

Operation Manual

Digital SR Amplifier **DSA-600Q**



* Rack mount products in the Western Hemisphere(North America, South America, and the Caribbean) do not have handles installed due to customer preference.

interM

Welcome

A personal welcome to you from the management and employees of Inter-M

All of the co-workers here at Inter-M are dedicated to providing excellent products with inherently good value, and we are delighted you have purchased one of our products.

We sincerely trust this product will provide years of satisfactory service, but if anything is not to your complete satisfaction, we will endeavor to make things right.

Welcome to Inter-M, and thank you for becoming part of our worldwide extended family!



WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol 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.



This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

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.

Attentions: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.
Pour déconnecter complètement l'appareil du réseau d'alimentation. déconnecter le cordon d'alimentation de la prise murale.
La prise du réseau d'alimentation doit demeurer aisément accessible.

*WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING-WATER AND MOISTURE: Unit should not be used near water(e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so than objects do not fall and liquids are not spilled into the enclosure through openings.

*CLASS 2 WIRING (Adjacent to speaker terminal): The speaker output of this apparatus can exceed 10 Watts and could be a shock injury. Connection to speakers should be performed by a skilled person.

*Do not install this equipment in a confined space such as a book case or similar unit.

*Warning : To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.

*This apparatus shall be connected to a mains socket outlet with a protective earthing connection.

*To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.

*The mains plug of the power supply cord shall remain readily accessible.

CAUTION

*These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

NOTE

*This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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Unpacking

Although your DSA-600Q is neither complicated nor difficult to operate, we recommend you take a few minutes to read this brief manual and familiarize yourself with the important information regarding product features, setup and operation.

As with most electronic devices, we strongly recommend you retain the original packaging. In the unlikely event the product must be returned for servicing, the original packaging (or reasonable equivalent) is required.

Installation

Environment

Never place this product in an environment which could alter its performance or reduce its service life. Such environments usually include high levels of heat, dust, moisture, and vibration.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. 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.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Features

- **High-Power, high performance 4 channel Class-D Power Amplifier**

High-Power, high performance Class-D Professional Amplifier has up to 2400W (600W×4) power output.

- **Complete Protection Circuits**

Complete circuit protection is activated in case of amplifier overheating, output shorting, overload, over power and DC output.

- **SMPS (Switching Mode Power Supply) power scheme**

High efficient, light weight SMPS power system is utilized.

- **Powerful and detailed sound quality**

High S/N ratio and Low THD reproduces powerful and detailed sound.

- **Operation Indicator LED**

LED display to check the operating status (ACT, STBY, POWER, SIG, -10dB, CLIP, PROTECT)

- **Balanced Input**

This connection is used to ensure the lowest noise operation which eliminates the common noise from the cable.

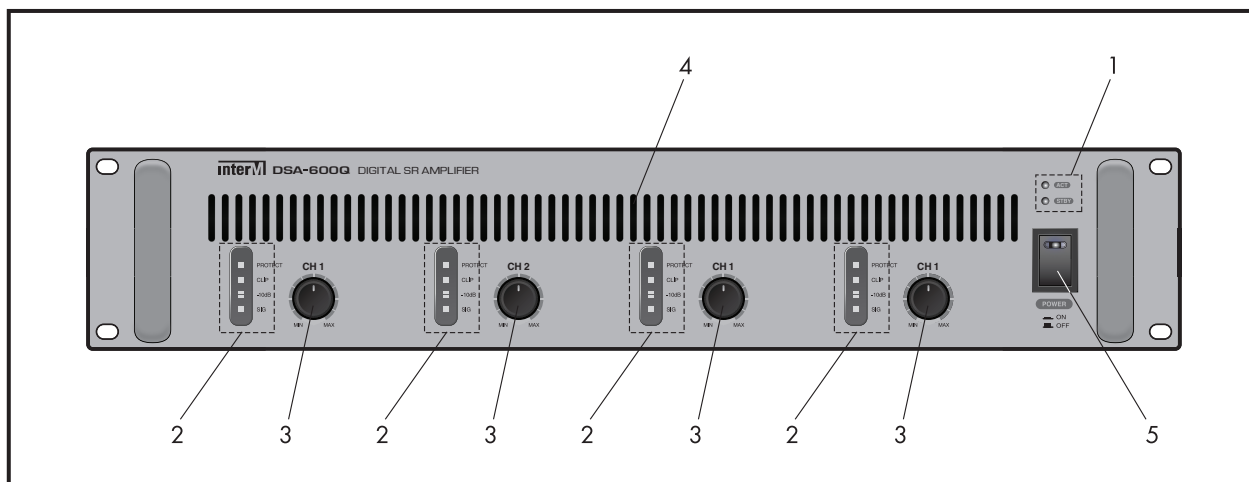
- **PRIORITY Input**

PGM is interrupted and over ridden by the Priority input, when a contact closure is received on the PRI select terminal. This is Ideal for Emergency message broadcasting applications.

Accessories

- Ac Power Cord×1
- 2P Terminal Block (Ac Remote power)×1
- 8P Terminal Block×1
- Screws for Rack mount Bracket×4
- Washer x 4
- Operation Manual×1

Front Panel



1. ACT, STBY LED

ACT LED: This LED turns on when power switch is pressed. The device is operable when this LED is on.

STBY LED: This LED turns on when AC power cord is connected. The device is standby when this LED is on.

2. LEVEL, CLIP, PROTECTION INDICATOR (CH1, CH2, CH3, CH4)

Indicator display of unit's output level status.

SIG (-30dB): Green, -10dB: Green, CLIP: Orange, PROTECT: Red

※ Note: If CLIP LED is lit, sound output is distorted. Reduce the volume level.

3. VOLUME CONTROL (CH1, CH2, CH3, CH4)

Volume adjustments are made. Turn clockwise to increase the volume level.

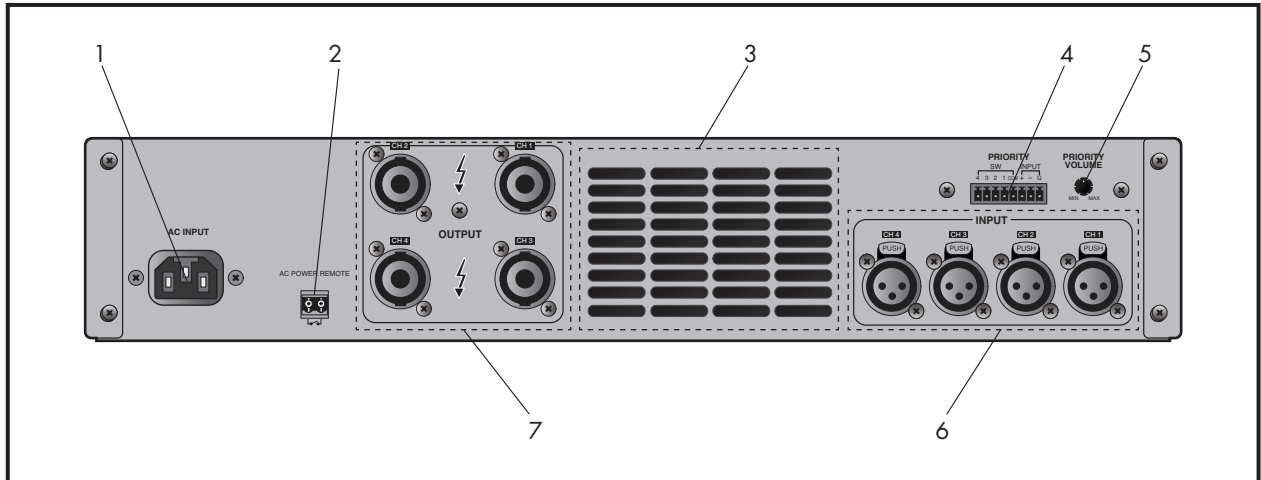
4. FAN VENTS

The air circulation passage to prevent overheating of the device, please do not obstruct the flow as air flows from front to back.

5. POWER SWITCH

This button controls power status POWER LED turns on when this switch is pressed.

Rear Panel



1. AC POWER INPUT

AC cable input jack. Power rating is AC 120V, 60Hz or AC 220-240V, 50/60Hz (Supplied AC mains transformer depends on country requirements).

2. AC POWER REMOTE

This terminal allows the amplifier to be turned on or off from a distance or other device.

3. FAN VENTS

Air flow is front to back. DO NOT block front or rear air vents.

4. PRIORITY INPUT AND CONTACT CLOSURE

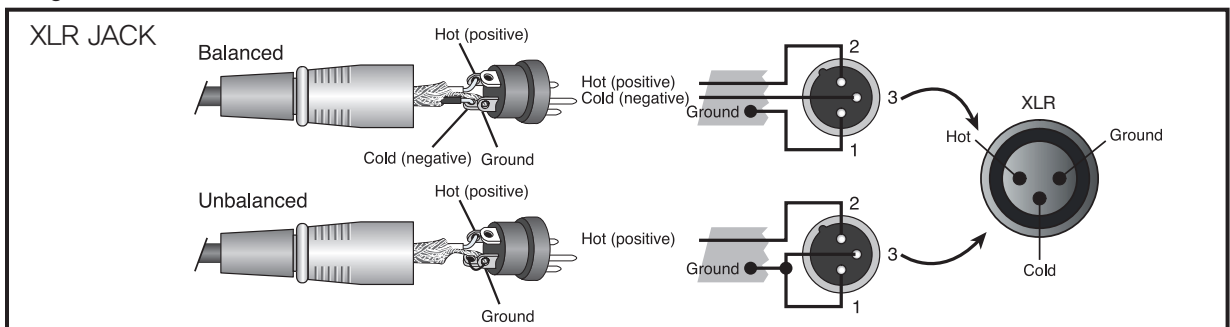
The primary regular broadcast program input, PGM is interrupted and overridden by the Priority input, PRI, when a contact closure is received on the PRI select terminal. This is Ideal for emergency broadcasting.

5. PRIORITY VOLUME CONTROL

It controls the mute level of all other input signal when the PRIORITY INPUT signal is present.

6. XLR INPUT TERMINAL

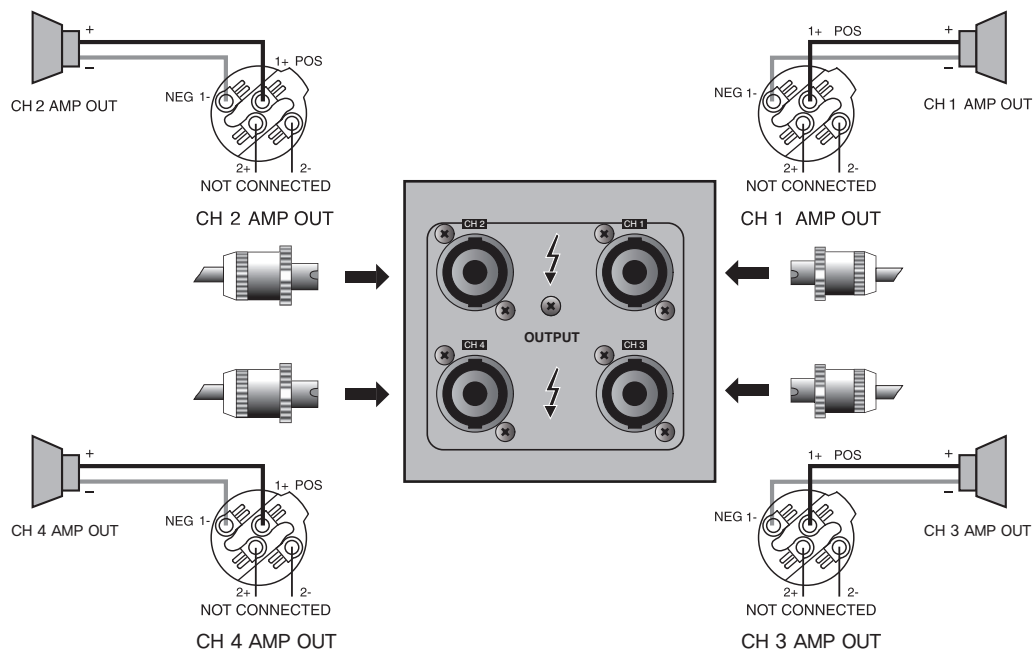
Input terminal jacks for preamp or audio mixer output. Terminal is XLR (Female) type and use balanced jacks. If unbalanced cable is used, use only in a short distance between the devices as unbalanced cables are prone to noise in the line. And if balance jack is used as unbalanced jack connection, please refer to the diagram below.



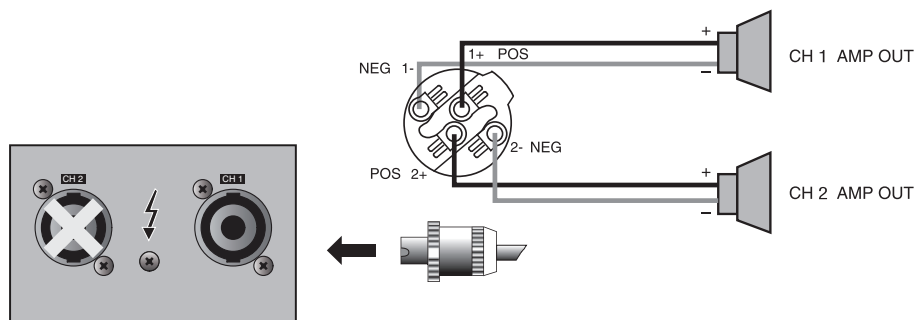
7. OUTPUT TERMINAL

Output Terminals are set in 4 Pole Speaker Socket.

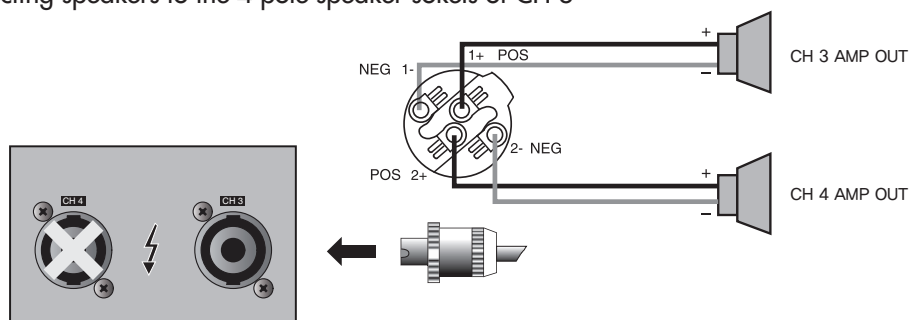
When connecting speakers to four 4 pole speaker sockets of CH 1, 2, 3, 4



When connecting speakers to in 4 pole speaker sockets of CH 1

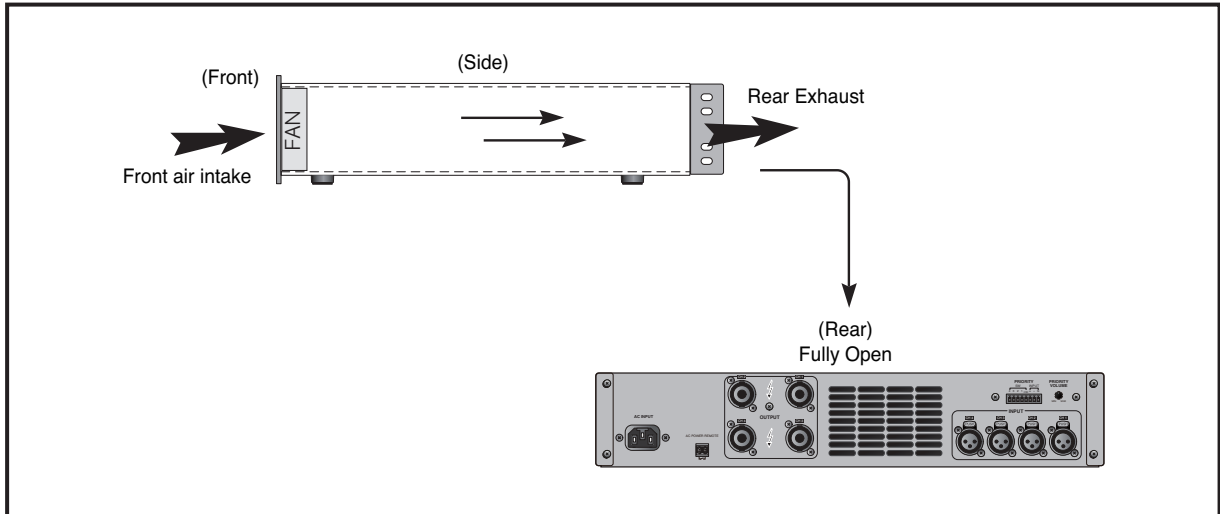


When connecting speakers to in 4 pole speaker sockets of CH 3

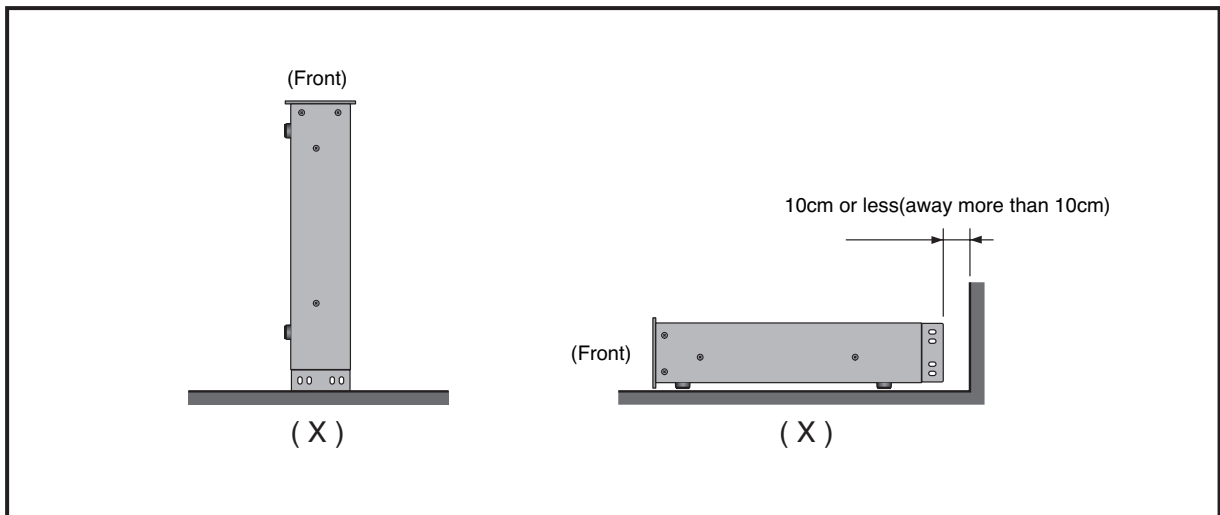


Installation Precautions

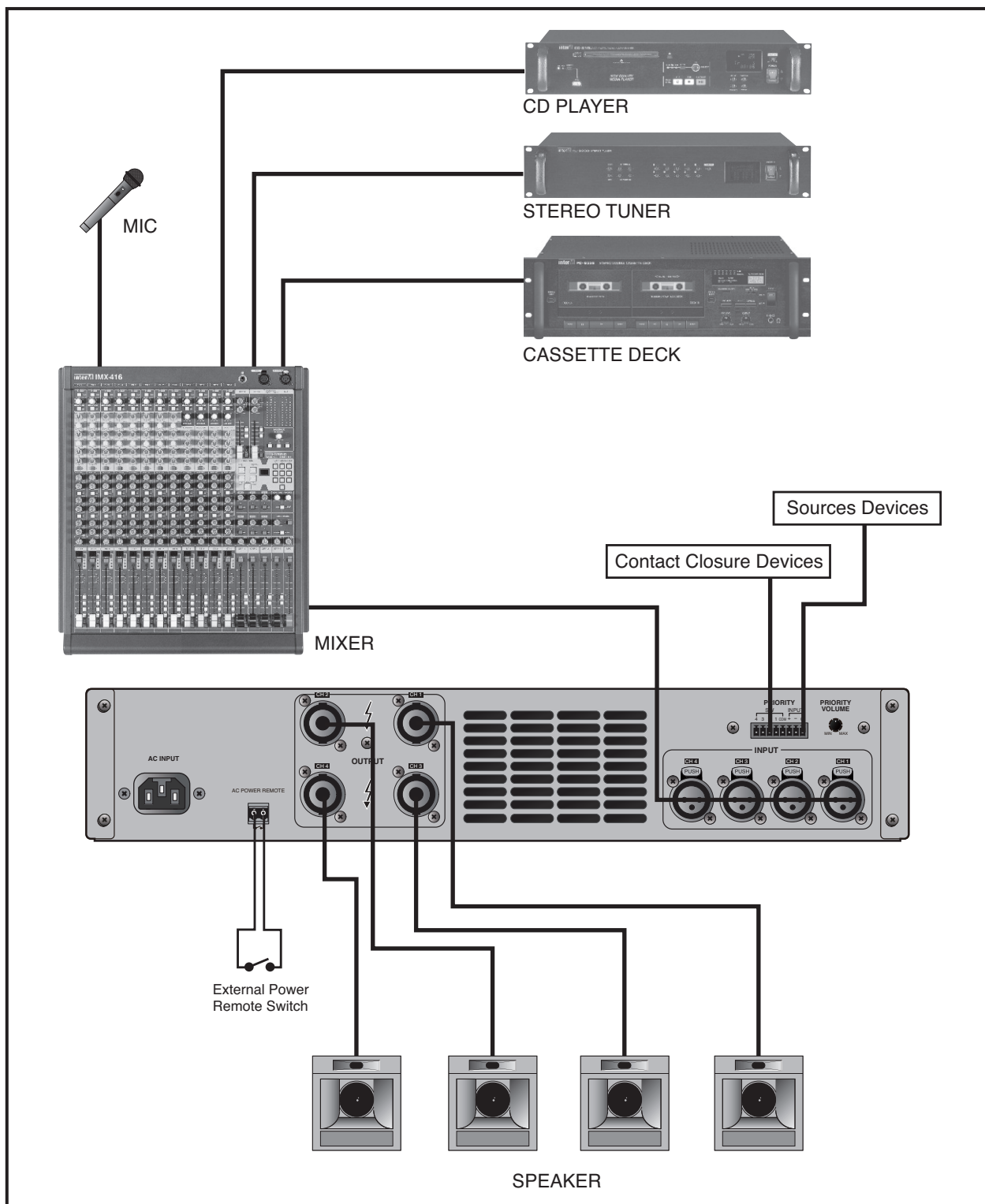
1. This unit employs front air intake, rear exhaust forced air cooling, therefore, when installing in portable rack, leave the rear opening clear of obstructions.



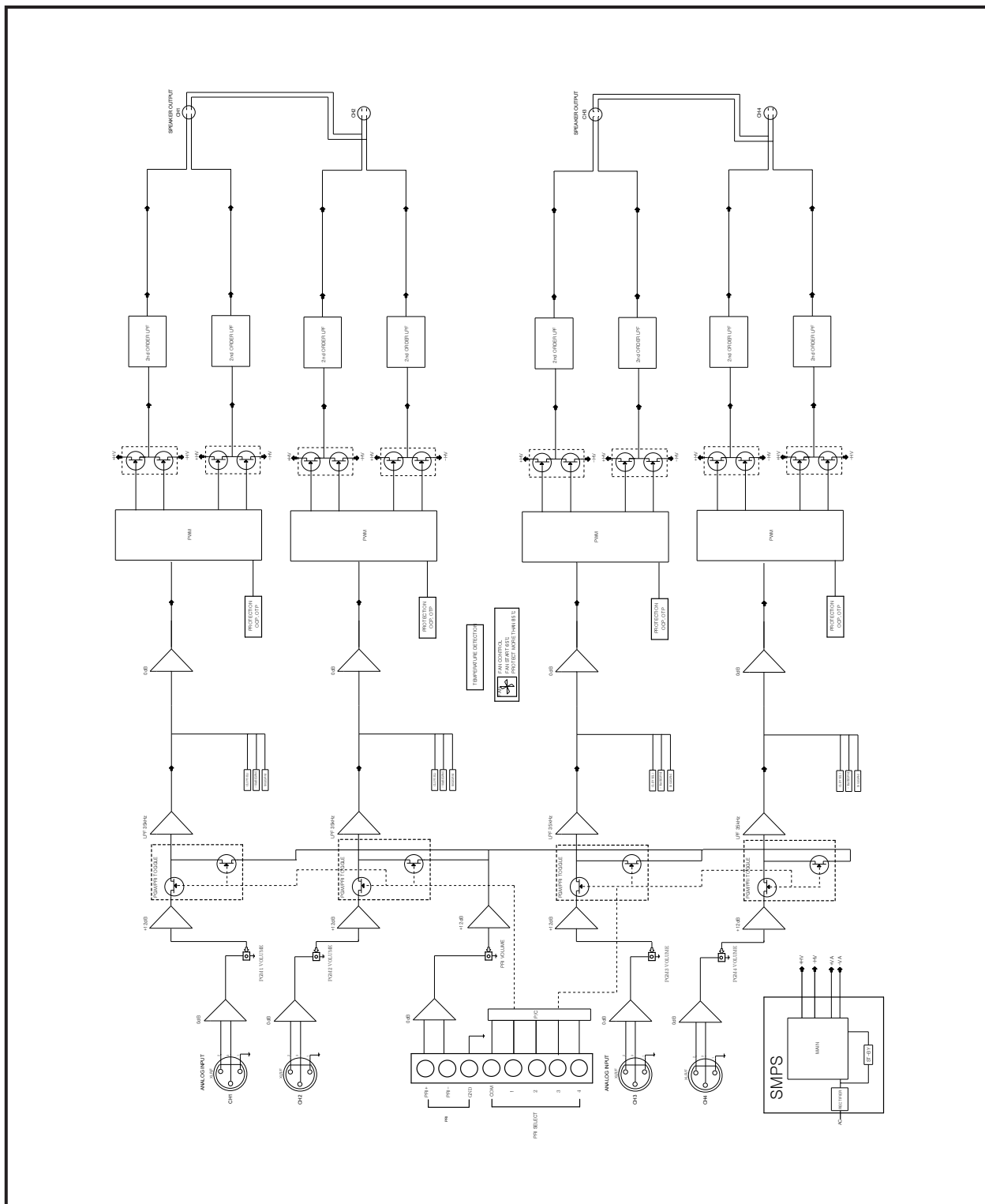
2. When using power amplifier, please install the unit where there is no airflow block to the heat sink.



Applications



Block Diagram

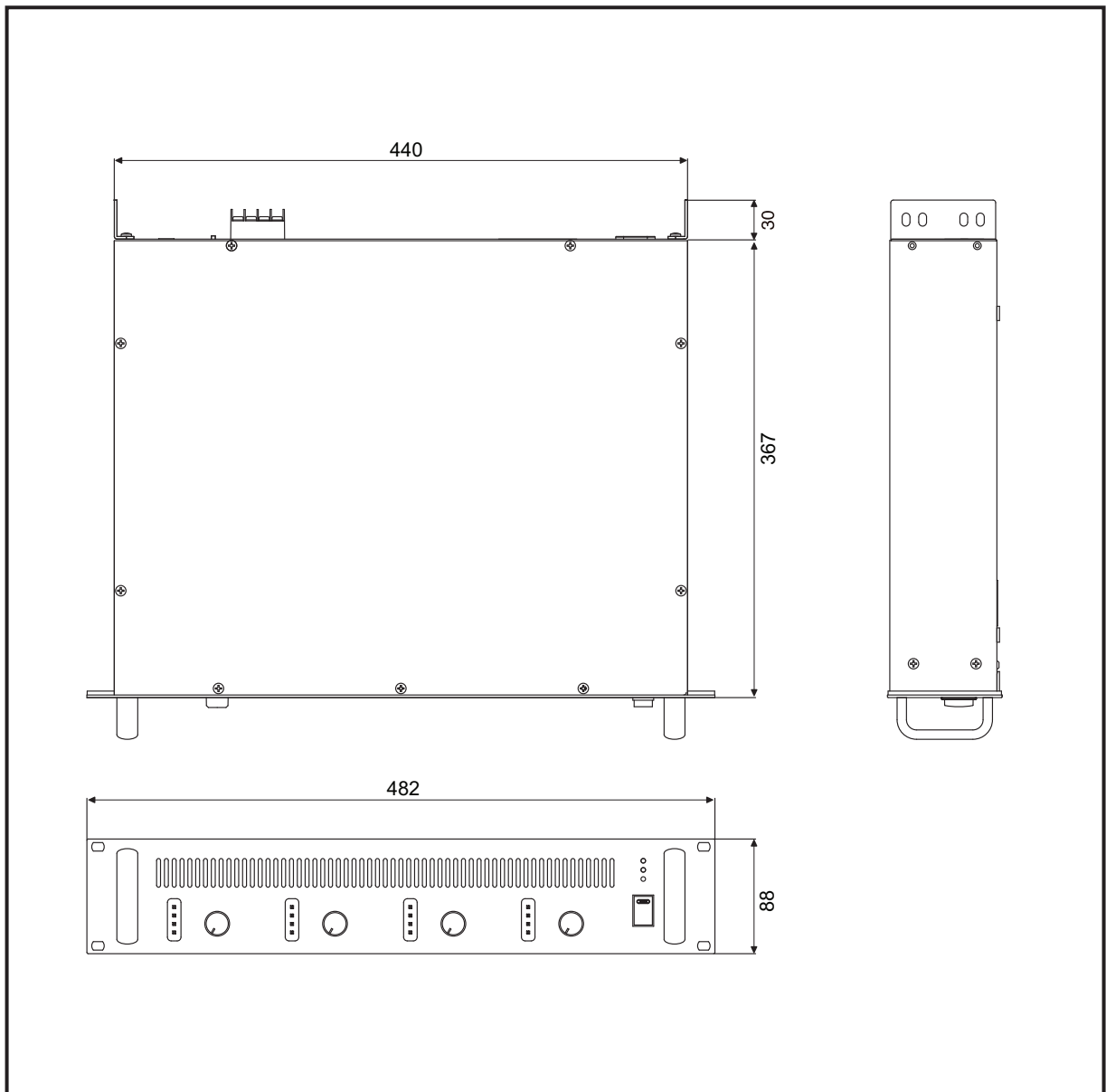


Specifications

		DSA-600Q
Rated Output (STEREO)	8Ω per channel, stereo	300W
	4Ω per channel, stereo	600W
Voltage Gain (rated output power@8Ω)		32dB
Input Sensitivity (rated output power@8Ω)		1.23Vrms
Frequency Response		20Hz ~ 20kHz, 0dB±3dB
THD (1/3 rated output power@8Ω)		Less than 0.1%
Residual Noise (Volume MAX@8Ω)		Less than -65dB
S/N (rated output@8Ω, 20Hz ~ 20kHz)		Better than 100dB
Output Circuit		Class D
Input Impedance		10kΩ Balanced
Indicator		SIG(-30dB), -10dB, Clip, Prot
Safety Circuit	Full Short Circuit, Thermal Protection	
	Power ON/OFF Muting, DC Output Protection	
Power Source		AC 220-240V, 50/60Hz
Operating Temperature / Humidity		Operating Temperature: -10°C ~ 40°C, Humidity: 0% ~ 90%
Power Consumption (1/8 rated output power @4Ω)		480W
Weight (set)		7.17kg / 15.81lb
Dimensions (set)		482(W) x 88(H) x 397(D)mm / 19(W) x 3.5(H) x 15.6(D)in

* Design and specification are subject to be changed for the improvement of product quality without pre notice.

※ DIMENSIONS



Service

Procedures

Take steps to insure the problem is not related to operator error or other products within the system. Information provided in the troubleshooting portion of this manual may help with this process. Once it is certain that the problem is related to the product contact your warranty provider as described in the warranty section of this manual.

Schematic

A Schematic is available by contacting your warranty provider.

Parts List

A Parts List is available by contacting your warranty provider.

Variations and Options

Variations

Products supplied through legitimate sources are compatible with local AC power requirements.

Options

No optional items are available for this product.

Warranty

Warranty terms and conditions vary by country and may not be the same for all products. Terms and conditions of warranty for a given product may be determined first by locating the appropriate country which the product was purchased in, then by locating the product type.

To obtain specific warranty information and available service locations contact Inter-M directly or the authorized Inter-M Distributor for your specific country or region.

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