

Operation Manual

Digital PA Combination System

PAC-5000



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.

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

*The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

*Worded: "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 that objects do not fall and liquids are not spilled into the enclosure through openings."

Service Instructions

*Worded: "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."

*Location: Instruction Manual.

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.



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.

*** It can be heated up if you use this product in closed box or ill-ventilated place.**

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Unpacking

Please take a few minutes to read this manual to familiarize yourself with important information regarding installation, product features, and operation.

As with most electronic devices, ORIGINAL PACKAGING (OR EQUAL) IS REQUIRED in the unlikely event that the product needs to be returned for servicing.

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

- TOTALLY INTEGRATED PA SYSTEM

The system has most of the functions and diversified sound sources in an existing broadcasting system with only one unit, which can economize an installing space and cut down a budget

- SIMULTANEOUS BROADCASTING OF DIFFERENT 2 GROUPS

Mounted two amplifiers(120W + 120W) with high impedances offer a BGM broadcast with two different sound sources by dividing Group A and Group B.

Full Digital Amplifier adopted in the system reduced the whole weight, a power consumption and a temperature increase in operation.

- BUILT-IN VARIOUS SOUND SOURCES

The system provides FM tuner, CD, DRP, and USB function as sound sources. and also it provides AUX 1/2 inputs for the external sound sources.

- LIFE TIME EXTENTION OF CD MECHANISM

Utilizing the function of copying a music in CD to the internal memory(DRP) or USB memory makes it possible to extend the Life-time of CD mechanism greatly.

- USB HOSTING

Possible to copy a file in CD or internal memory(DRP) to USB or to copy and playback a file in USB memory to DRP directly.

- REMOTE CONTROL

The system can be controlled by a PC or AMX/CRESTRON system. It is also controlled by ethernet.

※ But, it is impossible to control CD EJECT, TUNER MEMORY and each of the input level volumes.

- LCD TOUCH PANEL

※ You can use a LCD touch panel as well when you control the system by a PC.

- SYSTEM EXPANSION

The system can be expanded up to four units, and by passing through LINK-IN/OUT (CAT5) terminal it is possible to share sound sources.

- SELECTABLE FOR THE 24 CHANNEL ZONES

The system provides 24 channel zone selection, which can be controlled by 2 groups. Total zone can be expanded up to 120 channels by system expansion.

- RESERVATION BROADCASTING

Utilizing the reservation function of the PC program, it is possible to playback a sound source stored in PC at a time and area you want.

- 3 BAND EQ

You can control the 3 band EQ using the PC program.

- REMOTE MIC

Maximum 4 remote MICs can be connected to one unit of the system, and one of the four can accept 120 channels at maximum by installing key pads additionally.

- BUILT-IN MONITOR SPEAKER

The system provides the monitor speaker to monitor broadcasting.

- EMERGENCY POWER AND BATTERY CHARGING

The system provides the battery connecting terminal and the battery charging function to supply the emergency power.

- FIRE DETECTION AND EMERGENCY BROADCASTING

The system provides 24 channel sensor input terminals for automatic fire alarm broadcasting. It also provides the recording function of fire alarm message for fire alarm broadcasting.

- CHIME & SIREN

It has 2 kinds of chimes and sirens which are available to give a public announcement or in an emergency condition.

- MIC/LINE LEVEL SELECT SWITCH

The system provides MIC/LINE level select switch so that you can easily select the input as MIC or LINE.

- EM MIC

The system provides the EM MIC which is installed on the front panel. It is easy to use the EM MIC for fire alarm broadcasting.

- ANTI SHOCK SYSTEM

The CD mechanism has anti-shock function so that it is quite strong against any shock.

- MP3/WMA

The CD player can playback CD-DA, MP3 or WMA.

- INSTALL A RACK

Using the additional rack brackets, the system can be installed in a rack.

Additional Descriptions

- **MP3 (MPEG Audio Layer-3)**

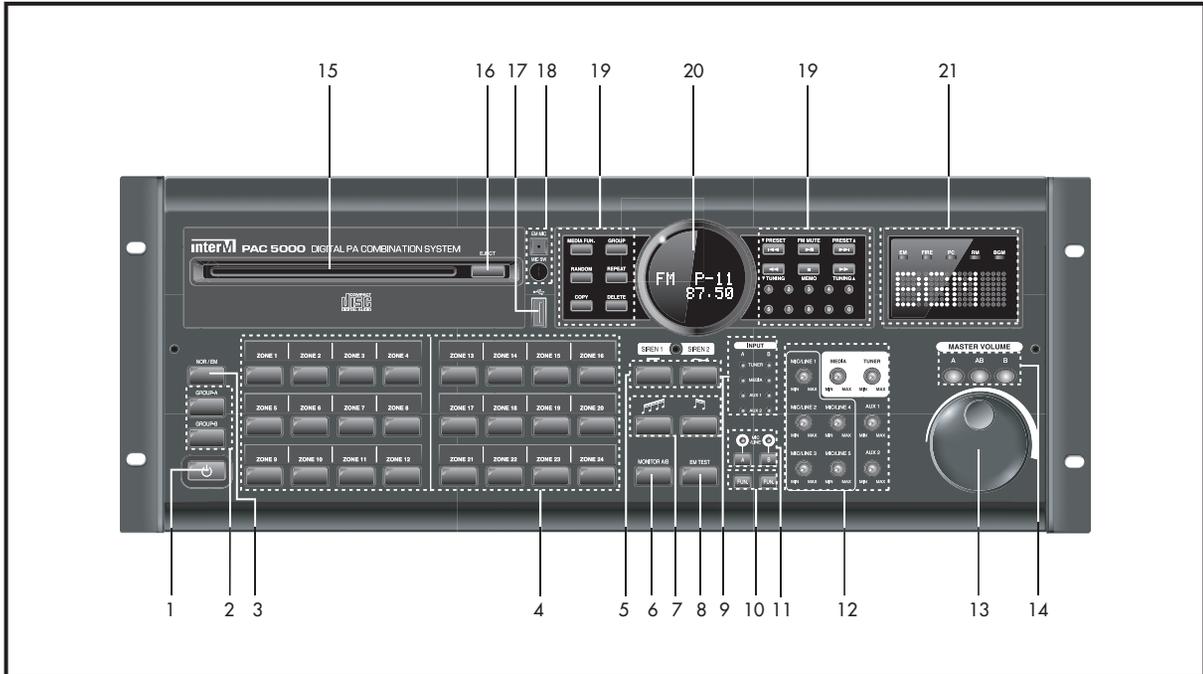
MP3 is one of music file formats that can contain music with stereo sound quality as good as audio CD, which is a type of MPEG as audio, video compression standards. Compression rate is 1Mb by 1 minute and thus about 3~ 5 minutes are sufficient if recording songs of 3~ 5 min or so. Differently from audio CD, a music file made of MP3 can contain over 130 songs for popular songs or folk songs and playing time is also about 10 hours. MP3 clears frequency range for a human being not to discernable and so has advantage to compact it to 1/12 or so while maintaining music as sound quality equivalent to CD level. For example, deriving a song in a music CD while maintaining music as sound quality equivalent to CD level becomes capacity of 50MB or so but if compressing and converting it to a MP3, size of the MP3 largely reduces to 4~5MB.

- **WMA (Windows Media Audio)**

WMA is a multimedia compression method developed by Microsoft Corporation and is technology to compress only music from 'Window Media Technologies', and provides same sound quality as format of MP3 up to 128Kbps, which has lower 64Kbps format than MP3.

In other words, it has a file size of the half of the MP3 and provides same sound quality as MP3.

Front Panel



1. POWER SWITCH

Connect the power plug to a wall outlet in your place and then by utilizing the button, power ON/OFF. When the power is ON, the button LED (red) puts out, but in standby power state the button LED lights. The main power switch locates on the rear part of the product.

2. GROUP-A / B BUTTON

The button switches on or off the whole speaker zone set by Group A and B whose initial setting values are 12 for Group A (ZONE1~12) and 12 for Group B (ZONE13~24) respectively. And you can freely reset 12 zones in each within the 24 zones.

3. NORM / EM (NORMAL / EMERGENCY) BUTTON

It is used to select the normal broadcast mode or the emergency broadcast mode. In the normal broadcast, the green LED lights and in the emergency broadcast the red LED lights.

4. SPEAKER ZONE SELECTION BUTTON (1~24)

It is used to operate speaker zones in Group A or Group B individually. When the zone switch is pressed, the LED of the corresponding button is lit. For Group A the green LED is lit, for Group B the yellow LED is lit, and for an emergency broadcasting the red LED is lit respectively. A zone state set up remains saved even in the mode conversions from power ON to OFF and from normal to emergency broadcast mode.

5. SIREN BUTTON

The button is used to select and run continuous or undulating sire.

6. MONITOR SPEAKER SELECTION BUTTON

The button is used to monitor speaker outputs of Group A or B.

- 1) A speaker output is changed from Group A (Green LED) > Group B (Yellow LED) > OFF when press it by once.
- 2) When the button is being pressed for a long time, an output level(Low/High) is changed then.

7. CHIME BUTTON

The button is used to run the chime with 4 musical scales or 2 musical scales, it is useful before or after a MIC broadcast.

- ※ Caution: To run a chime, MIC FUNCTION button is must be switched on. And when the chime button is pressed during copying, the copying is cancelled and then the chime outputs.

8. EMERGENCY BROADCASTING TEST BUTTON

The function is utilized to test a system state or to inform an emergency state. When the button is being pressed for a long time in EM(Emergency) mode, the emergency broadcast is output, when you can select an additional speaker zone to output. When you press the button again for a long time, it will be cancelled.

9. INPUT DISPLAY LED

The LEDs indicate an input currently selected which are classified by Group A and B.

10. INPUT SELECTION BUTTON

Utilizing the button (FUN.) which is discerned by Group A and B you select an input you want. When pressing the button each and every time, it is changed in the order of TUNER > MEDIA > AUX1 > AUX2 > TUNER.

11. MIC SELECTION BUTTON AND DISPLAY LED

The button is utilized when using MIC, when LED must be switched on, which is divided by Group A and B. When the button is selected, it output by mixing with the input.

The priority order of MIC signals is from MIC1 and MIC2 to 5, in which MIC1 is the top priority so when MIC1 signals are input, the signals of MIC2~5 are automatically intercepted.

12. INPUT LEVEL VOLUME

The volume is utilized to adjust input levels of MIC 1~5, AUX1/2, TUNER, and CD.

13. MAIN VOLUME

The volume is utilized to adjust the whole sound level.

The adjust methods are changed according to the A, AB, or B selection button located on the upper part of the main volume.

14. VOLUME ADJUST SELECTION BUTTON

The button is utilized to adjust differently adjust speaker output levels par Group A.

- 1) A Button: Adjust only output levels of Group A.
- 2) B Button: Adjust only output levels of Group B.
- 3) A Button: Adjust output levels of Group A and B simultaneously.

15. DISC TRAY

It is CD disc tray, when a disc is put in the tray, it is inserted automatically.

16. EJECT BUTTON

The button is utilized to put out a disc.

17. USB TERMINAL

It is utilized to install a USB memory that copies and stores a file in a CD or the internal memory(DRP) or playbacks a music file directly in USB FUNCTION.

18. EM MIC AND OPERATING SWITCH

It is the internal condenser MIC which is utilized in the mode of fire and emergency broadcasting when the operating switch is being pressed.

19. MEDIA(CD/DRP/USB) AND TUNER FUNCTION BUTTON

1) MEDIA FUN. button

It is the function selection button. A function changes in the order of CD->DRP->USB when the button is pressed each time..

- CD Mode: Playback a CD.
- USB Mode: Playback a file stored in USB.
- DRP Mode: Playback a file stored the internal memory.

2) GROUP button

The button is utilized to search for files between folders when they are under several folders in case of MP3/WMA.

3) RANDOM button

It is utilized to playback files in random.

4) REPEAT button

It is utilized to select the repeat playback mode.

5) COPY button

It is utilized to copy a file or a CD disc.

It is possible to copy a CD to USB or DRP and also it is possible to copy a file among USB and DRP.

6) DELETE button

It is utilized to delete a file stored in USB or DRP.

7) |◀◀ (▼ PRESET) / ▶▶| (▲ PRESET) button

- It is utilized to select a track in MEDIA(CD/DRP/USB) Operation.
- And also it is utilized to select a radio station frequency saved in TUNER Operation.

8) ◀◀ (▼ TUNING) / ▶▶ (▲ TUNING) button

- It is utilized to search for a music being playback in MEDIA(CD/DRP/USB) Operation. It displaces as long as that the button is being pressed.
- And also it is utilized to search for a frequency you want by increasing or decreasing radio station frequencies in TUNER operation. It displaces by one STEP unit when the button is pressed each time for a short time and it runs the auto select station when the button is pressed for a long time.

9) ▶|| (playback/pause) / FM MUTE button

- It is utilized to playback or pause a file in MEDIA(CD/DRP/USB) Operation. It is playback by pressing ▶|| button and it is paused when the button is pressed one more time. .
- And also it is the button to MUTE a radio station in TUNER Operation whose receipt strength is feeble so that it is utilized to select only radio stations whose receipt strength is feeble are strong.

10) ■ (Stop) / MEMO button

- It is utilized to stop playback in MEDIA(CD/DRP/USB) Operation.
- And also it is utilized to memory a radio station frequency in TUNER Operation.

11) Numeral button (0~9)

- The button is utilized to search for a track or broadcast frequencies or to input numerals.

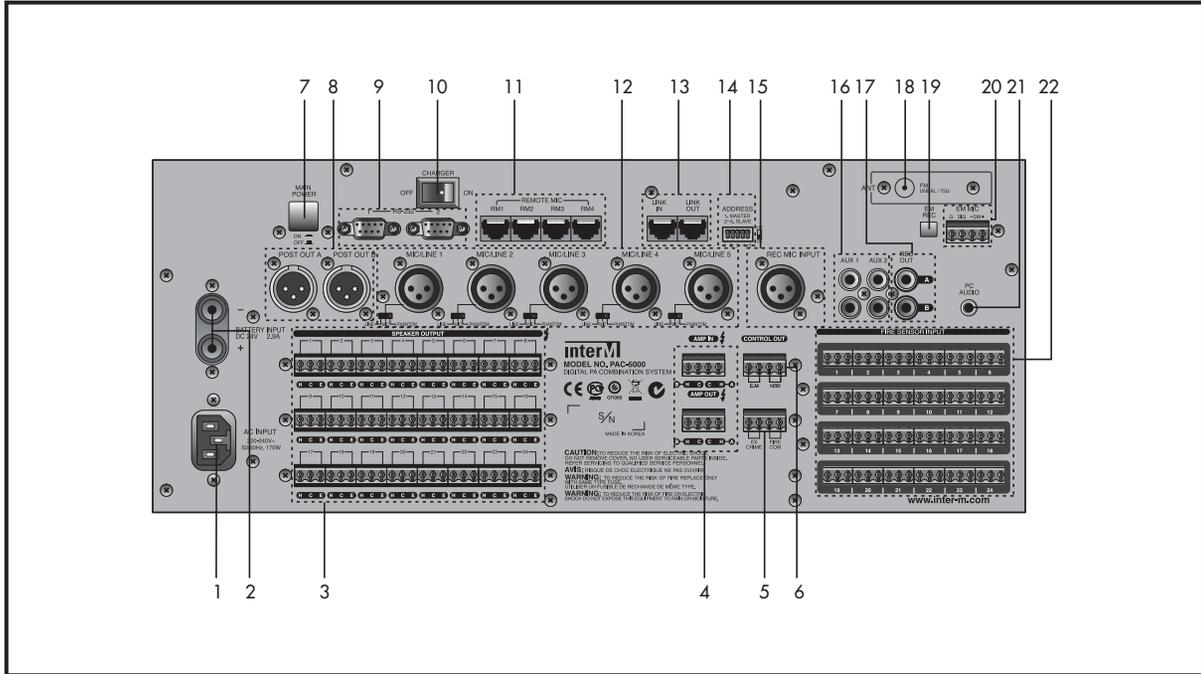
20. DISPLAY

The window displays operational information of the system.

21. SYSTEM OPERATIONAL INDICATOR

It is the indicator that indicates system operations including emergency broadcast(EM), fire public announcement (FIRE), PC timer broadcast (PC), remote MIC broadcast(RM), and normal broadcast(BGM).

Rear Panel



1. POWER INPUT (AC INLET)

The terminal connects a power cable.

Before connecting a power cable to it, you must confirm the power voltage conforms the device voltage exactly.

2. DC POWER INPUT AND BATTERY CHARGE TERMINAL

It is the terminal that supplies emergency power to the system and charges a battery, to which DC 24V battery is connected.

- 1) Priority is given to AC power when AC and DC power are input simultaneously. And the system is operated by DC power when AC power is cut off.
- 2) In case that driven by the emergency power, when DC electric potential lowers up to 20V, "DC" display lights on the system operational indicator, and when DC electric potential lowers below 19.2V, it is converted into Standby State automatically to protect the battery.
 - ※ If it is converted into Standby State automatically causing by battery discharge, it can operate the system with the emergency power after having charged it to a certain stable quantity (more than 20V).
- 3) When utilizing the battery charge function simultaneously, turn on the charge function switch located on the rear panel, but if not, turn off it.
 - ※ You must confirm the voltage and polarities of a battery before connecting it.

3. SPEAKER OUTPUT TERMINALS

Connecting terminals per each of the all channels, which can be connected by normal broadcast (2 line type) and emergency broadcast (3 line type). One terminal has 3 pins which are named with HOT, COM, and EM from left.

- 1) Speaker output terminal operation

- Normal broadcast state: It outputs the corresponding broadcast to HOT terminal only.
- EM and fire broadcast state: It outputs the corresponding broadcast to HOT and EM terminals in all.
- If it is under emergency broadcasting causing by the fire contacting point input, it outputs the corresponding broadcast at a predefined level independent of a main sound volume position.

2) Wiring method for the speakers

- When wiring the speakers, separate the power cable from a wall outlet and then select proper terminals according to speaker kinds and connecting methods that you want to use.

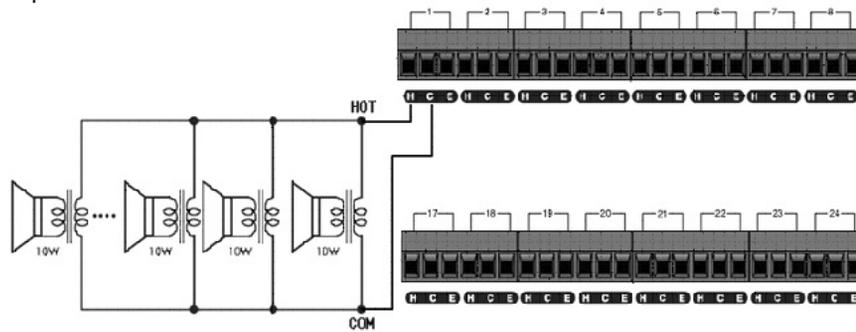
3) Rated output and impedance

Contents	A Group (12 Zone)	B Group (12 Zone)
EC & Associated, JAPAN Version	100V/83Ω (120W)	100V/83Ω (120W)
USA/CANADA & Associated Version	70V/42Ω (120W)	70V/42Ω (120W)

※ Caution : Pay attention a total impedance of speaker terminals does not lower than the rated (Refer to Table above.) in any cases.

Installing method for high impedance speaker (Same as the HOT/EM terminal)

※ When high impedance speakers are connected in parallel in each of the areas, you can wire them up to 120W of a total summation from the all areas.



※ Caution when wiring zone output (1~24)

Wire them by the limitation that an output sum of 12 zones in each of Group A or B does not exceed the rated output (120W+120W).

4. AMP OUTPUT / INPUT TERMINAL

Preparing for an area where the output(120W+120W) of the internal amplifier is deficient, the output and input terminals were built in the rear part to run external amplifiers with a higher output.

※ The input terminals and the output terminals must be mutually connected to run the internal amplifiers.

1) AMP output terminal

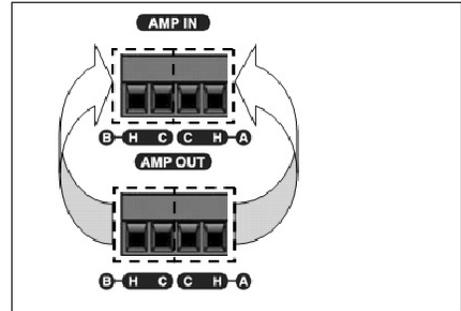
- It is the output terminal of the internal amplifier which is connected to AMP IN terminal.
- Pay attention to Group A,B and polarities(H,C) when connecting them.

2) AMP input terminal

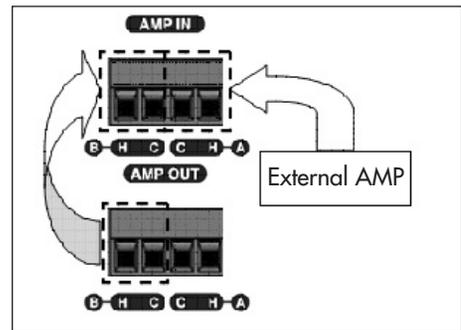
- It is the input terminal connecting the amplifier output which is connected to the output(AMP OUT) terminal of the internal amplifier or the output of an external amplifier. An input connected to it can be transmitted to an area you want passing through the speaker ZONE selection button in the front part.

3) Connecting method

- When utilizing only the internal amplifier : Connect AMP OUT (A,B) to AMP IN(A,B) while paying attention to their polarities (H,C).



- When utilizing the internal amplifier together with an external amplifier : Connect an output of the 2 Groups to the amplifier input and the external amplifier output to the other Group input.



※ Caution : When connecting an external amplifier, you must connect the output with a high impedance to AMP IN terminal but must not connect it to an amplifier with higher than 500W.

5. EX CHIME / FIRE COM TERMINAL

- 1) EX CHIME: It is utilized by connecting it with a switch to operate the system chime in remote. The output from this connecting point is fixed with 2 musical scales chime.
- 2) FIRE COM: It is the common grounding terminal for FIRE SENSOR INPUT.

6. CONTROL OUT TERMINAL

- 1) PD terminal
It is connected to the power distributor to control a movement. And also it is connected to the remote control terminal of the power distributor to go out an output when the broadcast is put on only even an area in the whole zones.. (same as NORMAL/EM mode)
 - 2) EM (Emergency) terminal
The terminal is utilized to control relevant devices when converting into the emergency broadcast(EM/FIRE) mode and it puts out a connecting point regardless of a speaker zone output when the mode has been converted.
- ※ Caution : You must connect CONTROL OUT terminal for the system, that is utilized as SLAVE by having linked to it, to the MASTER terminal together with.

7. MAIN POWER SWITCH

The switch is utilized to turn ON or OFF AC power being supplied to the system.

8. POST OUTPUT TERMINAL

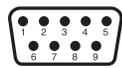
The terminal is utilized to monitor a sound from the system whose volume level is adjusted by the main volume regulator.

9. RS-232 TERMINAL

It is the serial terminal to RS-232 which is utilized to control in remote the system by using a remote controller such as PC program or AMX & CRESTRON control system.

(For your reference, maximum length of the cable is about 15 m.)

1) RS-232 PINOUT spec



Pin	1	2	3	4	5	6-9
Purpose	Not Used	Receive	Transmit	Not Used	Ground	Not Used

2) PC program and download the control protocol.

Access to the internet home page (www.inter-m.com) in the language of English and then receive it at Download / Download center.

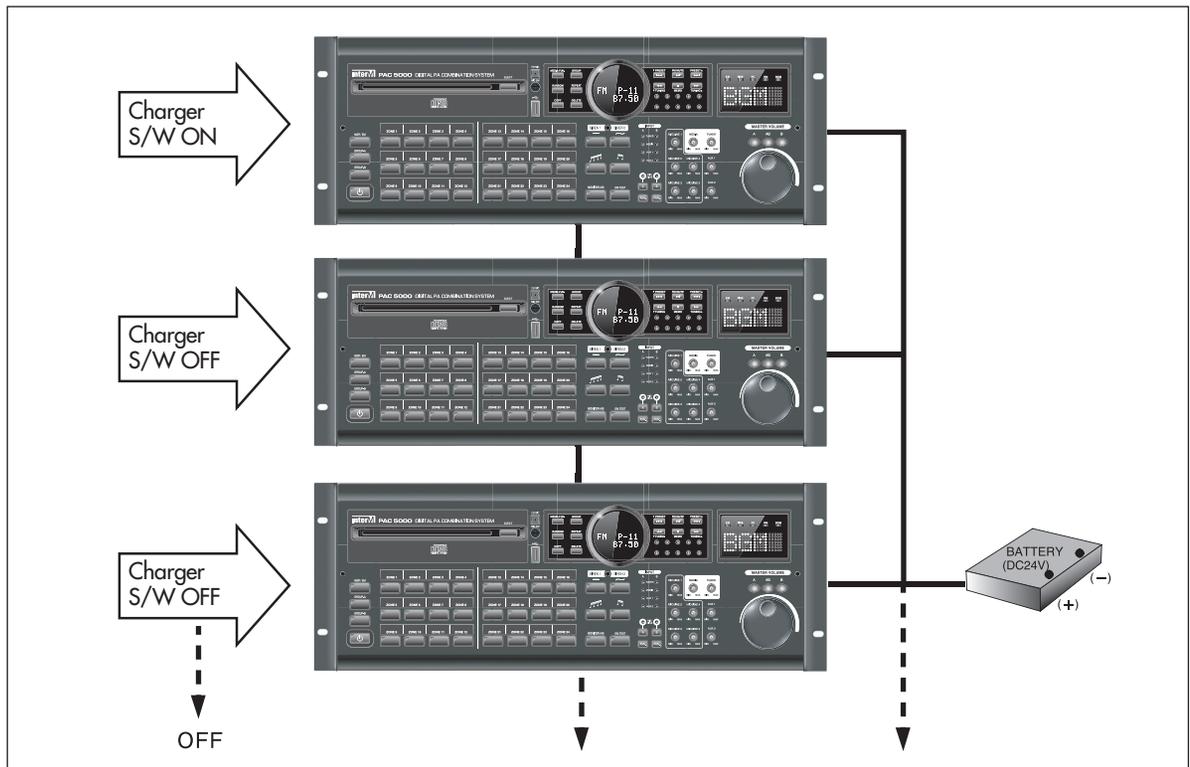
10. CHARGE FUNCTION SELECTION SWITCH

1) Switch ON : Charge the battery through the battery connecting terminal in AC power supply.

When the battery is fully charged, the charging current is reduced automatically.

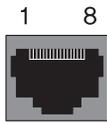
2) Switch OFF : Cut off the battery charge function.

※ Caution : When 1 piece of the battery is connected to several units of the system, only one can be switched ON to the charge function. If more than two are switch ON to the charge function, the battery may overheat which leads to reduce a durability very much.



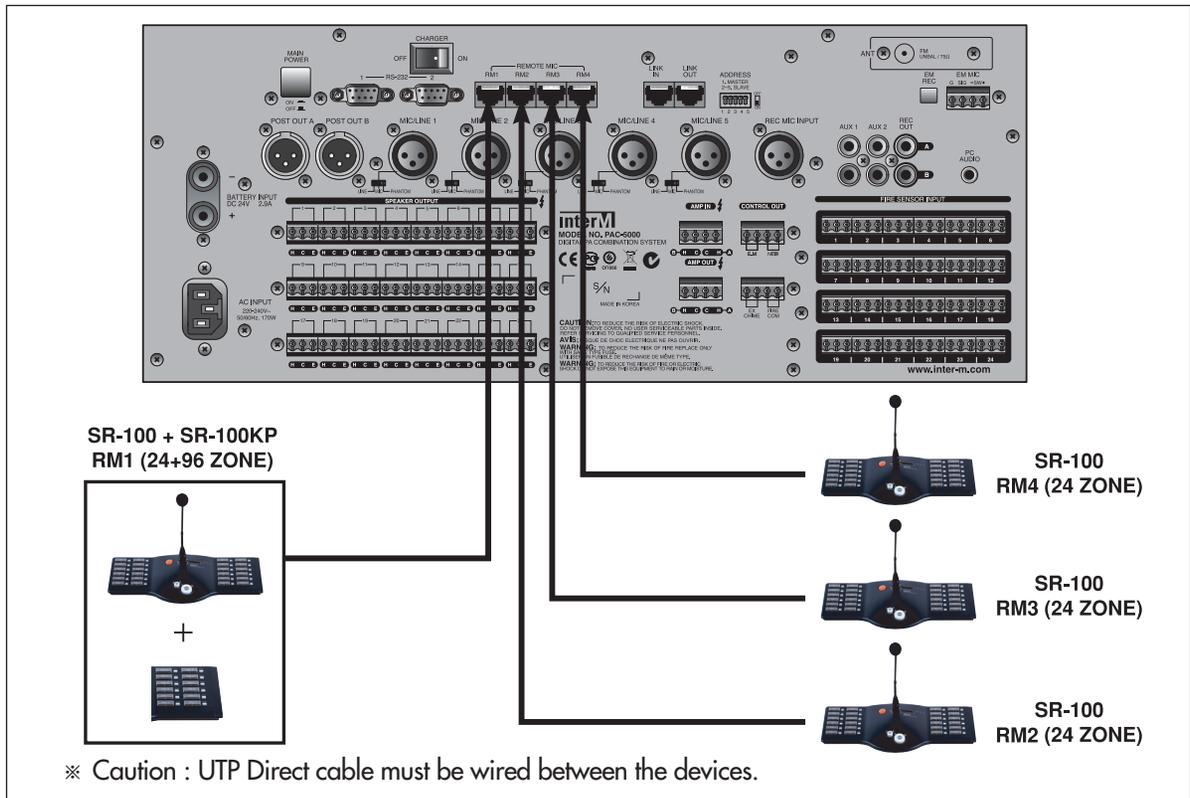
11. REMOTE MIC CONNECTING TERMINAL (RM1~RM4)

The terminal connects the remote MIC (SR-100), to which maximum 4 pieces from RM1 to RM4 can be connected and utilized.



Pin No.	Pin Name	Description
1	Control-A	RS-485 Data-A
2	Control-B	RS-485 Data-B
3	Monitor out +	Monitor Speaker Out +
4	DC In (RM1 Only)	Emergency Power (DC+12V / Max 600mA)
5	GND	Ground
6	Monitor out -	Monitor Speaker Out -
7	Audio In +	Balanced Audio Hot
8	Audio In -	Balanced Audio Cold

- 1) Remote MIC connected to RM1 among from RM1 to RM4 terminal can be utilized 120 areas at maximum by connecting KEY PAD(SR-100KP) additionally.
 ※ When the system is in SLAVE mode, you cannot utilize the remote MIC function.
- 2) Operating priorities : RM1 terminal is first and RM2 to RM4 are same.
- 3) The remote MIC connected to RM1 terminal can be operated by the internal emergency power supply up to 24 zones without any additional power suppliers. But you must install additional power suppliers for more than 24 zones or for devices being connected RM2~RM4 terminal.
- 4) Wiring method



5) Please refer to Operating Method in Page 24.

12. LINE / MIC INPUT TERMINAL AND INPUT SELECTION SWITCH (MIC/LINE1~MIC/LINE5)

A usage of the input terminal is changed as follows pursuant to a position selected by the input selection switch :

- 1) LINE: It can be used as LINE input.
- 2) MIC: In can be used as the normal dynamic MIC input.
- 3) PHANTOM: It can be used as the condenser MIC input and DC 24V is supplied to the input terminal.
- 4) MIC/LINE1 terminal is of PRIORITY input.

A signal input through this terminal more preferentially is put out for broadcast than BGM broadcast.

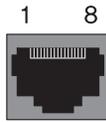
13. LINK IN / LINK OUT TERMINAL

The terminal is utilized to expand the system, to which 4 units of SLAVEs at maximum can be connected additionally.

And the usages are divided by MASTER and SLAVE and a system set up as SLAVE shares the output sound source from MASTER.

1) LINK IN terminal

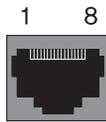
The terminal is utilized to receive the sound source signals and control signals, that will be shared in system expansion, from the whole system.



Pin No.	Pin Name	Description
1	GR-A-IN-	Balanced Group-A-Cold
2	GR-A-IN+	Balanced Group-A-Hot
3	GND	Ground
4	GR-B-IN-	Balanced Group-B-Cold
5	GR-B-IN+	Balanced Group-B-Hot
6	GND	Ground
7	CONTROL-A	RS-485 Data-A
8	CONTROL-B	RS-485 Data-B

2) LINK OUT terminal

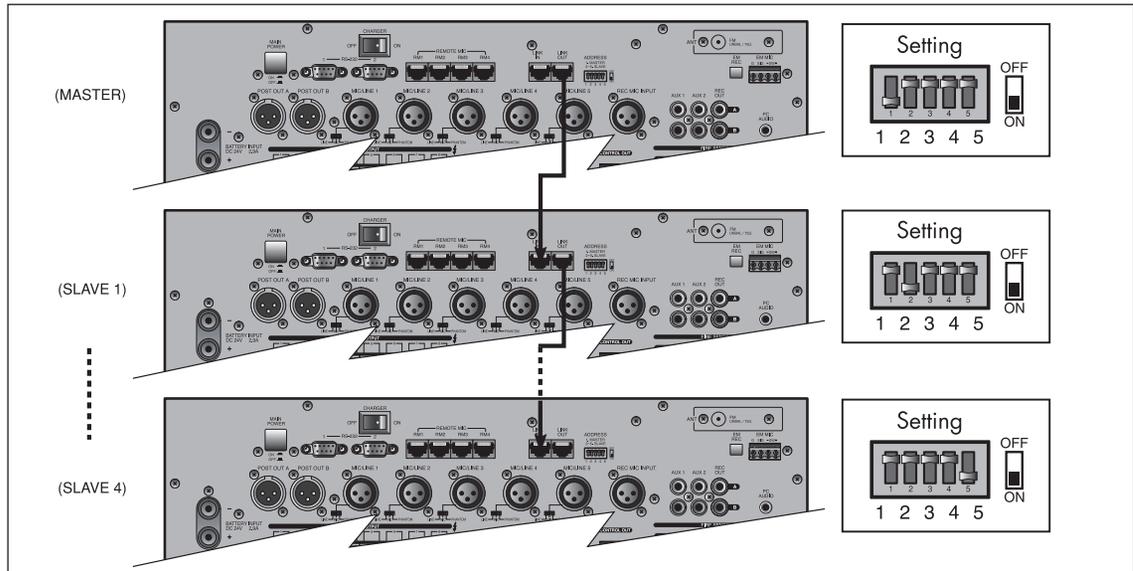
The terminal is utilized to output the sound source signals and control signals, that will be shared in system expansion, to a next system.



Pin No.	Pin Name	Description
1	GR-A-OUT-	Balanced Group-A-Cold
2	GR-A-OUT+	Balanced Group-A-Hot
3	GND	Ground
4	GR-B-OUT-	Balanced Group-B-Cold
5	GR-B-OUT+	Balanced Group-B-Hot
6	GND	Ground
7	CONTROL-A	RS-485 Data-A
8	CONTROL-B	RS-485 Data-B

3) Setting and wiring method for the system.

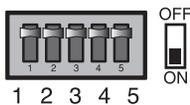
- Set up ADDRESS setting switch in conformity with the usage (MASTER/SLAVE1~4).
- A system set up as SLAVE output a file being shared with the output sound source from MASTER and it cannot utilize the functions relating to the source itself.
- A system set up as SLAVE is indicated as "Slave(1~4) Mode" on the front display window.
- Available functions when setting as SLAVE : Power ON/OFF, main sound volume, speaker selection, monitor speaker ON/OFF.



14. ADDRESS SETTING SWITCH

The switch is utilized to nominate ADDRESSES for each of the sets expanding the system.

- ADDRESS switch setting



Setting	DIP Switch					Speaker ZONE
	1	2	3	4	5	
MASTER	ON	OFF	OFF	OFF	OFF	1~24 ZONE
SLAVE1	OFF	ON	OFF	OFF	OFF	25~48 ZONE
SLAVE2	OFF	OFF	ON	OFF	OFF	49~72 ZONE
SLAVE3	OFF	OFF	OFF	ON	OFF	73~96 ZONE
SLAVE4	OFF	OFF	OFF	OFF	ON	97~120 ZONE

※ Caution : If a number is duplicated when setting up as SLAVE, it may cause to happen abnormality. Please be careful about it when setting up.

15. REC MIC INPUT TERMINAL

User can directly record a sound source of emergency broadcast by connecting the terminal to a MIC. (Refer to Page 20.)

16. AUX INPUT TERMINAL (AUX 1, 2)

It is utilized to connect various external sound source devices including CD, DECK, TUNER, etc. and all the input adjust volumes are located on the front panel.

17. REC OUTPUT TERMINAL (A, B)

It is the broadcast output terminal of Group A and B to record in an external recorder.

18. FM ANTENNA TERMINAL

You will connect the terminal with the FM antenna supplied with the product . But you will can connect a 75Ω coaxial cable according to a kind of noises to the terminal if the system will make noises.

19. EM REC BUTTON

The button is utilized to record a sound source of emergency broadcast user. When EM REC button on the rear part is pressed in BGM state, it will start to record but when it is pressed again, it will stop to do it.

20. EM MIC AND SWITCH CONNECTING TERMINAL

The terminal is utilized to connect an additional MIC not using EM MIC on the front panel. (You will purchase the MIC additionally.)

※ Caution : You must check up an arrangement of pins and then connect the MIC.

21. PC AUDIO INPUT TERMINAL

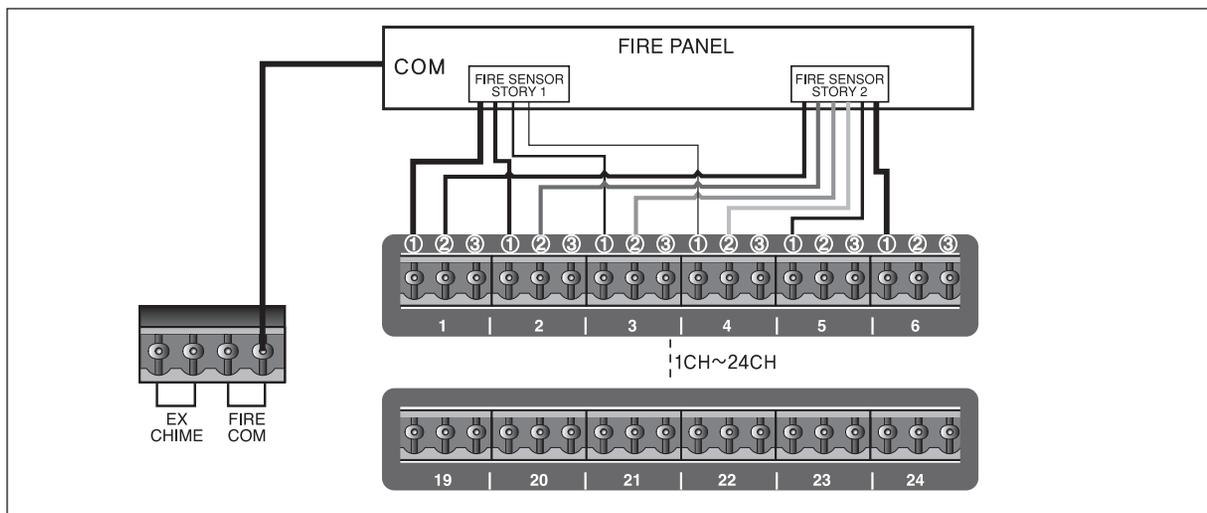
The terminal is connected to playback audio signals being received from the reservation function of a PC program.

※ Caution : Signals input in this terminal can be output only through a PC reservation operation.

22. FIRE SENSOR INPUT TERMINAL

It is the fire connecting point input terminal to output an emergency broadcast having interlocked with the fire receiver. Each area has 3 pieces of input terminals which can be utilized by configuring a group of upper, bottom or ground story.

(The emergency broadcast sound sources were mounted in the terminal.)



As shown in the Fig. above, those will be connected to the channels that transmit a connecting point being received from the fire receiving panel.

The connecting point on Story 1 makes to transmit an emergency broadcast of Channel 1 to 4 and the connecting point on Story 2 makes to transmit an emergency broadcast of Channel 1 to 6 respectively. In this example, in case of Channel 2 where the connecting points on Story 1 and 2 are connected simultaneously, the connecting point on Story 1 was connected to No. (1) and the connecting point on Story 2 is connected to No. (2) respectively. If several fire connecting points are connected to same channel, as in this case, pay attention to that different pins must be connected in each. (Each of the pins are separated by diodes internally.)

※ Caution : When a connecting input is entered in the state that STAND-BY power is turned OFF, the system will be turned On automatically and output an emergency broadcast to corresponding speakers simultaneously.

Operating Method

1. BEFORE SETTING STARTED THE SYSTEM

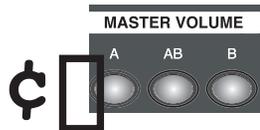
- 1) Put all the volumes at minimum level before inserting the power cable to a wall outlet.
- 2) Be sure that the speakers and input terminals are connected correctly. .
Especially, you must check up AMP output and input terminals on the rear part are correctly connected.
(Refer to Page 12.)
- 3) Confirm the rated power of the system and then connect the power cable to a wall outlet.
- 4) The lamp (RED) on the power(STANDBY) button is lit when turn ON the main power switch on the rear part.
- 5) When press the power button on the front part, the display window is lit and the system gets started.
- 6) And then adjust sound volumes with each of the input volumes and the main volume.

2. SYSTEM OPERATION

- 1) Simultaneous broadcasting of different 2 groups.
In BGM broadcast, this system offers two different simultaneous broadcastings to Group A zone and Group B zone.
- Input selection per Group
Select an input you desire by using the input selection buttons (FUN.) for each of Groups.
When press the button every time, it changes in the order of TUNER > MEDIA > AUX1 > AUX2.
※ Example : Group A zone: TUNER give a broadcast, Group B zone: MEDIA (CD) give a broadcast



- Adjust main sound volumes per Group
With the mode selection buttons located on the front part, adjust properly speaker output levels per Group.



- MIC and chime broadcast
fU Available to give a MIC broadcasting by separating Group A and Group B.
fU In order to give a MIC broadcasting, you must turn ON the MIC button of Group to which it is given. corresponding broadcast at a predefined level independent of a main sound volume position.



fU Adjust an input level volume on the front part properly and then press the chime button.
 fU During a chime is being output to a Group not selected, the broadcasting is suspended.

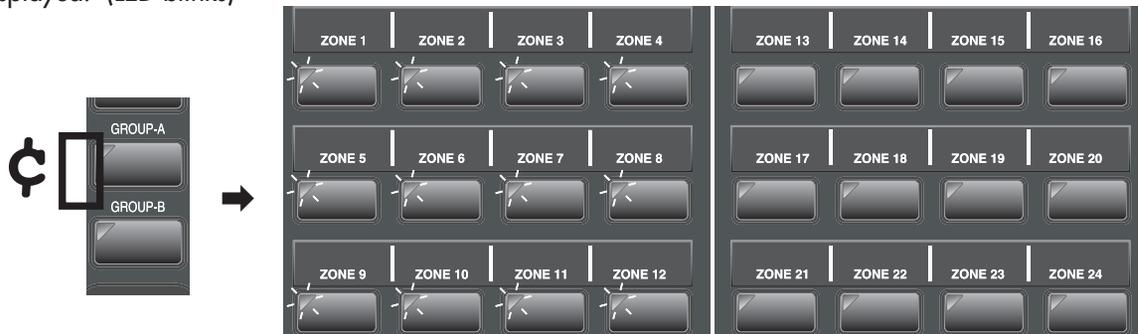
But, when giving MIC1 broadcast, it is being output by mixing with chime.

※ Caution : MIC FUNCTION button must be turned ON so as to operate a chime. And if the chime button is pressed during copying, the chime is output after the copying is cancelled.

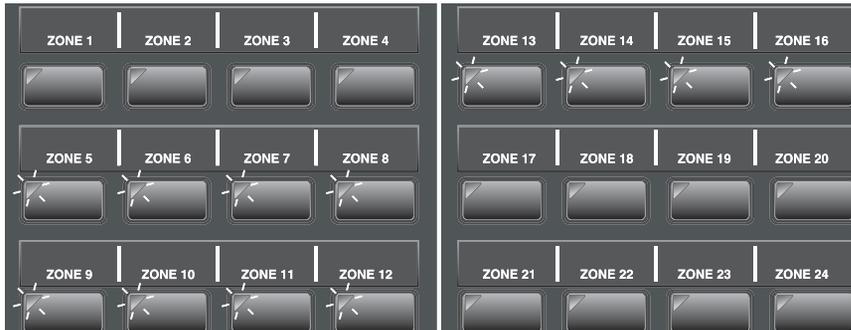
2) Resetting method for speaker zone Group

User is available to nominate positions of total 24 zones randomly by allocating 12 zones to Group A and 12 zones to Group B. ZONE1~12 were allocated to Group A and ZONE13~24 were allocated to Group B in default, whose 12 numerals per Group should be respected.

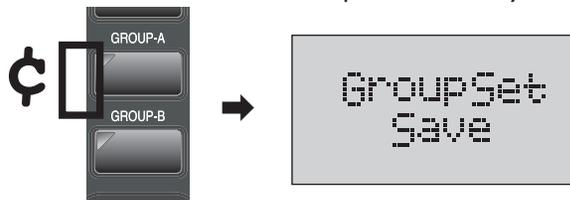
- When press GROUP-A (or GROUP-B) button for a long time, 12 ZONEs currently set up will be displayed. (LED blinks)



- When reset 12 ZONEs to be changed and then press GROUP A (or GROUP B) button one more time, a final state will be displayed on the screen that the setting state will have been finished. For example, fU Make it turned OFF by pressing ZONE1~4 button and make it turned ON by pressing ZONE13~16 button.



fU When press GROUP-A button, the above state will be changed and stored in Group A, whose processing state will be displayed on the screen, that will be converted into Stand-by state automatically. And the other ZONEs will be allocated to Group B automatically.



fU If a number of zones is less than or more than 12, it will be stored so that it will display "Cancel" on the screen and be converted into Stand-by automatically.

3) Recording and selection method for emergency broadcast sound sources

With REC MIC INPUT terminal on the rear part, it is available to record a sound source of user directly and utilize it and also to choose an original sound source.

- Record a sound source

fU Connect a MIC to REC MIC INPUT terminal on the rear part.

fU When press EM REC button on the rear part in BGM state, it starts recording, and when press it one more time, it stops doing it.

fU Recording is possible from the time a recording time is displayed and you can confirm a recording state on the front display window.



※ Caution : Because all the speaker outputs are switched OFF during recording, do not operate the recording function when giving a normal broadcasting.

- Confirm a sound source recorded

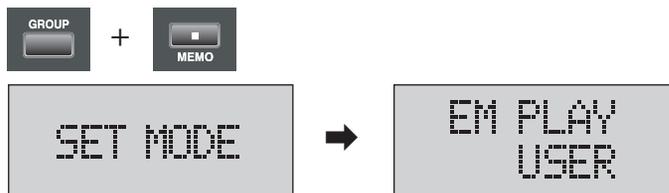
Available to confirm it with the main and monitor speakers by pressing EM TEST button for a long time in EM(Emergency) mode.

- Select an emergency broadcast sound source

Available to select a sound source (USER) recorded in SET MODE function and the original sound sources(ORIGINAL).

fU When pressing ■ (Stop) button and GROUP button simultaneously in Stand-by state, "SET MODE" is displayed on the screen.

fU With I◀◀ or ▶▶I (SKIP DOWN/UP) button, convert it into the corresponding setting mode.



fU With ▶▶ (SEARCH DOWN/UP) button, select ORIGINAL or USER. (ORIGINAL was default.)

fU When press the playback/pause(▶||) button, it will have completed the setting, and when press ■ (Stop) button, it will cancel the setting.

4) PC remote control

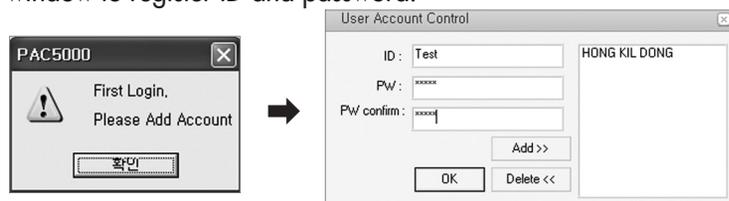
With the PC program supplied additionally, available to control the front panel functions of the system.

But, it is not available to control CD EJECT, the memory operation of TUNER, and each of the input level volumes.

- Connect RS-232 (1 or 2) serial terminal to PC.

- Run the PC program.

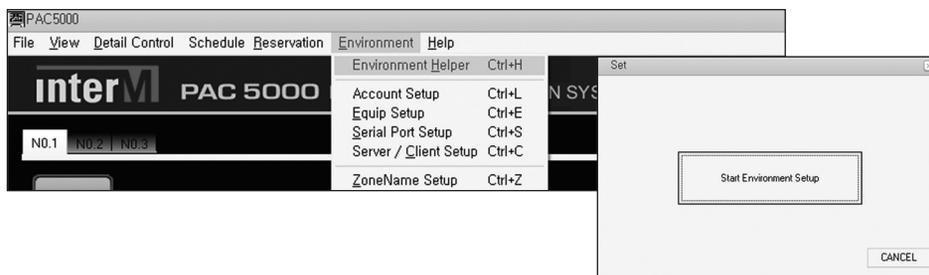
In a first running, the following window will appear, and when click on CONFIRM, it will appear the window to register ID and password.



- When input your ID and pass word and click on Add button, it will add up an account number on the right. After adding up an account number, when click on OK button, it will appear the main window as below ; With the account number setting function, it is available to add up account numbers of several users. And from a next program running, you will can access it only with an account number added up earlier.
- ※ Caution : Pay attention not to forget your account number after registering.



- Environment setting
 fUWith "Environment Helper" on the menu, available to set up basic environments. (Refer to Page 37.)



fUYou will have set up system connection quantity, Communication Port setting, and SERVER/CLIENT by meeting with the installing environment that will have prepared to control your PC that will become available to control corresponding functions with the mouse then.

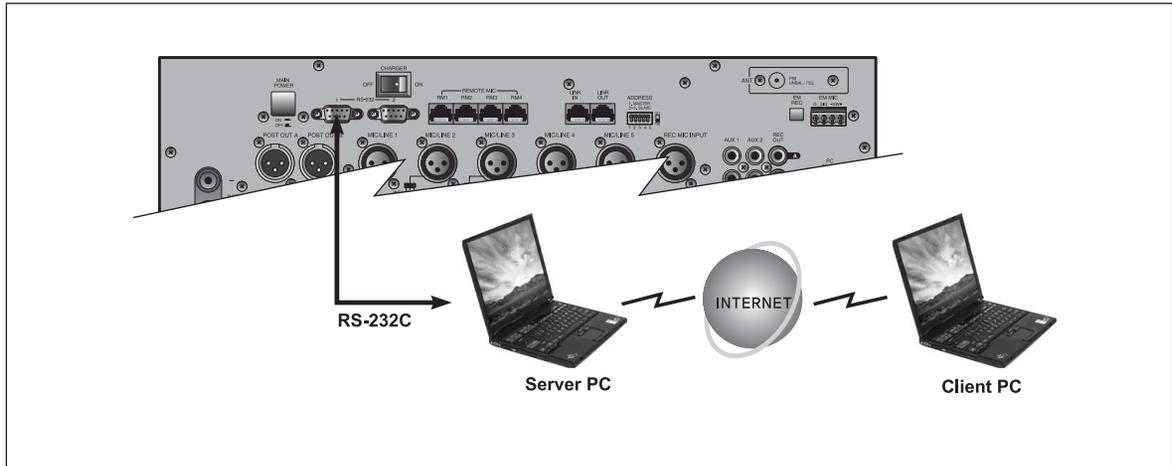
- When utilizing the touch panel, it is available to run it by selecting a corresponding button by your hands directly.
- If you remove RS-232 cable and then connect it again in program running, it may take 20 seconds at maximum to recognize it again so that you will run the program again if possible.
- ※ Caution : About the detailed, please refer to Operating Method for PC programs.

5) Remote control with INTERNET

It is the function to control the system with the internet from external.

- Wiring

Connect the system and PC taking role of SERVER with RS-232C communication cable and connect SERVER PC and CLIENT PC with the internet respectively.



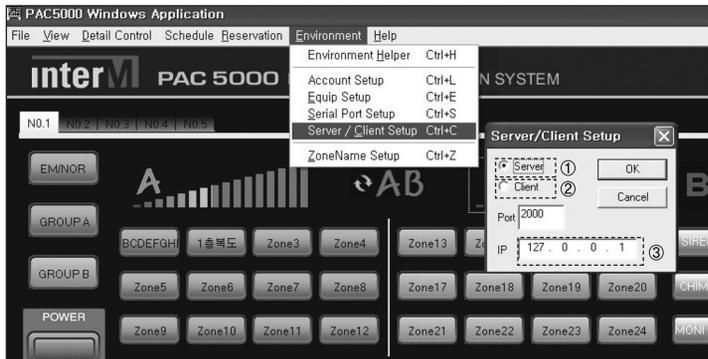
- Install the running program in SERVER and CLIENT PC in all.

- Confirm SETUP state

Confirm Server/Client Setup state is correct from PC program.

fPC taking role of SERVER should have set up with "Server". (①)

fPC taking role of CLIENT should have set up with "Client" and IP of SERVER PC to be connected should have been input. (②, ③)



- Confirm whether a network state is on Stand-by allowing an access in SERVER PC while looking at PC icon on the right upper.

If it is on the state intercepting an access, click on the icon one more time to change it for Stand-by allowing an access.



- When click on PC icon on the right upper in CLIENT PC to try on accessing it and then have completed to access it, the icon states of each of CLIENT/SERVER PCs will be changed to access completion then.



- In access completion, all of CLIENT/SERVER PCs will become available to control the system. Even during accessing to it, it is possible to intercept the access by pressing the icon only in SERVER PC. And when press the icon one more time, it will become the state allowing an access. At that time, a reconnection will be accomplished provided that you click on the icon one more time in CLIENT PC.
- The program will be terminated when you close the window.
- About the details of PC program use, please refer to from Page 34.
 - ※ Caution : When a communication is suspended causing by a physical factor, recover it, terminate the program, and then restart it.

6) PC reservation broadcast

It is the function that is available only in PC program which is of timer playback function that outputs a sound source stored in PC to corresponding area. For the more details, please refer to Page 36.

7) EQ adjustment

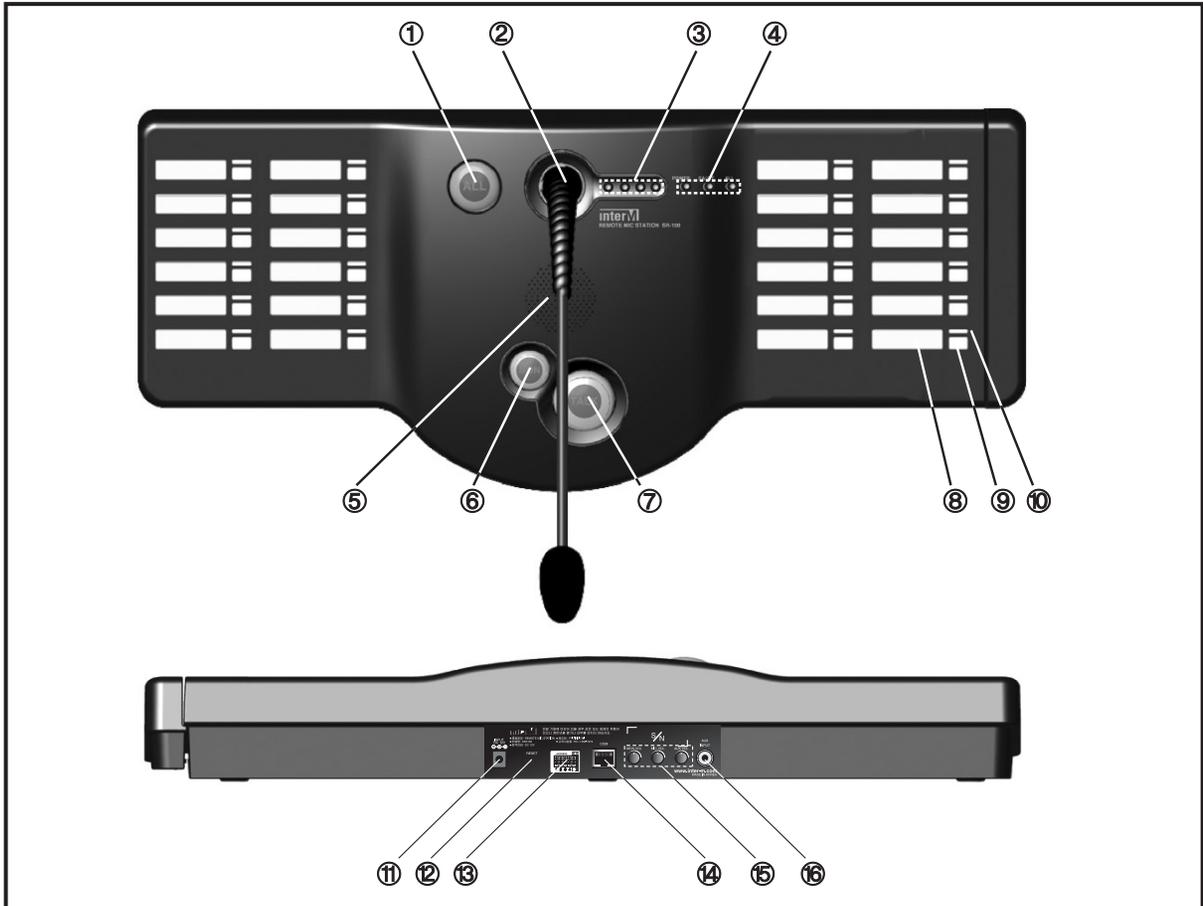
It has 3 band EQ which is available to be adjusted only in PC running program. For the more details, please refer to Page 36.

8) Initializing method for the system

It is the method for initializing the system upon abnormality ; Turn off AC power switch on the rear part and then wait for more than 5 seconds. During pressing STANDBY power button, the system will be initialized when supply the power by pressing AC switch.

3. OPERATING METHOD FOR REMOTE MIC

1) Front & Rear Panels



- | | |
|-----------------------------|--|
| ① ALL button | ⑨ ZONE button |
| ② Condenser MIC | ⑩ Display a broadcasting state LED |
| ③ Level Meter LED | ⑪ DC power input terminal |
| ④ Display LED for operating | ⑫ RESET switch |
| ⑤ Monitor speaker | ⑬ FUNCTION switch |
| ⑥ Monitor button | ⑭ DATA & AUDIO input and output terminal |
| ⑦ TALK button | ⑮ Monitor/MIC/AUX volume |
| ⑧ ZONE label | ⑯ AUX input terminal |

2) Installation

- Power supply connection

∩ Supply DC power input terminal with +12V power source. (Use the exclusive adapter for it.)

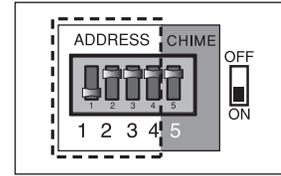
∩ When the 24 channels are connected to RM1 terminal of the system (PAC-5000) not adding up the expansion key pad (SR-100KP), it will be available to run it without the exclusive adapter.

※ Caution : When those are connected to RM2~4 terminal of the system or the distance of the expansion key pad is exceeding 50 m, you must use the exclusive adapter for it.

- Set up an ADDRESS

fU Nominate device numbers by combining 1 to 4 of FUNCTION switch.
(Refer to Table below.)

fU When installing several remote MICs, nominating a same number will not matter.



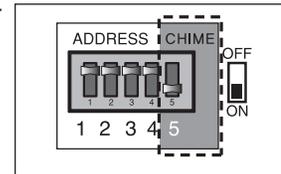
Dip Switch	1	2	3	4	5
ADDRESS \ ACTUAL NUMBER	1	2	4	8	CHIME SEL (ON/OFF)
1	ON	OFF	OFF	OFF	
2	OFF	ON	OFF	OFF	
3	ON	ON	OFF	OFF	
4	OFF	OFF	ON	OFF	
5	ON	OFF	ON	OFF	
6	OFF	ON	ON	OFF	
7	ON	ON	ON	OFF	
8	OFF	OFF	OFF	ON	

※ Example : When turn on Number 1 and Number 3, to which actual numbers 1 and 4 are added and then the device number becomes 5.

- Chime setting

fU When turn on FUNCTION switch number 5 on the rear part, it will output the chime automatically before giving a MIC broadcast.

fU Turn OFF when does not utilize it.



3) Zone selection broadcasting

- When press ZONE button of the zone where to give a broadcasting and then TALK button, it will be available to give a broadcast. (If the chime selection switch is turned ON, when press TALK button, it will output a chime automatically.)
- With the MIC volume on the rear part, adjust it for a proper level.
- After giving a broadcast, press TALK button for a long time to terminate the broadcasting.

4) Whole zone broadcasting

- When press ALL button and then TALK button, it will be available to give a broadcast to the whole zones.
- After giving a broadcast, press TALK button for a long time to terminate the broadcasting.

5) Monitoring

With the monitor speaker, it is available to confirm broadcasts in each of the zones.

- When press the monitor button and then the corresponding ZONE button of zone to be monitored, just it is available to confirm it.
Corresponding broadcast is output through the monitor speaker to a zone in broadcasting. And monitoring is available for only one ZONE.
- An over inputting may cause to tilt a sound during monitoring so that you should adjust a volume level properly with the monitor volume on the rear part.
- When press the monitor button one more time, the monitoring is terminated.

6) Background music (BGM) mixing

It is available to mix a background music with a MIC broadcast by using AUX input terminal.

- Connect the output of sound source device you needed to AUX input terminal on the rear part.
- When it starts giving a MIC broadcast outputting a background music together, it is available to adjust it for a proper level with AUX volume on the rear part.

7) Initialization

If you need to initialize the system not switching off the power supply when the system has an abnormality, it is available to make it initialized by pressing the RESET button on the rear part.

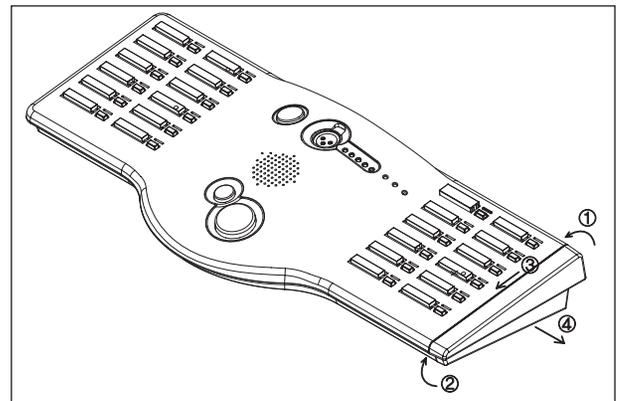
8) Assembling and disassembling method for the side pad and ZONE expanding method

- Disassembling method for the side pad

fU Loose the 3 screws on the bottom below.

fU When lift ① upwardly a little and then rotate ② upwardly, the side pad gets removed slightly from SR-100 body.

fU When pull the side pad strongly in the direction of ④ while descending it in the direction of ③, the side pad gets removed completely from SR-100 body.



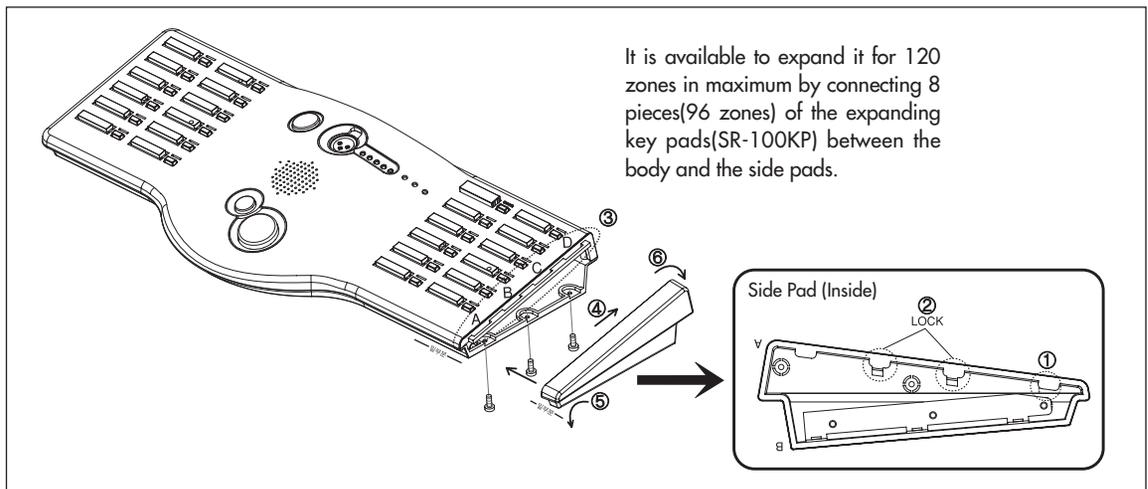
- Assembling and expanding method for the key pads (for 12 ZONES)

fU Firstly insert ① into the groove of ③ and then insert ② (LOCK part of the side pad) totally into the grooves B and C of ③.

fU By ascending the side pad slightly in the direction of ④, correct the bottom part of SR-100 body with the bottom part of the side pad accurately.

fU After pressing ⑤ downwardly, assemble it by pressing ⑥ that makes a sound of tinkle.

fU Finish to assemble it by fixing up the bottom part with the 3 screws.



It is available to expand it for 120 zones in maximum by connecting 8 pieces(96 zones) of the expanding key pads(SR-100KP) between the body and the side pads.

9) Confirm an operating state

According to lighting of the operating state display LEDs (POWER&FAULT/BUSY/MONITOR), it is available to confirm an operating state.

- POWER&FAULT LED : It indicates a state of power(Green) and communication error (Red).
- BUSY LED : It is the state indicator for a broadcasting with a higher priority order, which is lit when a broadcasting with a higher priority order (emergency, remote MIC) is being given in priority.
- MON LED : It indicates an operating state of the monitor button. When the button is pressed, LED blinks.

10) Confirm a broadcasting state

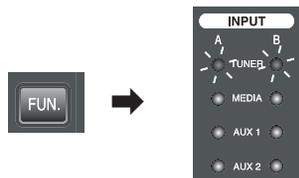
According to lighting of the broadcasting state display LEDs (NORMAL/BUSY), it is available to confirm a broadcasting.

When press ZONE selection button, RED LED (impossible to give a broadcast) or GREEN LED (possible to give a broadcast) is displayed according to broadcasting possibility then.

4. OPERATING METHOD FOR FM TUNER

1) Auto and manual frequency selecting method

- By pressing the input selection buttons of Group A or B, make the input display LED to place at the position of TUNER.



- When pressing TUNING ▼ / ▲ (frequencies DOWN/UP) button, the frequency decreases or increases that makes you available to select a frequency of broadcasting station you desire.



fUAuto selecting station : When pressing TUNING ▼ / ▲ (DOWN / UP) button for a long time, it starts the auto selecting station and then stops doing automatically at a broadcasting station frequency possible to receive. On the display window displays "TUNED" that outputs the broadcasting.

fUManual selecting station : By pressing TUNING ▼ / ▲ (DOWN / UP) button shortly per a time, displace it manually to a position of broadcasting frequency possible to receive by decreasing or increasing a frequency. When a broadcasting frequency possible to receive is selected, on the display window displays "TUNED" that outputs the broadcasting.

2) Memorizing method for each of the frequencies and call a broadcasting channel memorized

- Using TUNING ▼ / ▲ (frequencies DOWN/UP) buttons, select a frequency you desire.
- When press MEMO button, on the display window displays MEMORY and blinks a number to be memorized.



- Using PRESET ▼ / ▲ buttons or the numerals(0~9) buttons, select a number to be memorized and then press MEMO button to store the broadcast frequency in the corresponding number.



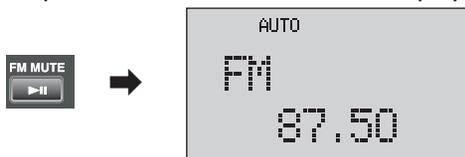
- By repeating the procedures from 1) to 3) above, it is available to store up to 40 broadcast frequencies.
- It is available to select a broadcast frequency you desire from the stored ones by using PRESET ▼ / ▲ buttons.

3) Install FM antenna

Connect it to FM antenna terminal. And while receiving a broadcast, determine an installing place and direction making the receiving state to be best and then fix it firmly. You may feel noises even if the FM exclusive antenna was installed in the surroundings of a downtown having a heavy traffic density, factories, or high voltage transmission lines. In such areas, install an outdoor antenna with 75Ω cable.

4) FM MUTE

No displaying of TUNED indicates in most a case that it is not of a broadcast or it receives many noises. When press FM MUTE button, on the display window displays "AUTO" and that intercepts a noise output.



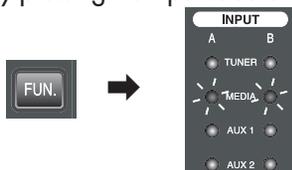
When it starts receiving a normal broadcast signal, TUNED display is lit that outputs automatically the broadcast since then.

- ※ Caution : In some cases TUNED display may be lit influencing from peripheral equipments not from broadcasting frequencies, install the system apart from such peripheral equipments that may influence it such as CDP.

5. OPERATING METHOD FOR MEDIA (CD/DRP/USB)

1) Select an input mode

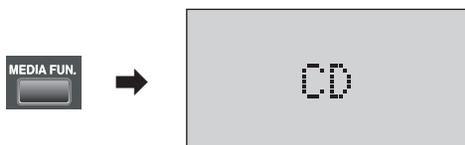
- By pressing the input selection buttons of Group A and B, displace the input display LED at the position of MEDIA.



- When pressing MEDIA FUN. Button, it changes in the order of CD > DRP > USB mode.

2) Playback/pause function

- CD
 fŭt playbacks a disc produced with CD-DA/MP-3/WMA.
 fŭt By pressing MEDIA FUN. Button, select the CD mode.



f When insert a disc, it reads out the information automatically and becomes Stand-by state, and then on the display window displays a number of total music pieces available. It can display 499 pieces in maximum. And on the display window displays "NO DISC" if no discs.

f Playback by pressing the playback/pause(▶||) button and pause it by pressing it one time during playing

f Cancel the pause by pressing the playback/pause(▶||) button one more time that continues to play back from a current point.

※ Caution : It is automatically ejected if a disc is wrong or impossible to playback.

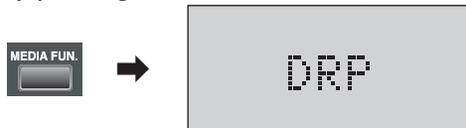
That does not mean a fault of the system, therefore, examine the disc state.

Available with a disc of diameter 12Cm only and absolutely not utilize a disc of diameter 8Cm.

- DRP

f It playbacks an audio file stored in the internal memory.

f By pressing MEDIA FUN. button, convert it into DRP mode.



f When it has converted into DRP mode, it reads out the information automatically and becomes Stand-by state, and then on the display window displays a number of audio files available. And on the display window displays "NO FILE" if no audio files available.

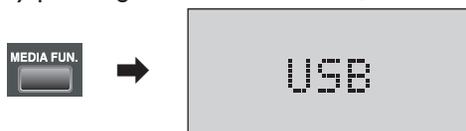
f Playback a file by the playback/pause(▶||) button and pause it by pressing it one time during playing back.

f Cancel the pause by pressing the playback/pause(▶||) button one more time that continues to play back from a current point.

- USB

f It playbacks a file stored in USB memory.

f By pressing MEDIA FUN. Button, select the USB mode.



f When insert a USB memory into the USB terminal, it reads out the information automatically and becomes Stand-by state, and then on the display window displays a number of total files available.

When a USB memory is not inserted, on the display window displays "NO USB", and when it has not any files available, that displays "NO FILE".

f Playback by pressing the playback/pause(▶||) button and pause it by pressing it one time during playing back.

f Cancel the pause by pressing the playback/pause(▶||) button one more time that continues to play back from a current point.

3) REPEAT

By pressing REPEAT button, convert a mode. When pressing the button one time, it changes in the order of OFF > REPEAT 1 > REPEAT ALL > OFF.

- REPEAT 1 function

When press REPEAT button one time, on the display window displays "REPEAT1" that playbacks a file selected repeatedly.

- REPEAT ALL function

When REPEAT button twice, on the display window displays "REPEAT ALL" the playbacks the whole disc repeatedly.

- OFF mode

It playbacks a whole disc without repetition and then stops. repeat playback.

4) RANDOM

The function is utilized to playback files randomly not having certain order..

- When press RANDOM button during Stop, on the display window displays "RANDOM" and when press the playback/ pause(▶||) button, it playbacks files randomly.
- It is available to playback repeatedly according to REPEAT mode.
- Cancel the mode by pressing RANDOM button one more time.

5) GROUP UP/DOWN

- It is the function to displace files as a unit of folder when files were stored by classifying with folders.
- During playing back, if press GROUP button, on the display window displays "GROUP", and when press SKIP (|◀◀ / ▶▶|) button, it displaces between folders and starts playing back from a first file in folders.

6) COPY

- CD COPY

f t It is the function to copy a CD to the internal memory(DRP) or USB memory, which is done with a CD playback simultaneously and takes an equal time.

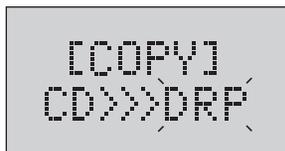
f t This function makes possible to playback a file copied from a CD to the internal memory so that it will lengthen the durability of CD mechanism very much.

f t Insert a disc to be copied and then convert into the CD mode by pressing MEDIA FUN. Button.

f t In STOP state, when press COPY button, it converts into COPY Stand-by mode and then on the display window blinks a memory position where it will be stored.

f t Using |◀◀ / ▶▶| (SKIP) button, select a position to be stored. (DRP or USB)

f t If a USB memory was not installed in you system, you can select DRP only.

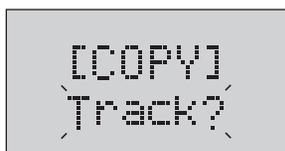


f t When press ▶▶ (SEARCH UP) button, it converts into the mode that an set up a range to copy.

f t Using |◀◀ / ▶▶| (SKIP DOWN/UP) button, select a mode you desire.

f t TRACK: Select a track range and copy it.

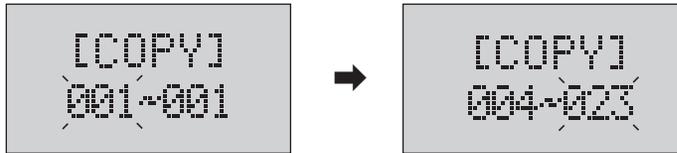
f t ALL: Copy a whole disc.



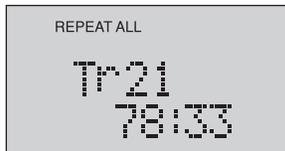
f t If "ALL" was selected, when press the playback/pause(▶||) button, it just starts copying from then.

f t If "TRACK" was selected, when press ▶▶ (SEARCH UP) button, it is available to input a track range.

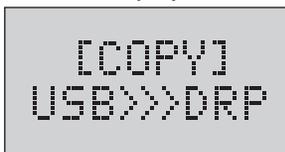
- f_t Using I◀◀ / ▶▶I (SKIP DOWN/UP) button or the numerals(0~9) button, input a start track number.
- f_t Displace it by pressing ▶▶ (SEARCH UP) button and input a terminate track number by using I◀◀ / ▶▶I (SKIP DOWN/UP) button or the numerals(0~9)



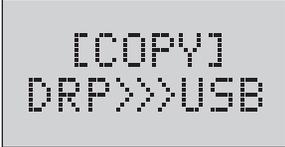
- f_t When press the playback/pause(▶||) button, it starts copying, and when it will have finished, it will converted into Stand-by mode automatically.
- f_t Convert into the corresponding mode (DRP/USB) by pressing MEDIA FUN. Button and it is available to confirm a file copied.
- f_t When press Stop (■) button during copying, it cancels the mode and stores tracks that have been completed to playback until then in the corresponding memory.
- Long durability expanding method for mechanism using CD COPY function.
(When the sound sources of a CD is utilized by playing back repeatedly with BGM.)
- f_t Set up it with "REPEAT ALL" mode by pressing REPEAT button before copying a CD.



- f_t Run CD COPY function.
- f_t When it has finished to run CD COPY, it is automatically converted into Memory FUNCTION (USB or DRP) that plays back repeatedly and continuously files stored not driving CD mechanism.
- When copy USB memory contents to the internal memory(DRP).
- f_t Uninstall a USB memory and then convert it into USB mode by pressing MEDIA FUN. Button.
- f_t In STOP stat, when press COPY button, it converts into COPY Stand-by mode and on the display window displays a memory position to be stored.



- f_t When press the playback/pause(▶||) button, it converts into the COPY range setting mode, whose setting method is same as CD COPY function.
- f_t When press the playback/pause(▶||) button, it starts copying, and when it will have finished to copy, it will convert into Stand-by mode automatically.
- f_t By pressing MEDIA FUN. Button, convert into the DRP mode, whose copied contents can be confirmed then.
- f_t When press Stop (■) button during copying, it cancels the mode and stores tracks that have been completed to playback until then in the corresponding memory.
- If copy the internal memory(DRP) contents to USB memory.
- f_t By pressing MEDIA FUN. Button, convert into DRP mode.
- f_t In STOP stat, when press COPY button, it converts into COPY Stand-by mode and on the display window displays a memory position to be stored.



[COPY]
DRP>>>USB

f When press the playback/pause(▶||) button, it converts into the COPY range setting mode, whose setting method is same as CD COPY function.

f When press the playback/pause(▶||) button, it starts copying, and when it will have finished to copy, it will convert into Stand-by mode automatically.

f By pressing MEDIA FUN. Button, convert into the DRP mode, whose copied contents can be confirmed then.

f When press Stop (■) button during copying, it cancels the mode and stores tracks that have been completed to playback until then in the corresponding memory.

- ※ Caution : 1) Since it outputs signals during running CD COPY, minimize a volume of the output amplifier when you desire to copy only. (It does not produce an output when copying between USB and DRP.)
- 2) If it lacks a memory capacity during running COPY, on the display window blinks "MEMORY FULL".
For such case, delete unnecessary files using DELETE function and then run it again.
- 3) It copies a file with MP3 type. And when a file with WMA type is copied, it is copied with MP3 type requiring about 2 times of memory capacity. Therefore, you must confirm a remaining memory capacity then.

7) DELETE

It is the function to delete unnecessary files stored in the internal memory(DRP) or USB memory.

- Partially delete

f By pressing MEDIA button, select a mode (DRP or USB) where files to be deleted are stored.

f When press DELETE button, it converts into the delete mode and then on the display window blinks "TRACK?".



[ERASE]
Track?

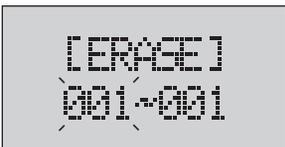
f When press ▶▶ (SEARCH UP) button, on the display window blinks the starting region the be deleted.



[ERASE]
001

f Using |◀◀ / ▶▶| or numerals button, input the tracks of the starting region.

Displace it using ▶▶ button, and input the end track of delete range using |◀◀ / ▶▶| or numerals(0~9) buttons.



[ERASE]
001~001




[ERASE]
012~035

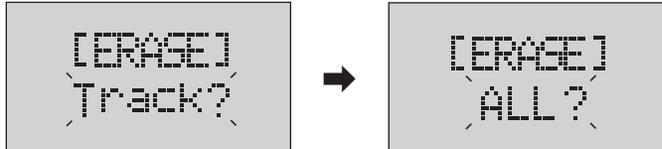
f When press the playback/pause(▶||) button after setting up a range of deletion, it deleted the corresponding files and then converts into Stand-by state.

f When press Stop(■) button during running setting, it cancels the mode.

- ALL delete

f By pressing MEDIA button, select a mode (DRP or USB) where has files to be deleted.

f By pressing DELETE button, convert it into the delete mode and by using |◀◀ / ▶▶| button, select the (ALL) delete.



f When press the playback/pause(▶||) buttons, it deletes all the files, and when it will have finished to run, it will convert into Stand-by state.

It may take about one minute if files to be deleted have a large memory capacity.

6. Operating Method for PC Program

This program offers an efficient administration and control of running, setting, and current state of PAC-5000 system. And it makes available to control a system operation even if in remote and to give a reservation broadcasting utilizing EQ setting and MP3 sound sources. And also it offers a powerful interface between devices using neat display of GUI type RS-232 Port.

1) PC Specifications Recommended

- IBM Compatible PC / Pentium 500MHz above (Recommend CPU with Pentium 1GHz above.)
- RAM with 256M above.
- Microsoft Windows XP, VISTA
- Monitor pixels 1028*768 16Bit Color above
- HDD Disk Memory above 100M in minimum.
- Video memory 32M above.

2) Screen configuration and functions of the program

Functions on the screen almost conform the operation method in the system that those are run by the mouse directly on icons.



- ① Function menu
Program functions have been collected together in the menu.
- ② System selection menu
Using the menu is available to select a system to be controlled or monitored from the systems that have been linked together.
When click on the number (NO.1~NO.5) of a system, the main screen will be changed conforming to the state of a system.
- ③ Main control part
The part controls Speaker ZONE, FUNCTION, Volume and CHIME & SIREN.

- Available to adjust a volume by click on or drag on the level meter with the mouse when controlling a volume. When intend to control Group A and B simultaneously, you will activate it by clicking on the synchronizing button (AB), located at the interval of the two level meters.

④ SOURCE control part

It controls MEDIA(CD/DRP/USB) and TUNER function.

⑤ Network state icon

It indicates a networking state of PC, which is accessed or intercepted by clicking on the icon.

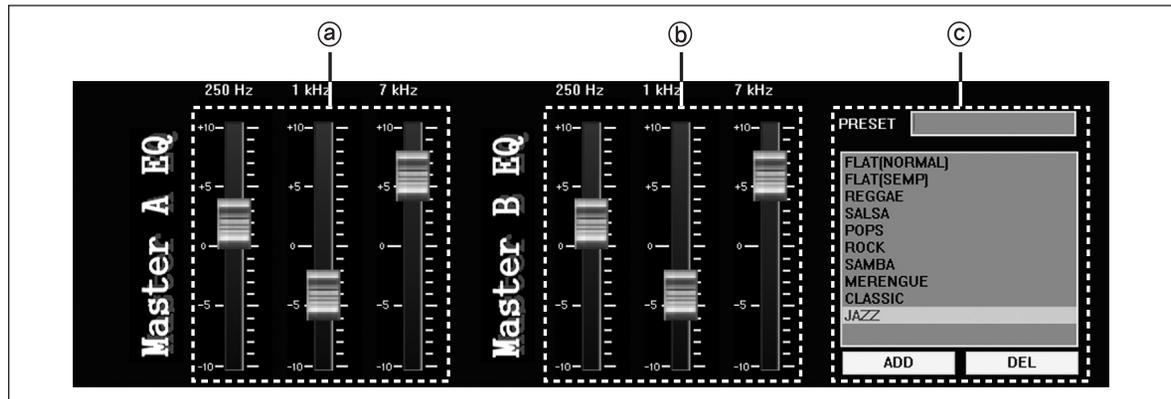
f PC connected to PAC5000 becomes Server and PC connected in remote becomes Client respectively.

f Description of icon states

			
<p>1) Display Server PC 2) Allow to access 3) Intercept the access by clicking on the icon once.</p>	<p>1) Display Client PC 2) Allow to access 3) Try to access to server PC by clicking on the icon once.</p>	<p>1) State finishing to access 2) Intercept the access by clicking on the icon of server PC once.</p>	<p>1) Display an access interception</p>

⑥ Function to adjust EQ

When click on EQ button, it converts into EQ adjust window as below ;



a) EQ adjust volume for Group A.

b) EQ adjust volume for Group B.

c) Available to store a current state or to load the stored contents.

- Storing a current state, set up a volume of EQ slide, input a title in PRESET column, and then press ADD button to add it up in the articles.

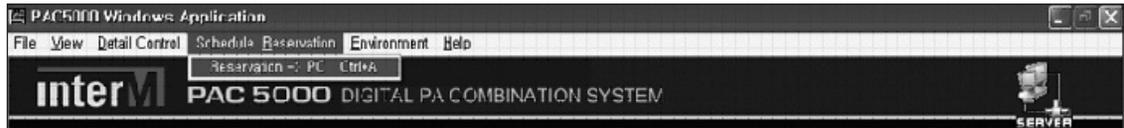
- Loading detailed contents, click on an article you desire from the list.

3) PC reservation and environment setting

- PC reservation setting

It is the function to announce correct time by playing back MP3 file stored in SERVER PC as the speaker zone which was set up with the prescribed time.

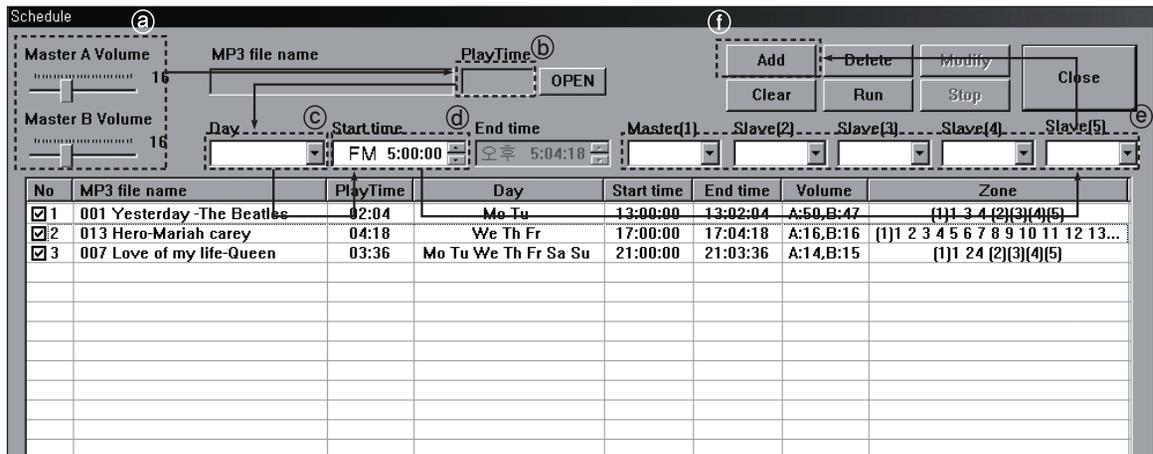
- ① Select sequentially [MENU] - [Schedule Reservation] - [Reservation > PC] to open the reservation broadcast screen.



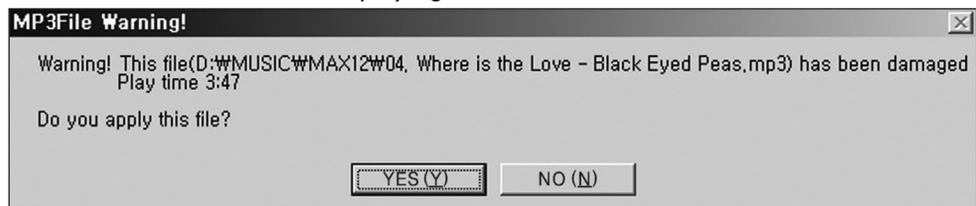
- ② Add up a reservation
 - Ⓐ Select volume levels of Group A and B.
 - Ⓑ Nominate an MP3 file to be played back by clicking on OPEN button.
 - Ⓒ Select a day of the week.
 - Ⓓ Input a start time. (Change for morning or afternoon with UP/DOWN button.)
 - Ⓔ Select a speaker ZONE to broadcast.
 - Ⓕ Click on Add button to finish the Add up a reservation.
 - Ⓖ When it is the reserved time, it starts broadcasting.

During giving a reserved broadcast, an output level adjust can be done only in PC program. And when press on STOP button, it stops a current broadcasting.

※ Caution : If click on Clear button when making a content, it deletes all the existing references and it is changed into a current time automatically.



※ Caution : When calling a MP3 file, it may appear the following Caution Window occasionally, which is caused by a loss of time information of the sound source. In this case, exchange it for another file not having Caution Window. If run the file as it is, because a time information displayed is different from actual playback time, it may stop to play it during playing back or continue to mute for a certain duration even when the playing back has finished.

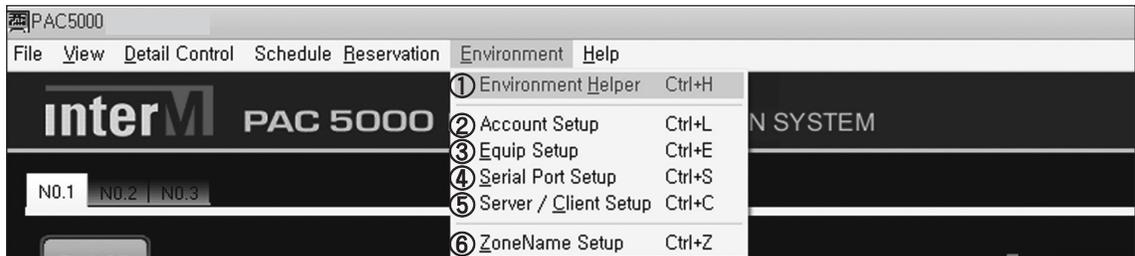


- ③ Delete a reservation (DELETE)
 - f Stop a program being run by clicking on STOP button.
 - f Select a content to be deleted with the mouse. (or use Ctrl and Shift button s on the key board.)
 - f Click on DELETE button and then it appears Confirmation Window.
 - f Finish DELETE by clicking on Yes.
 - f You must click on Run button after finishing to run the program continually.
- ④ Modify a reservation (MODIFY)
 - f Stop a program being run by clicking on STOP button.
 - f Select a content to be modified by clicking on that.
 - f Modify the item.
 - f Click on MODIFY button to apply it.
 - f You must click on Run button after finishing to run the program continually.
- ⑤ When click on CLOSE button, it converts into the main screen.

※ Caution : PC reservation function is available in SERVER PC but not available in CLIENT PC.

- Set up an environment

It is the tool to set up an environment which is needed to run a program.



① Environment Helper

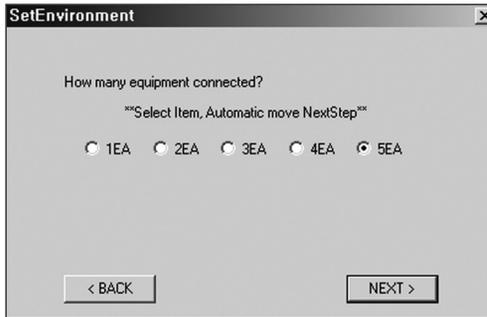
It is the tool to set up a basic environment.



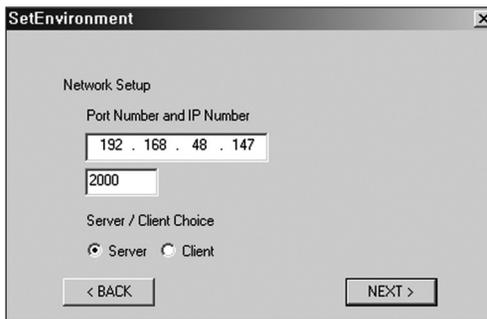
- It is the start screen to set up an environment. .
When click on "Start Environment Set up" button, it starts.



- Select a port available with Serial communication.
We recommend you COM1. But if COM1 is in use currently
Or cannot be run, run COM2.
- Click on NEXT button.



- Confirm systems being linked and select a total number of connections.
- Click on NEXT button.



- Select Server or Client.
- If your PC takes role of SERVER, select "Server", but if your PC is connected to SERVER in remote, select "Client" and then input IP number and Port number. (We recommend you 2000.)
- Click on NEXT button.



- Finish it by clicking on "Save Environment" button.
- When finished to set up, restart the program.

② Account Setup

Using the function is available to add or delete an account number.



- ADD: Input ID and PW and then press Add button to add an account number.
- DELETE: Select an account number to be deleted on the right list and then press Delete button to delete it.

※ Caution : If forgot ID/PW, please contact our customer support team.

③ Equip Setup

With the function is available to select a total number of the systems being connected.

④ Serial Port Setup

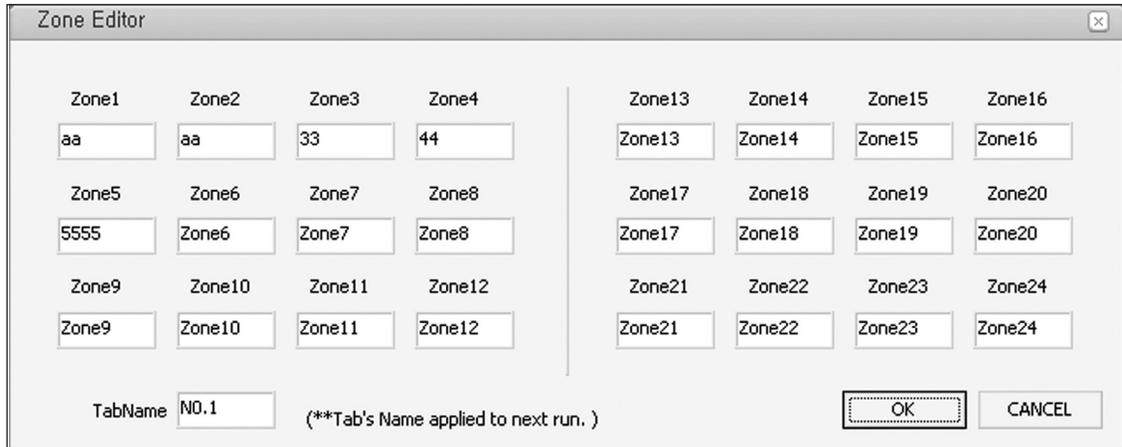
With the function is available to select a Port possible to run Serial communication.

⑤ Server / Client Setup

With the function is available to select a usage of PC.

⑥ Zone Name Setup

With the function is available to input names of each of the ZONES.

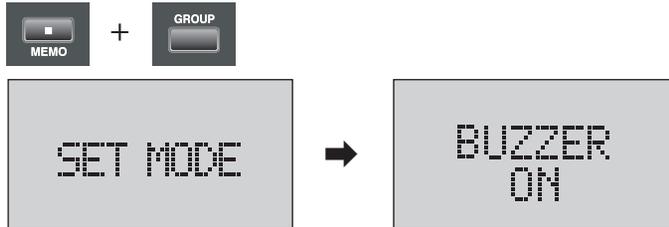


7. ADDITIONAL FUNCTIONS

1) Set up to turn ON or OF BUZZER Sound.

Using the function is available to turn On or OFF BUZZER Sound (bick~), which is output in each pressing of the button.

- Place an operational state of the system to Stand-by state.
- When pressing ■ (Stop) button and GROUP button together, on the display window displays "SET MODE".
- By pressing I◀◀ or ▶▶I (SKIP DOWN/UP) button, convert it into the corresponding setting mode.

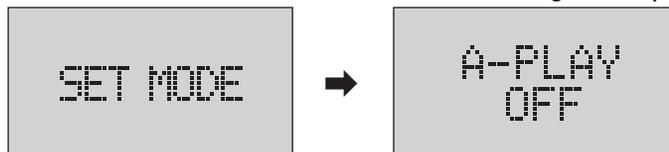


- By using ◀◀ or ▶▶ (SEARCH DOWN/UP) button, select ON/OFF. (ON is default.)
- When press the playback/pause(▶▶I) button, it finishes to set up, but when press ■ (Stop) button, it cancels to set up.

2) AUTO PLAY function setting

It is the function to play back a sound source in CD/DRP/USB automatically when the main power is turned, which runs one playing back and then stops. (The function is not available in STANDBY state.)

- In the "SET MODE" above, convert it into the setting mode by pressing I◀◀ or ▶▶I (SKIP DOWN/UP) button.

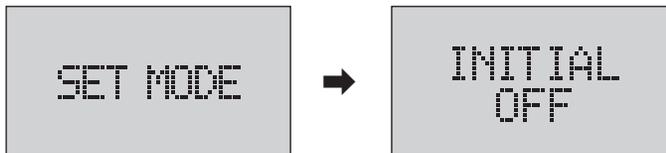


- Using ◀◀ or ▶▶ (SEARCH DOWN/UP) button, select ON/OFF. (OFF is default.)
- When press the playback/pause(▶▶) button, it finishes to set up, but when press ■ (Stop) button, it cancels to set up.

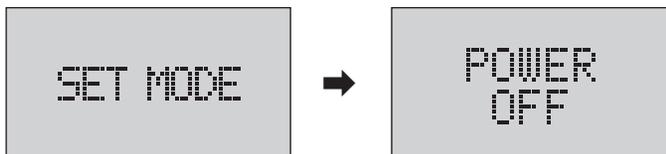
3) Initialize a memory

Using the function is available to initialize all the setting states in CD/DRP/USB mode by deleting all the files stored in the internal memory(DRP).

- In the "SET MODE" above, convert it into the setting mode by pressing |◀◀ or ▶▶| (SKIP DOWN/UP) button.

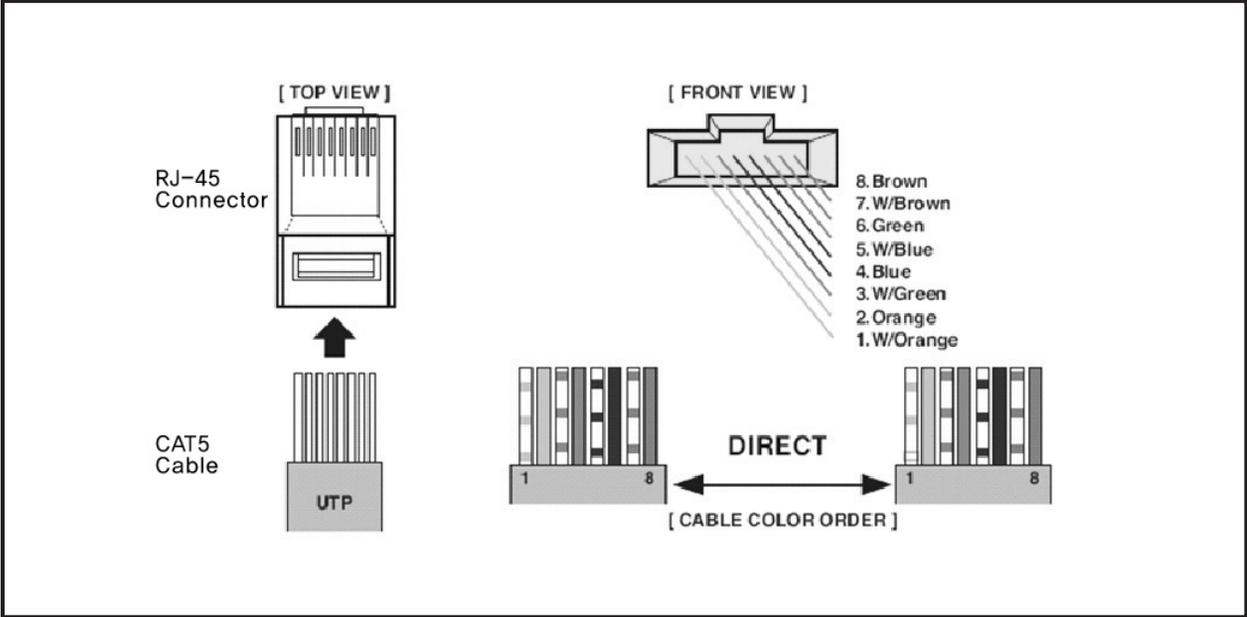


- Using ◀◀ or ▶▶ (SEARCH DOWN/UP) button, select "INITIAL ON". (OFF is default.)
- When press the playback/pause(▶▶) button, it starts initializing, and when finished it, on the display window displays Finished Initializing and POWER OFF alternately.



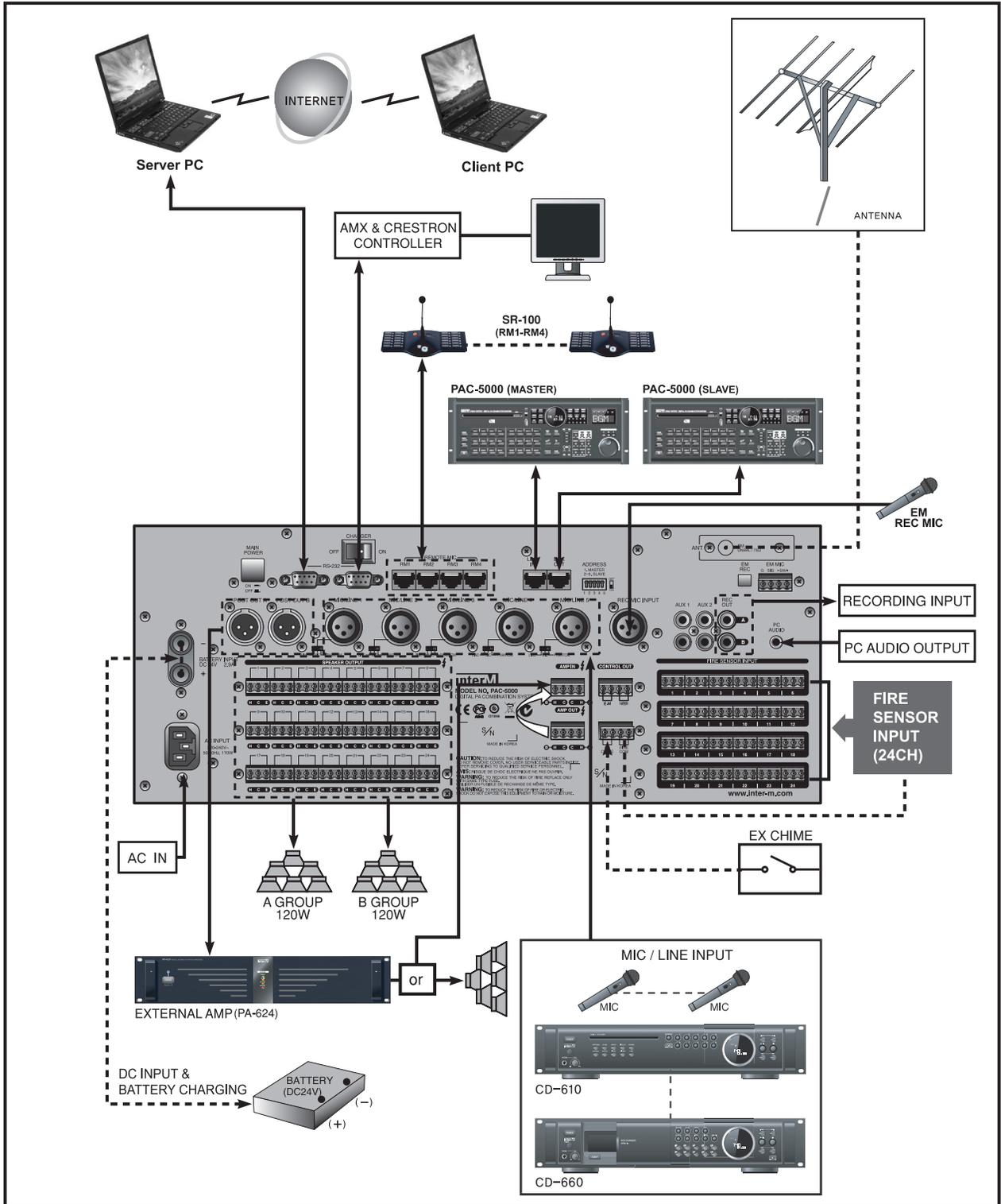
- Available to confirm the finished state by turning the power OFF and then ON.

Manufacture UTP Cable

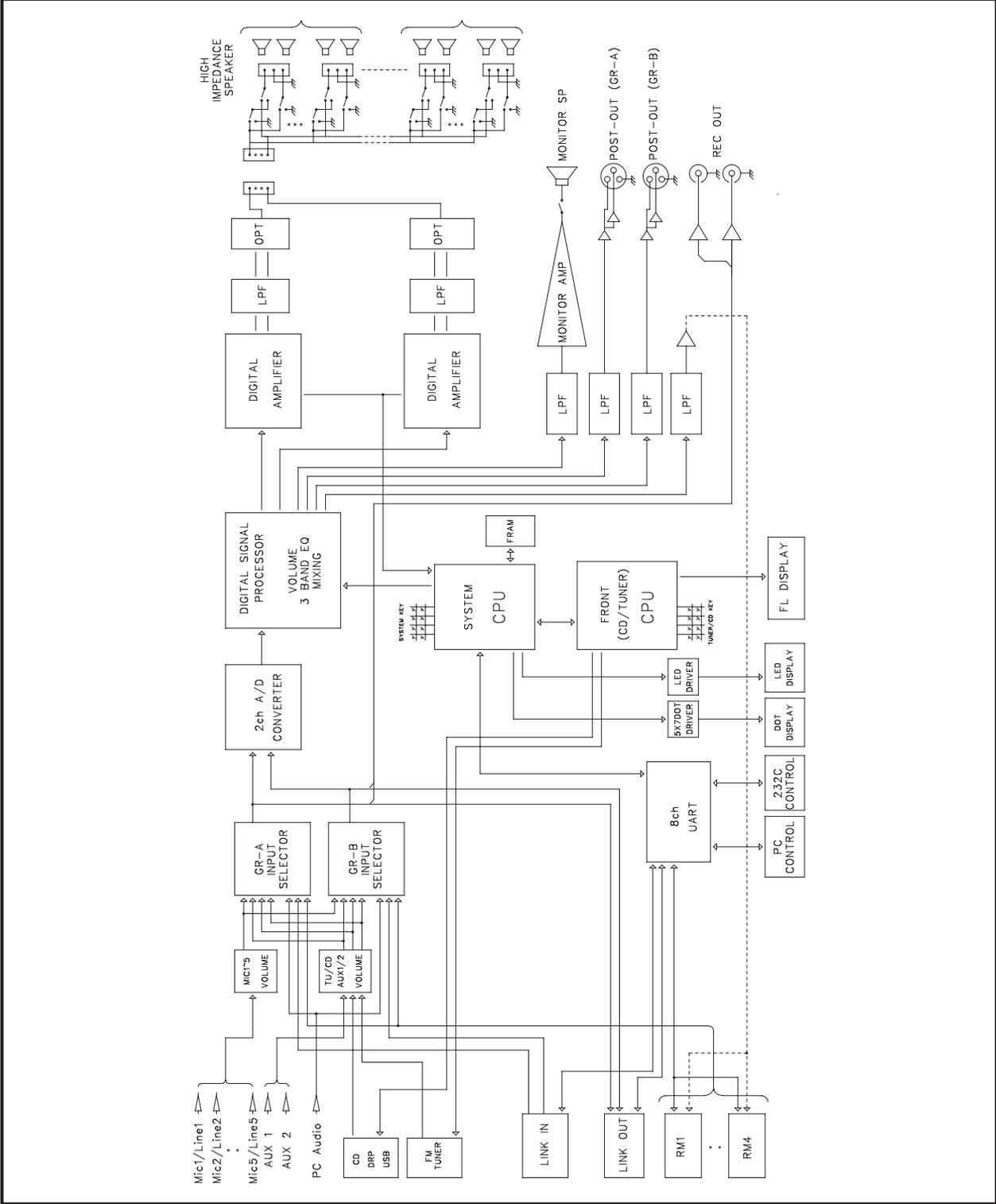


※ Caution : The cables must be manufactured with Direct absolutely.

Applications



Block Diagrams

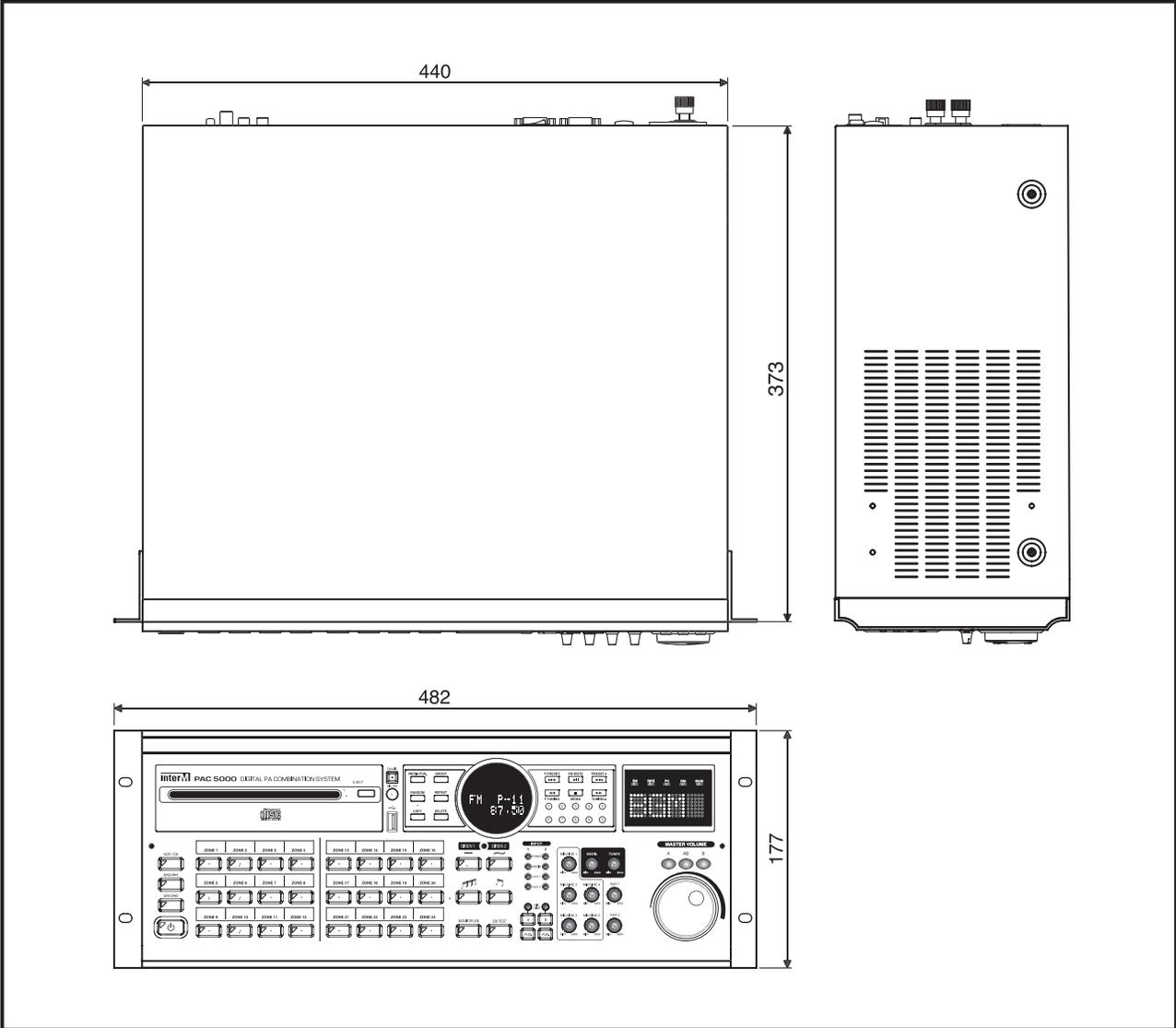


Specifications

	PAC-5000
POWER AMP (AUX IN @ 1kHz, 100V/83Ω or 70V/42Ω LOAD OUTPUT)	
Rated Output(@ T.H.D 1%, GROUP A + GROUP B)	120W + 120W
Input Sensitivity	-10dBV / 10kΩ
S/N (20kHz LPF, A-WTD)	Better than 75dB
EQ Control (250Hz, 1kHz, 7kHz)	±10dB
Frequency Response (1W Power Output, ±3dB)	100Hz-18kHz
MIC/LINE 1~5CH (MIC/LINE IN @ 1kHz, POST OUT, MIC/LINE VR Max. Master VR Max.)	
MIC Input Sensitivity	-55dBV / 10kΩ
MIC S/N (20kHz LPF, A-WTD)	Better than 55dB
MIC Frequency Response (±3dB, 80kHz LPF)	120Hz-10kHz
MIC Phantom Power	+24V
MIC T.H.D (20kHz LPF)	Less than 0.5%
LINE Input Sensitivity	-10dBV / 10kΩ
LINE S/N (20kHz LPF, A-WTD)	Better than 65dB
LINE T.H.D (20kHz LPF)	Less than 0.3%
CD (TEST CD 0dB, 1kHz @ REC OUT, CD VR Max. Master VR Min.)	
S/N (20kHz LPF, A-WTD)	Better than 80dB
Frequency Response (±3dB, 80kHz LPF)	100Hz-20kHz
TUNER (FM, 22.5kHz MOD @ REC OUT, TUNER VR Max. Master VR Min.)	
S/N (20kHz LPF, A-WTD)	Better than 60dB
Frequency Response (±3dB, 80kHz LPF)	120Hz-12kHz
OUTPUT LEVEL (AUX IN, INPUT -10dB/1kHz)	
REC OUT (AUX VR Max. Master VR Min.)	-10dBV / 600Ω
POST OUT (AUX VR Max. Master VR Max.)	0dBV / 600Ω
LINK IN/OUT , REMOTE MIC (RM 1~RM 4) INTERFACE	
Configuration	RS-485 Serial
Interface Distance	±200M
Cable Type	Category 5 UTP Cable
Priority Control	EM > FIRE > PC AUDIO > REMOTE MIC > MIC 1, SIREN, CHIME > MIC 2~5, BGM
Fire Sensor	24CH
Operation temperature	-10°C ~ +40°C
Power Source	100-120VAC or 220-240VAC ; 50Hz/60Hz, 24VDC
Power Consumption	170W (1/8 Power)
Weight(SET)	16kg/35.3lb
Dimension(SET)	482(W) × 177(H) × 373(D)mm/19(W) × 7(H) × 15(D)in

* Specifications and design subject to change without notice.

* Dimensions



Service

Procedures

Ensure the problem is not related to operator error, or external system devices, 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

Variations of this product exist to reflect the variations in AC power requirements throughout the world. Product supplied through local 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.

interM



Inter-M, Ltd. (Korea) began operations in 1983.

Since then, Inter-M has grown to become one of the largest manufacturers of professional audio and commercial sound electronics equipment in the world.

Inter-M has gained worldwide recognition for its own branded products, as well as private label manufacturing of electronics sold under other names (OEM).

The company is no longer just a Korean company, but rather a global company that is truly international in scope, with factories and offices in Korea and China, and sales and marketing operations located in Japan, Europe, and the U.S.A.

With more than 850 employees around the globe, Inter-M is well-poised for further growth and expansion.

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