

Operation Manual

Network Speaker Line Checker

NSC-1216



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.

WARNING

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

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

*WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING-WATER AND MOISTURE: Unit should not be used near water(e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that 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.

Contents

Unpacking	2
Installation	
Environment	2
Important Safety Instructions	2
Overview	3
Features	3
Contents and Accessories	3
Front Panel	4
Rear Panel	5
Operation	7
Applications	8
Block Diagram	9
Specifications	10
Service	
Procedures	12
Schematic	12
Parts List	12
Variations and Options	12
Warranty	12

Unpacking

Although your NSC-1216 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.



Overview

NSC-1216 is a speaker line checker that is controlled through a network in conjunction with our IPC and IPA systems. This is a device that protects the amplifier by automatically blocking the channel when overcurrent occurs due to a short circuit in the line, and informs the operator of the occurrence of an accident.

Features

- PC integrated control

It is possible to control and monitor equipment through NETWORK by linking with IPC/IPA system.

- Real-time short detection function

Real-time short check level can be set for each channel, and when overcurrent occurs, it is detected in real time and the corresponding channel is cut off immediately.

- Various line status display

- Through the front LED, the status of the speaker line is displayed as NOR, EM, or short circuit.
- NOR/EM (Green LED on): Broadcasting is output through the HOT speaker terminal.
- NOR/EM (Red LED on): Broadcasting is output through the HOT/EM speaker terminal.
- NOR/EM (LED off): Broadcasting is not output.
- LINE FAULT (Orange LED on): A short circuit has occurred in the speaker line.

- 3-wire speaker line control

Channels for general broadcasting and emergency broadcasting are configured for 3-wire broadcasting.

- buzzer operation

The buzzer operates when a line abnormality is detected, so you can easily detect the line condition. You can decide whether to use the buzzer through ON/OFF in PC integrated control.

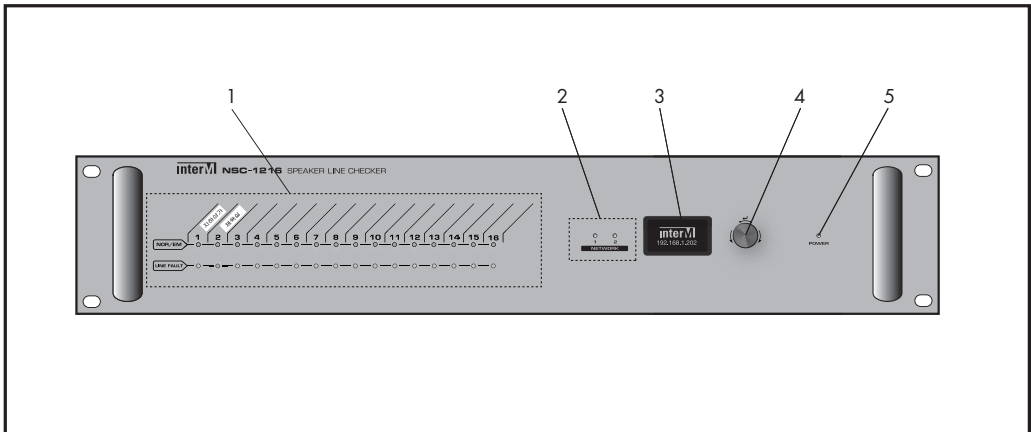
- Low voltage detection

When the power supply voltage (DC 24V) decreases below a certain voltage (DC 18V +5%), a low voltage notification occurs with a buzzer sound.

Contents and Accessories

1. Screws for rack mounting X 4EA
2. 4P terminal block X 9EA
3. 3P terminal block X 16EA
4. SHORT BAR 8P X 8EA
5. User Manual X 1EA

Front Panel



1. LINE STATUS DISPLAY LED

It is an LED that displays the broadcast status (NOR/EM) and the presence or absence of abnormalities in the speaker line.

① Broadcast status (NOR/EM)

- Green LED on: Broadcasting is output to the channel selected through the HOT speaker terminal.
- Red LED on: Broadcasting is output to the channel selected through the HOT/EM speaker terminal.
- LED off: Broadcasting output is not selected.

② LINE FAULT

- Orange LED on: A short circuit has occurred in the speaker line.

2. NETWORK STATUS LED

This LED indicates the status of 1, 2 of the network. The LED blinks when the network is connected normally.

3. STATUS DISPLAY OLED

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

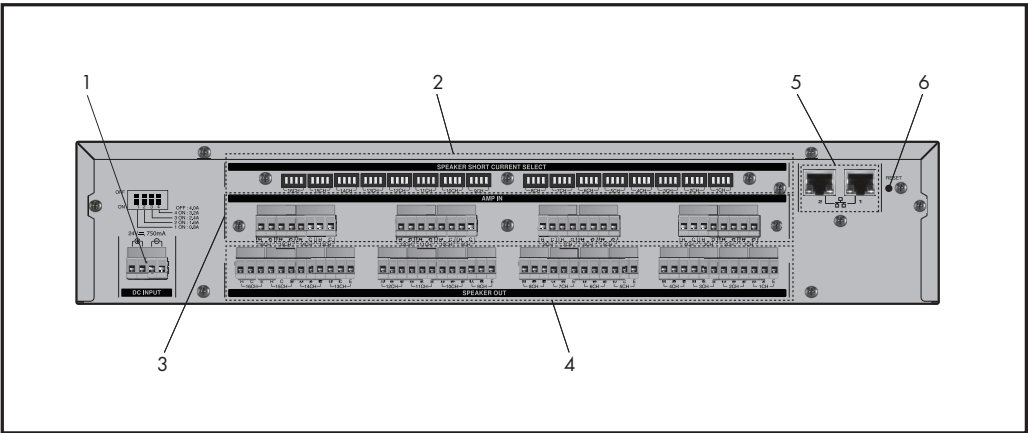
4. STATUS DISPLAY OLED CONTROL SWITCH

You can check the information you want by turning the control switch.

5. POWER LED

This LED indicates the power ON/OFF status.

Rear Panel

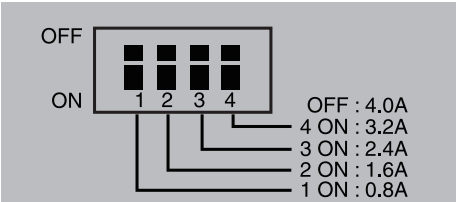


1. POWER INPUT TERMINAL

Terminal to connect power (DC 24V). When connecting, be careful not to change the polarity.

2. SPEAKER OUTPUT REAL-TIME SHORT CHECK CAPACITY SELECTION SWITCH

This is a switch that can select the channel's real-time short check capacity.



switch	Real-time short check capacity
1 ON	0.8A
2 ON	1.6A
3 ON	2.4A
4 ON	3.2A
OFF	4.0A

- ※ Malfunctions may occur, so pay attention to the following.
- Be careful not to turn on more than two switches.
 - Select the switch when the power is off.

3. AMPLIFIER OUTPUT CONNECTION TERMINAL (AMP IN)

This is the terminal to connect the amplifier output of 16 channels.

4. SPEAKER LINE CONNECTION TERMINAL (SPEAKER OUT)

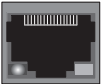
This is a terminal to connect a 16-channel 3-wire speaker.

5. NETWORK CONNECTION TERMINAL

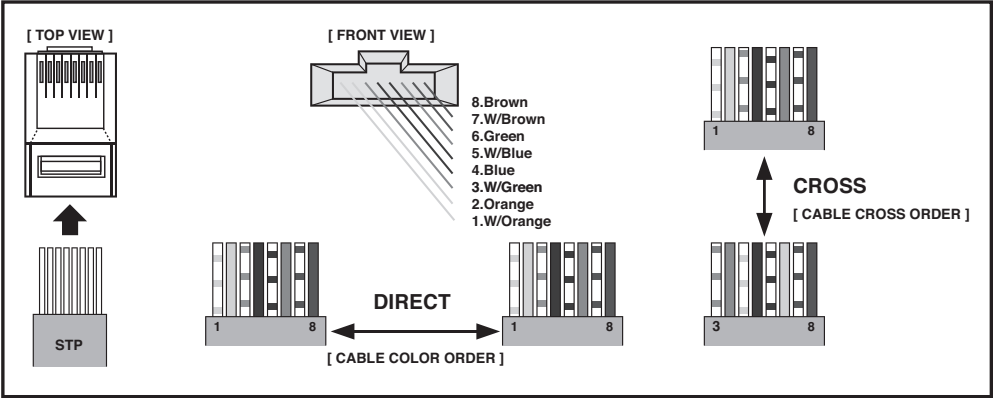
This terminal is used to connect equipment to the network.

LINK

ACT



<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)-

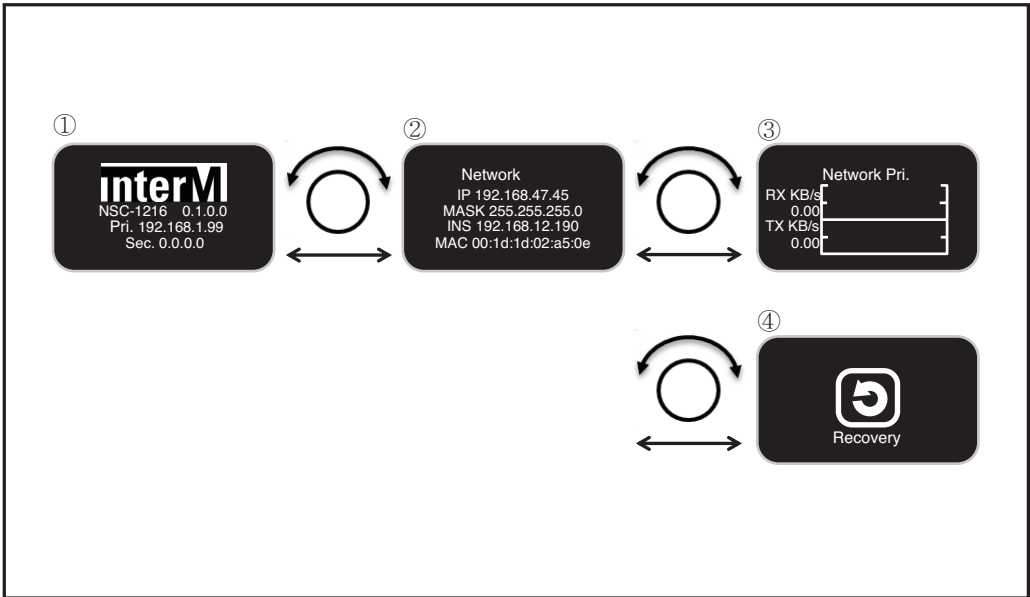


※ It is recommended to use the STP cable for the network cable of this product.

6. RESET SWITCH

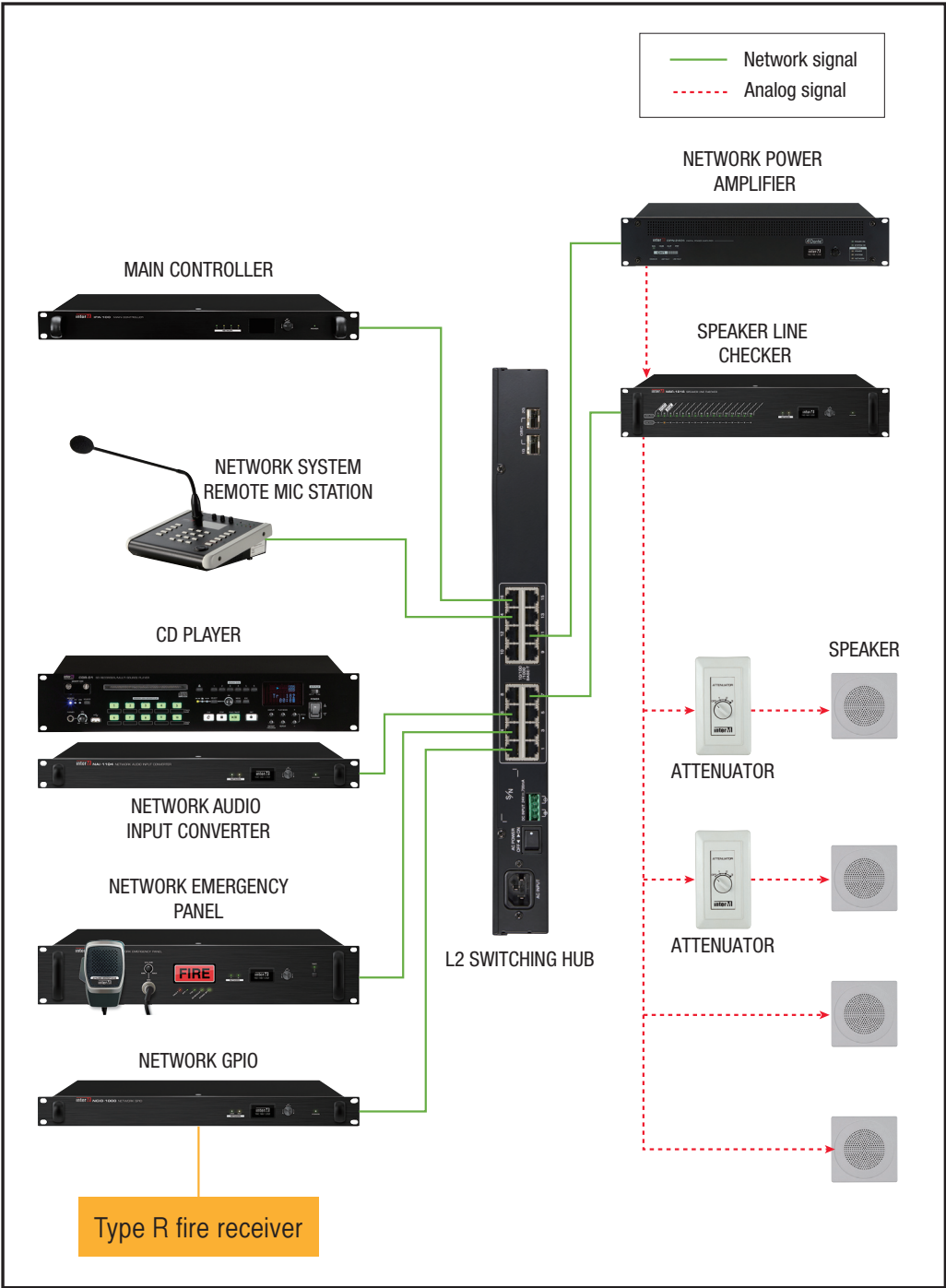
If you press the switch for more than 10 seconds, the settings of the equipment will be reset to factory defaults.

Operation

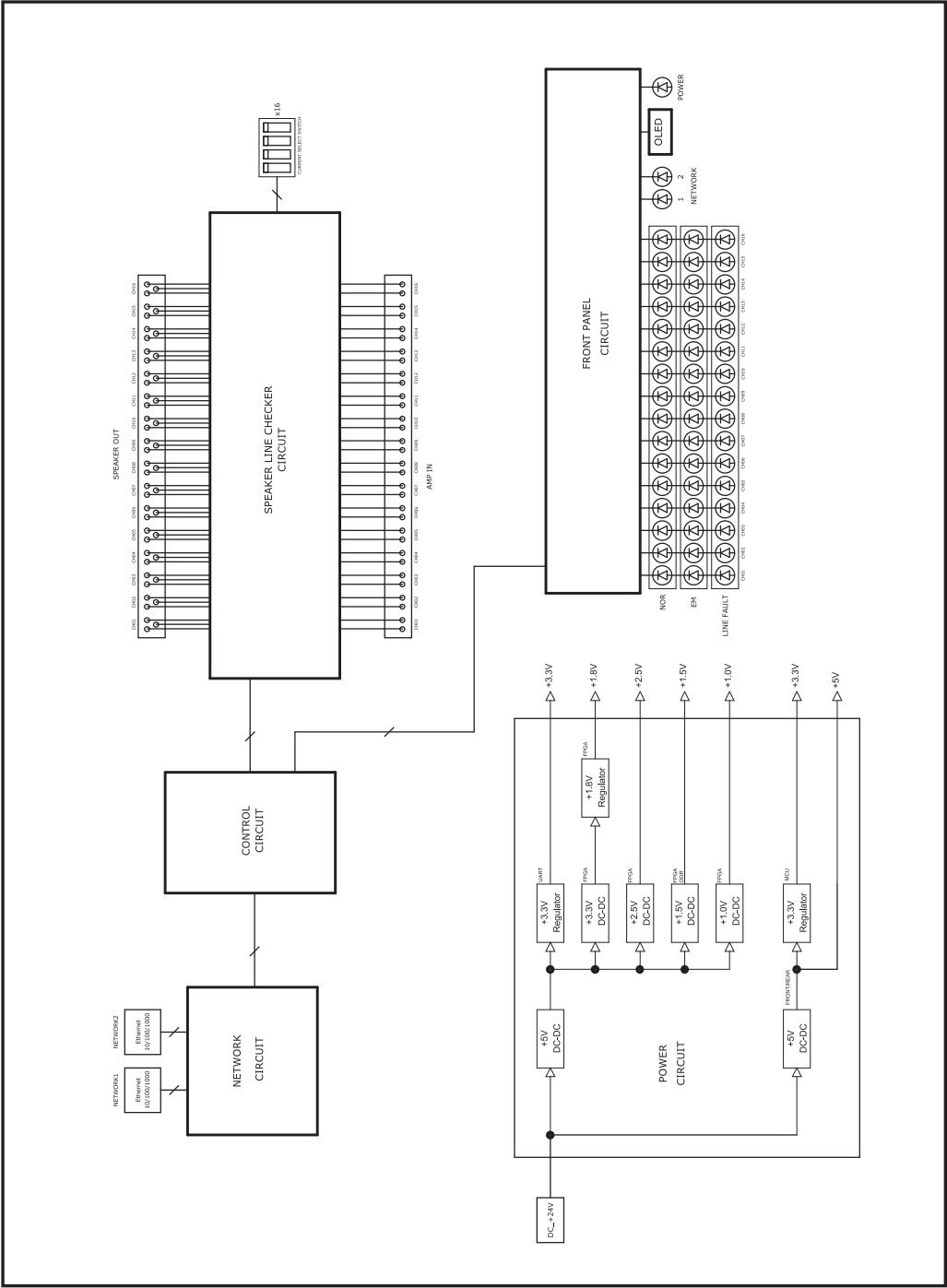


- ① This is the standby screen of the device. The model name and network information are displayed.
- ② If you turn the front control switch to the right on the standby screen, network-related details (IP Address, Subnet mask, DNS Server, Mac Address) are displayed.
If you turn the front control switch to the left on the network-related detailed information screen, the standby screen (model name, network information) is displayed.
- ③ If you turn the control switch to the right on the network-related detailed information screen, the network status (RX/TX data rate) is displayed.
If you turn the 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 Turn the control switch to the right on the network status display screen to display the RECOVERY screen. Blocked channels can be restored by pressing the control switch on that screen.
Turning the control switch to the left on the RECOVERY screen displays the Network status display screen.

Applications



Block Diagram

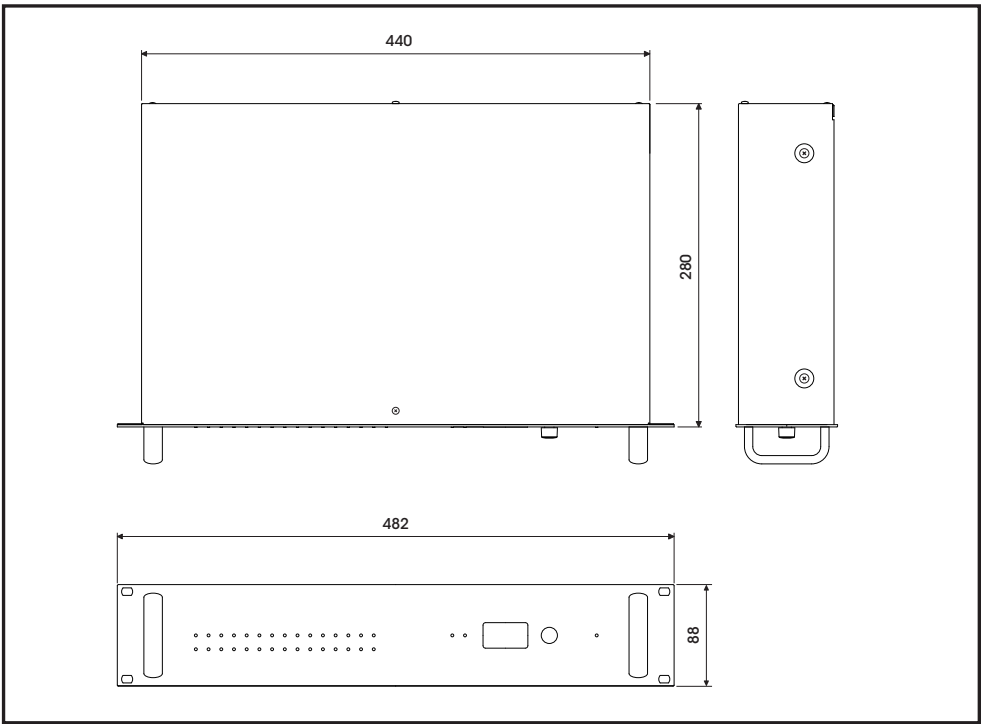


Specifications

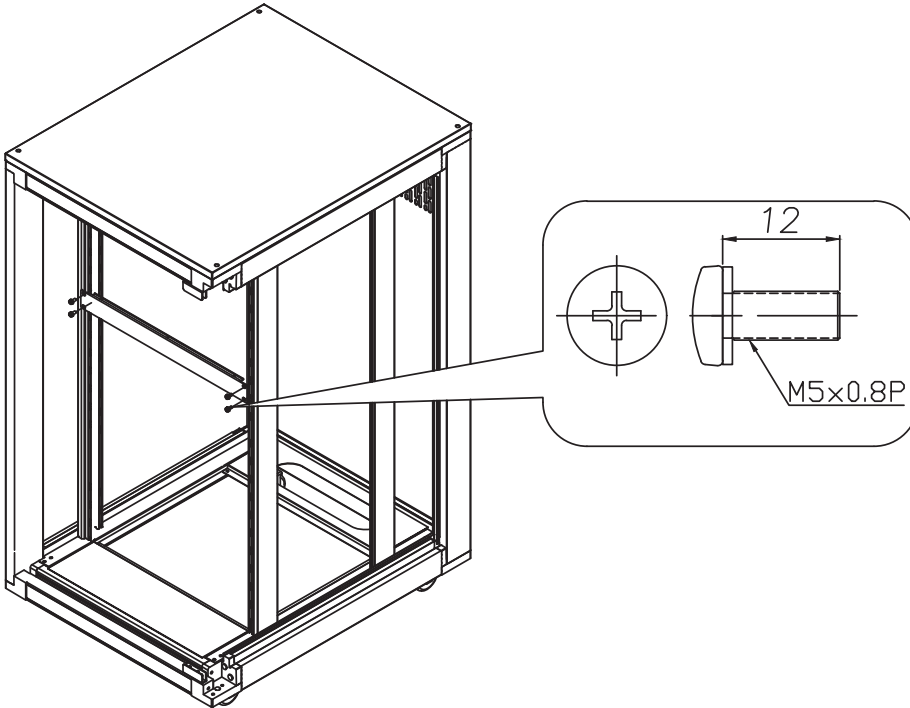
	NSC-1216				
Real-time short check capacity (variable)	0.8A	1.6A	2.4A	3.2A	4.0A
Recommended amp capacity	More than 120W	More than 200W	More than 300W	More than 360W	More than 400W
Amplifier input channel	16CH				
speaker output channel	16CH/3-wire				
Operating Temperature	-10℃ ~ +40℃				
Operating Voltage	DC 24V, 750mA				
Weight (SET)	4.6kg/10.14lb				
Dimensions (SET)	482(W) x 88(H) x 280(D)mm/19(W) x 3.5(H) 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.

Inter-M Corporation

SEOUL OFFICE : 719, DOBONG-RO, DOBONG-GU, SEOUL, KOREA

TEL : +82-2-2289-8140~8, FAX : +82-2-2289-8149

Home Page : <http://www.inter-m.com>, E-mail : overseas@inter-m.com

MADE IN KOREA

January 2023 157330