

# YAMAHA AX-530

*Natural Sound Stereo Integrated Amplifier*

*Préampli/ampli de puissance stéréo de la série "Natural Sound"*

*Natural Sound Vollverstärker*

*Natural Integrerad Stereo Förstärkare*

*Amplificatore Integrato Stereo a Suono Naturale*

*Amplificador integrado estéreo de sonido natural*

**OWNER'S MANUAL  
MANUEL D'UTILISATION  
BEDIENUNGSANLEITUNG  
BRUKSANVISNING  
MANUALE DELL'UTENTE  
MANUAL DE INSTRUCCIONES**

# ENGLISH

Thank you for purchasing the YAMAHA Integrated Amplifier. In order to ensure proper operation for the best possible performance, please read this manual thoroughly before connecting up your new amplifier and turning it on.

## IMPORTANT!

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

Serial No:

## PRECAUTIONS

### OWNER'S MANUAL

Keep this manual in a safe place for future reference.

### LOCATION

Avoid placing your unit in direct sunlight or close to a source of heat. Also avoid locations in which the device is likely to be subjected to excessive dust, cold or moisture.

### VENTILATION

The openings on the cabinet ensure the ventilation of the amplifier. If these openings are obstructed, the temperature inside the cabinet will rise rapidly and eventually damage the circuits. Therefore, avoid placing objects against these openings and do not install your amplifier in a place such that the flow of air through the ventilation openings could be impeded.

### HANDLING

#### ● Power cord

When removing the power plug from the wall outlet, always pull directly on the plug. Never yank the cord as this may result in damage to the cord and possibly a short-circuit.

If you do not intend to use this unit for an extended period of time, it is advisable to unplug the power cord.

#### ● Switches and knobs

Avoid applying excessive force to the switches and knobs.

#### ● Relocation

Before moving your amplifier, be sure to unplug the power cord and remove all other connecting cables.

### IN CASE OF TROUBLE

#### ● Troubleshooting Chart

Consult the Troubleshooting Chart for advice on the common operation errors before concluding that your amplifier is faulty.

#### ● Servicing

Do not open the cabinet or attempt to make repairs by yourself, as this may aggravate the damage and expose you to an electrical shock.

#### ● Object and liquid entry

See to it that foreign objects or spilled liquids do not enter inside the cabinet. Should this case arise, consult your YAMAHA dealer.

### CLEANING

Wipe off dust with a dry soft cloth. To remove dirt or fingermarks, use a soft damp cloth then dry immediately with a clean cloth. Do not use alcohol, thinners or other chemical solvents since they may damage the finish or remove the panel lettering.

Do not use any aerosol sprays near this unit as these products can easily get into the unit and damage the circuitry.

## SPECIAL INSTRUCTIONS FOR THE BRITISH MODEL

THE WIRES IN THE MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

Blue: NEUTRAL

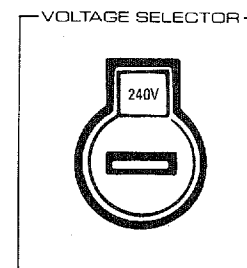
Brown: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

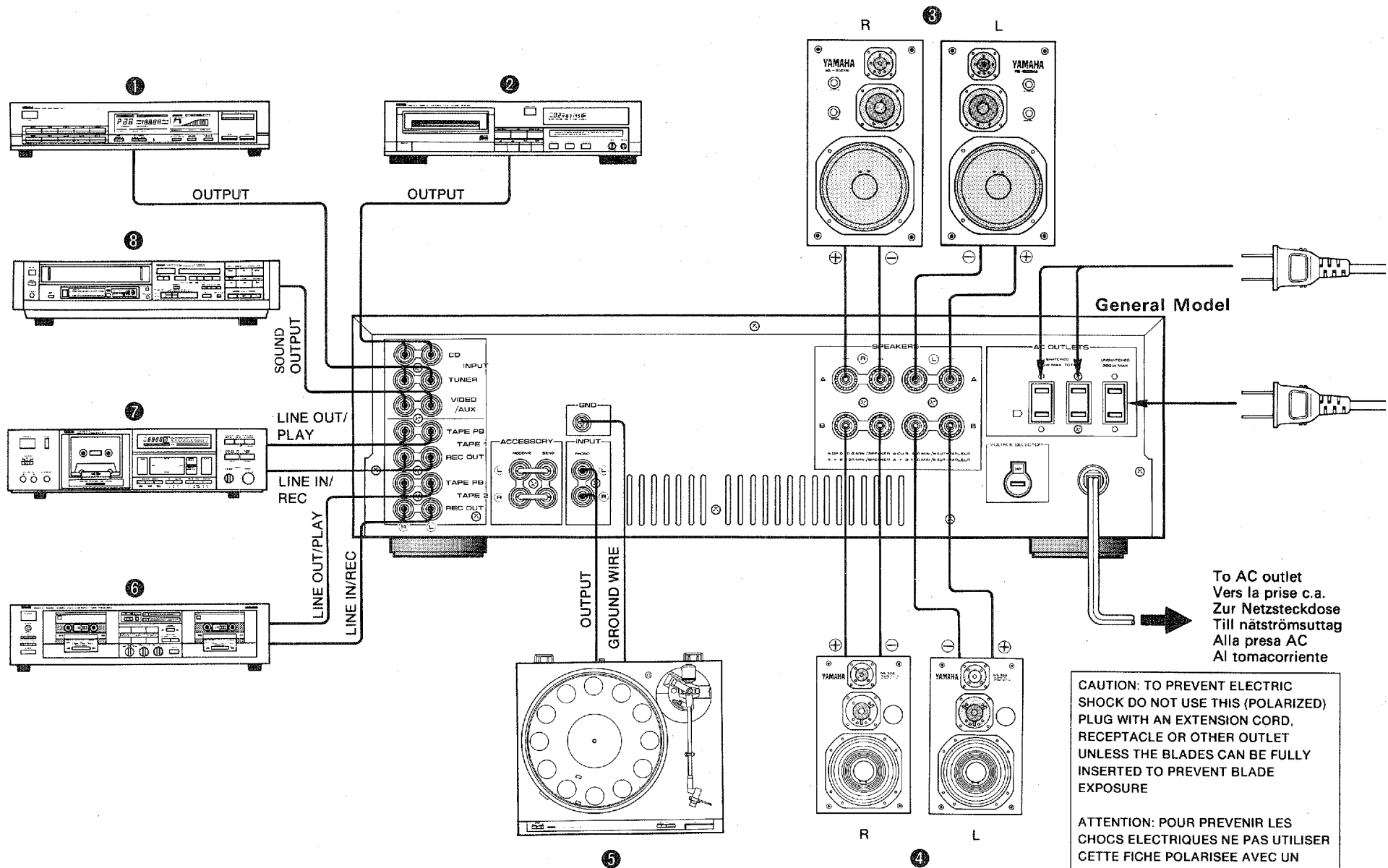
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

### VOLTAGE SELECTOR (General Model)

The voltage selector switch on the rear panel of this unit must be set for your local voltage BEFORE plugging in the AC mains supply. Voltages are 110/120/220/240 V AC, 50/60 Hz.



# CONNECTION DIAGRAM



To AC outlet  
Vers la prise c.a.  
Zur Netzsteckdose  
Till nätströmsuttag  
Alla presa AC  
Al tomacorriente

**CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE**

**ATTENTION: POUR PREVENIR LES CHOCES ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT**

## CONNECTIONS

The connection diagram is provided on page 3.

- ① Tuner
- ② Compact disc player
- ③ Speaker A
- ④ Speaker B
- ⑤ Turntable
- ⑥ Tape deck 2
- ⑦ Tape deck 1
- ⑧ Video player

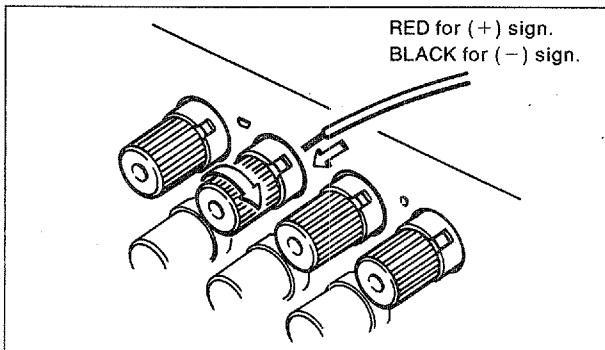
*Before making any connections turn off all equipment.*

*Be sure to connect the left (L) and right (R) channels consistently between components.*

### ● CONNECTING THE SPEAKERS

Connect the cords for the left speakers to the L terminals and the right speaker cords to the R terminals, ensuring that the polarity (+ and -) markings are observed. Be sure to do this consistently from component to component. If the polarity is reversed at either speaker, the sound will be unnatural and lack bass. Speaker cords should be cut as short as possible. Avoid coiling the wire on the floor or bundling it up with cords from other system components.

- ★ Strip about 1cm (0,39in) of insulating material from the ends of the speaker wires and twist the strands of each end. Loosen the speaker terminal knobs, insert the exposed wire into the hole and then tighten the speaker terminal knobs.



### ● CONNECTING A TURNTABLE

Connect the output cords of the turntable to the Phono jacks and connect the ground wire to the GND terminal. Normally, connecting the ground wire produces minimum hum but in some cases better results are obtained with the ground wire disconnected. The turntable component and its output cords should be positioned well away from sources of hum such as power cords or power transformers of other system components.

### ● CONNECTING A TUNER

Connect the cords from the tuner's output jacks to the TUNER jacks of the amplifier. Position the tuner so that its AM antenna is well away from the amplifier for the best possible reception.

### ● CONNECTING TO THE CD AND VIDEO/AUX JACKS

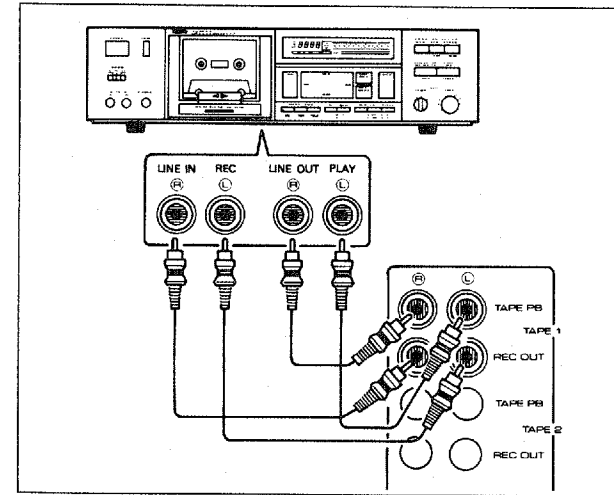
Connect your CD component to the CD terminals and video sound output leads to the VIDEO/AUX terminals. Please note that a turntable cannot be connected to these jacks as they do not provide the necessary RIAA equalization.

### ● CONNECTING TAPE DECKS

TAPE DECK 1.

Connect the cords from the tape deck's Line In jacks to the REC OUT jacks of TAPE 1, ensuring that left and right are not reversed. Then connect the cords from the tape deck's Line Out jacks to the Tape 1 PB jacks.

TAPE DECK 2 can be connected in similar fashion to the Tape 2 terminals.



### ● AC OUTLETS (General models)

For added convenience this unit provides 3 AC outlets. Two "switched" outlets (the power to these receptacles is turned on and off by this unit's power switch) and one "unswitched" outlet (the power to this receptacle is independent of this unit's power switch). Be sure not to connect appliances totaling more than 200 watts to the unswitched outlet or more than 150 watts to the two switched outlets.

### ● ACCESSORY

The Accessory option allows you to connect a signal processing system, such as an equalizer, in the signal path prior to the Tone control. Connect the Accessory send jacks to the inputs of the equalizer and the Accessory Receive jacks to the outputs of the equalizer.

## FRONT PANEL DESCRIPTIONS

The Front Panel illustration is provided on page 40.

### ① POWER SWITCH (POWER)

Press once to turn the power ON and once again to turn the power OFF. Before turning the power ON set the volume to its lowest position (extreme counterclockwise), to protect the speakers from any sudden high level sound.

### ② POWER ON INDICATOR

Illuminated when the power is ON.

### ③ SPEAKERS SWITCHES (SPEAKERS)

As one or two speaker systems can be connected to this unit, these switches allow you to select speaker system A, B or both at once. When listening to the headphones only, press both the A and B switches to the OFF position.

### ④ TONE BYPASS CONTROL SWITCH (TONE BYPASS)

Depress this switch to channel the input signal directly to the output stage of your amplifier, bypassing the Bass, and Treble controls therefore avoiding any "muddying" caused by the switch and circuit routing to provide a pure sound.

### ⑤ INPUT SELECTOR PANEL

Selects the program source you wish to listen to. The indicator LED above the selected source will light up.

### ⑥ CD DIRECT SWITCH (CD DIRECT)

This switch allows you to route the CD input signal directly to the output stage bypassing the Input Selectors, the Mode, Loudness, and Balance controls therefore avoiding any "muddying" caused by the switch and circuit routing to provide a pure sound.

### ⑦ VOLUME CONTROL KNOB (VOLUME)

This controls the sound level. Turning clockwise increases the sound volume and turning counterclockwise decreases it. Set this knob to the minimum level before turning the power ON or using the Input Selector Panel to select a different sound source, therefore, protecting the speakers from any sudden high level sound.

### ⑧ REC OUT SELECTOR (REC OUT)

This switch will select a program source and feed that source directly to the rear panel REC OUT terminals independent of the INPUT SELECTORS. This function therefore allows you to listen to any input source while recording another. This control also permits you to record directly from Tape 1 to Tape 2 or vice versa.

### ⑨ PHONO SELECTOR SWITCH (PHONO)

Selects either MM (moving magnet) or MC (moving coil) position to match your cartridge. High performance MC cartridges can be used when in the MM position.

### ⑩ MODE SWITCH (MODE)

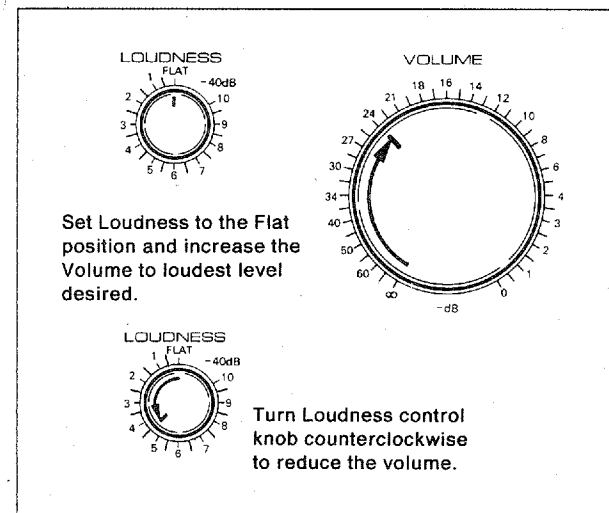
Permits switching between stereo and mono operation. Normally this switch should be set to the stereo position.

### ⑪ SUBSONIC FILTER CONTROL SWITCH (SUBSONIC)

This switch cuts out ultra low frequency signals caused by turntable rumble or warped records, yet retains sound quality.

### ⑫ LOUDNESS CONTROL KNOB (LOUDNESS)

This control provides compensation for the human ears loss of sensitivity to high and low frequency ranges at low volumes. As the amount of compensation required is determined by the listening level, this control provides the most accurate compensation for any listening level. Set it to the flat position while the volume control is set to your normal listening level. Turning it counterclockwise will decrease the volume while retaining the natural balance of low and high frequencies.



### ⑬ BALANCE CONTROL KNOB (BALANCE)

This knob is used to adjust the relative volume of the left and right channels, enabling you to compensate for unbalance created by installation locations of the speakers.

### ⑭ TREBLE CONTROL KNOB (TREBLE)

This knob controls treble response. Turn it clockwise to boost or counterclockwise to attenuate treble response. When this knob is in the center defeat position, a flat response is obtained.

### ⑮ BASS CONTROL KNOB (BASS)

This knob controls bass response. Turn it clockwise to boost or counterclockwise to attenuate bass response. When this knob is in the center defeat position, a flat response is obtained.

### ⑯ HEADPHONES JACK (PHONES)

Stereo headphones with a standard plug can be connected to this jack. When listening to the headphones only, press both the A and B switches to the OFF position.

## OPERATIONS

### ● Normal listening operation

1. Turn the volume control to the minimum level before turning the power ON. The power indicator is illuminated.
2. Using the SPEAKERS switches select the desired speaker system(s) or leave both switches in the OFF position to use the headphones.
3. Select the desired program source using the Input Selector Panel. The corresponding input indicator lights up.
4. Activate your chosen component.
5. Adjust your VOLUME, LOUDNESS, BASS, TREBLE and BALANCE to provide the desired sound quality.

### ● To record to tape from a sound source

1. Turn the volume control to the minimum setting before turning the power ON. The power indicator is illuminated.
2. Using the REC OUT selector select the source to be recorded.
3. Activate the sound source to be recorded.
4. To monitor the sound being played via the speakers (or headphones) use the Input Selector Panel to select the source program.
5. To start recording activate the receiving tape deck(s). If your tape deck has three head monitoring capability, you can monitor the just recorded signal by selecting the corresponding tape deck switch.
6. To listen to an alternate sound source merely select the desired source using the Input Selector Panel, (noting the procedures outlined above in Normal listening operation). This will have no adverse effect on the recording.


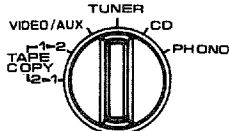

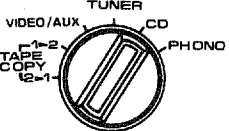

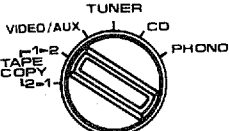
### ● Tape dubbing

As two tape decks can be connected to this unit, tape dubbing can be performed from Tape 1 to 2 or 2 to 1.

1. Set the REC OUT selector to the Tape Copy position (1 ► 2 or 2 ► 1).
2. To start recording set the source tape deck to playback and the receiving tape deck to record.

3. To monitor the sound being played use the Input Selector Panel to select Tape 1 or Tape 2 according to the source deck. If your tape deck has three head monitoring capability you can monitor the just recorded signal by selecting the corresponding Tape switch.
4. To listen to an alternate sound source merely select the desired input source using the Input Selector Panel, (noting the procedures outlined above in Normal listening operation) This has no adverse effect on the dubbing quality.

### Independent Recording and Listening Examples.

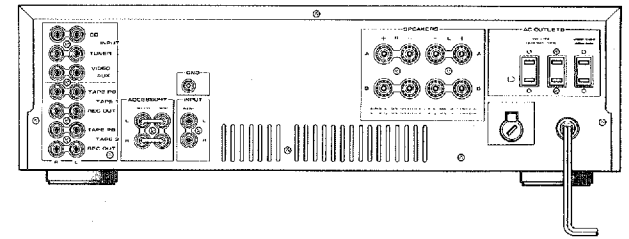
ACTION	INPUT SELECTOR	REC OUT
Listening to a record via the speakers while recording an AM/FM broadcast.	<input type="checkbox"/> PHONO 	
Listening to a CD while recording it.	<input type="checkbox"/> CD 	
Listening to an AM/FM broadcast while "dubbing" a tape from Tape 1 to 2.	<input type="checkbox"/> TUNER 	

## TROUBLESHOOTING

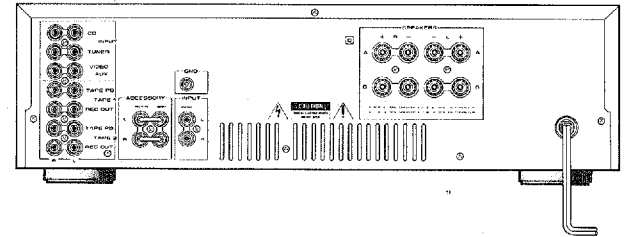
Before assuming that your unit is faulty, please check the following troubleshooting list which details the corrective action you can take yourself without having to call a service engineer. If you have any doubts or questions, contact your nearest Yamaha dealer.

PROBLEM	CAUSE	REMEDY
Power is not supplied even though the Power switch is turned on .	The power plug is not securely plugged in.	Plug it in securely.
There is no sound with any input selector switches pressed.	The Speakers switch is not set correctly.	Set the Speakers switch correctly.
	The input cords are not connected securely.	Connect them securely.
	The speaker system is not connected correctly.	Check and secure connections.
Only CD output is possible	The CD DIRECT switch is ON.	Push the CD DIRECT switch to the OFF position.
There is no sound from one speaker.	The speaker connections are not secure.	Secure the connections.
	The Balance control is set all the way to the left or right.	Adjust the Balance control correctly.
There is a lack of bass and no ambience.	The + and - cords have been reversed at the amp or speakers.	Connect the speaker wires in the correct phase (+ and -).
There is a humming sound when playing records.	The input cords are not connected securely.	Plug the input cords in securely.
	The turntable's ground wire is not connected.	Connect the ground wire.
There is a howling sound when playing records at high volume.	The turntable and the speakers are too close together or the turntable is not mounted on a firm surface.	Change the location of the turntable or the speakers.
Turning the Bass or Treble knob does not affect the tone.	The Tone Bypass switch is on.	The Tone Bypass switch must be turned off to use the controls.
The sound suddenly goes off.	Driving speakers outside the rated impedance range at high power for an extended period has activated the speaker protection circuit.	Turning this unit off and then on will reset the speaker protection circuit. Use speakers inside the rated impedance range.
	There is a malfunction in the amplifier.	Consult your Yamaha dealer.

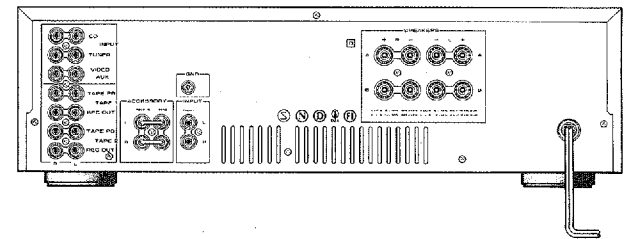
### General Model



### British and Australian Model



### European Model



## SPECIFICATIONS

### Minimum RMS Output Power Per Channel

20Hz ~ 20kHz 0.01% THD 8Ω	85W
0.015% THD 6Ω (General models)	100W

### Dynamic Power Per Channel

#### (by IHF Dynamic Headroom Measuring Method)

8Ω/6Ω/4Ω/2Ω	
General models	160W/200W/230W/250W
European, British and Australian models	140W/170W/200W/220W

### DIN Standard Output Power Per Channel (European model)

1kHz 1% THD 4Ω	110W
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### Dynamic Headroom

8Ω	2.75dB
6Ω	3.01dB

### IEC Power (European model)

1kHz 0.01% THD 8Ω	100W
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### Power Bandwidth

0.03% THD 42.5W 8Ω	10Hz ~ 50kHz
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### Damping Factor

1kHz 8Ω	≥ 80
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### Input Sensitivity/Impedance

Phono MC	160μV/220Ω
MM	2.5mV/47kΩ
CD/TUNER/VIDEO·AUX/TAPE	150mV/47kΩ

### Input Sensitivity (New IHF) (General model)

Phono MC	19μV
MM	0.27mV
CD/VIDEO·AUX/TUNER/TAPE	15.5mV

### Maximum Input Signal 1kHz

0.01% THD Phono MC	10mV
MM	150mV

### Output Level/Impedance

REC OUT	150mV/220Ω
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### Headphone Jack Rated Output/Impedance

0.01% THD RL = 8Ω	0.5V/120Ω
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### Frequency Response

CD/TUNER/VIDEO·AUX/TAPE	20Hz ~ 20kHz, ± 0.5dB
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### RIAA Equalization Deviation

Phono MC	± 0.5dB
MM	20Hz ~ 20kHz, ± 0.3dB

### Total Harmonic Distortion 20Hz ~ 20kHz

Phono MC to REC OUT, 3V	0.007%
MM to REC OUT, 3V	0.003%

### Intermodulation Distortion

CD/TUNER/VIDEO·AUX/TAPE Rated Output/8Ω	0.01%
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### Signal to Noise Ratio (IHF-A-Network)

Phono MC (500μV Input Shorted)	76c
MM (5mV Input Shorted)	92c
CD/TUNER/VIDEO·AUX/TAPE (Shorted)	102c

### Signal to Noise Ratio (New IHF)

Phono MC	75c
MM	75c
CD/VIDEO·AUX/TUNER/TAPE	85c

### Residual Noise (IHF-A-Network)

	140μ
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### Channel Separation Vol - 30dB

Phono MC, MM Input shorted 1kHz/10kHz	75dB/60c
CD/TUNER/VIDEO·AUX/TAPE Input 5.1kΩ terminated 1kHz/10kHz	75dB/60c

### Tone Control Characteristics

Bass boost/cut	± 10dB (20H turnover frequency	350H
Treble boost/cut	± 10dB (20kH turnover frequency	3.5kH

### Filter Characteristics

Subsonic	15Hz - 12dB/o
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### Continuous Loudness Control (Level Related Equalization)

Attenuation	- 40dB (1kH)
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### Gain Tracking Error

(0 ~ - 60dB)	2c
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### Power Supply

British and Australian models	AC 240V 50H
European model	AC 220V 50H
General model	AC 110/120/220/240V 60/50H

### Power Consumption

British and Australian models	430
European model	430
General model	220

### AC Outlets (General models)

Switched x 2	150W ma
Unswitched x 1	200W ma

### Dimensions (W x H x D)

	435 x 141 x 332mm
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(17.1 x 5.5 x 13.1 in)

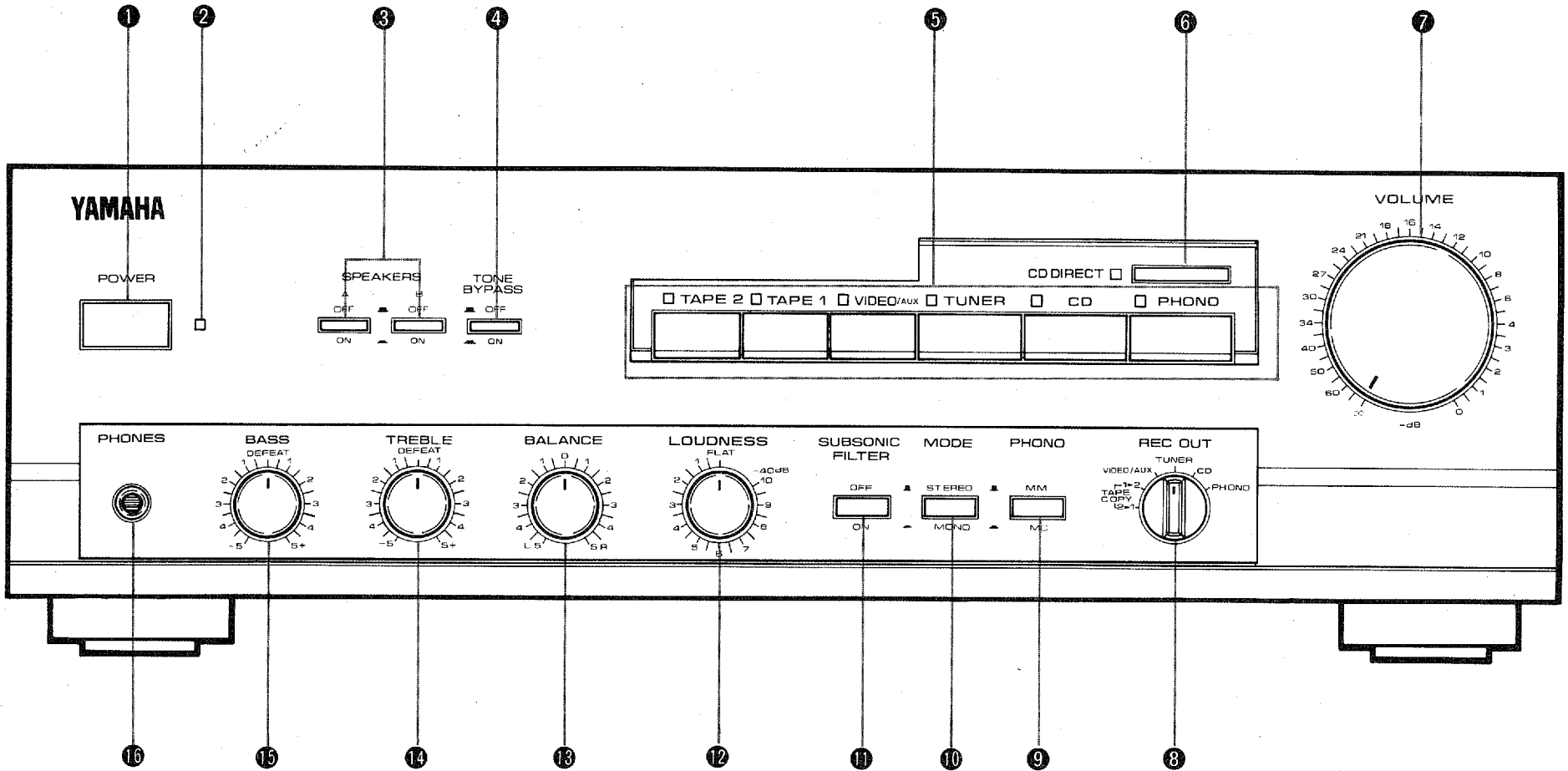
### Weight

	7.8H (17lbs. 3oz)
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\* Specifications subject to change without notice.



**FRONT PANEL**



**YAMAHA**

**YAMAHA CORPORATION**

10-1, Nakazawa-cho, Hamamatsu, 430 Japan

VH27070-0 BWgW,O Printed in Japan Ⓢ Ⓞ