



Multi Zone Amplifier

XDA-AMP5400RK

(XDA-AMP5400 + Brackets)

(XDA-AMP5400 + Supports)

OWNER'S MANUAL

CONTENTS

BEFORE USING THE UNIT 3

Accessories	3
About this manual	3

PART NAMES AND FUNCTIONS 4

Front panel	4
Rear panel	5

PLACEMENT AND CONNECTION 6

Placing the unit	6
Mounting the unit on a rack	6
Placing the unit without a rack	6
Connecting devices	7
Connecting speakers	8
Connecting speakers in bridge mode	8
Connecting external devices	8
Connecting the power cord	8
Connection examples	9

SPECIFICATIONS 13

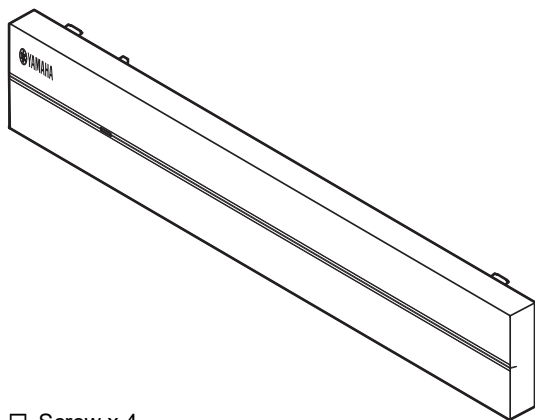
Specifications	13
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BEFORE USING THE UNIT

Accessories

Confirm that all the following items are included in the package.

☐ Front cover x 1



☐ Screw x 4

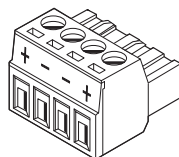


☐ Power cord

☐ Owner's Manual

☐ Safety Brochure

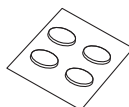
☐ Euroblock plug x 4



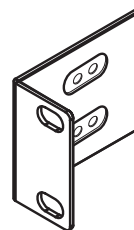
☐ Jumper plug x 6



☐ Non-skid pad x 4



☐ Bracket x 2



☐ Monaural RCA cable x 2



☐ Control cable x 3



Note:

Screws for rack mounting are not included.

About this manual

- This OWNER'S MANUAL explains preparations and operations for installers of the unit. Make sure to deliver this OWNER'S MANUAL to the user after the placement, connection and setup of the unit.
- Read the supplied booklet "Safety Brochure" before installing and using the unit.
- Due to product improvements, specifications and appearance are subject to change without notice.
- The illustrations in this manual are for instructional purposes only.
- Access the Yamaha Downloads site to download the latest Owner's Manual and Safety Brochure.
<http://download.yamaha.com/>

Notice:

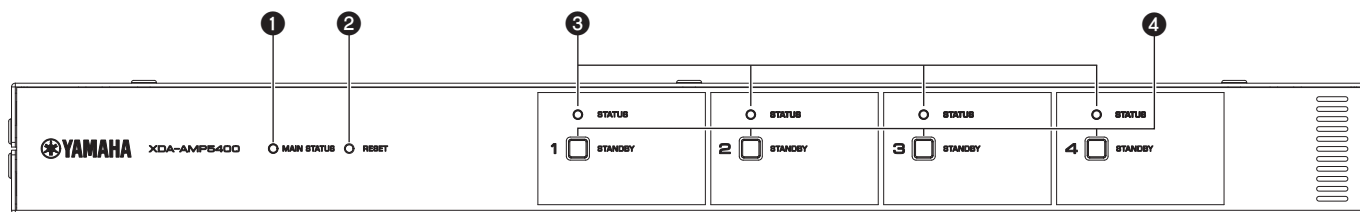
Indicates precautions for use to avoid the possibility of malfunction/damage to the unit.

Note:

Indicates instructions and supplementary explanations for optimum use.

PART NAMES AND FUNCTIONS

Front panel



❶ MAIN STATUS indicator

Indicates the unit status depending on its color and whether it is lit or flashing.

—	Unlit	Standby
White	Lit	Power on
Red	Lit	Audio Sense on
	Flashing	Error occurred

❷ RESET key

Resets the unit. The unit is restarted forcibly by holding down RESET key for over 10 seconds.

❸ STATUS indicators

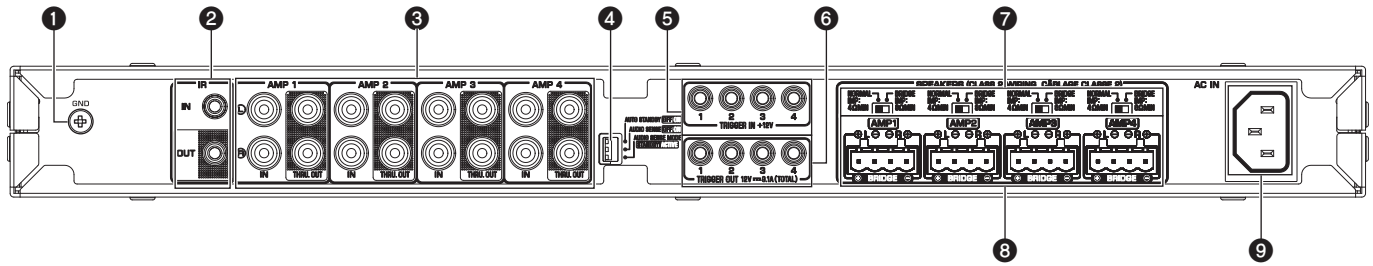
Indicate the AMP1 - AMP4 status depending on whether they are lit or flashing.

—	Unlit	Standby
White	Lit	Power on

❹ STANDBY keys

Set AMP1 - AMP4 to on / standby. The unit consumes a small power even in standby mode. The unit's standby power consumption depends on the standby configuration.

Rear panel



① GND screw terminal

Connecting the source device chassis to the GND terminal of the unit may reduce noise in the signal.

Note

The ground is not a safety ground.

② IR IN/OUT jack

Connection: 3.5 mm monaural mini-plug

For connecting to an external remote control device and inputting/outputting remote control signals. The output with pass-through function is enabled even in standby mode.

③ AMP 1–4: IN/THRU. OUT jacks

Connection: stereo RCA plug (L/R)

IN: For connecting to an audio playback device such as a CD player (analog out jack) and inputting audio signals in AMP1–AMP4.

THRU. OUT: For outputting analog audio signals input in AMP 1–4 : IN jacks by pass-through function. The output is enabled even in standby mode.

④ AUTO STANDBY switch

Enables/disables the auto-standby function.

OFF: does not set the unit to standby mode automatically.

ON: sets the unit to standby mode when there are no operations for 8 hours.

AUDIO SENSE switch

Enables/disables the audio sense function that detects analog audio signals input in AMP 1–4 : IN.

OFF: disables the audio sense function.

ON: detects the input in AMP 1–4 : IN, and thereby turns AMP1–AMP4 to on.

Note

Unplug the unit's power cord from the AC wall outlet before changing the AUDIO SENSE switch setting.

AUDIO SENSE MODE switch

Selects the audio sense mode that determines the amount of time required between input of analog audio signals being detected and analog audio signals being output.

STANDBY: outputs analog audio signals about 7 seconds after detecting the input of them. This setting reduces the unit's standby power consumption..

ACTIVE: outputs analog audio signals within 1 second after detecting the input of them.

⑤ TRIGGER IN 1–4 jacks

Connection: 3.5 mm monaural mini-plug (Tip: + / Sleeve: –)

For inputting trigger signals (DC 12 V). Each AMP is powered on by inputting "High".

⑥ TRIGGER OUT 1–4 jacks

Connection: 3.5 mm monaural mini-plug (Tip: + / Sleeve: –)

For outputting trigger signals (DC 12 V) by powering on each AMP.

⑦ NORMAL/BRIDGE switch

Selects NORMAL/BRIDGE connection of speakers. This switch is normally set to NORMAL. Change the setting to BRIDGE only when the speaker is used in bridge connection.

Note

Unplug the unit's power cord from the AC wall outlet before changing the NORMAL/BRIDGE switch setting.

⑧ SPEAKERS terminals

Connection: Euroblock connectors (supplied)

Speaker impedance: 4 Ω or over (NORMAL), 8 Ω or over (BRIDGE)

(BRIDGE)

For connecting to speakers with supplied Euroblock connectors.

⑨ AC IN jack

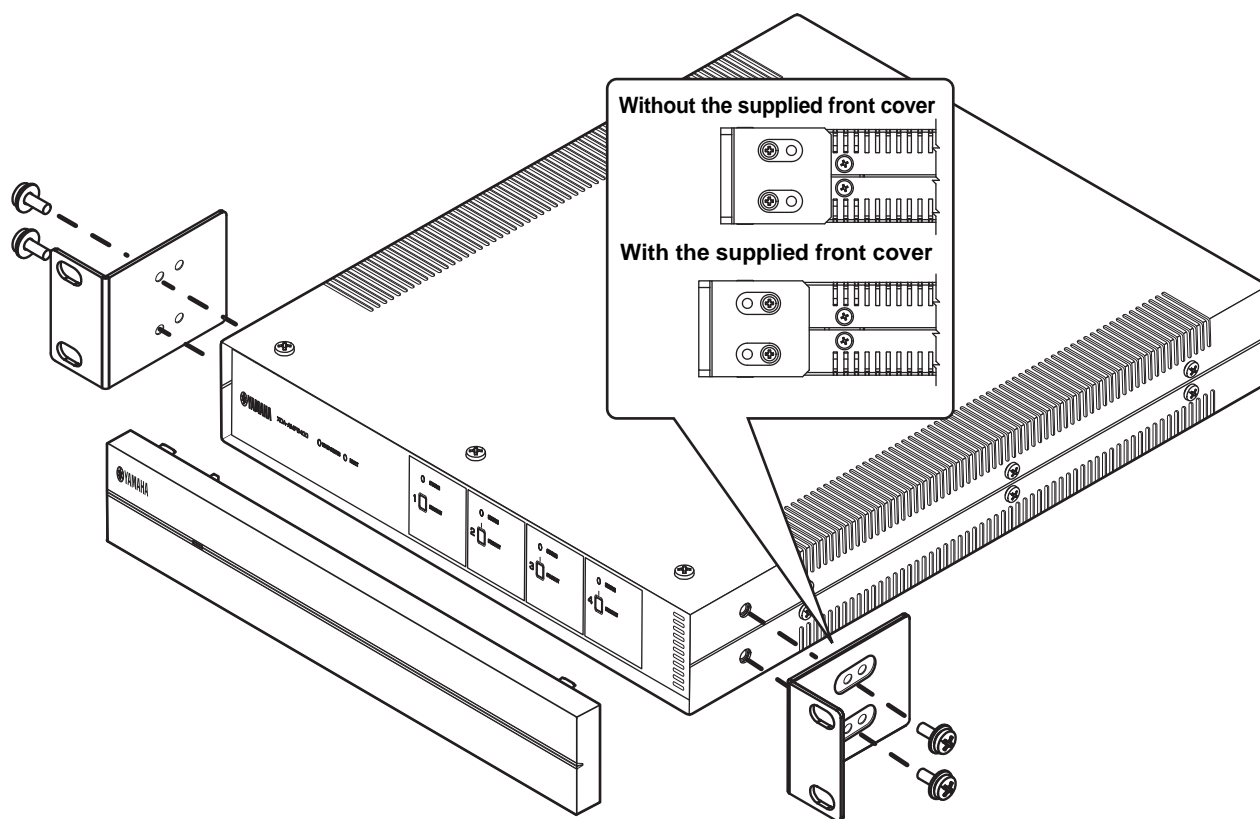
For connecting the supplied power cord.

PLACEMENT AND CONNECTION

Placing the unit

■ Mounting the unit on a rack

Use the supplied brackets to mount the unit on an EIA standard rack. Screw the brackets to the unit horizontally.



Notice

- Do not use the brackets for devices other than the XDA-AMP5400.
- When installing brackets, use the included screws.
- Tighten the screws until the brackets are securely fixed.

Note

Screws for rack mounting are not included.

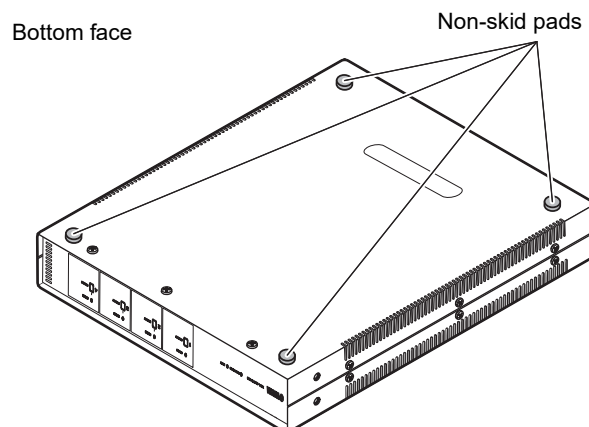
Precautions for rack mounting

If the unit is mounted together with additional units and/or other devices in an EIA standard equipment rack, the internal temperature can rise due to heat generated from the devices, resulting in impaired performance. If the unit is mounted in a rack, always observe the following requirements to avoid heat buildup:

- If the unit is mounted in a rack with other devices that generate a significant amount of heat, such as a power amplifier, leave more than 1U of space between the unit and other devices (both above and below). Also, make sure to either leave any open spaces uncovered or install appropriate ventilating panels to minimize the possibility of heat buildup.
- To ensure sufficient airflow, leave the rear of the rack open and position it at least 10 cm from walls or other surfaces.

■ Placing the unit without a rack

Affix the supplied non-skid pads at the four corners on the bottom of the unit, and then place the unit on a shelf or rack.



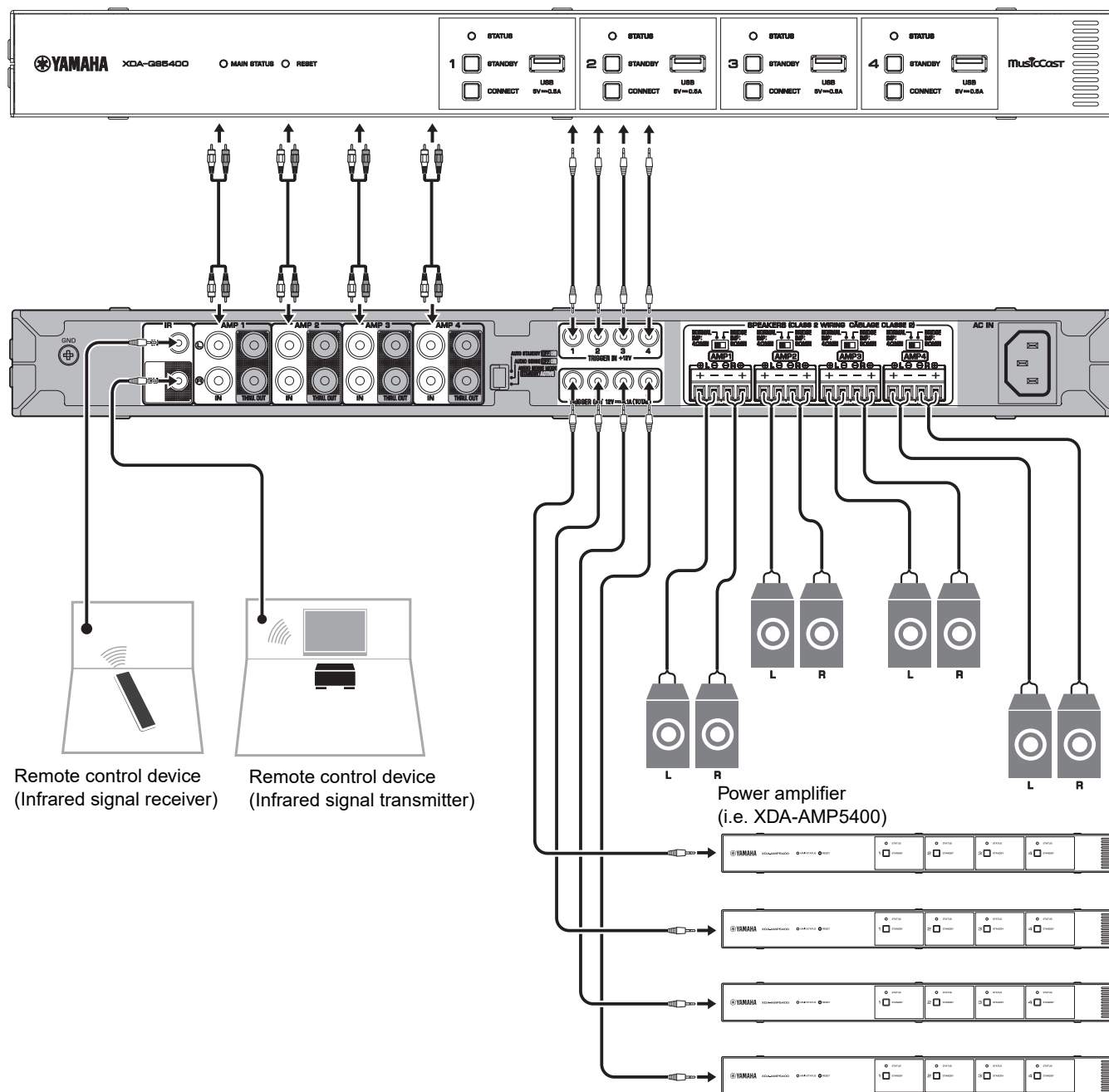
Note

Allow ventilation space of at least 10 cm (4 in.) on the top, either side and back of the unit.

Connecting devices

The following is an example of connecting the devices. Unplug the unit's power cord from the AC wall outlet before connecting the devices.

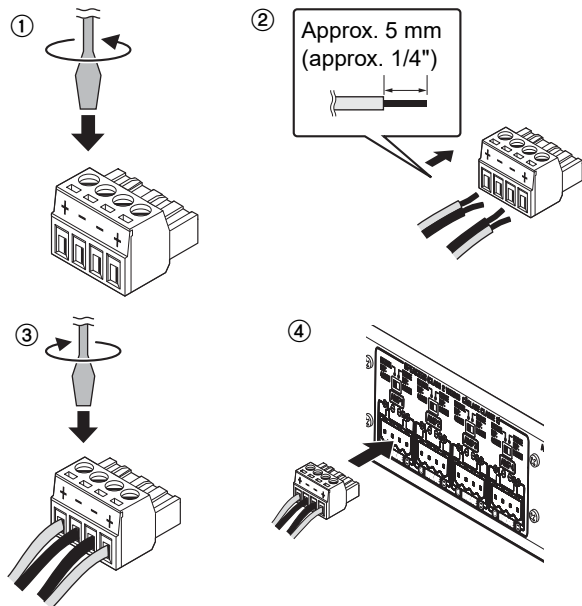
XDA-QS5400



The unit does not have volume controls. Make sure you connect a device with volume control (such as a pre-amplifier) to the unit. If you connect a device without volume control (such as a CD player) directly to the unit, the volume may become excessively loud and result in damage to the unit or speakers.

■ Connecting speakers

Connect the speakers to the unit with the supplied Euroblock plug and commercially-available speaker cables.



- 1** Loosen terminal screws.
- 2** Insert cables.
- 3** Securely tighten terminal screws.
- 4** Insert the Euroblock plug into the **SPEAKERS** terminals of the unit.

Note

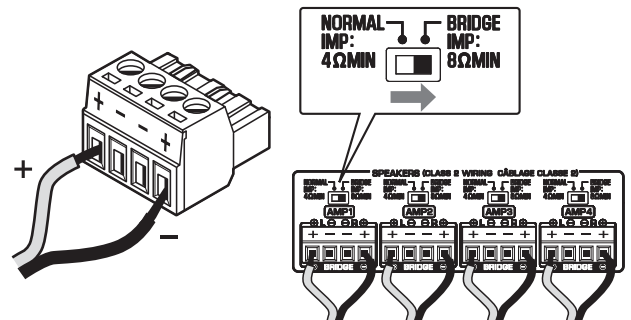
- You must use the supplied Euroblock plugs. If the plugs have been lost, please contact your Yamaha dealer.
- Recommended cable gauges for the Euroblock plug: AWG26 (0.13 mm²) to AWG16 (1.3 mm²)
- To prepare the cable for attachment to a Euroblock connector, strip the wire as shown in the illustration using stranded wire to make connections. With a Euroblock connection, stranded wires may be prone to breakage because of metal fatigue due to the weight of the cable or due to vibration. When rack mounting your device, use a lacing bar when possible to bundle and fasten the cables.
- Do not tin (solder) the exposed end.

■ Connecting speakers in bridge mode

Connect the speakers to the unit with the supplied Euroblock plug and commercially-available speaker cables, and set the NORMAL/BRIDGE switch to "BRIDGE".

Note

Unplug the unit's power cord from the AC wall outlet before changing the NORMAL/BRIDGE switch setting.



■ Connecting external devices

■ For an external device with analog stereo audio output

Use a commercially-available analog stereo pin cable (stereo audio RCA cable). You can also use supplied jumper plugs and monaural RCA cables for various sound system configurations.

Note

For details on the configurations with supplied jumper plugs and monaural RCA cables, see the following:

- "Connection examples" (p.9)

■ For a remote control device

Use a commercially-available 3.5 mm monaural mini-plug cable. For connecting to an infrared signal receiver/emitter that allows you to operate the unit and other devices from another room.

■ For a device compatible with the trigger function

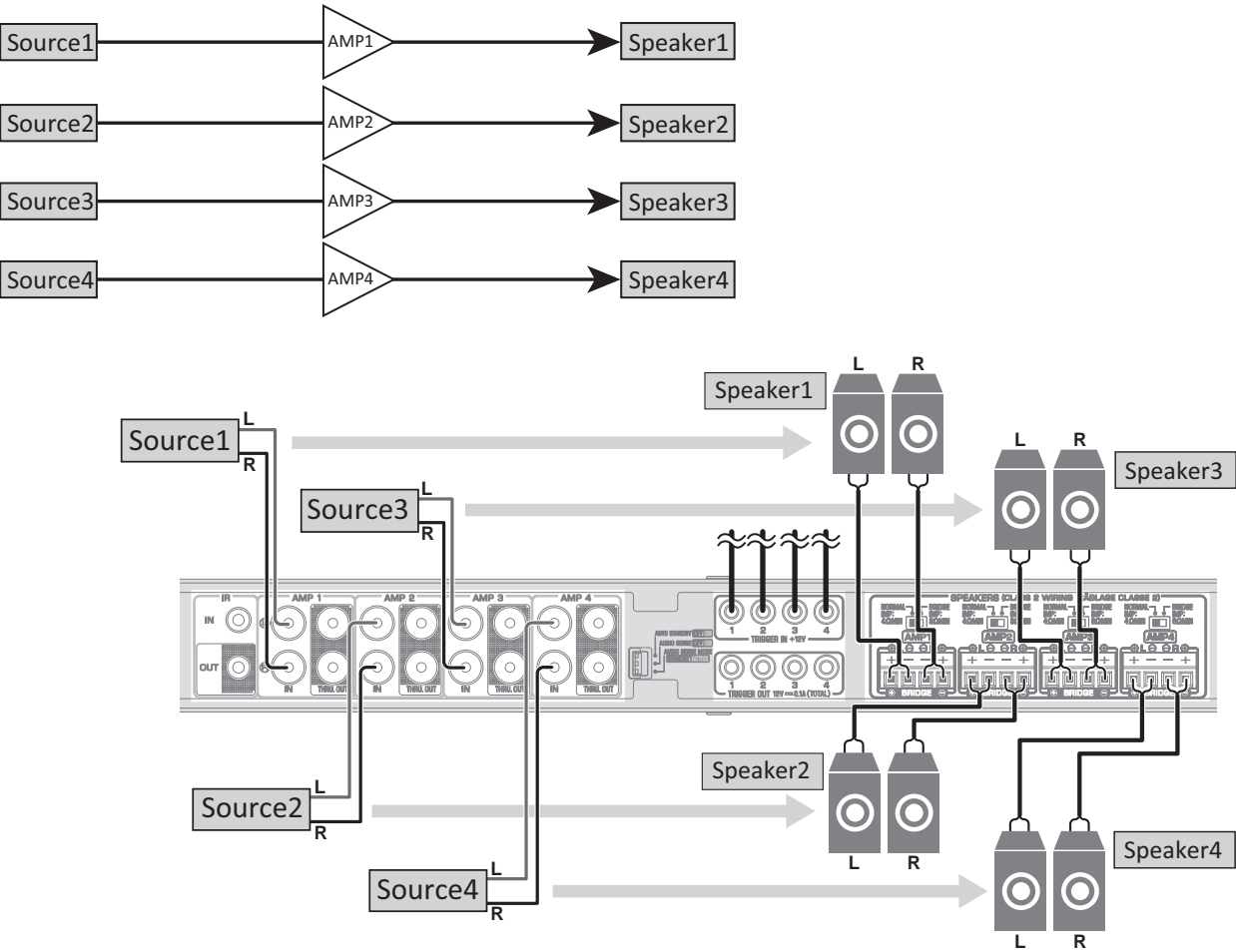
Use a commercially-available 3.5 mm monaural mini-plug cable. The trigger function can be controlled by external devices (such as XDA-QS5400) in conjunction with powering on/off the device.

■ Connecting the power cord

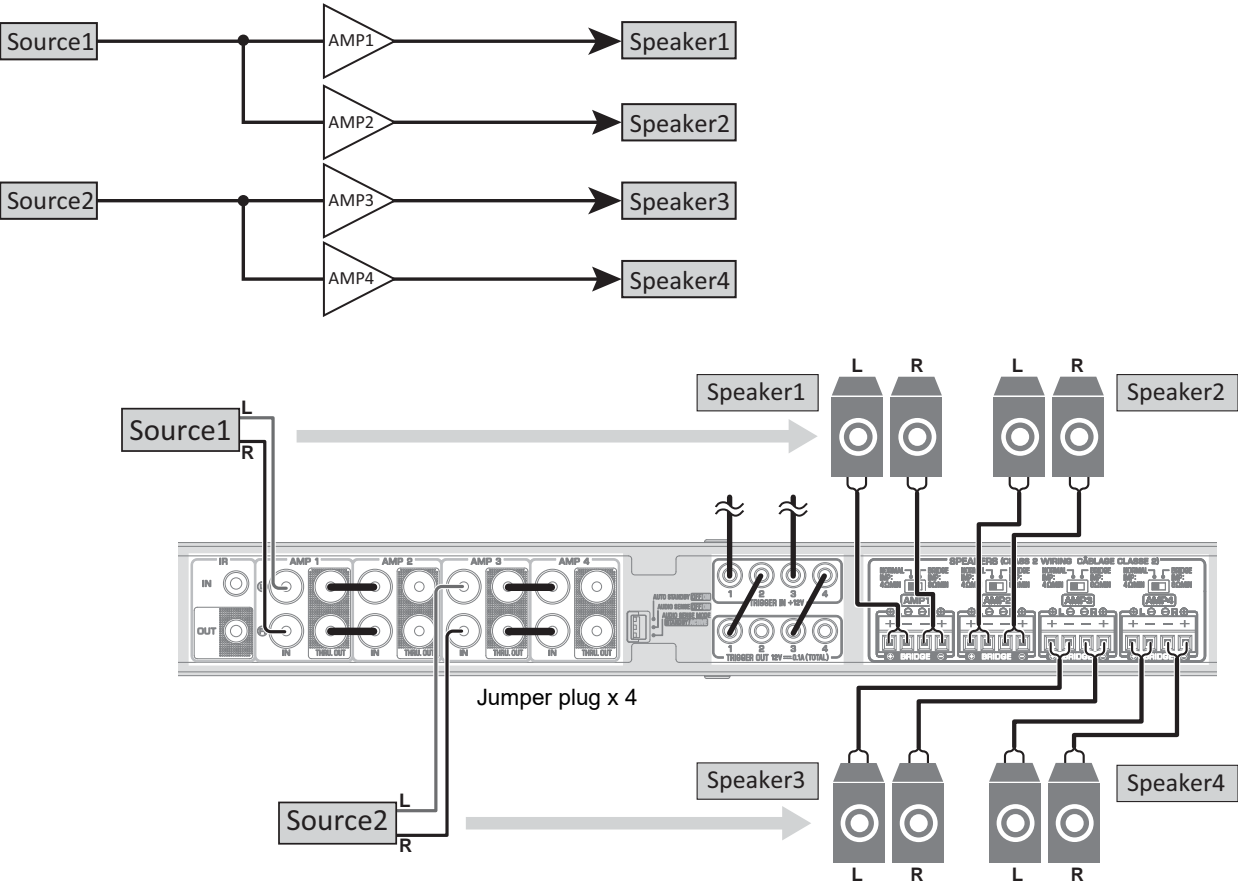
After all the connections are complete, plug the supplied power cord into the AC IN jack on the rear panel, and then plug the power cord to an AC wall outlet.

■ Connection examples

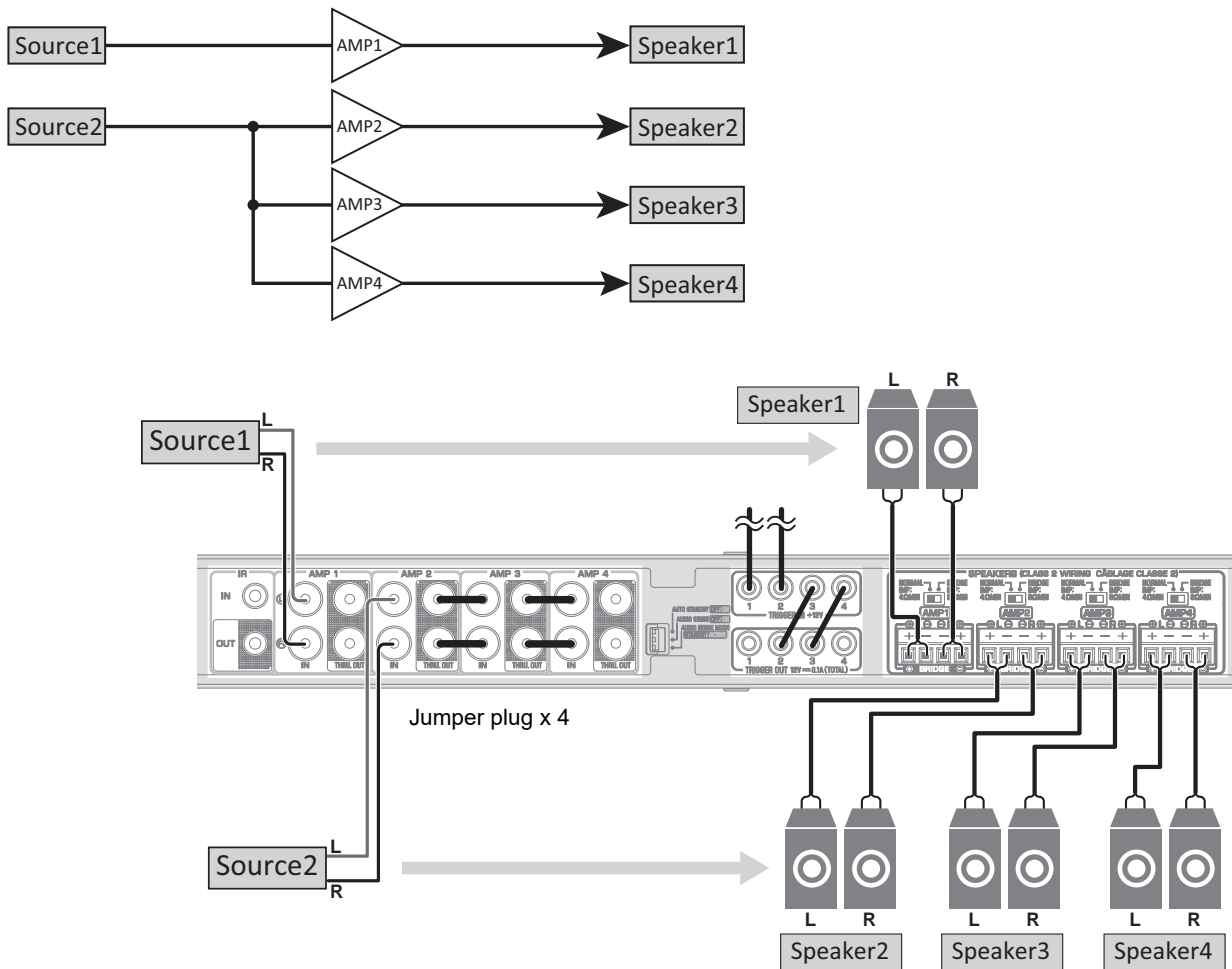
■ Example 1



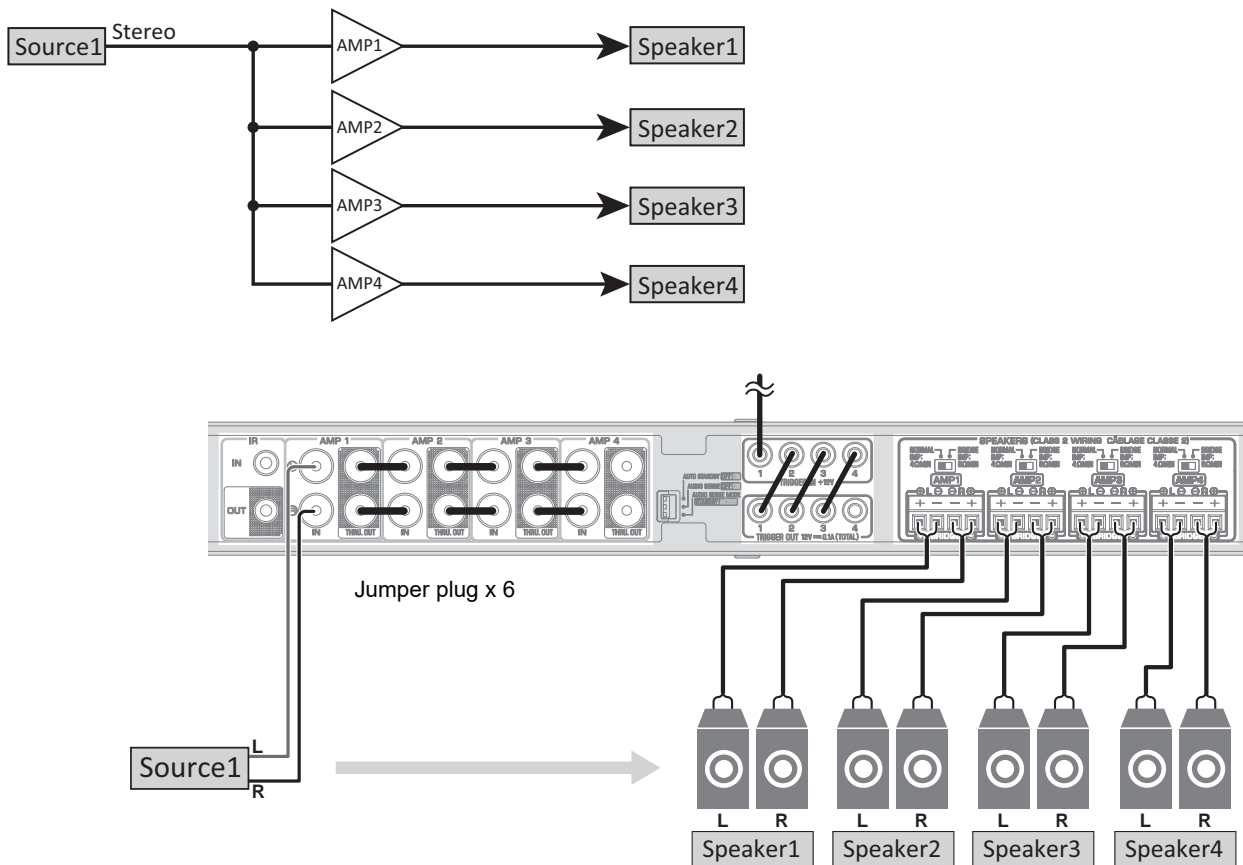
■ Example 2



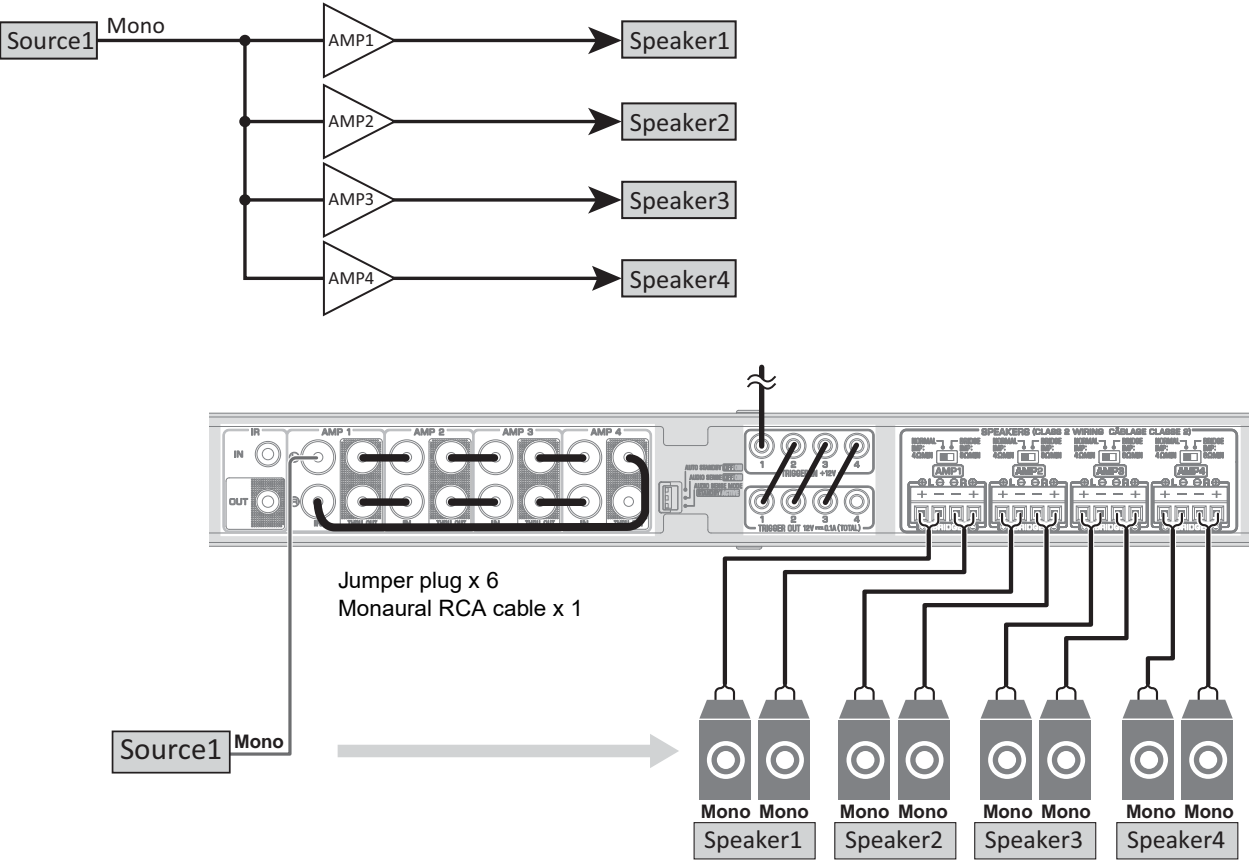
■ Example 3



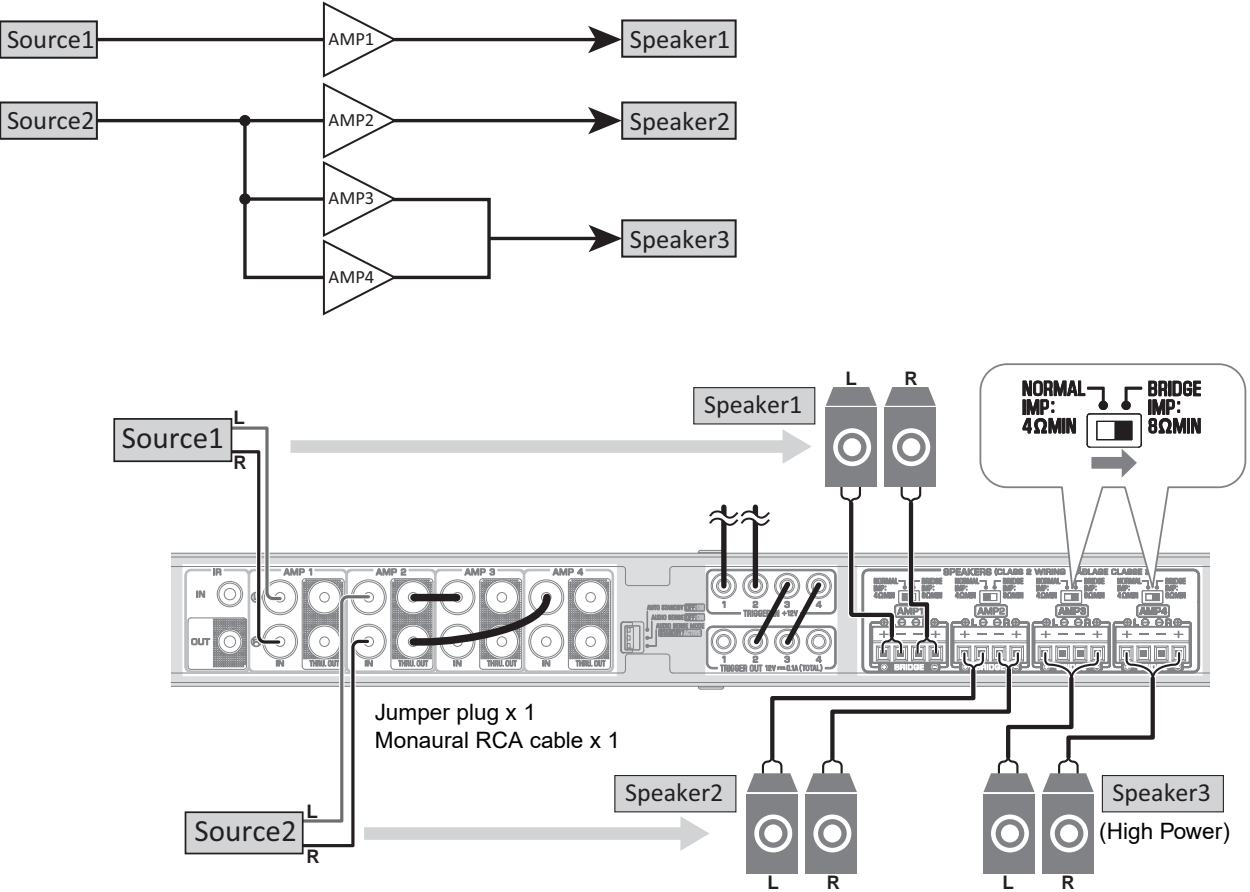
■ Example 4



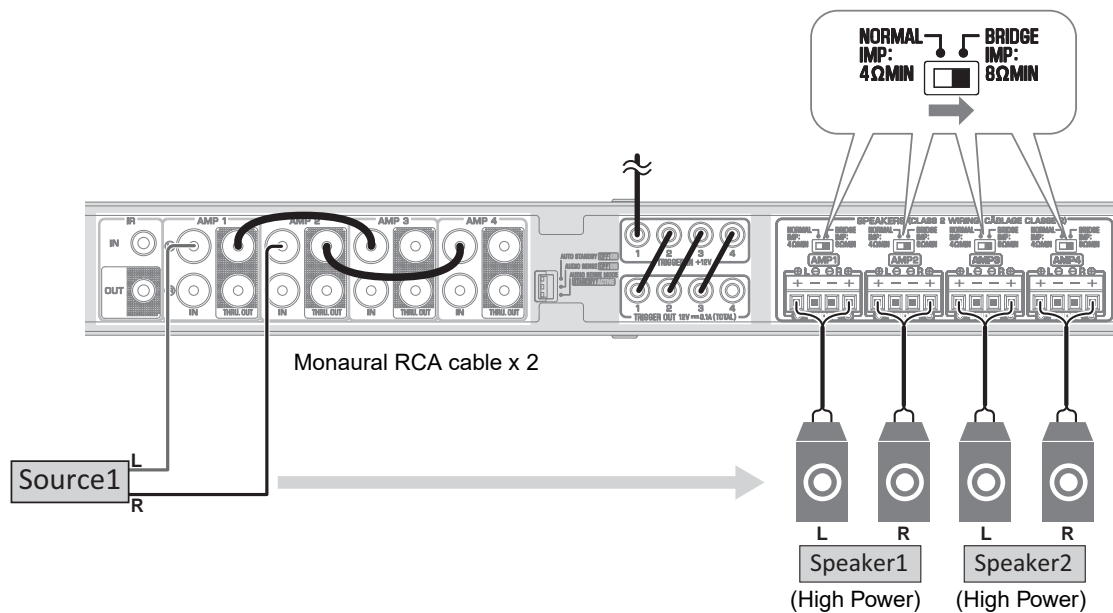
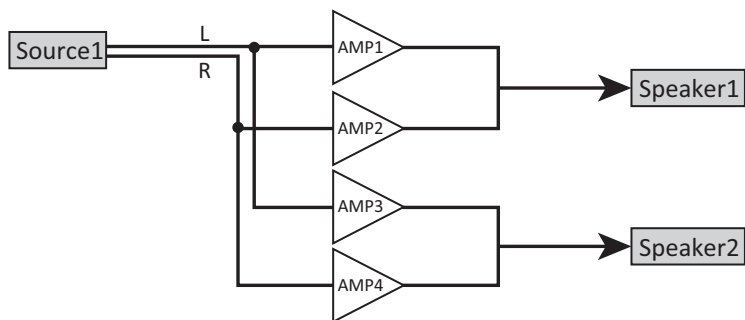
■ Example 5



■ Example 6



■ Example 7



SPECIFICATIONS

Specifications

The specifications of the unit are as follows.

Input jacks

Analog Audio

- Stereo Audio (RCA) x 4

Output jacks

Analog Audio

- Speaker Out x 4 (L/R)
- Stereo Audio (RCA) x 4

Other jacks

Trigger In x 4

Trigger Out x 4

Remote In x 1

Remote Out x 1

Audio Section

Rated Output Power

- (2-channel driven, 1 kHz, 0.9% THD, NORMAL, 4/8 Ω) 90/50 W
- (2-channel driven, 1 kHz, 0.9% THD, BRIDGE, 8 Ω) 100 W
- (1-channel driven, 1 kHz, 0.9% THD, NORMAL, 4/8 Ω) 100/50 W
- (1-channel driven, 1 kHz, 0.9% THD, BRIDGE, 8 Ω) 200 W

Dynamic Power

- (2-channel driven, 20 Hz to 20 kHz, 0.08% THD, 20ms Burst, NORMAL, 4/8 Ω) 80/40 W
- (2-channel driven, 20 Hz to 20 kHz, 0.08% THD, 20ms Burst, BRIDGE, 8 Ω) 150 W
- (2-channel driven, 1 kHz, 0.9% THD, 20ms Burst, NORMAL, 4/8 Ω) 100/50 W
- (2-channel driven, 1 kHz, 0.9% THD, 20ms Burst, BRIDGE, 8 Ω) 200 W
- (All channel driven, 1 kHz, 0.9% THD, 20ms Burst, NORMAL(8-ch), 4/8 Ω) 80/50 W
- (All channel driven, 1 kHz, 0.9% THD, 20ms Burst, BRIDGE(4-ch), 8 Ω) 170 W

Maximum Effective Output Power (JEITA)

- (1-channel driven, 1 kHz, 10% THD, NORMAL, 4/8 Ω) 130/65 W
- (1-channel driven, 1 kHz, 10% THD, BRIDGE 8 Ω) 260 W

Total Harmonic Distortion (THD)

- (20 Hz to 20 kHz, SP OUT, 25 W, 8 Ω) 0.04% THD

Frequency Response (+0/-3 dB)

- SP OUT (AMP IN) 5 Hz to 40 kHz

Signal to Noise Ratio (IHF-A)

- SP OUT (AMP IN) 108 dB

Maximum Input Signal

- AMP IN (1 kHz, 0.9% THD) 1.0 V

Gain

- SP OUT (1 V INPUT) 25.8 dB

Input Sensitivity

- 1 W power (1 W/8 Ω output) 150 mV
- MAX power (50 W/8 Ω output) 1.0 V

General

Power Supply

- [U.S.A. model] AC 120 V, 60 Hz
- [Other models] AC 220 to 240 V, 50/60 Hz

Power Consumption

- Amp1 - Amp4 On, No Signal Condition 32 W
- Amp1 - Amp4 Off, Audio Sense On, Audio Sense Mode Active 14.8 W

Standby Power Consumption

- Audio Sense Off 0.3 W
- Audio Sense On, Audio Sense Mode Standby 0.5 W

Dimensions (W x H x D)

437 x 46 x 443 mm

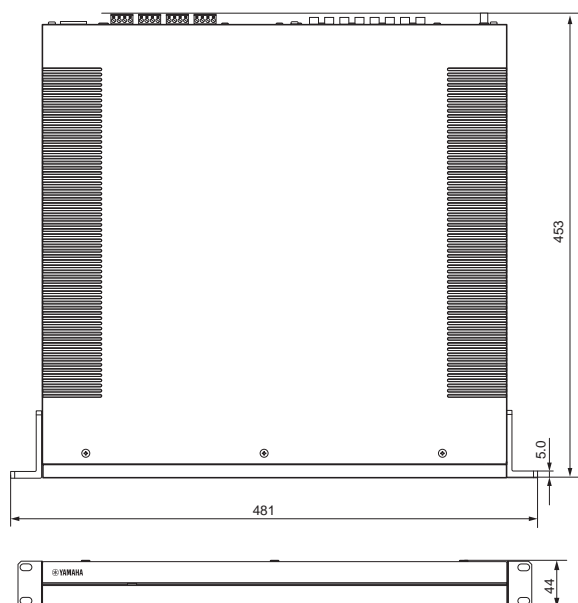
Weight

6.0 kg

Reference Dimensions

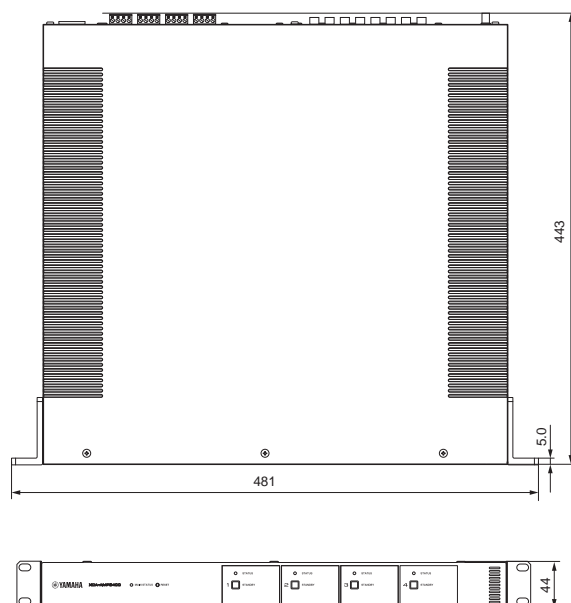
- Brackets with front cover

481 x 44 x 453 mm



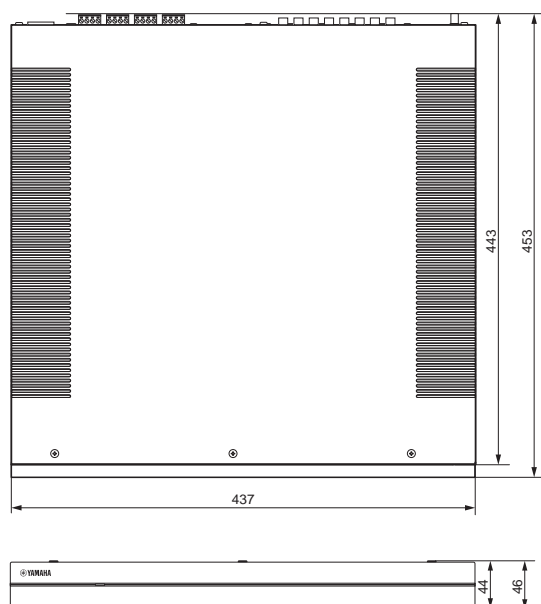
- Brackets

481 x 44 x 443 mm



- Table Top Mount-with front cover

437 x 46 x 453 mm



- * The contents of this manual apply to the latest specifications as of the publishing date. To obtain the latest manual, access the Yamaha website then download the manual file.