



ZJ24810 EN

POWER AMPLIFIER MA2030 PA2030

Owner's Manual

First, please carefully read the "IMPORTANT SAFETY INSTRUCTIONS" on the reverse side.

Thank you for your purchase of the Yamaha MA2030/PA2030 power amplifier. Please read through this manual carefully before beginning use, so that you will be able to take full advantage of the device's various functions. After you have read the manual, keep it in a safe place.

- The illustrations as shown in this manual are for instructional purposes only.
- The company names and product names in this manual are the trademarks or registered trademarks of their respective companies.
- In this manual, the **MA** mark indicates content that is unique to the MA2030, and **PA** indicates content unique to the PA2030. Contents that are common to both have no marks.
- Amplifier illustrations are mainly from the MA2030. Where necessary, illustrations of the PA2030 are also shown.

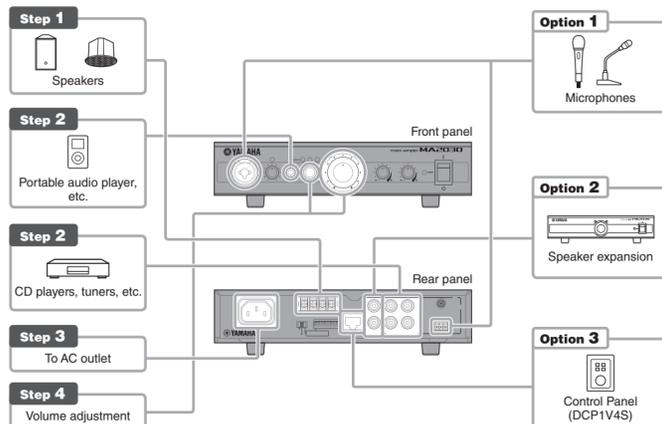
Features

- Supports both kinds of speaker connection: high-impedance connection and low-impedance connection.
- Equipped with digital processor (Feedback Suppressor, Ducker, Leveler). **MA**
- Optional PA2030 expansion amplifier enables connection of additional speakers. **MA**

Included items

- Power cord (2.0m)
- Euroblock plugs (3-pin, 3.50mm pitch) x 1 **MA**, x 2 **PA**
- Technical Specifications (English only): includes block diagram, dimensions, and input/output specifications.
- Owner's Manual (this sheet)

Setup



Step 1 Connecting Speakers

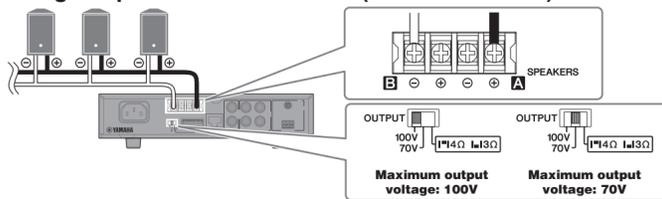
Change the setting depending on the speaker connection (high- or low-impedance connection), the kind of speakers, and the installation location of the speakers. Refer to "Connecting Speaker Cables" at the right bottom on this page and the explanation of high-impedance connection, etc. at the following URL.

Yamaha Pro Audio site: "Better Sound for Commercial Installations":
http://www.yamahaproaudio.com/global/en/training_support/better_sound/

Caution

- Before connecting speakers, make sure that the power of the device is turned off. If the power is on, there is a risk of electrical shock.
- Ensure that load is not applied to the speaker cable.
- In a high-impedance installation, make sure that the sum of the power input ratings of the speakers to be connected does not exceed 60W.
- In a low-impedance installation, make sure that the total impedance of speakers to be connected is at least 3 ohms.

High-impedance Connections (60W x 1 channel)



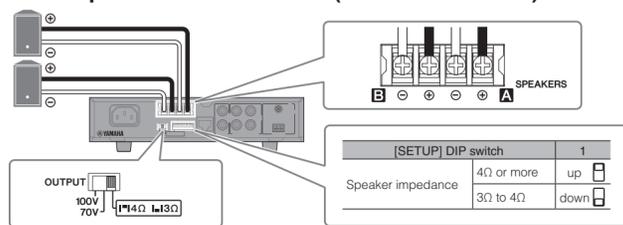
- Set the speaker output to high-impedance by setting the [OUTPUT] switch to [100V] or [70V] corresponding to the maximum output voltage.

- Use speaker cables to connect the [SPEAKERS A] terminal to the positive "+" terminals of the speakers, and the [SPEAKERS B] terminal to the negative "-" terminals.

In case of high-impedance connection, the [SPEAKERS A] and [SPEAKERS B] terminals are not used. Do not connect to the terminals.

Note The speaker output is processed through a high pass filter (80Hz, 18dB/oct.).

Low-impedance Connections (30W x 2 channels)



- Set the speaker output to low-impedance connection by setting the [OUTPUT] switch to [4Ω 3Ω].

- Set the [SETUP] DIP switch 1 to [4Ω] (up, impedance: 4Ω or more) or [3Ω] (down, impedance: 3Ω to 4Ω) corresponding to the specifications of the speakers to be connected.

- Connect the [SPEAKERS A] terminals to the "+" terminals of the first speaker, and the [SPEAKERS B] terminals to the "-" terminals of the second speaker.

Configuration of Speaker Output Signal

Connecting Yamaha Speakers

[SETUP] DIP switch 4/5

Setting the [SETUP] DIP switches optimizes the output signal to match Yamaha speakers designed for commercial installations.

[SETUP] DIP switch	4	5
Yamaha speakers designed for commercial installations	Surface mount-type down Ceiling-type down	up down
Non-Yamaha speakers	up	—

—: Setting is not required. (Either up or down can be used.)

Setting mono/stereo output

[SETUP] DIP switch 7

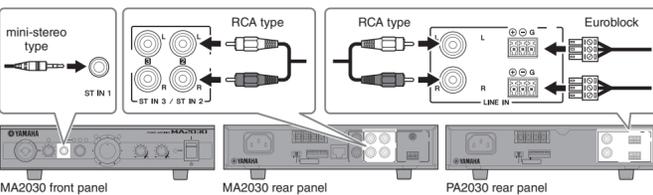
In a low-impedance installation, if speakers are placed in a stereo arrangement, set to stereo output.

[SETUP] DIP switch	7
High-impedance connections	— Mono output
Low-impedance connections	up Mono output down Stereo output (*1)

—: Setting is not required. (Either up or down can be used.)

*1: When stereo audio is output, the left channel signal is output from the [SPEAKERS A] terminals and the right channel signal is output from the [SPEAKERS B] terminals.

Step 2 Connecting External Devices



Connect a BGM (background music) tuner, a CD player, a portable audio player, etc. to the stereo input jacks of this device.

	Jack position	Jack name	Jack type
MA2030	Front panel	[ST IN 1] jack	mini-stereo type (unbalanced input)
	Rear panel	[ST IN 2] jack [ST IN 3] jack	RCA type (unbalanced input)
PA2030	Rear panel	[LINE IN] jack	Euroblock connector (balanced input; connect with supplied Euroblock plugs), RCA type (unbalanced input)

Note Refer to "Attaching Euroblock Plugs" for Euroblock plug installation.

- Make sure that this device and all devices to be connected are turned off.
- Connect this device and any external devices with appropriate cables.

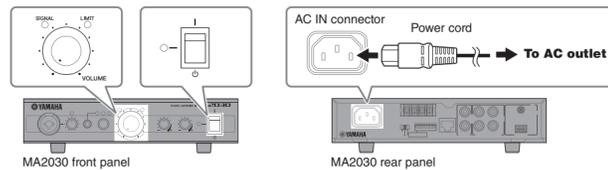
Leveler (suppressing wide playback volume variations)

[SETUP] DIP switch 6

The Leveler function automatically suppresses and corrects for large changes in the playback volume from external devices for a more consistent sound, such as when reproducing BGM (background music).

[SETUP] DIP switch	6
Leveler disabled	up
Leveler enabled	down

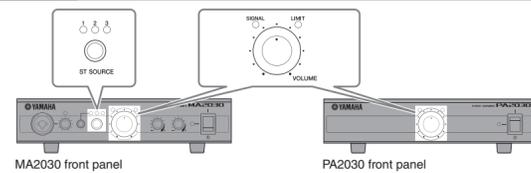
Step 3 Connecting Power Cord and Turning On



- Make sure power switches of this device and devices connected to this device are turned off (in position).
- Turn the [VOLUME] knob all the way to the left.
- Connect the supplied power cord to the AC IN connector.
- Insert the power cord plug into an appropriate outlet.
- After turning on the connected devices (portable audio players, CD players, etc.), turn on this device.

Note Before turning on the power, please check that there are no problems with the cabling, connections, and so on. When turning the system off, turn off this device, and then connected devices.

Step 4 Adjusting Volume



- Select a stereo input by rotating the [ST SOURCE] knob. The [ST SOURCE] indicator corresponding to the selected input signal lights.
- Input audio signal from the external device, and confirm that sound is being output from the speakers by gradually rotating the [VOLUME] knob to the right.

Make sure that the [VOLUME SIGNAL] indicator lights according to the sound input and that sound comes from the speakers.

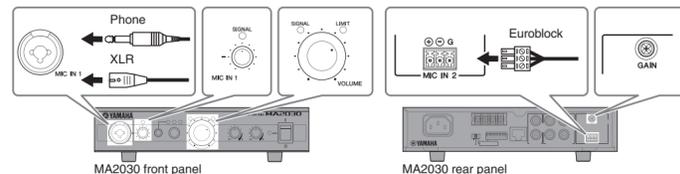
Matching the volume levels of external devices (including microphones)

When connecting two or more external devices, you can lower the volume of the louder devices (or microphones) to match the level of the faintest device. If you are using microphones, follow the instructions in "Option 1 Using Microphones" before executing the operation below.

- Select the stereo input with the loudest sound by rotating the [ST SOURCE] knob.
- Press and hold the [ST SOURCE] knob until the [ST SOURCE] indicator flashes.
- Rotate the [ST SOURCE] knob to the left until the volume decreases to the point that lowers as loud as that of the faintest sounding stereo input (or microphones). As the volume becomes fainter, the flashing rate of the [ST SOURCE] indicator becomes slower.
- Push the [ST SOURCE] knob to complete the adjustment. The [ST SOURCE] indicator lights.

Note Adjustable range: -18dB – 0dB

Option 1 Using Microphones



- Turn the [MIC IN 1] knob or the [MIC IN 2 GAIN] trimmer all the way to the left, and connect a microphone to the [MIC IN 1] jack or the [MIC IN 2] connector.
- Set the [VOLUME] knob to roughly a 2:00 position.
- Loudly speak into the microphone, and turn the [MIC IN 1] knob or the [MIC IN 2 GAIN] trimmer to the right until the output signal is not distorted. If you input a loud voice but the output is small, raise the volume with the [VOLUME] knob. If the sound out of the speakers is too loud, lower the volume with the [MIC IN 1] knob or the [MIC IN 2 GAIN] trimmer.
- Make sure the input from external devices matches the volume levels of the microphones and the external devices.

Refer to "Matching the volume levels of external devices (including microphones)" in "Step 4 Adjusting Volume" for instructions.

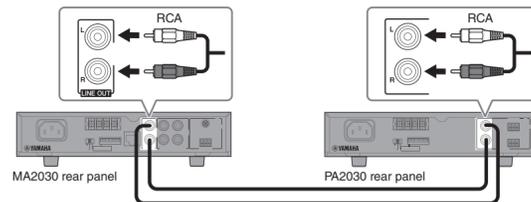
- Note**
- To adjust the [MIC IN 2 GAIN] trimmer, use a slotted screw driver.
 - Refer to "Attaching Euroblock Plugs" for installation of Euroblock plugs.
 - The input signal is always processed through a high pass filter (120Hz, 12dB/oct.) to cut off low frequency signals as well as a Feedback Suppressor to suppress howling.

Ducker (lowering the volume of the other channels automatically when a microphone signal is input)

Jack/connector	[MIC IN 1]	[MIC IN 2]
[SETUP] DIP switch	2	3
Ducker disabled	up	up
Ducker enabled	down	down

- Note**
- If both Duckers of the [MIC IN 1] jack and the [MIC IN 2] jack are enabled, the Ducker for the [MIC IN 1] takes priority.
 - Activating the Ducker lowers the output volume of the stereo inputs by 24dB and mutes that of the other microphone input.

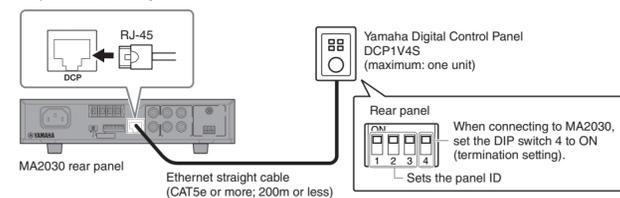
Option 2 Expanding Speakers



Connecting the MA2030 and PA2030 lets you increase the number of driven speakers. Connect the [LINE OUT] jacks of MA2030 and the [LINE IN] jacks of PA2030.

Option 3 Operating with Control Panel

Connecting Yamaha Digital Control Panel DCP1V4S to MA2030 enables you to control the volume, to switch inputs, etc. remotely.



The functions of the knob and the switches of DCP1V4S can be configured with DIP switches at the back of DCP1V4S.

Panel ID	DIP switch 1 2 3 4	Knob	Switch 1	Switch 2	Switch 3	Switch 4
0	□ □ □ □	—	—	—	—	—
1	□ □ □ □	Stereo 1	Stereo 2	Stereo 3	—	—
2	□ □ □ □	Mic. 1 ↗	Mic. 2 ↗	Mic. 1	Mic. 2	—
3	□ □ □ □	Mic. 1 ↗	Mic. 2 ↗	Mic. 1	Mic. 2	—
4	□ □ □ □	Mic. 1 ↗	—	Mic. 1	—	—
5	□ □ □ □	Mic. 2 ↗	—	Mic. 2	—	—
6	□ □ □ □	Mic. 1	Mic. 2	—	—	—
7	□ □ □ □	Mic. 1	Mic. 2	—	—	—

Volume: Adjusts the volume output to the [SPEAKERS] terminals and the [LINE OUT] jacks.

Stereo 1/2/3: Switches to stereo input 1/2/3.

Mic. 1/2: Turns on/off microphone input 1/2. When a microphone is on, the switch indicator of the control panel lights and the stereo input is muted.

• If the panel ID is set to 3, the stereo input is not muted even though the microphone is on.

• If the panel ID is set to 7, the microphone stays on while holding the switch.

↗: A chime sounds when the microphone is turned on/off

—: Does not work. (No function is assigned.)

Note Refer to "DCP1V4S Owner's Manual" for DCP1V4S installation.

Connecting Speaker Cables

The [SPEAKERS] output connectors on the rear panel are barrier strip type connectors. The connections are described below for two methods: using a spade lug and using a bare conductor.

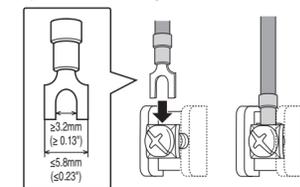
Caution

Ensure that load is not applied to the speaker cable.

Note Connect the cables so that the amplifier's "+" and "-" symbols match those of the speaker. If they are reversed, the phase will be reversed and the sound will not be output correctly.

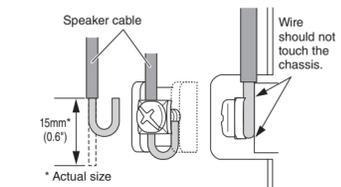
When using a spade lug

Loosen the screw, insert the spade lug all the way from below, and tighten the screw.

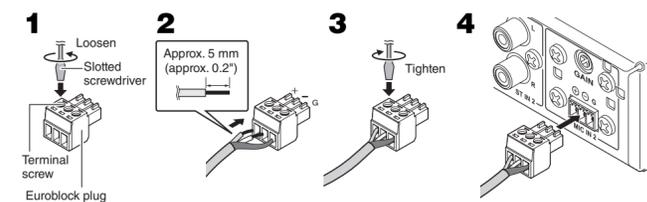


When using a bare conductor

Loosen the screw, wrap the conductor wire around the barrier strip terminal, and tighten the screw. Be sure that the bare wire does not touch the chassis.



Attaching Euroblock Plugs



- Note**
- You must use the supplied Euroblock plugs. If the plugs have been lost, please contact your Yamaha dealer.
 - 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.

- Loosen terminal screws.
- Insert cables.
- Securely tighten terminal screws.
- Insert the Euroblock plug into the [MIC IN 2] terminal of MA2030 or the [LINE IN] terminal of PA2030.

Panel Lock

Changes by several knobs can be locked, so that the settings of the device are not affected by accidental touch or unauthorized operation. The [ST SOURCE], [SOURCE EQ BASS] and [SOURCE EQ TREBLE] knobs can be locked.

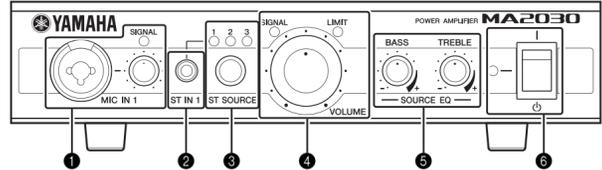
- Adjust the [ST SOURCE], [SOURCE EQ BASS] and [SOURCE EQ TREBLE] knobs to the desired fixed settings.
- Turn off the power.
- Set DIP switch 8 to the downward position.
- Turn the power back on again.

Note To unlock, turn off the power, set DIP switch 8 to the upward position, and turn on the power.

Controls and Connectors

Front panel

MA2030 (PA2030 has only ❶ and ❷)



- [MIC IN 1] jack** **[MA]**
Combo input jack that accepts both phone-type and XLR-type. Connect dynamic microphones mainly. Input signal is always processed through high pass filter (120Hz, 12dB/oct.) to cut off low frequency signal and Feedback Suppressor to suppress howling.
[MIC IN 1 SIGNAL] indicator **[MA]**
Lights when signal is input to the [MIC IN 1] jack.
[MIC IN 1] knob **[MA]**
Adjusts the volume of the microphone connected to the [MIC IN 1] jack. Turning to the right increases the volume.
- [ST IN 1] jack** **[MA]**
Input jack of mini-stereo type (unbalanced input). Connect a stereo audio source such as portable audio players.
[ST SOURCE] indicator 1/2/3 **[MA]**
Selecting input signal from the [ST IN 1] jack lights indicator 1, the [ST IN 2] jacks lights indicator 2, and the [ST IN 3] jacks lights indicator 3.
[ST SOURCE] knob **[MA]**
Rotating this switches among the stereo input signals. Pressing and holding this lets you adjust the volume balance of stereo inputs. Refer to "Matching the volume levels of external devices" (Step 4).

- [VOLUME SIGNAL] indicator**
Lights when signal output to speakers exceeds a certain level.
[VOLUME LIMIT] indicator
Lights if signal output to the speakers exceeds the limit value, causing the limiter to activate, or if the internal temperature of the device increases abnormally. If the limiter activates, turn the [VOLUME] knob to the left so the indicator light goes out. If the device internal temperature increases, leave the device without turning on the power until the internal temperature goes down.
[VOLUME] knob
Adjusts the volume output to the speakers. Turning to the right increases the volume. Turning all the way to the left mutes the sound.
- [SOURCE EQ BASS] knob** **[MA]**
Adjust the volume of the low frequency (around 125Hz) stereo signal from -10dB to +10dB. At the center position, the sound is flat; turning to the left lowers the low frequency signal and turning to the right increases the low frequency signal. Turning to the right 90 degrees or more from the center activates the Enhancer to further emphasize the low frequency signal.
[SOURCE EQ TREBLE] knob **[MA]**
Adjust the volume of the high frequency (6 kHz or more) stereo signal from -10dB to +10dB. At the center position, the sound is flat; turning to the left lowers the high frequency signal and turning to the right increases the high frequency signal. Turning to the right 90 degrees or more from the center activates the Enhancer to further emphasize the high frequency signal.
Note If the sound distorts when using EQ, turn the knob to the left until the sound is not distorted or lower the volume of the stereo source.
- Power indicator**
Turns on when the power is on.
If flashing continues for 10 seconds or more, the internal temperature of the device is extremely high. Turn off the power once, and turn on again several minutes later.
Power switch
Turn on/off the power.
Caution
To ensure that high-volume noise is not output from the speakers, power on the connected device first and then turn on this device. When turning the system off, turn off the device, and then the connected devices.
After turning the power switch off, wait for about five seconds before turning it on again. Rapidly turning the power switch on and off in succession can cause the unit to malfunction.
Even when the switch is in the off position, a small amount of electricity is still flowing to the unit. If it will not be used for an extended period of time, therefore, be sure to unplug the power cord from the wall AC outlet.
Note Do not turn off the power switch three seconds or less after executing an operation. If you do, some setting information may not be saved.

Setting	Signal level for which each indicator turns on	
	[VOLUME SIGNAL]	[VOLUME LIMIT]
Low-impedance connections	[30]	-18.2 dBu or more
	[40]	-17.0 dBu or more
High-impedance connections	[70V]	-0.8 dBu or more
	[100V]	2.3 dBu or more

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

Please keep this manual in a safe place for future reference.

WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

- Power supply/power cord**
 - Do not place the power cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on it, trip over, or roll anything over it.
 - Only use the voltage specified as correct for the device. The required voltage is printed on the name plate of the device.
 - Use only the supplied power cord. If you intend to use the device in an area other than in the one you purchased, the included power cord may not be compatible. Please check with your Yamaha dealer.
 - Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.
 - Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock, damage to the device(s), or even fire.
- Do not open.**
 - This device contains no user-serviceable parts. Do not open the device or attempt to disassemble the internal parts or modify them in any way. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.
- Water warning**
 - Do not expose the device to rain, use it near water or in damp or wet conditions, or place on it any containers (such as vases, bottles or glasses) containing liquids which might spill into any openings. If any liquid such as water seeps into the device, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified Yamaha service personnel.
 - Never insert or remove an electric plug with wet hands.

Connections

- Before connecting the device to other devices, turn off the power for all devices. Before turning the power on or off for all devices, set all volume levels to minimum.
- Use only speaker cables for connecting speakers to the speaker jacks. Use of other types of cables may result in fire.

Maintenance

- Remove the power plug from the AC outlet when cleaning the device.

Handling caution

- When the surface of the device heats up, do not touch it until the panel temperature returns to normal. Touching the surface with its high temperature may cause burns.
- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device (vents, etc.) If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified Yamaha service personnel.
- Do not rest your weight on the device or place heavy objects on it, and avoid use excessive force on the buttons, switches or connectors.
- Do not use the device for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.
- Do not operate the device if the sound is distorting. Prolonged use in this condition could cause overheating and result in fire.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the device, or data that is lost or destroyed.

NOTICE

To avoid the possibility of malfunction/ damage to the product, or damage to other property, follow the notices below.

Handling and maintenance

- Do not use the device in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the device, TV, or radio may generate noise.
- Do not expose the device to excessive dust or vibration, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day), in order to prevent the possibility of panel discoloration, unstable operation, or damage to the internal components.
- Do not place vinyl, plastic or rubber objects on/under the device, since this might discolor the panel of the device or the objects placed on/under the device.

- Keep input cables of microphone, etc., devices that contain sensitive circuits, and the power cord at a distance from speaker cables and fasten the speaker cables in place. Since a large amount of current can flow in a speaker cable, a magnetic field will be generated and may produce radio interference and acoustic noise.
- When cleaning the device, use a dry and soft cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.
- Condensation can occur in the device due to rapid, drastic changes in ambient temperature-when the device is moved from one location to another, or air conditioning is turned on or off, for example. Using the device while condensation is present can cause damage. If there is reason to believe that condensation might have occurred, leave the device for several hours without turning on the power until the condensation has completely dried out.
- Avoid setting all equalizer controls and faders to their maximum. Depending on the condition of the connected devices, doing so may cause feedback and may damage the speakers.
- Do not use this device for any purpose other than driving loudspeakers.
- When turning on the AC power in your audio system, always turn on the device LAST, to avoid speaker damage. When turning the power off, the device should be turned off FIRST for the same reason.
- If you put the device on a table or a rack, do not remove the rubber feet from the device.
- Always turn the power off when the device is not in use.

CAUTION

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the device or other property. These precautions include, but are not limited to, the following:

- Power supply/power cord**
 - When removing the electric plug from the device or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
 - Remove the electric plug from the outlet when the device is not to be used for extended periods of time, or during electrical storms.
- Location**
 - Do not place the device in an unstable position where it might accidentally fall over.
 - Do not block the vents. This device has ventilation holes at the top/bottom/sides to prevent the internal temperature from becoming too high. In particular, do not place the device on its side or upside down. Inadequate ventilation can result in overheating, possibly causing damage to the device(s), or even fire.
 - When attempting to dissipate heat on the device, when installing
 - Do not cover it with any cloth.
 - Do not install it on a carpet or rug.
 - Make sure the top surface faces up; do not install on its sides or upside down.
 - Do not install the device in a confined, poorly-ventilated location.
 - Inadequate ventilation can result in overheating, possibly causing damage to the device(s), or even fire.
 - Make sure that there is adequate space around the device: at least 10 cm between the top and the bottom surface, 10 cm at the sides and 10 cm behind.
 - Do not place the device in a location where it may come into contact with corrosive gases or salt air. Doing so may result in malfunction.

- Before moving the device, remove all connected cables.
- When setting up the device, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the outlet. Even when the power switch is turned off, electricity is still flowing to the product at the minimum level. When you are not using the product for a long time, make sure to unplug the power cord from the wall AC outlet. If the device is mounted in an EIA standard equipment rack, carefully read the section "Precautions for rack mounting". Inadequate ventilation can result in overheating, possibly causing damage to the device(s), malfunction, or even fire.

FCC INFORMATION (U.S.A.)

- 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 warranty, granted by the FCC, to use the product.
- IMPORTANT:**
When connecting this product to accessories and/or another product use only high quality shielded cables. Cables 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 U.S.A.
- 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 user's 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 filters.
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 co-axial 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 Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA 90620
The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

The model number, serial number, power requirements, etc., may be found on or near the name plate, which is at the bottom of the front panel.
You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No.

Serial No.

(bottom_en,01)

IMPORTANT NOTICE FOR THE UNITED KINGDOM

Connecting the Plug and Cord
WARNING: THIS APPARATUS MUST BE EARTHED
IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:
GREEN-AND-YELLOW : EARTH
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 GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or colored GREEN or GREEN-AND-YELLOW.
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.

(3 wires)

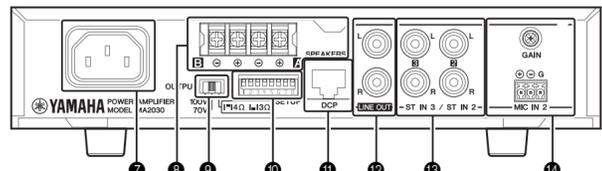
In Finland: Laitte on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.
In Norway: Apparatet må tilkoples jordstikknett.
In Sweden: Apparatens skål anslutits till jordtak.
(class 1 houko)

CAN ICES-3 (B)/NMB-3(B)

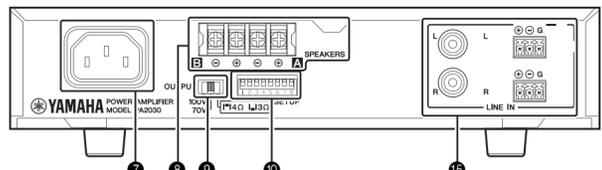
This applies only to products distributed by Yamaha Canada Music Ltd.
(can_b,01)

Rear panel

MA2030



PA2030



- AC IN connector**
Connect the supplied power cord.
Caution
 - When connecting the power cord, connect the power cord to the connector and then plug it into an appropriate AC power outlet.
 - Before connecting or disconnecting the power cord, make sure that the power to the device is turned off.
- [SPEAKERS] output terminals**
Barrier strip type speaker output connectors. Refer to "Connecting Speaker Cables" for the installation instructions.
- [OUTPUT] switch**
Sets the output type of amplifier: high-impedance connection (100V, [70V]) or low-impedance connection ([40 30]). The setting change will be reflected after turning on again.

[SETUP] DIP switches

Set the following functions of the device. The setting change will be reflected after turning on again.

number	setting function	up 	down 
1	OUTPUT	4Ω	3Ω
2	MIC 1 DUCKER [MA]	OFF	ON
3	MIC 2 DUCKER [MA]	OFF	ON
4	SP EQ	OFF	ON
5		SURFACE	CEILING
6	LEVELER [MA]	OFF	ON
7	MIXER	MONO	STEREO
8	PANEL LOCK [MA]	UNLOCK	LOCK

- Note**
 - When the device is shipped from the factory, the DIP switches are all in the up position.
 - If DIP switches 2 and 3 (MIC 1 DUCKER and MIC 2 DUCKER) are set to on, when both microphones are used simultaneously, the [MIC IN 1] jack is prioritized and the microphone input that connected to the [MIC IN 2] connector is muted.
 - The output of the [LINE OUT] jacks does not reflect the stereo/mono setting in [SETUP] DIP switch 7 (MIXER).

- [DCP] connector** **[MA]**
Connect one Yamaha Digital Control Panel DCP1V4S. Refer to "Option 3 Operating with Control Panel" for connection method.
- [LINE OUT] jacks** **[MA]**
RCA type stereo output jack (unbalanced output). Outputs to the [LINE IN] jacks of PA2030 and line input jacks of other external devices. Outputs a mixed signal of the selected stereo input, the [MIC IN 1] jack input and the [MIC IN 2] jack input.
- [ST IN 2] jacks/[ST IN 3] jacks** **[MA]**
RCA type stereo input jack (unbalanced output). Connect external devices such as CD player, etc. Select input jacks with the [ST SOURCE] knob on the front panel.
- [MIC IN 2] connector** **[MA]**
Euroblock 3-pin connector for microphone audio input (balanced). Refer to "Attaching Euroblock Plugs" for Euroblock plug installation. The input signal is always processed through a high pass filter (120Hz, 12dB/oct.) to cut off low frequency signals as well as a Feedback Suppressor to suppress howling.
[MIC IN 2 GAIN] trimmer **[MA]**
Adjust the volume of microphone that is connected to the [MIC IN 2] connector. Adjust with a slotted driver of the correct size.
- [LINE IN] jacks/connectors** **[PA]**
RCA type and Euroblock 3-pin stereo input jacks/connectors (RCA: unbalanced; Euroblock 3-pin: balanced). Connect to the [LINE OUT] jacks of the MA2030 or output jacks of other external devices. The signals input from the RCA type jacks and Euroblock connector will be mixed to the output.

Troubleshooting

Symptom	Cause	Solution
The power does not turn on.	The power cord is disconnected. The protection function of the device has been activated.	Connect the power cord. Turn off the power switch and make sure the connection is secure. Wait several minutes, and then turn on the power again.
No sound is heard.	The sound is lowered too much with the [VOLUME] knob. No audio signal is being input.	Turn the [VOLUME] knob to the right. Make sure that this device is properly connected to external devices. Make sure that the external device outputs audio signal.
The input is not selected.	The [ST SOURCE] switch is not selected.	Turn the [ST SOURCE] to select input jacks connected to an external device.
The sound distorts.	The input level from microphones or external devices is too high. The EQ level is too high.	Turn the [MIC IN 1] knob/the [MIC IN 2 GAIN] trimmer to the left to lower the volume of the microphones. Lower the input volume from the external devices. Turn the [SOURCE EQ BASS]/[SOURCE EQ TREBLE] knob to the left to lower the EQ.
The setting does not change even when turning a knob.	The panel is locked. When the panel is locked, even when turning the [ST SOURCE] knob, [SOURCE EQ BASS] knob or [SOURCE EQ TREBLE] knob, the setting of the device does not change.	Set DIP switch 8 to the upward position and turn on the power again.
The sound is small.	The device is set to low-impedance connection; however, speakers with high-impedance input have been connected. The device is set to high-impedance connection; however, speakers with low-impedance input have been connected or too many speakers are connected. When the device is set to low-impedance connection, the total impedance of the connected speakers is less than the impedance setting of this device. The speaker cable is shorted.	Match the impedance settings of this device and the connected speakers. Match the impedance setting and the input rating setting of this device and the speakers. Match the impedance settings of this device and the speakers.
The sound drops out and the power indicator flashes three times.	The internal temperature of the device is extremely high.	Turn off the power, leave the device at a well-ventilated place, and turn on the device several minutes later.

- Refer also to the Yamaha Pro Audio website that provides a FAQ (a list of frequently asked questions, with answers).
<http://www.yamahaproaudio.com/>
- If taking the above steps does not solve the problem, contact your Yamaha dealer for repair.

European Models
Inrush Current based on EN 55103-1:2009
3.0A (on initial switch-on)
2.0A (after a supply interruption of 5s)
Conforms to Environments: E1, E2, E3 and E4

(class B)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.
(fcc_sengen-C)

이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.
(class b korea)

Information for Users on Collection and Disposal of Old Equipment

This symbol on the products, packaging, and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling of old products, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC.

By disposing of these products correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.
For more information about collection and recycling of old products, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

[For business users in the European Union]
If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

[Information on Disposal in Other Countries outside the European Union]
This symbol is only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.
(weee_eu_en,01)



The above warning is located on the top of the unit.

Explanation of Graphical Symbols

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

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at exits, convenience receptacles, and the point where they plug into the apparatus.

WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.
(UL60065_03)

For details of products, please contact your nearest Yamaha representative or the authorized distributor listed below.

NORTH AMERICA	MALTA	ASIA
CANADA Yamaha Canada Music Ltd. 135 Milner Avenue, Toronto, Ontario, M1S 3R1, Canada Tel: 416-298-1311	Yamaha Music Ltd. The Emporium, Level 3, St. Louis Street Msida Msida06 Tel: 02132-2144	THE PEOPLE'S REPUBLIC OF CHINA Yamaha Music & Electronics (China) Co., Ltd. 2F, Yimheida, 1818 Xizhi-lu, Jingtao-shi, Shanghai, China Tel: 021-6451-1700
U.S.A. Yamaha Corporation of America 6600 Orangethorpe Avenue, Buena Park, CA 90620, U.S.A. Tel: 714-522-9011	NETHERLANDS/BELGIUM/ LUXEMBOURG Yamaha Music Europe Branch Benelux Clairsehof 5-8, 4133 AB Vianen, Netherlands Tel: 0347-358 040	INDIA Yamaha Music India Pvt. Ltd. Spazedge building, Ground Floor, Tower A, Sector 47, Gurgaon, Sohna Road, Gurgaon, Haryana, India Tel: 0124-4853-3300
MEXICO Yamaha de Mexico, S.A. de C.V. Av. Insurgentes Sur 1647 Piso 9, Col. San José Insurgentes, Delegación Benito Juárez, Mexico, D.F., C.P. 03900 Tel: 562-043-6000	FRANCE Yamaha Music Europe 7 rue Ambroise Croizat, Zone d'activités Parisot, 7183 Croisy-Beaubourg, France Tel: 01-46-61-0000	INDONESIA Yamaha Music Indonesia (Distributor) Yamaha Music Center Bldg. Jalan Jend. Gatot Subroto Kav. 4, Jakarta 12950, Indonesia Tel: 021-529-2577
ARGENTINA Yamaha Music Latin America, S.A., Sucursal Argentina Olga Cossetti 1553, Piso 4 Norte, Ciudad de Buenos Aires, Argentina Tel: 011-419-7000	ITALY Yamaha Music Europe GmbH, Branch Italy Viale Italia 82, 20020 Linate (Milano), Italy Tel: 02-9575-771	KOREA Yamaha Music Korea Ltd. 9F, 9F, Dongsung Bldg. 158-9 Samsung-Dong, Kangnam-Gu, Seoul, Korea Tel: 02-3467-3300
VENEZUELA Yamaha Music Latin America, S.A., Sucursal Venezuela C.C. Manzanas Plaza P4 Ofic. 0401 - Manzanas/Banata Caracas Venezuela Tel: 582-24942-877	SPAIN/PORTUGAL Yamaha Music Europe GmbH Iberica, Sucursal en España Cra. de la Corona km. 17,200, 28231, Las Rozas (Madrid), Spain Tel: +3491-639-8848	MALAYSIA Yamaha Music (Malaysia) Sdn. Bhd. No.8, Jalan Perbandaran, Kelana Jaya, 47301 Petaling Jaya, Selangor, Malaysia Tel: 03-7803690
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