

A-S1100

Integrated Amplifier



OWNER'S MANUAL

A Living Tradition in Sound

A piano comes into this world through the perfect synergy of advanced technical skill and artistry. Such a piano can create sound that truly reflects the player's feelings.

The final stage in piano production is called "voicing". It is here that the instrument is given its soul.

A highly skilled expert concentrates his mind and sensitivity on the sound of each key, finely adjusting the dynamic feel of the hammers, bringing the tone and vibrancy of all 88 keys together perfectly; a truly stunning achievement. It is a quality of sound that can only be determined by an astute, sensitive ear. We apply this very same concept to the manufacture of our audio products. The technician performs exhaustive listening tests and every component is considered, in order to finally achieve the ideal sound.

Yamaha's tradition of audio quality stretches back over 125 years, and continues to live on in all Yamaha products today.



Excellence in Audio Achievement

1920-	First HiFi System introduced in 1920	THE REAL PROPERTY OF	
1960 s	We introduced numerous HiFi components (turntables, FM/AM tuners, integrated amplifiers, preamplifiers, power amplifiers and speakers) in 1955 - 1965.		CA-1000
	Natural Sound Speaker Series introduced in 1967	NS-20	YAMANA CO O YAMINA
	NS-20 Monitor Speaker		
1970 s	CA-1000 Integrated Amplifier Featuring A-Class operation, the CA-1000 set the standard for integrated amplifiers.	NS-690	NS-1000M
	NS-690 Natural Sound Speaker		TO O ITITI O
	NS-1000M Monitor Speaker A truly legendary speaker still revered by HiFi enthusiasts.	· messar	C-2
	B-1 Power Amplifier An innovative power amp that used vertical FETs in all stages.	B-1	
	C-2 Control Amplifier Received top prize at the Milan International Music and HiFi Show.		NS-10M
	NS-10M Studio Monitor Speaker Became of the most popular studio monitors in the world.	PX-2	A-1
	A-1 Integrated Amplifier		
	PX-2 Turntable Yamaha's first straight arm turntable.	B-6	
1980s •	B-6 Power Amplifier Pyramid-shaped power amplifier.		B-2x
	GT-2000/L Turntable		
	First CD Player (CD-1) introduced in 1983	MX-10000	
	B-2x Power Amplifier		CX-10000
	MX-10000 Power Amplifier and CX-10000 Control Amplifier Redefined the capabilities of separate components.		
	AX-1 Integrated Amplifier		NP-S2000
1990s	GT-CD1 CD Player		
	MX-1 Power Amplifier and CX-1 Preamplifier		3.976 j j j 201 8
2000s	Soavo-1 and Soavo-2 Natural Sound Speaker Systems		A-\$3000
	A-S2000 Integrated Amplifier and CD-S2000 CD Player	Soavo-1	7 5 5 5 00 000 x 0 0 0 0 0 0
2010	NP-S2000 Network Player		CD-S3000
	A-S3000 Integrated Amplifier and CD-S3000 CD Player		

A-S1100

- Floating & Balance power amplifier circuit
- ◆ Parallel volume and tone control
- Large power supply with four separate circuits
- Left-right symmetrical design with rigid, stable construction
- Discrete phono amplifier

Supplied accessories

Please check that you have received all of the following parts.

- Remote control
- Batteries (AAA, R03, UM-4) (×2)
- Power cable
- SAFETY BROCHURE

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About this manual

- 😽 indicates a tip for your operation.
- · Photographs and illustrations are for explanatory purposes, and may differ from the actual unit.
- Read the "SAFETY BROCHURE" before using this unit.

Controls and functions

In this chapter, you will learn the controls and functions of A-S1100.



■ Front panel (pages 6 to 9)



1 STANDBY/ON, OFF switch

Turns on or off this unit.

- **STANDBY/ON (upper position):** With this switch position, pressing the () AMP key on the remote control toggles the power between STANDBY and ON.
- **OFF (lower position):** The power of this unit is turned off.

Notes

- When you turn on this unit, it will take a few seconds before this unit can reproduce sound.
- If you disconnect the power cable from the AC outlet and connect it again when this unit is in STANDBY mode, the power of the unit is turned on. If the unit is not to be operated for a long time, set the STANDBY/ON, OFF switch to OFF.

2 STANDBY/ON indicator

Lit brightly: Shows that the power of the unit is ON. Lit dimly: Shows that the unit is in STANDBY mode. Off: Shows that the power of the unit is OFF.

③ PHONES jack

Connects your headphones.

Notes

- When headphones are plugged in:
 - Both speaker sets connected to the SPEAKERS L/R CH terminals are turned off.
 - No signals are output at the PRE OUT jacks.
- You cannot select MAIN DIRECT as the input source.
- If headphones are plugged into the PHONES jack while MAIN DIRECT is selected as the input source, no audio is output at the PHONES jack.



(4) SPEAKERS selector

Turns on or off the sets of speakers connected to the SPEAKERS L/R CH A and/or B terminals on the rear panel, as follows.

OFF: Both sets of speakers are off.

A/B: The set of speakers connected to the A or B terminals is on.

A+B BI-WIRING: Both sets of speakers are on.

Caution

If you use two sets (A and B), the impedance of each speaker must be 8 Ω or higher.

5 METER selector

Switches the meter function as follows:

OFF: Turns off the meter and the illumination.

- **PEAK:** The meter functions as a peak level meter. The peak level meter shows a momentarily highest audio output level.
- **VU:** The meter functions as a VU (Volume Unit) level meter. The VU level meter shows an effective audio output value that is similar to human senses.

6 Meters (LEFT/RIGHT)

Show the audio output level of the left (LEFT) and right (RIGHT) channels in VU or PEAK meter mode. The VU or PEAK meter can be selected by the METER selector.

⑦ BASS control

Adjusts the volume level of the bass range.

Control range: -10 dB to 0 to +10 dB

(8) TREBLE control

Adjusts the volume level of the treble range. **Control range:** -10 dB to 0 to +10 dB

9 BALANCE control

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

Notes

- When both the BASS and TREBLE controls are set to the 0 position, audio signal bypasses the tone control circuitry.
- Adjusting the BASS, TREBLE, and BALANCE controls does not affect input signals at the MAIN IN jack and output signals at the LINE 2 REC jack.

Front panel (pages 6 to 9)



10 Remote control sensor

Receives signals from the remote control.

(1) INPUT selector/indicator

Selects the input source. The indicator of the input source selected with the INPUT selector lights. The audio signals of the selected input source are also output at the LINE 2 REC jacks.

- MAIN DIRECT: Selects the component connected to the MAIN IN jacks. When MAIN DIRECT is selected as the input source, the audio signals are not output at the PRE OUT, LINE 2 REC and PHONES jacks.
- LINE 1/LINE 2: Selects the component connected to the LINE 1 or LINE 2 jacks.
- CD: Selects the CD player connected to the CD jacks.

TUNER: Selects the tuner connected to the TUNER jacks.

PHONO: Selects the turntable connected to the PHONO jacks.

Note

When LINE 2 is selected, the audio signals are not output at the LINE 2 REC jacks.



12 AUDIO MUTE switch

Press downward to reduce the current volume level by approximately 20 dB. Press again to restore the audio output to the previous volume level.

``@`:

You can also rotate the VOLUME control on the front panel or press the VOLUME + or - key on the remote control to resume the audio output.

13 AUDIO MUTE indicator

Lights when the mute function is turned on with the AUDIO MUTE switch.

(VOLUME control

Controls the volume level. This does not affect the output level at the LINE 2 REC jacks.

Note

The VOLUME control does not affect when you select MAIN DIRECT as the input source. Adjust the volume level using the volume control on the external amplifier connected to the MAIN IN jacks.

Rear panel



See page 16 for connection information.

1 PRE OUT jacks

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- The PRE OUT jacks output the same channel signal as the SPEAKERS L/R CH terminals.
- When you connect a stereo cable to the PRE OUT jacks to drive the speakers using an external amplifier, it is not necessary to use the SPEAKERS L/R CH terminals.
- The signal output at the PRE OUT jacks are affected by the BASS and TREBLE control settings.

2 SPEAKERS L/R CH terminals

- **③ TUNER input jacks**
- ④ PHONO input jacks
- 5 CD input jacks

6 MM/MC switch

Selects the type of cartridge of the turntable connected to the PHONO jacks.

- **MM:** Choose this setting if the connected turntable uses an moving magnet (MM) cartridge.
- **MC:** Choose this setting if the connected turntable uses an moving coil (MC) cartridge.

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When you replace the cartridge, be sure to turn off this unit.

- ⑦ GND (Ground) terminal
- ⑧ LINE 1 input jacks
- 9 LINE 2 jacks

PB (playback) input jacks and REC (recording) output jacks are provided.



10 MAIN IN jacks

Use these jacks to connect an external component equipped with a volume control.

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When you select MAIN DIRECT as the input source, the volume level is fixed.

Adjust the volume level using the volume control on the external amplifier connected to the MAIN IN jacks when you select MAIN DIRECT as the input source.

For the connection to the MAIN IN jacks, see pages 16 and 17.

(1) AUTO POWER STANDBY switch

ON: The unit enters STANDBY mode automatically if not operated for 8 hours.

OFF: The unit does not enter STANDBY mode automatically.

12 TRIGGER IN jack

Use this jack to connect an external component for the trigger function.

For details on the connection, see page 21.

13 REMOTE IN/OUT jacks

Use these jacks to connect an external component for remote control.

For details on the connection, see page 20.

(1) SYSTEM CONNECTOR

Use this connector to connect a product testing device for servicing.

15 AC IN inlet

Use this inlet to plug in the supplied power cable. For details on the connection, see page 19.

16 Foot

If this unit is unstable, you can adjust the foot height by rotating it.

Remote control



1) Infrared signal transmitter

Outputs infrared control signals.

2 O AMP key

Turns this unit ON or switches it to STANDBY mode. For details on STANDBY mode, see "Front panel" (page 6).

③ Input select keys

Selects the input source. The audio signals of the selected input source are output at the LINE 2 REC jacks.

When LINE 2 is selected as the input source, the audio signals are not output at the LINE 2 REC jacks.

- LINE: Selects the component connected to the LINE 1 or LINE 2 jacks.
- **PHONO:** Selects the turntable connected to the PHONO jacks.
- MAIN DIRECT: Selects the component connected to the MAIN IN jacks. When MAIN DIRECT is selected as the input source, the audio signals are not output at the PRE OUT, LINE 2 REC and PHONES jacks.
- **CD:** Selects the CD player connected to the CD jacks. **TUNER:** Selects the tuner connected to the TUNER jacks.

④ Tuner control buttons

Control functions of Yamaha tuner. Refer to the owner's manual of your tuner for details.

Note

Certain Yamaha tuners may not respond to some of these control keys on the remote control.

5 CD player control keys

Control various functions of Yamaha CD player. Refer to the owner's manual of your CD player for details.

- **CD key:** Turns the CD player ON or switches it to STANDBY mode.
- OPEN/CLOSE key: Opens/closes the disc tray of the CD player.
- ► (Play): Starts playback.
- (Pause): Pauses playback. Press the ► or to resume playback.
- (Stop): Stops playback.
- → / → (Skip): Skips to the next track, or skips back to the beginning of the current track.
- **SOURCE:** Selects the source to be played on the CD player. The playback source changes each time this key is pressed.
- LAYER: Switches the playback layer of a hybrid SA-CD between SA-CD and CD.

Note

Certain Yamaha CD players may not respond to some of these control keys on the remote control.

6 VOLUME +/- keys

Control the volume level.

Note

The VOLUME keys do not affect when you select MAIN DIRECT as the input source. Adjust the volume level on the external amplifier connected to the MAIN IN jacks.

⑦ MUTE key

Reduces the current volume level by approximately 20 dB. Press again to restore the audio output to the previous volume level. Pressing the VOLUME + or - key also cancels muting.

- Installing batteries in the remote control
- **1** Remove the battery compartment cover.
- 2 Insert the two batteries (AAA, R03, UM-4) according to the polarity markings (+ and -) on the inside of the battery compartment.



Operating range of the remote control



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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.

3 Reinstall the battery compartment cover.



Connections

In this section, you will make connections between A-S1100, speakers, and source components.



Connections



Notes

- 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 unbalanced cables to connect other components 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 turntables.



Notes

- Because the power amplifier of A-S1100 is of the floating balanced type, the following types of connections are not possible.
 - Connecting with the left channel "-" terminal and the right channel "-" terminal as well as "+" terminals (Fig. 1).
 - Connecting with the left channel "-" terminal and the right channel "-" terminal inverted (cross connection, Fig. 2).
 - Deliberately connecting with the left/right channel "-" terminals and metal part on the rear panel of this unit, as well as accidentally touching them.
- Do not connect your active subwoofer to the SPEAKERS L/R CH terminal. Connect it to the PRE OUT jacks.
- Do not connect a component with no volume control, such as a CD player, to the MAIN IN jacks, as the volume level of the signals input to the MAIN IN jacks is fixed. If such equipment is connected, a sound may burst, and the unit and/or speaker may be damaged.

Fig. 1 Fig. 2

R

(R)

Connections

- Connecting the speakers
- 1 Remove approximately 10 mm 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 and then insert the bare wire into the hole.



3 Tighten the knob.



Caution

When loosening the knob of the speaker terminal, do not rotate it excessively. The knob may come off and pose the danger of being swallowed by a child.

Notes

- Touching the speaker terminal with a metallic rack may cause short circuit and damage this unit. When installing the unit in a rack, maintain a sufficient clearance to prevent the speaker terminals from touching the rack.
- To reduce the risk of electric shock, do not touch the speaker terminal when the unit is turned on.

 Connecting the banana plug (Except for Europe models)

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



- Connecting the Y-shaped lug
- **1** Unscrew the knob and then sandwich the Y-shaped lug between the ring part and base.



2 Tighten the knob.



Bi-wire connection

The bi-wire connection separates the woofer from the combined midrange and tweeter section. A bi-wire compatible speaker has four binding post terminals. These two sets of terminals allow the speaker to be split into two independent sections. This split connects the mid and high frequency drivers to one set of terminals and the low frequency driver to the other pair.

Example of a bi-wiring connection (R channel)

Rear panel of A-S1100

Speaker



Caution

To use the bi-wire connections, the impedance of each speaker must be 8 Ω or higher.

Note

Remove the shorting bars or bridges to separate the LPF (low pass filter) and HPF (high pass filter) crossovers.

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To use the bi-wire connections, switch the SPEAKERS selector on the front panel to the A+B BI-WIRING position.

Connecting the power cable

Plug the power cable into the AC IN inlet when all connections are complete, and then plug in the power cable to the AC outlet.

Rear panel of A-S1100



Operating this unit from another room

If you connect an infrared receiver and transmitter to the REMOTE IN/OUT jacks of this unit, you can operate the unit and/or external component using the supplied remote control located in another room.

Rear panel of A-S1100

Remote connection between Yamaha components

When you have another Yamaha component supporting remote connection, as this unit does, an infrared transmitter is not necessary. You can transmit remote signals by connecting an infrared receiver and the REMOTE IN jack of the other component to the REMOTE IN/OUT jacks of this unit, using cables with monaural miniplugs.

Up to three Yamaha components (including this unit) can be connected.



(CD player, etc.)

Rear panel of A-S1100



including this unit)

Connecting a component supporting the trigger function such as a Yamaha AV receiver

The operations of this unit can be controlled in synchronization with the operations of the connected component, such as a Yamaha AV receiver (power ON/ STANDBY or MAIN DIRECT input selection). Connect the PRE OUT jacks and the TRIGGER OUT jack of the Yamaha AV receiver to this unit as illustrated below:

Rear panel of A-S1100



When the power of the connected component is turned on, this unit turns on and the input is set to MAIN DIRECT automatically.

When MAIN DIRECT is selected as the input source, this unit enters STANDBY mode if the power of the connected component is turned off.

Note

To enable synchronization, turn off this unit before connecting the component to the MAIN IN jacks. The synchronization cannot be activated when the STANDBY/ON, OFF switch of the unit has been set to OFF.



In this section, you will find technical specifications for A-S1100.



Specifications

POWER SECTION

 Rated Output Power [U.S.A, Canada, Taiwan, China, Korea, Australia, U.K. and Europe models] (L/R, 8 Ω, 20 Hz to 20 kHz, 0.07% THD)
[Asia model] (L/R, 8 Ω , 20 Hz to 20 kHz, 0.07% THD)
• Dynamic Power (IHF) (8 Ω)
 Dynamic Headroom (8 Ω)
 Maximum Output Power [U.K. and Europe models only] (1 kHz, 0.7% THD, 4 Ω)
 Maximum Effective Output Power (JEITA) [Taiwan, China, Korea, Asia and U.K. models only] (1 kHz, 10% THD, 8 Ω)
 IEC Output Power [U.K. and Europe models only] (1 kHz, 0.02% THD, 8 Ω)95 W + 95 W
- Power Bandwidth (MAIN L/R, 0.1% THD, 45 W, 8 $\Omega)$ 10 Hz to 50 kHz
 Damping Factor (1 kHz, 8 Ω)
Maximum Input Signal Voltage PHONO MM (1 kHz, 0.5% THD)
Rated Output Voltage/Output Impedance REC OUT
 Frequency Response CD, etc. (5 Hz to 100 kHz)
RIAA Equalization Deviation PHONO MM ±0.5 dE PHONO MC
Total Harmonic Distortion Plus Noise PHONO MM to REC OUT (20 Hz to 20 kHz, 2.8 Vrms)
 Signal to Noise Ratio (IHF-A Network) PHONO MM (5 mVrms, Input shorted)
 Residual Noise (IHF-A Network)

CONTROL SECTION

Input Sensitivity/Input Impedance	
CD, etc.	200 mVrms/47 kΩ
PHONO MM	2.5 mVrms/47 kΩ
PHONO MC	100 μVrms/50 Ω
MAIN IN	1.0 Vrms/47 kΩ
Headphone Jack Rated Output Powe	r
CD, etc. (1 kHz, 32 Ω , 0.2% THD)	
Channel Separation	
CD. etc. (Input. 5.1 k Ω Terminated	l. 1 kHz/10 kHz)
PHONO MM (Input shorted, 1 kH	z/10 kHz, Vol.:-30 dB)
PHONO MC (Input shorted, 1 kHz	z/10 kHz, Vol.:-30 dB)
	66/65 dB or higher
Tone Control Characteristics	
BASS	
Boost/Cut (50 Hz)	±9 dB
Turnover Frequency	
TREBLE	
Boost/Cut (20 kHz)	±9 dB
Turnover Frequency	3.5 kHz
GENERAL	
Power Supply	
[U.S.A and Canada models]	AC 120 V, 60 Hz
[Taiwan model]	AC 110 V, 60 Hz
[China model]	AC 220 V, 50 Hz
[Korea model]	AC 240 V 50 Hz
[Australia model]	AC 230 V 50 Hz
[Asia model]	AC 220 - 240 V 50/60 Hz
Power Consumption	250 14
[Asia model]	
[Other models]	
Standby Power Consumption	
• Dimensions (W \times H \times D)	435 × 157 × 463 mm
	(17-1/8" × 6-1/8" × 18-1/4")
• Weight	23.3 kg (51.4 lbs)

* Specifications are subject to change without notice.

Block diagram



Appendix

■ Tone control characteristics





Total harmonic distortion

■ Total harmonic distortion (PHONO)



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, turn off this unit, disconnect the power cable, and contact the nearest authorized Yamaha dealer or service center.

Problem	Cause	Remedy	See page
This unit fails to turn on.	The power cable is not connected to the AC IN inlet on the rear panel or not plugged in the AC wall outlet.	Connect the power cable firmly.	19
	The protection circuitry has been activated because of a short circuit, etc.	Check that the speaker wires are not touching each other or shorting out against the rear panel of this unit, and then turn the power of this unit back on.	18
	This unit has been exposed to a strong external electric shock (such as lightning or strong static electricity).	Turn off this unit, disconnect the power cable, plug it back in after 30 seconds, and then use it normally.	_
The STANDBY/ON indicator on the front panel flashes.	The protection circuitry has been activated because of a short circuit, etc.	Check that the speaker wires are not touching each other or shorting out against the rear panel of this unit, and then turn the power of this unit back on.	18
	There is a problem with the internal circuitries of this unit.	Disconnect the power cable and contact the nearest authorized Yamaha dealer or service center.	—
The INPUT indicator on the front panel flashes and the volume is turned down when you turn on this unit.	The protection circuitry has been activated because of a short circuit, etc.	Check that the speaker wires are not touching each other or shorting out against the rear panel of this unit, and then turn the power of this unit back on.	18
No sound.	Incorrect input or output cable connections.	Connect the cables properly. If the problem persists, the cables may be defective.	16
	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 keys on the remote control).	8, 12
	The SPEAKERS selector is set to OFF.	Switch the SPEAKERS selector to the appropriate position.	7
	The speaker cables are not connected securely.	Connect the speaker cables securely.	18
The sound suddenly goes off.	The protection circuitry has been activated because of a short circuit, etc.	Check that the speaker wires are not touching each other or shorting out against the rear panel of this unit, and then turn the power of this unit back on.	18
The volume level cannot be adjusted.	MAIN DIRECT is selected as the input source.	Adjust the volume on the connected component. Or connect external component to input jacks other than MAIN IN and select the corresponding input source.	8, 9
Only the speaker on one side can be	Incorrect cable connections.	Connect the cables properly. If the problem persists, the cables may be defective.	16
neard.	Incorrect setting for the BALANCE control.	Set the BALANCE control to the appropriate position.	7
There is a lack of bass and no ambience.	The + and – wires are connected in reverse at the amplifier or the speakers.	Connect the speaker wires to the correct + and – phase.	16

Problem	Cause	Remedy	See page
A "humming" sound is heard.	Incorrect cable connections.	Connect the audio cable plugs firmly. If the problem persists, the cables may be defective.	16
	No connection from the turntable to the GND terminal.	Connect the turntable to the GND terminal of this unit.	16
The sound is degraded when listening with the headphones connected to the CD player connected to this unit.	The power of this unit is turned off.	Turn on the power of this unit.	
The volume level is low while playing a record.	Incorrect setting for the MM/MC switch on the rear panel.	Switch the MM/MC switch to the MM or MC position according to the type of magnetic cartridge of the turntable.	10
The remote control does not work or function properly.	Wrong distance or angle.	The remote control functions within a maximum range of 6 m (20 ft) and no more than 30 degrees off-axis from the front panel.	14
	Direct sunlight or lighting (from an inverter type of fluorescent lamp, etc.) is striking the remote control sensor of this unit.	Reposition this unit.	8
	The batteries are weak.	Replace all batteries.	14

Taking care of this unit

Polish finish on the side panels

Use of a piano cleaning cloth is recommended. For heavy dirt, use a soft cloth that has been dampened and wrung out thoroughly.

Other finish

When you wipe this unit, do not use chemical solvents (alcohol, thinner, etc.), which might damage the finish. Use a clean, dry cloth. For heavy dirt, dampen a soft cloth in detergent diluted with water, wring it out, and clean this unit with the cloth.

