

# Operation Manual

Receiver for AOE

**RFA-102**



**interM**

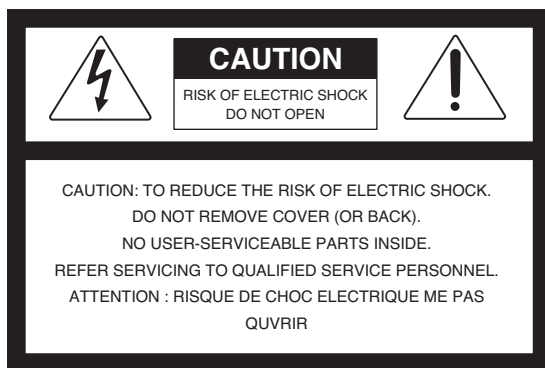
# Welcome

## 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 être insérées à fond sans en laisser aucune partie à découvert.  
Pour deconnecter complètement l'appareil du reseau d'alimentation. deconnecter le cordon d'alimentation de la prise murale.  
L'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.

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

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

\*It has heed to be easy to disconnect the device. To disconnect the device from power, separate AC input cable from inlet or unplug the AC Cord.

## 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

<b>Unpacking</b> .....	2
<b>Installation</b>	
Environment.....	2
Important Safety Instructions.....	2
<b>Features</b> .....	3
<b>Contents and Accessories</b> .....	3
<b>Front Panel</b> .....	4
<b>Rear Panel</b> .....	7
<b>System Connection</b> .....	10
<b>Block Diagram</b> .....	11
<b>Specifications</b> .....	12
<b>Service</b>	
Procedures.....	13
Schematic.....	13
Parts List .....	13
<b>Variations and Options</b> .....	13
<b>Warranty</b> .....	13

## Unpacking

Although your RFA-102 is neither complicated nor difficult to operate, we recommend you take a few minutes to read this brief manual and familiarize yourself with the important information regarding product features, setup and operation.

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

## Installation

### Environment

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

## IMPORTANT SAFETY INSTRUCTIONS

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



## Features

Transmission device exclusive for remote installation device by enabling AUDIO & DATA reception using TCP/IP Ethernet Network AOE when met threshold of installing audio and data line building dispersal pattern of mid/large size broadcasting devices.

**- 24V DC TERMINAL**

In case of AC power failure, the device will be operated with the connected backup battery.

**- OLED DISPLAY**

It displays the status of the device with a OLED display.

**- CONTACTS OUTPUT**

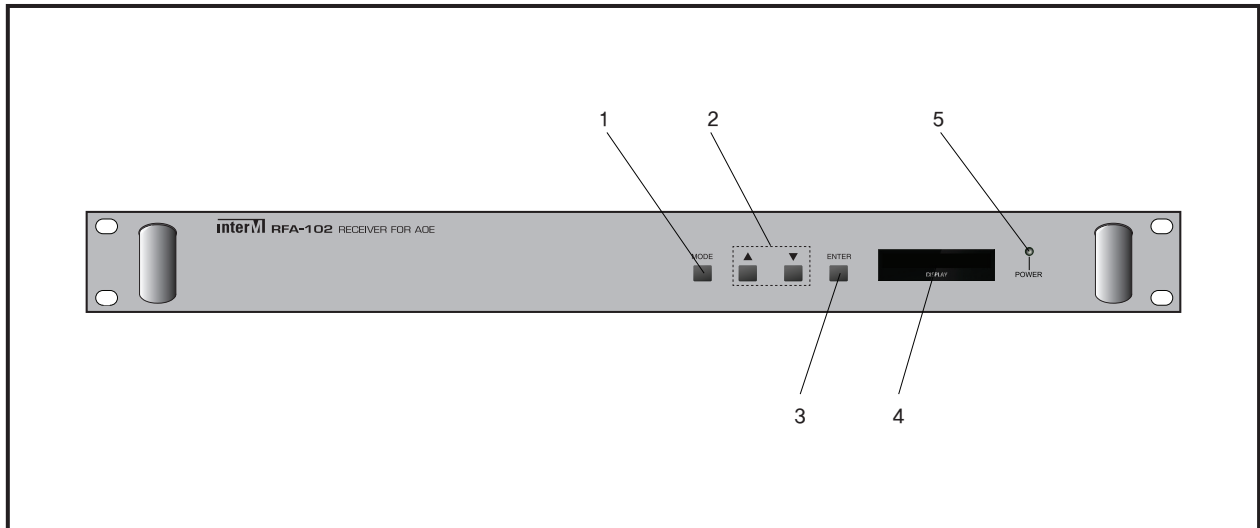
Interlocking with external equipment through contact output when receiving contact signal from server device(AOE-212N) is possible.

**- STEREO OUTPUT (EURO 3P, RCA)**

## Contents and Accessories

1. Power Cord × 1
2. 3P terminal block × 4
3. Screw for Rack Mount × 4
4. Washer × 4
5. Lan Cable × 1
6. Operation Manual × 1

## Front Panel



### 1. MODE BUTTON

Press MODE key to check the firmware version number, IP address and operation status.

### 2. ▲ / ▼ BUTTON

Check the setting information by pressing ▲ / ▼ buttons on the front panel.

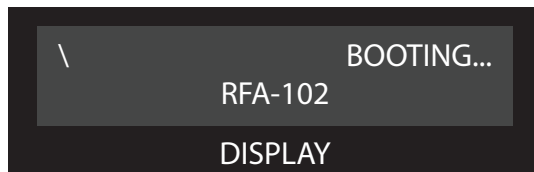
### 3. ENTER BUTTON

Select the setting options by pressing Enter button.

### 4. OLED DISPLAY

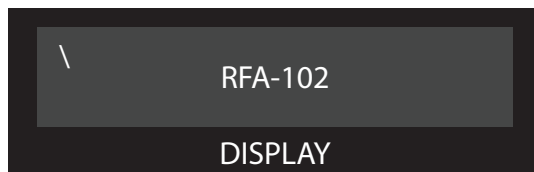
It displays a network setting IP address, server connection and radio operation status.

#### 4-1 Booting screen



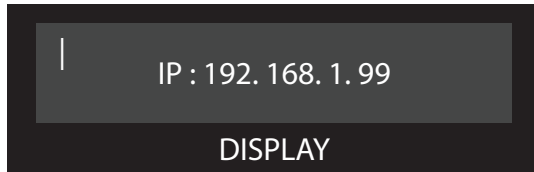
While the unit is in booting mode, 'BOOTING...' message will be appeared in the screen.

#### 4-2 Standby screen

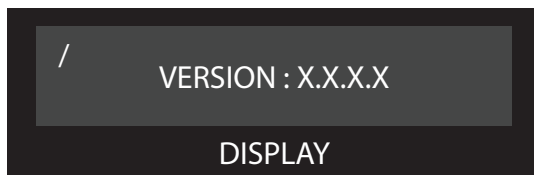


When the booting is completed, 'BOOTING...' message will be disappeared in the screen.

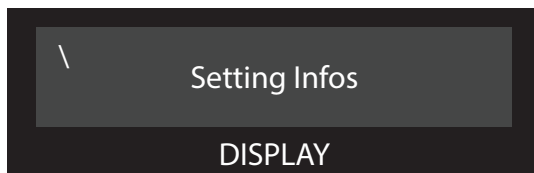
## 4-3 System info display



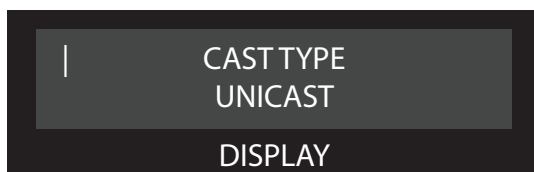
By pressing MODE button once, it displays IP address.



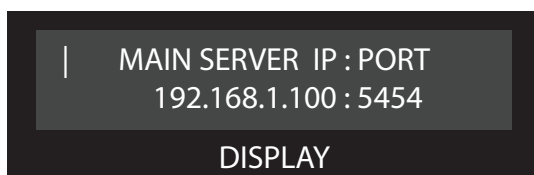
By pressing MODE button once more, it displays current software version.



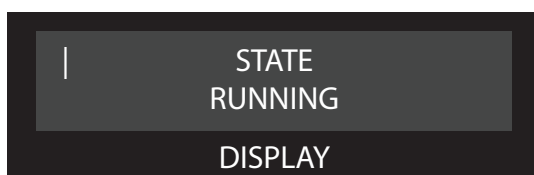
In the VERSION screen, press the MODE button once to display the Setting information.



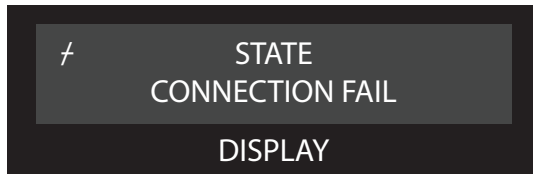
In the Setting information screen, press the Enter button once to display the Cast type information.



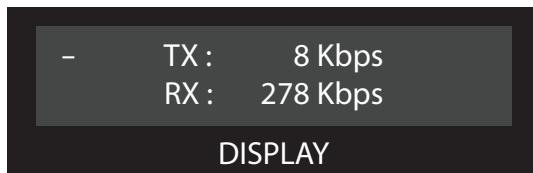
IP address and PORT information of the main server is displayed once the ▼ button is pressed.



Connection status information is displayed when ▼ button is repressed.

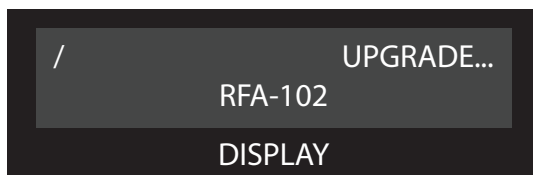


'CONNECTION FAIL' implies connection instability.



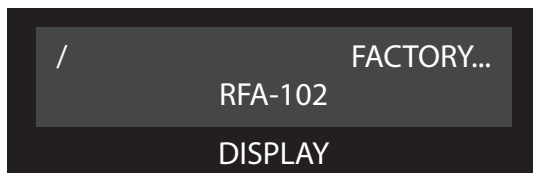
Receiving speed is displayed when CH ▼ button is repressed on Connection status display.

#### 4-4 Upgrade screen



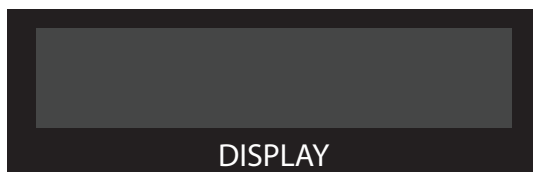
While a firmware is being updated, 'UPGRADE...' message is appeared in the screen.

#### 4-5 Factory reset screen



While a firmware is being updated, 'FACTORY...' message is appeared in the screen.

#### 4-6 Display OFF screen



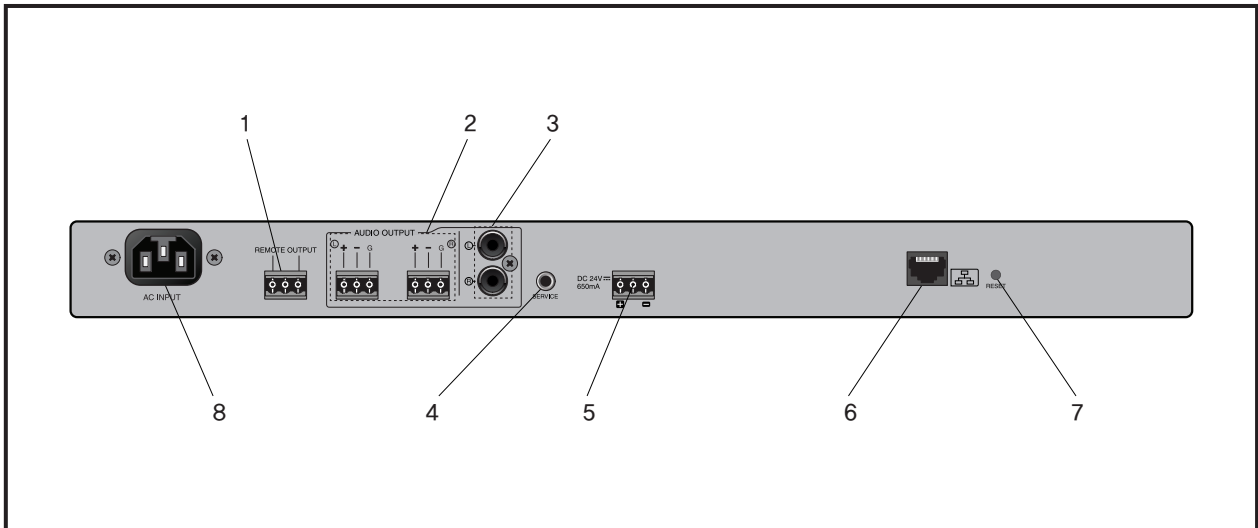
The display is will be off when there is no operation detected for 3 minutes.

### 5. POWER LED

This LED is on when the amplifier is active and powered.

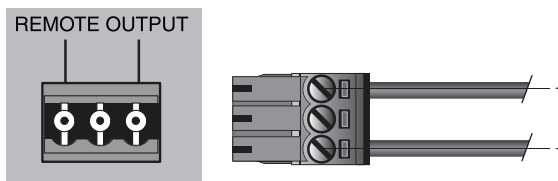


## Rear Panel



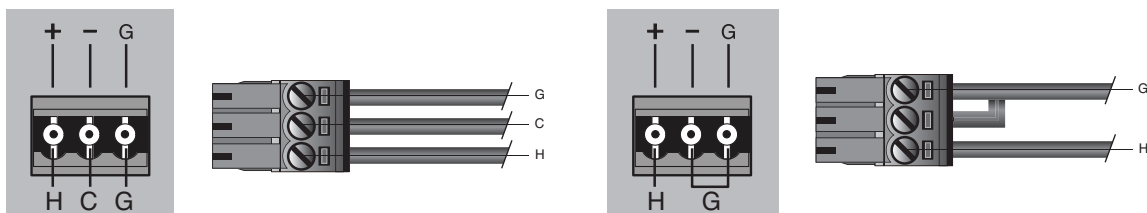
### 1. REMOTE OUTPUT

Contact closure output terminal when receiving contact signal from server device.(AOE-212N) Please refer to the following picture about the suitable cables.



### 2. EURO TERMINAL AUDIO OUTPUT(STEREO L R)

This is a terminal to EURO 3P Balanced Audio output. When connecting to balanced signal, be sure to use balanced cable and please refer to the following picture when using unbalanced cable.

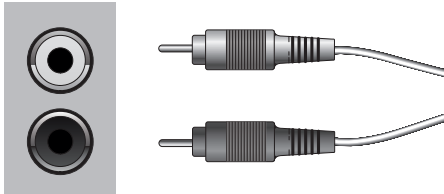


- Balanced Cable-

- Unbalanced Cable-

### 3. RCA AUDIO OUTPUT

This is a terminal to Unbalanced Audio output. Please refer to the following picture about the suitable cables.



### 4. SERVICE PORT

This is a Debug Port for service.

### 5. DC TERMINAL

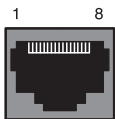
DC 24V direct current power input terminal.

※ Please check voltage and +,- polarity.

※ When AC and DC power is inserted simultaneously, AC power is prior to DC and DC operates when AC power is disconnected.

### 6. ETHERNET PORT

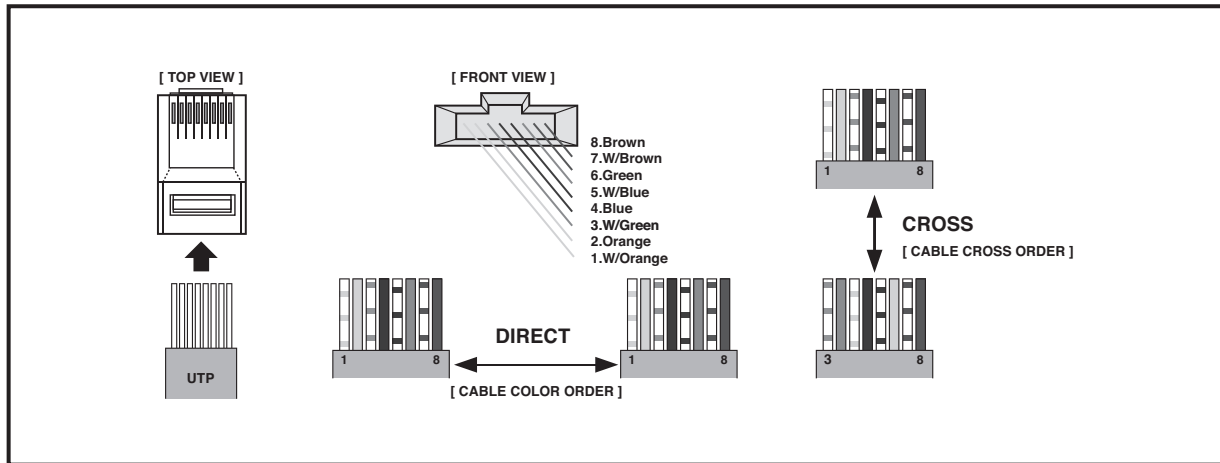
This is a RJ45 network terminal It connects RFA-102 to the internet using an ethernet switch, router or PC. The network port supports 10/100mbps



PIN NO.	Function
1	TXN
2	TXP
3	RXN
4	NA
5	NA
6	RXP
7	NA
8	NA

- **Communication Cable Standard**

RFA-102 is connected to CAT5 cable.



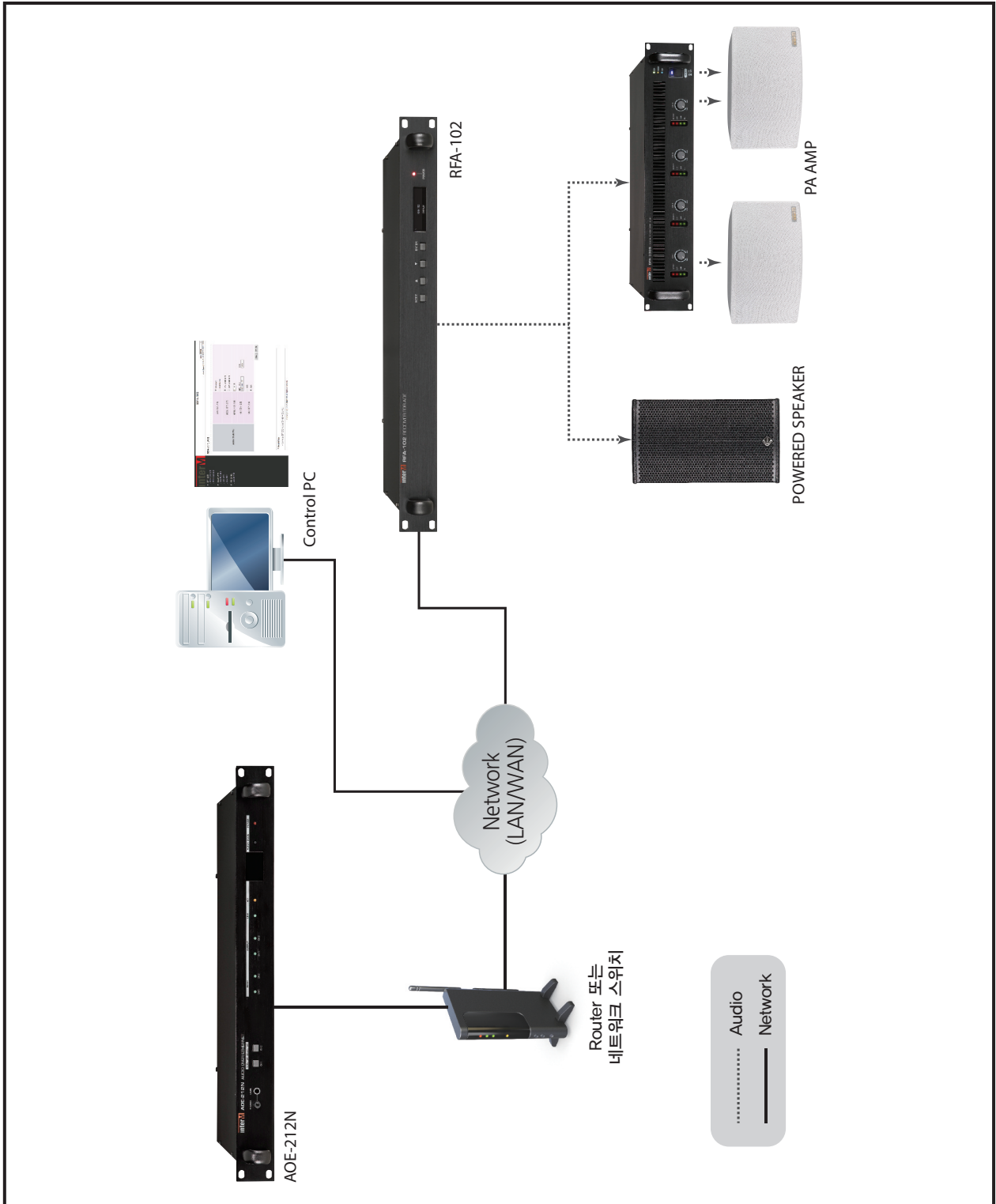
### 7. RESET SWITCH

This is a factory reset switch. By pressing the switch for more than 5 seconds, all setting values are initialized to the factory release/default status.

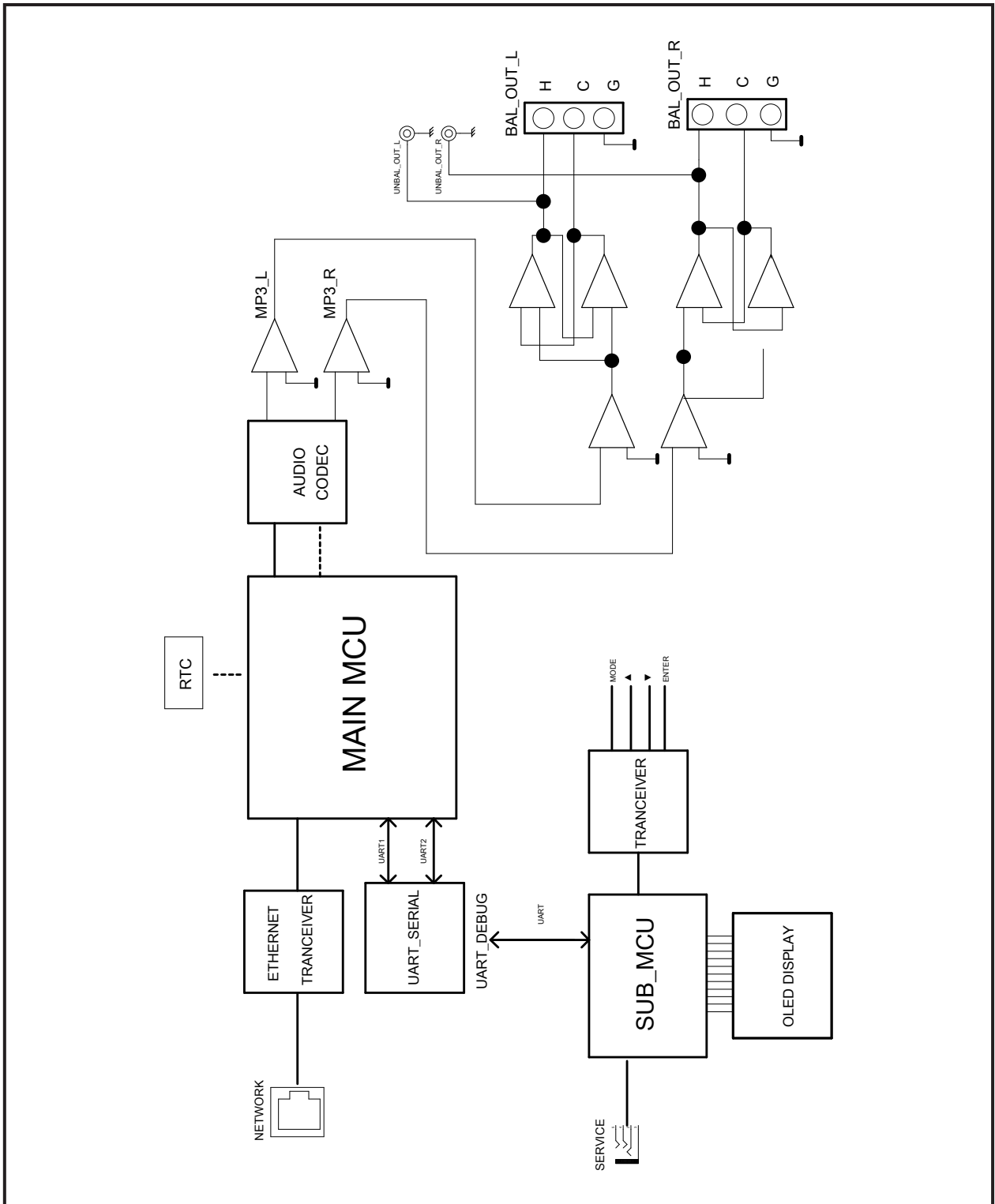
### 8. AC INLET

Connect the power cable which is supplied with the unit. Do not bend, pull, twist, heat and cut by force. It may cause electric shock.

# System Connection



# Block Diagram

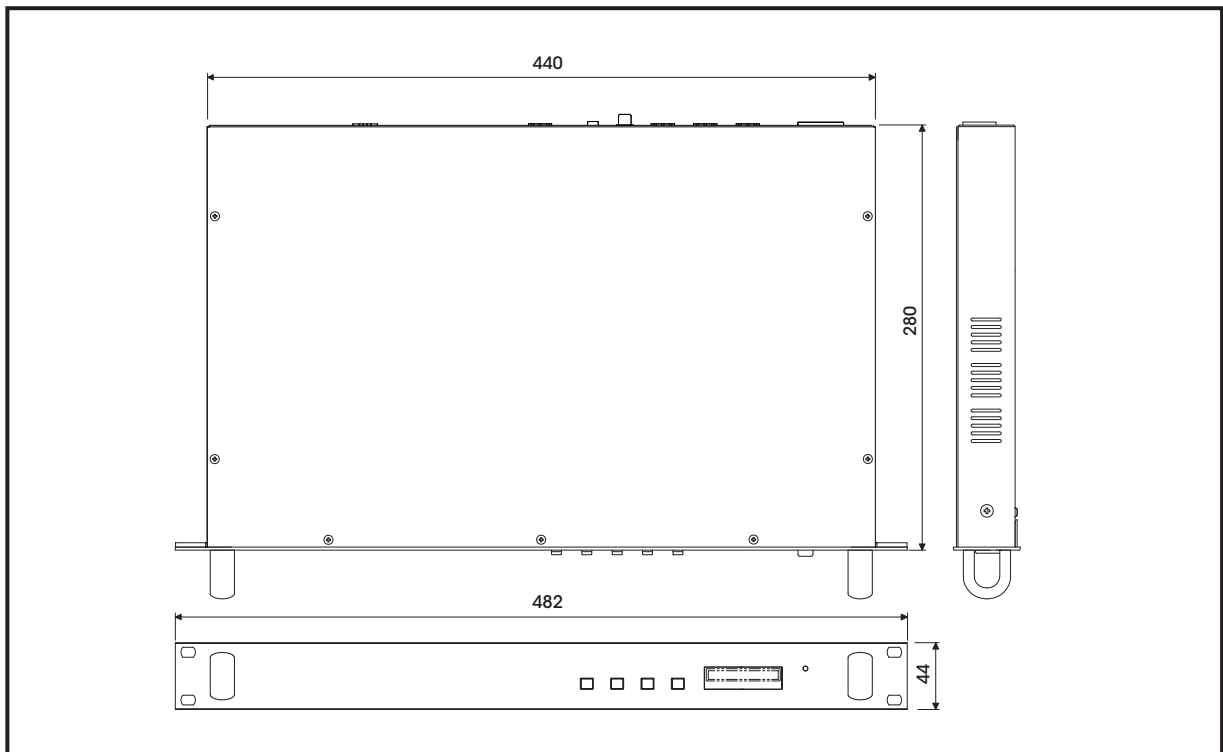


## Specifications

		RFA-102
THD (@0dBFS, 1kHz)		Less than 0.1%
S/N (@0dBFS, 1kHz)		Better than 70dB
Output Level (@0dBFS, 1kHz)	XLR	16±3dBV
	RCA	16±3dBV
ETHERNET(LAN)		10/100 Base-T
Operating Temperature		-10°C ~ +40°C
Power Source		AC 220-240V, 50/60Hz, DC 24V
Power Consumption		8.5W
Weight (Set)		3.08kg / 6.8lb
Dimensions (Set)		482(W) × 44(H) × 280(D) mm / 19(W) × 1.7(H) × 11(D) in

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

### ※ DIMENSIONS



## Service

### Procedures

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

### Schematic

A Schematic is available by contacting your warranty provider.

### Parts List

A Parts List is available by contacting your warranty provider.

## Variations and Options

### Variations

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

### Options

No optional items are available for this product.

## Warranty

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

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

# 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.

**Inter-M Americas, INC.**

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