Operation Manual

Network Transmitter

IPA-T10



interM

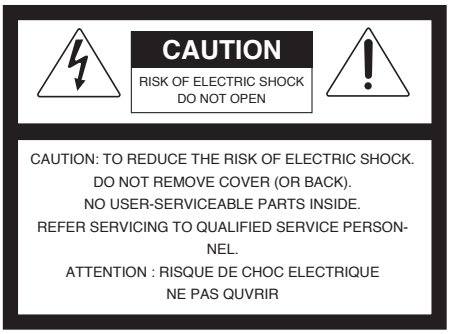
Welcome

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!





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 on une autre sortie de courant, sauf si les lames peuvent étre insérées à fond sans en laisser aucune partie à découvert.
Pour deconnecter completement l’appareil du reseau d’alimentation. deconnecter le cordon d’alimentation de la prise murale.
La prise du reseau d’alimentation doit demeurer aisement accessible.

WARNING

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

*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.
*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 IPA-T10 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.


S3125A

Overview

The IPA-T10 is an integrated network system that provides a transport solution over an automated network infrastructure. By linking complex and extensive systems (PA, SR, VA) with each other, it is possible to play emergency sound sources and transmit various sound sources such as TTS and scheduler, and control multiple devices through contact points and RS-232C and RS-422 communication. . By providing integrated control software for control, it provides an ideal solution for various spaces such as large-scale industrial complexes, hospitals, restaurants, and schools.

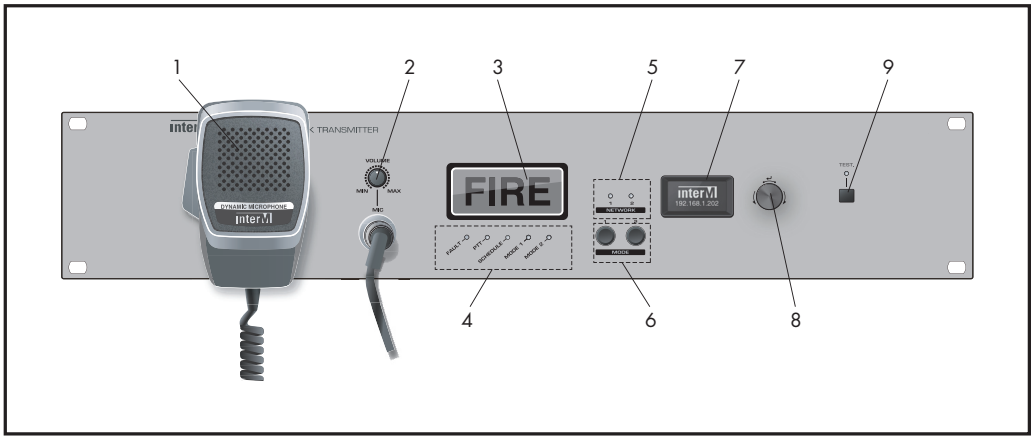
Features

- Universal network transport interface
- Bidirectional contact data transmission/reception and control (IN/OUT each 16CH)
- Bidirectional serial data transmission and reception (RS-232C, RS-422)
- Emergency broadcasting through the network (PTT MIC, SIREN)
- Schedule broadcast via network (MP3, TTS)
- Receives 2-channel analog audio signal and transmits it as digital audio
- Check the equipment status on the webpage
- 100/1000Mbps supported
- DHCP, STATIC IP supported
- Can be used in an emergency by combining AC and DC power

Contents and Accessories

1. user manual x 1EA
2. Rack Mounting Screws x 4EA
3. 16P terminal block (3.81MM) x 4EA
4. 3P terminal block (3.5MM) x 2EA
5. 4P terminal block (3.5MM) x 1EA
6. 4P terminal block (5.08MM) x 1EA
7. AC CORD x 1EA

Front Panel



1. MONITOR SPEAKER
You can monitor the broadcast being transmitted over the network.

2. PTT MIC & MIC VOLUME
In case of emergency, you can broadcast through the PTT MIC. You can adjust the volume of PTT MIC transmitted through MIC VOLUME.

3. FIRE LED DISPLAY
In case of emergency broadcast, it lights up.

4. STATUS LED
It is an LED that displays the equipment status and the broadcast being sent to the network.

5. NETWORK STATUS LED
This is the LED to indicate the operation status of network 1 and 2.

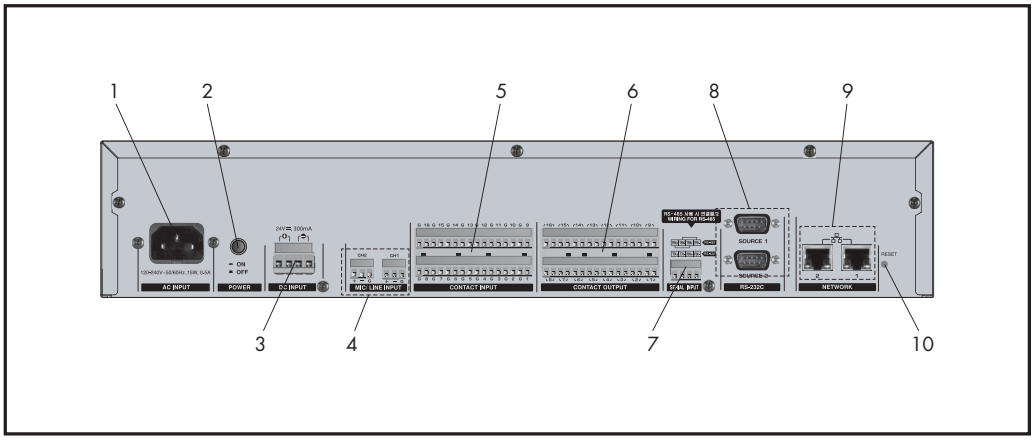
6. MODE SELECT
Select the device's saved MACRO to play. MODE 1 and MODE 2 can be selected.

7. OLED DISPLAY
Network status information (IP Address, Subnet mask, DNS Server, Mac Address) is displayed through the OLED Display.

8. OLED DISPLAY CONTROL SWITCH
By turning the control switch, the user can check the desired information.

9. TEST BUTTON AND TEST LED
This button is used when checking the equipment or performing a test operation. It operates only when the button is pressed and the corresponding LED is turned on.

Rear Panel



1. AC POWER INPUT TERMINAL

This terminal supplies power to this unit. The power used is AC120-240V, 50/60Hz. Do not forcibly bend, pull, twist, heat, or cut the power cord. It may damage the cord and cause fire or electric shock.

2. AC POWER SWITCH

A switch that turns the instrument's AC power on and off.

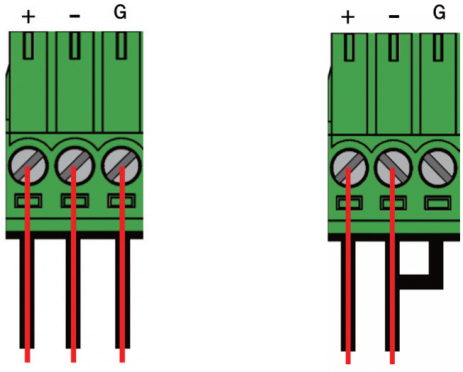
3. DC 24V POWER INPUT TERMINAL

It is an emergency spare battery (DC 24V) connection terminal. In the event of an AC power failure, the equipment operates with the connected spare battery. When DC 24V power is applied to the equipment, the equipment is always operated regardless of the power switch. (Be careful not to change the polarity when connecting.)

4. AUDIO INPUT TERMINAL

This is the terminal for receiving audio signals.

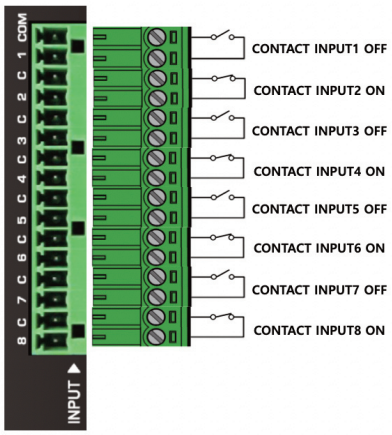
- INPUT GAIN can be adjusted through the PC program.
- Phantom power (+24V) can be turned ON/OFF through PC program.



[BALANCED CABLE] [UNBALANCED CABLE]

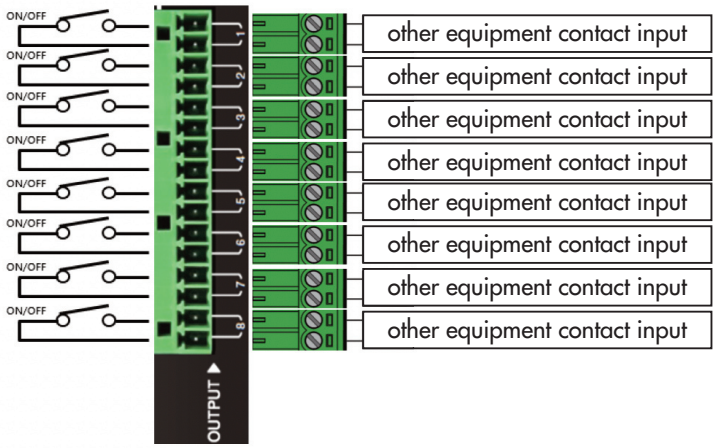
5. CONTACT INPUT TERMINAL

It is a terminal for inputting a contact. Up to 16 channels of contact input can be received. When each channel becomes COM and Short, a contact is input. (C=COM)



6. CONTACT OUTPUT TERMINAL

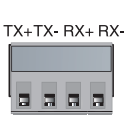
This is the terminal where the contact is output. Up to 16 channels of contacts are output. It is in Normal Open (open when product power is cut off and contact output is set to OFF) and is shorted when contact output is ON. Network connection terminal This is the terminal that connects the equipment to the network.



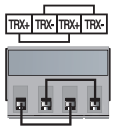
7. RS-422/485 CONNECTION TERMINAL

It is a connection terminal for RS-422/485 communication among R-type receivers.

※When using RS-485, make sure to connect TRX+/TRX+ and TRX-/TRX-.



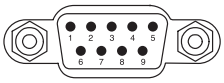
[RS–422]



[RS–485]

8. RS-232C CONNECTION TERMINAL

It is a connection terminal for RS-232C communication among R-type receivers.

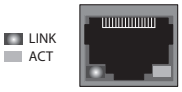


Pin	1	2	3	4	5	6-9
Functions	N.C	RX	TX	N.C	GND	N.C

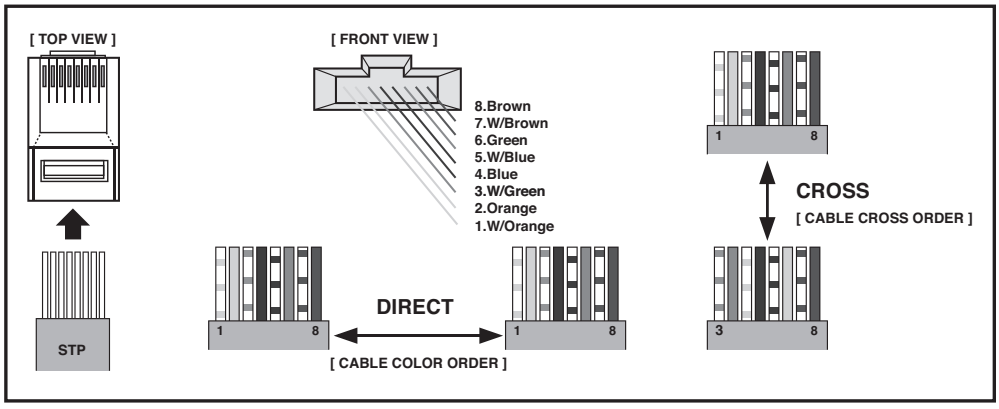
9. NETWORK CONNECTOR

This is the terminal that connects the equipment to the network. Broadcasting can be controlled via integrated software.

※ For setting method, refer to the integrated software manual. Please download the manual from the website (www.inter-m.net).



	<100 Base-T>		<1G Base-T>
PIN NO	Function	PIN NO	Function
1	TXP	1	MX(0)+
2	TXN	2	MX(0)-
3	RXP	3	MX(1)+
4	NA	4	MX(2)+
5	NA	5	MX(2)-
6	RXN	6	MX(1)-
7	NA	7	MX(3)+
8	NA	8	MX(3)-

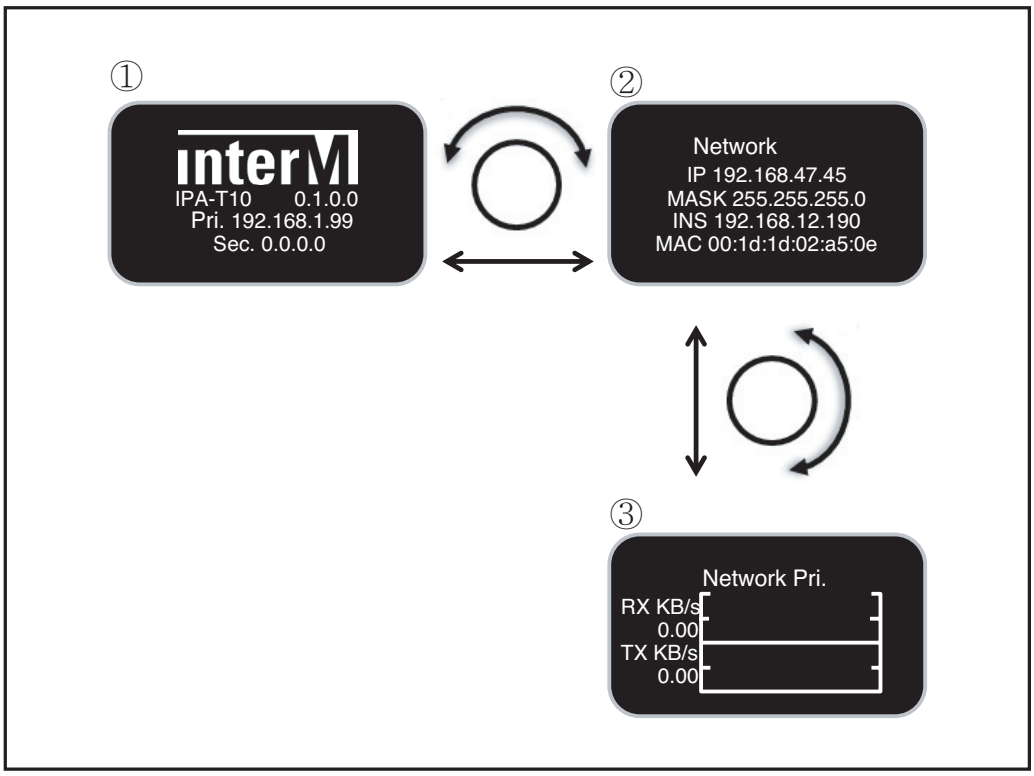


※ It is recommended to use the STP cable for the network cable of this product.

10. RESET SWITCH

If the switch is pressed for more than 10 seconds, the device settings are reset to factory defaults.

Operation



① This is the standby screen of the device. The model name and network information are displayed.

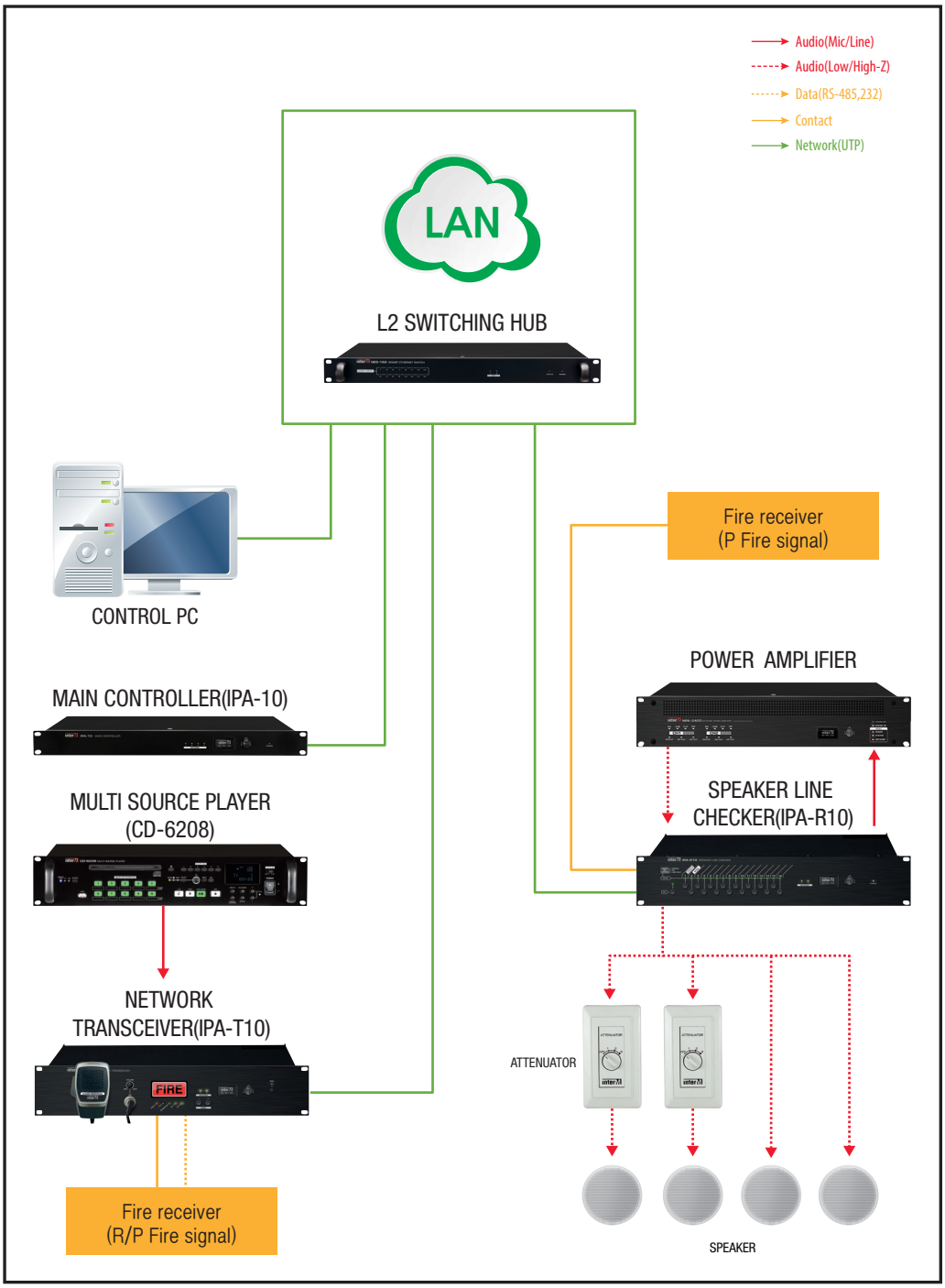
② If you turn the front panel control switch to the right on the standby screen, detailed Network related information (IP Address, Subnet mask, DNS Server, Mac Address) is displayed.
If you turn the front panel control switch to the left on the Network-related detailed information screen, the standby screen (model name, network information) is displayed.

③ If you turn the display control switch to the right on the Network related detail screen, the Network status (RX/TX data rate) is displayed.
When you turn the display control switch to the left on the Network status display screen, Network related details (IP address, Subnet mask, DNS Server, Mac Address) are displayed.

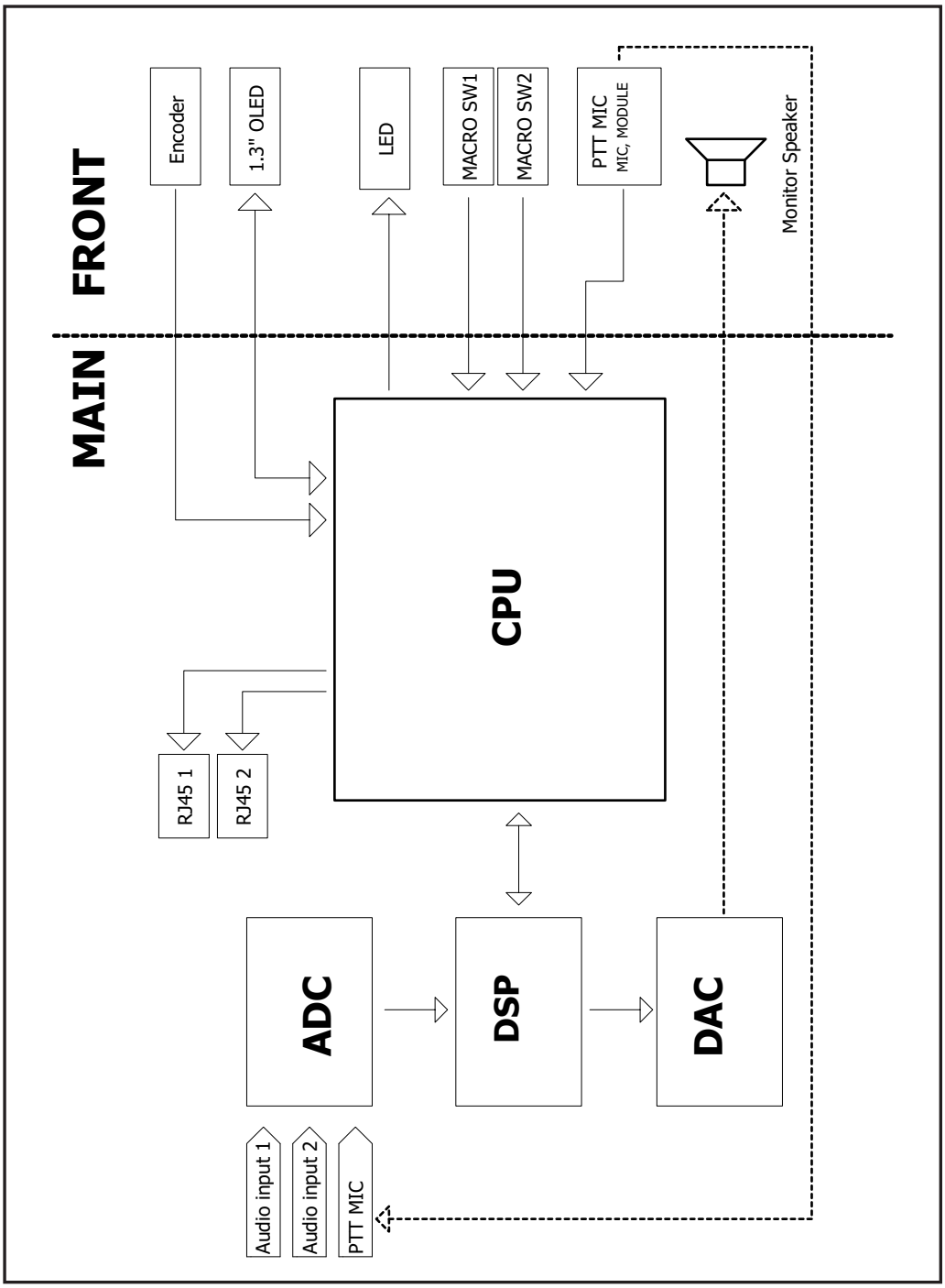
④ If you turn the display control switch to the right on the Network status display screen, the RECOVERY screen is displayed. If you press the control switch on the screen, you can recover the blocked channel.

Turning the display control switch to the left on the RECOVERY screen displays the Network status display screen.

Applications



Block Diagram

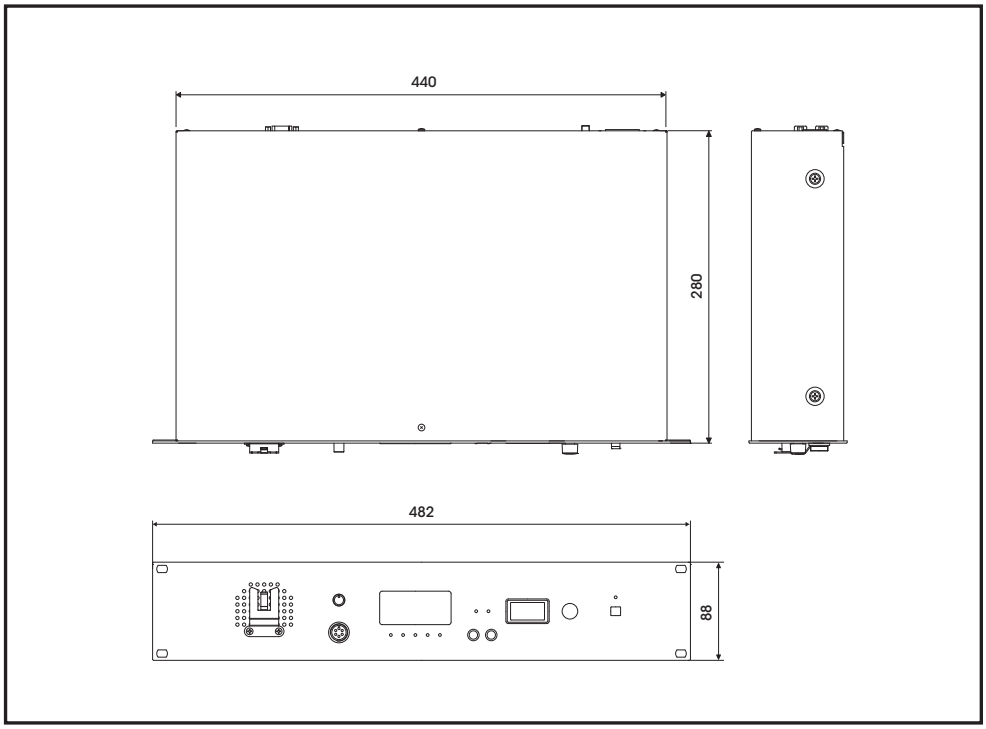


Specifications

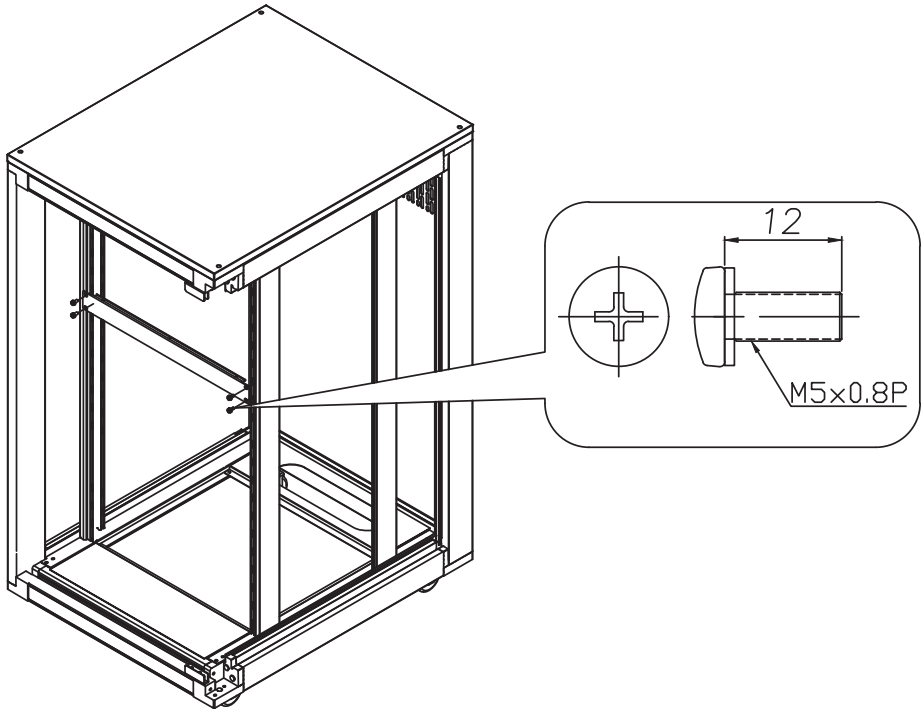
		IPA-T10
AUDIO INPUT	Audio input sensitivity	0dBV
	Audio Rated Power (IPA-R10)	0dBV
	THD (@ Input 1kHz,Output 0dBV)	0.05% or less
	S/N (@ Input 1kHz,Output 0dBV A-WTD)	75 dB or more
	Frequency response	20Hz~20kHz
	Phantom Power	+24V
PTT MIC	Microphone input sensitivity	-45dBV
Contact Input/Output		CONTACT INPUT : 1CH~16CH CONTACT OUTPUT : 1CH~16CH
Serial communication		RS-232C, RS-422(485)
Network communication		100/1000 Base-T (RJ-45)
Operating temperature		-10℃ ~ +40℃
Operating voltage		AC 120-240V~, 50/60Hz, DC +24V, 500mA
Power Consumption		25W
Weight (SET)		4kg/8.8lb
Dimension (SET)		482(W) x 88(H) x 280(D)mm 19(W) x 3.5H) x 11(D)in

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

※ **DIMENSIONS**



Instructions for use of screws



This product can be used on a table or fixed to a rack.
However, be sure to observe the installation precautions below when using it in a rack.

1. Place the product in an empty area of the rack.
2. Using the included mounting screws, tighten the 4 mounting holes so that there are no voids and fix them.
3. Please proceed with the wiring for the operation of the product, and apply the power last.
4. Disassemble in the reverse order of the above procedure.
5. In case of fixing by not using the included screws or screws of the same size, or using insufficient number of screws the manufacturer is not responsible for any safety accidents caused by this.

Accessories included for fixing the product
- Specification: SCREW M5x0.8P, L=12
- Quantity: 4pcs

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.

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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January 2023 157281