

Operation Manual

Emergency Router **ER-6116**



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

interM

Welcome

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

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

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

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



WARNING

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



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

Attentions: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

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

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

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

*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.

*The socket-outlet shall be installed near the equipment and shall be easily 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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"We, Inter-M to apply the appropriate set of E4 & Class A for Electromagnetic Environment Condition."

Unpacking

Although your ER-6116 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 to 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

- AUTOMATIC EM SCENARIO BROADCAST

- The automatic evacuation broadcasting function to assist fast and safe evacuations from fire. It uses the optimized scenario which is pre-set depending on fire locations to minimize casualties by providing the first priority zone to be evacuated, evacuation directions for each zone, and ways to evacuate from the initial fire location based on time interval.
- As a critical component in the emergency system, it can prevent delayed responses due to possible lack of an operator or through unskilled operation.

- BYPASS FUNCTION

Allows for conversion to basic evacuation broadcast or operator control.

- PC BACKUP

Scenario data written to PC is saved in built-in memory; no problems will occur as a result of a PC failure.

- 99 MESSAGES CAPACITY

PV-6232A (VOICE FILE) enables use of 99 messages.

- SYSTEM EXPANSION

Through RS-485 communication, it can be expanded to maximum 10 systems.

Equipment Setting and Checking

1. Address Switch Setting

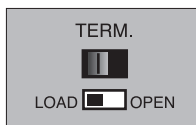


- Set the equipment numbers for each deciding condition using the rear panel DIP switch.
- If the equipment number is not set-up or is incorrect, all Zone Indicator LEDs will blink.
- If the number is already in-use, the system will not function properly.
- Please check the equipment number set-up status.

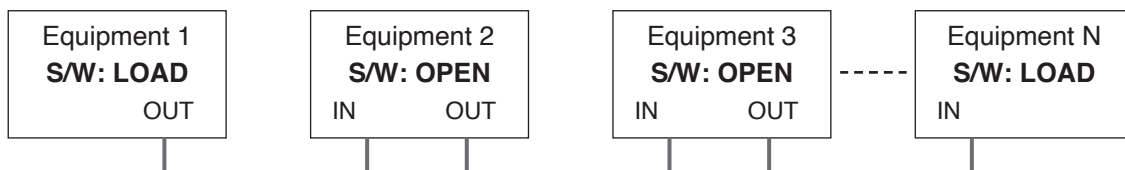
The table below shows the setting methods; the ON switch setting/number will be the equipment number.

DIP Switch		1	2	3	4	5	6	7	8	9	10
Address	1	ON									
	2		ON								
	3			ON							
	1	1	1	1	1	1	1	1	1	1	1
	10										ON

2. TERMINATION Switch (LOAD/OPEN) Setting



- 1) For the system linked by using RS-485 communication interface, it is necessary to set the termination switch (LOAD/OPEN) on the rear panel to stabilize data transfer.
- 2) Set the termination switch to LOAD only for the first and last-numbered equipment units. All others must be set to OPEN.



※ Caution: Communication error may occur if setting is performed incorrectly.

3. Adding sound sources to VIOCE FILE (PV-6232A)

- 1) Only available as MP3 file
- 2) General Scenario Sound Source
 - A) 1~99 track can be used as the scenario sound source among sound sources saved in PV-6232A.
 - B) To save the sound source in PV-6232A
 - Add 001~099 in front of file name to be used as the sound source in PC to properly archive/indicate each track's number.

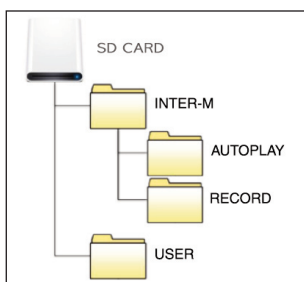
- PC recognizes it as a removable disc if PV-6232A is connected with USB cable.
- Open the movable disc and copy the entire sound source file.

3) Default Emergency Sound Source

After connecting the PC and PV-6232A, please use the folder structure as shown below.

You can save digital sound source files into SD Card.

- 1) Sizes of all storage media memory are supported from min. 4GB to max. 32GB.
- 2) For the file system of storage device, only FAT 32 is supported. Format PC with FAT 32, then use.
- 3) Sub-folder structure is supported and refer to the below picture for default folder structure of file system.

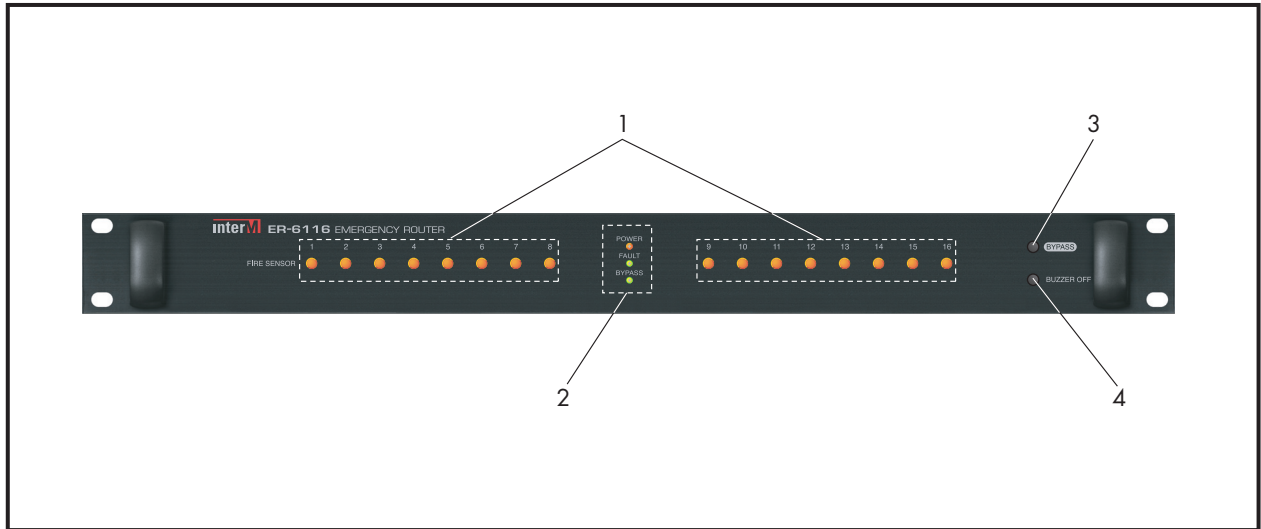


Folder Name	Content
INTER-M	It is a default folder of storage device.
AUTOPLAY	It is a folder that automatic playing MP3 file (EMORG.MP3) is saved when using Auto Play function.
RECORD	It is a folder to save recorded file in case of using sound source recording function.
USER	It is a default folder for user to save the sound source. You can create folders freely to the sub-folder.

※ CAUTION

- 1) Set up the file structure inside SD Card as above. If you modify or delete folder name arbitrarily, it will not be operated normally.
- 2) Under the status that it is connected with PC via USB cable, the function and system will not be operated. When using the function, remove the cable connected to PC and then proceed the function.
- 3) It is faster in file uploading/downloading speed by mounting SD Card directly onto PC rather than uploading/downloading the file by connecting with PC after mounting SD Card onto the equipment. When uploading/downloading the large capacity of file, mount SD Card directly onto PC and then proceed.
- 4) When interfacing with the other device, save the sound source files in the Root folder of the SD card, not in the INTER-M or USER folder. (Refer to the above picture)
Ex) 001sound source file name.mp3, 002sound source file name.mp3,, 099sound source file name.mp3
(The name of sound source file can be changed but make sure to add the number before file name.)

Front Panel



1. FIRE SENSOR STATUS LED

It is the status LED for fire contact point input of rear panel.

If contact point is in, it will be ON and when in bypass operation, it will blink.

2. STATUS LED

- POWER LED: displays the power status.
- FAULT LED: displays the communication status; it will be ON in case of error.
- BYPASS LED: it will be ON when in BYPASS operation.

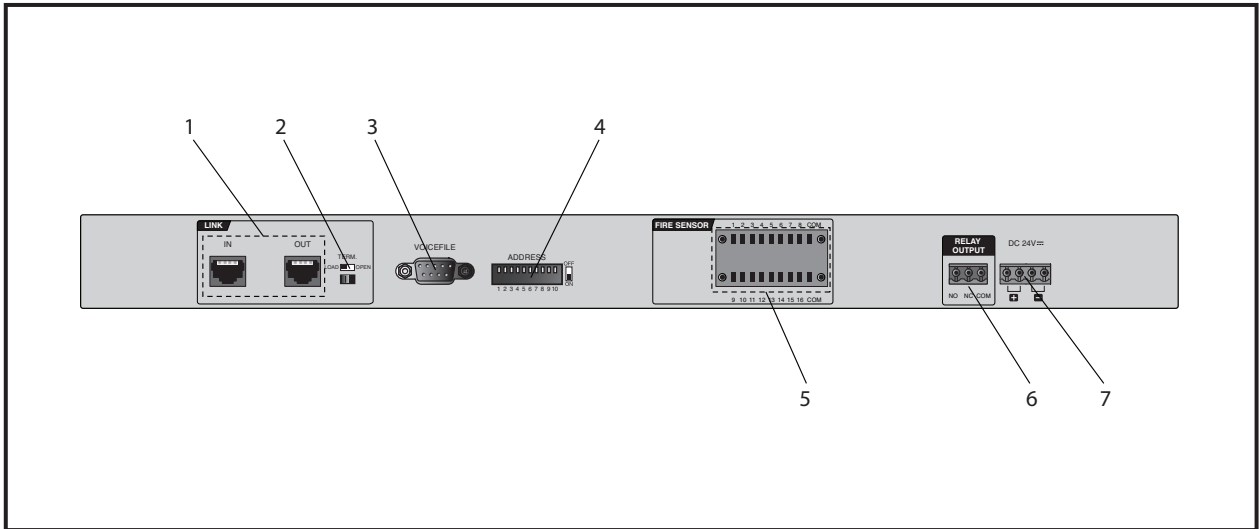
3. BYPASS BUTTON

If this button is pushed during an EM scenario caused by a fire contact point input, scenario operation will be stopped and a basic message will be transmitted only to zones where contact point is input.

4. BUZZER OFF BUTTON

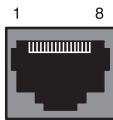
Buzzer will be generated in case of communication error. It is used to turn off buzzer notifications.

Rear Panel



1. LINK IN/OUT TERMINAL (RS-485)

Connects LINK IN terminal to preceding unit, and connects LINK OUT terminal to subsequent unit.



PIN NO.	Functions
1	RS-422 Data - A
2	RS-422 Data - B
3	RS-422 Data - Z
4	NA
5	GND
6	RS-485 Data - Y
7	NA
8	NA

※ Same for all IN/OUT terminals.

2. TERMINATION SWITCH (LOAD/OPEN)

Switch being set for stable data receive/transmit of LINK IN/OUT.

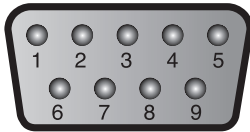
Refer to Equipment Setting and Checking (page 4) for detailed setting methods.

Caution: Communication error may occur if setting is performed incorrectly.

3. RS-232 TERMINAL

1) It can be used when playing the EM scenario message by connecting to PV-6232A(VOICE FILE).

2) PIN OUT Specifications



Pin No.	1	2	3	4	5	6~9
Purpose	Not Used	Receive	Transmit	Not Used	Ground	Not Used

4. ADDRESS SWITCH (1~10)

Used to set the equipment number.

5. FIRE SENSOR INPUT TERMINAL

It is the fire contact point input terminal and uses the EM scenario function and ZONE MACRO function in PC. It is set to transmit the emergency broadcasts to multiple zones. (Refer to System Operation Manual.)

6. RELAY CONTACT POINT OUTPUT TERMINAL

Used when operating other peripherals in case of fire.

- NO: Normal Open operation. Normally, it is operated as OPEN, and in case of fire, it is operated as CLOSE.
- NC: Normal Close Operation. Normally, it is operated as CLOSE, and in case of fire, it is operated as OPEN.

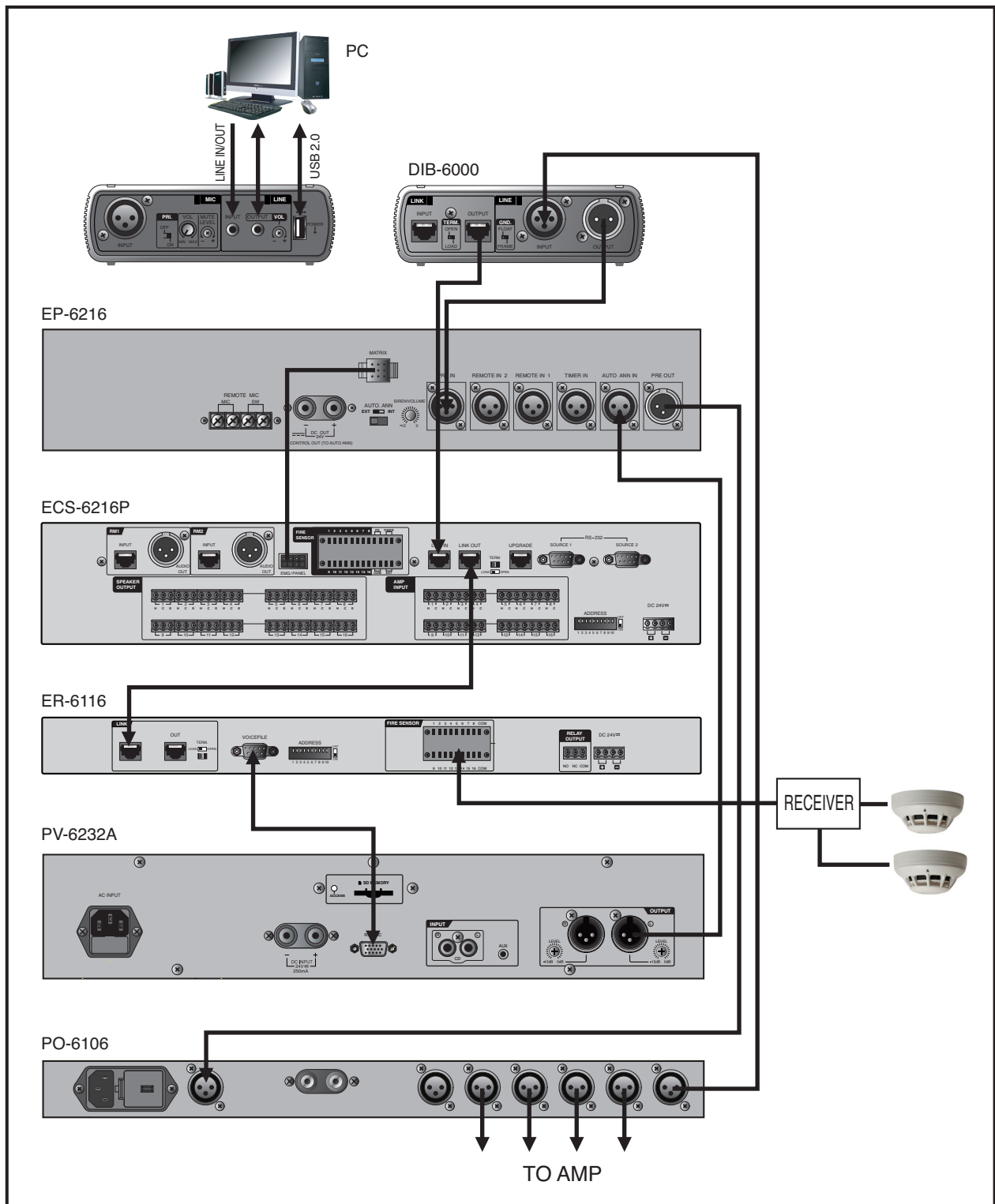
Statuses of contact point output are as follows. (Opposite operations for each other)

System Mode	RELAY OUTPUT	
	NO	NC
STANDBY	OPEN	CLOSE
FIRE Contact Point	CLOSE	OPEN

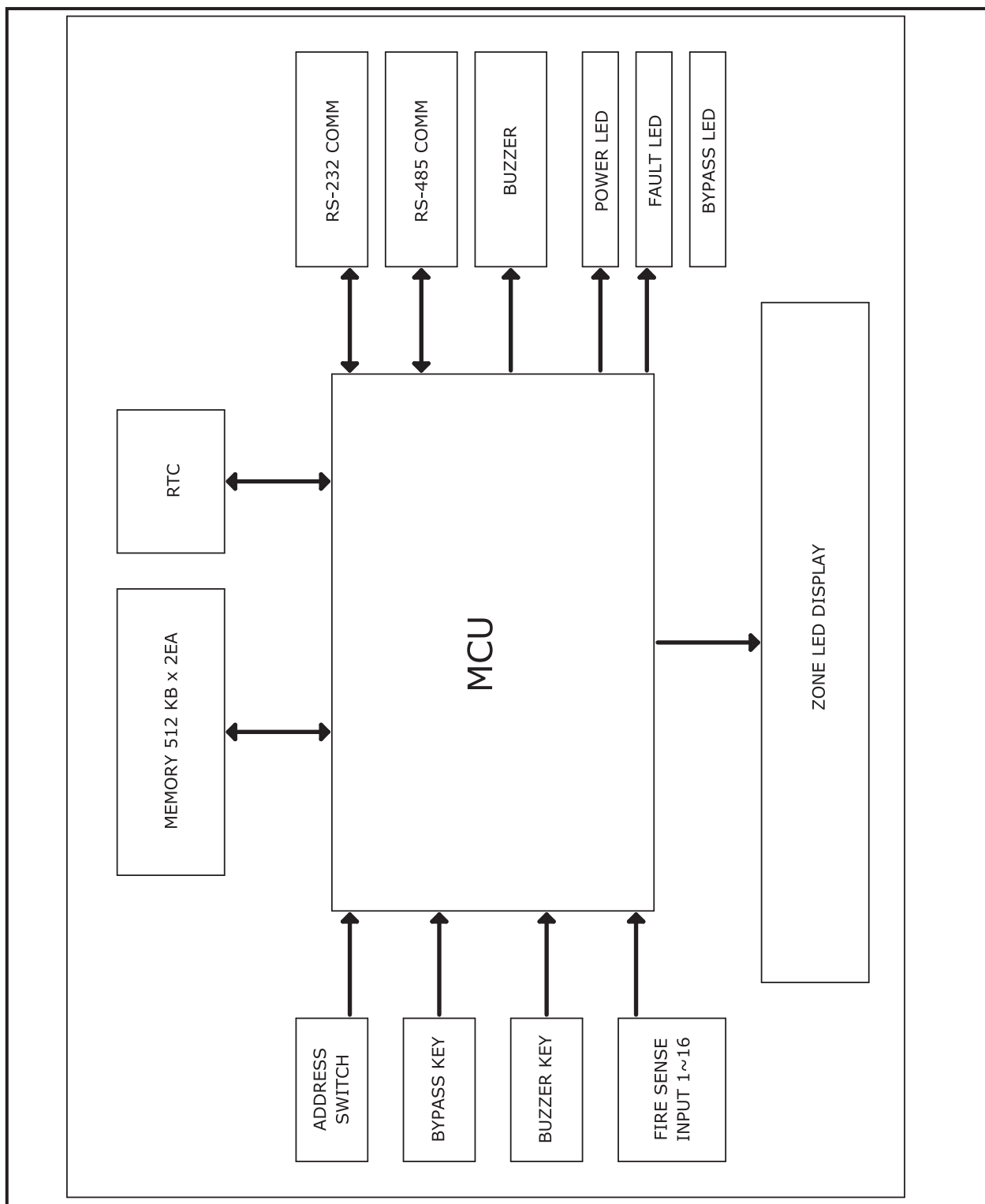
7. DC INPUT TERMINAL

- Power input terminal. Check polarity before connecting DC 24V.
- When connecting to PD (Power Distributor), connect to unswitched terminal.

Applications



Block Diagram

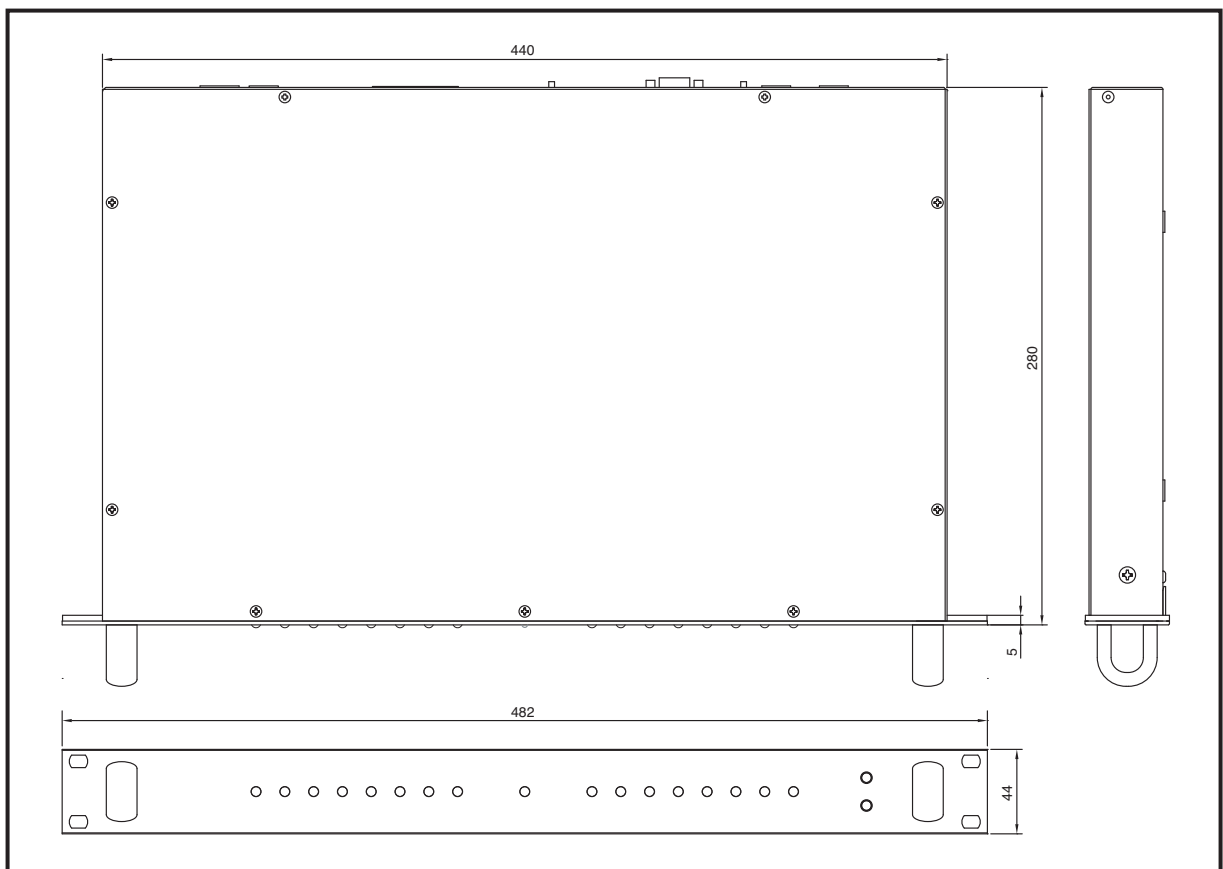


Specifications

		ER-6116
Channel		16CH
Communications Protocol	LINK IN/OUT	RS-485 (Maximum 1km/3,280 feet)
	VOICE FILE	RS-232 (Maximum 12m/40 feet)
Fire Sensor		Dry Contact
Operating Temperature		-10°C ~ +40°C / 14°F ~ 104°F
Power Source		DC 24V, 100mA
Weight (Set)		2.8kg/6.2lbs
Dimensions (Set)		482(W)x44(H)x280(D)mm/19(W)x1.7(H)x11(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.

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

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