur d'amortissement SP-A 8 ohms, 20 Hz à 20 kHz320 ou plus
Puissance de sortie maximum (EIAJ) [Modèle général seulement] 8 ohms, 1 kHz, 10% de DHT160 W 6 ohms, 1 kHz, 10% de DHT190 W
Sensibilité d'entrée/impédance         PHONO MM
Signal d'entrée maximum (1 kHz, 0,007% de DHT) PHONO MM

Niveau de sortie/impédance REC OUT150 mV/0,6 k-ohms PRE OUT1 V/1,2 k-ohms	
Sortie nominale de prise de casque/impédance Niveau de sortie (8 ohms, 0,015% de DHT)0,35V	
Impédance680 ohms	
Réponse en fréquence (20 Hz à 20 kHz)  CD/TUNER/TAPE/AUX0±0,5 dB  MAIN IN0±0,5 dB	
Déviation d'égalisation RIAA PHONO MM0±0,3 dB PHONO MC0±0,5 dB	
Distorsion harmonique totale (20 Hz à 20 kHz) PHONO MM à REC OUT (3V)0,003% PHONO MC à REC OUT (3V)0,007% CD/TUNER/TAPE/AUX à PRE OUT (1V)	
Rapport signal/bruit (IHF réseau A) PHONO MM (5 mV entrée court-circuitée)	
92 dB PHONO MC (500 μV entrée court- circuitée)	
Bruit résiduel (IHF réseau A) CD (CD DIRECT AMP ON)35 μV PURE DIRECT ON90 μV	
Séparation des canaux CD/TUNER/TAPE/AUX (entrée terminée 5,1 k-ohms 1 kHz/10 kHz)65 dB/50 dB	

DACC.	Augmentation/agunura
BASS:	Augmentation/coupure±10 dB (20 Hz)
	Fréquence de renversement
TDEDLE.	350 Hz
TREBLE:	Augmentation/coupure±10 dB (20 kHz)
	Fréquence de renversement
	3,5 kHz
Filtre	
SUBSON	IC FILTER15 Hz, -18 dB/oct
Contrôle de	e contour continu
Atténuation	on30 dB (1 kHz)
	(Egalisation reliée au niveau)
	TING–20 dB
Erreur du c	ontrôle de gain (0 à -60 dB)2 dB
CARACTE	RISTIQUES GENERALES
A lima antatio	
Alimentatio	n
[Modèle p	n our l'Europe]CA 230V, 50 Hz générall
[Modèle p	n oour l'Europe]CA 230V, 50 Hz
[Modèle p [Modèle g	n our l'Europe]CA 230V, 50 Hz générall
[Modèle p [Modèle g  Consomma	n our l'Europe]CA 230V, 50Hz général] CA 110/120/220/240V, 60/50Hz
[Modèle p [Modèle g  Consomma Prises CA	n our l'Europe]CA 230V, 50Hz général] CA 110/120/220/240V, 60/50Hz
[Modèle p [Modèle g  Consomma Prises CA 3 PRISE	n our l'Europe]CA 230V, 50 Hz jénéral] CA 110/120/220/240V, 60/50 Hz ation270 W
[Modèle p [Modèle c 	n cour l'Europe]CA 230V, 50 Hz sénéral]CA 110/120/220/240V, 60/50 Hz ation270 W  ES COMMUTEES100 W max. au total
[Modèle p [Modèle c 	n cour l'Europe]CA 230V, 50 Hz jénéral] CA 110/120/220/240V, 60/50 Hz ation270 W ES COMMUTEES 100 W max. au total
[Modèle p [Modèle c 	n cour l'Europe]CA 230V, 50 Hz sénéral]CA 110/120/220/240V, 60/50 Hz ation270 W  ES COMMUTEES100 W max. au total
[Modèle p [Modèle c [Modèle c 	n cour l'Europe]CA 230V, 50 Hz jénéral]CA 110/120/220/240V, 60/50 Hz ation270 W ES COMMUTEES100 W max. au total s (L x H x P)435 x 171 x 396 mm13 kg
[Modèle p [Modèle c [Modèle c 	n cour l'Europe]CA 230V, 50 Hz général]CA 110/120/220/240V, 60/50 Hz ation270 W ES COMMUTEES100 W max. au total is (L x H x P)435 x 171 x 396 mm

Caractéristiques techniques modifiables sans

préavis.

