Operation Manual

Remote Amplifier with Zone Selector

RM-6016



inter M

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.

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 vases, shall be placed on the apparatus.
*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.
*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.

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

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Unpacking

Although your RM-6016 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

- SPEAKER LINE CONTROL
Speaker line control can easily be achieved by connecting the RM-6016 speaker control terminals to an Inter-M PX-6116 matrix unit.

- CHIME
Four tone pre-announcement chime, activated by push button CHIME switch.

- OUTPUT LEVEL METER
Ten segment LED bar graph on the front panel that indicates instantaneous signal output level of the RM-6016.

- MIC BROADCASTING
Easy to use, highly sensitive condenser type MIC for clear broadcasting.

- AUXILIARY SIGNAL INPUT
Auxiliary signal input for cassette deck or tuner makes the RM-6016 an ideal remote piece of equipment for broadcasting background music.

Operation

1. Switch the RM-6016 on with the power switch. The power LED will illuminate.

2. If the announcement is to be broadcast to one of the sixteen loudspeaker zones, press the corresponding channel switch. The selected channel switch LED will illuminate.

3. If the announcement is to be broadcast to all the sixteen loudspeaker zones, press the all call switch. The all call switch LED will illuminate.

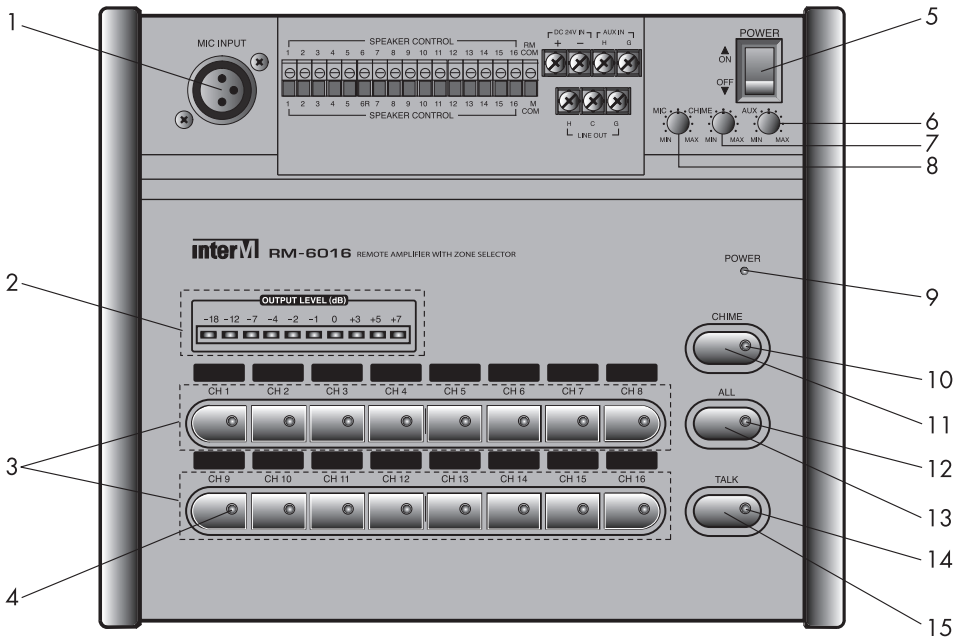
4. Press the chime switch for the pre-announcement chime, if required.

5. You can now use the CM-916 MIC for broadcasting across the system.

6. Adjust the volume to its required level using the relevant mic, chime or aux control.

7. When the announcement is finished, turn off all the channel switches (CH1-16) and the all call switch to ensure that normal broadcasting can take place. The sixteen channel switch LEDs and the all call switch LED will be extinguished.

Front Panel



1. MIC INPUT JACK
The CM-916 MIC is connected to this input jack. Its input sensitivity is –60dB.

2. OUTPUT LEVEL METER
Indicates the signal output level between -18dB and +7dB.

3. SPEAKER CONTROL SWITCH
These switches select one of sixteen loudspeaker zones for the broadcasts.

4. SPEAKER ZONE LED
Visual indication of the selected loudspeaker zone.

5. POWER SWITCH (ON/OFF)
Switches ON/OFF the 24V DC power source.

6. AUX VOLUME
Turn to the right to increase the volume and to the left to decrease the volume.

7. CHIME VOLUME
Turn to the right to increase the volume and to the left to decrease the volume.

8. MIC VOLUME
Turn to the right to increase the volume and to the left to decrease the volume.

9. POWER LED
This LED will illuminate when the power switch is ON.

10. CHIME SWITCH LED
This LED will illuminate when the chime switch is pressed.

11. CHIME SWITCH
This switch, when pressed, will output a four tone pre-announcement chime to the selected loudspeaker zones.

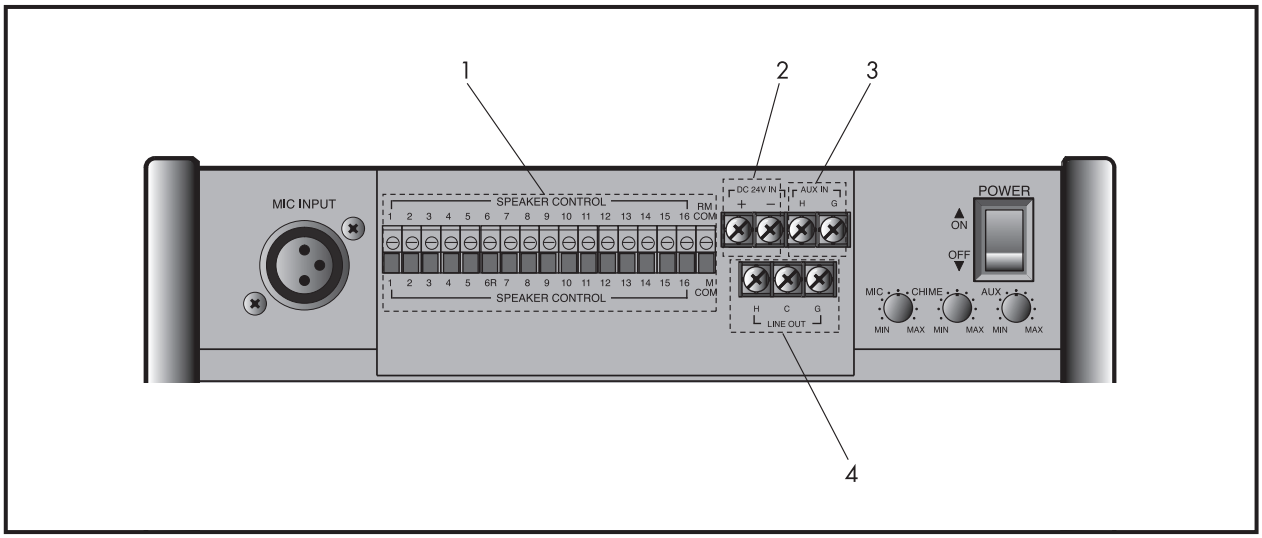
12. ALL CALL LED
Visual indication showing that all the sixteen loudspeaker zones are selected.

13. ALL CALL SWITCH
This switch, when pressed ON, selects all the sixteen loudspeaker zones for the broadcast.

14. TALK LED
Visual indication of the TALK ON switch.

15. TALK SWITCH
The TALK ON switch activates for the MIC (LED ON).

1. Connector Section



1. SPEAKER CONTROL & COM TERMINALS

Connect these speaker control line terminals to the Remote 1 or Remote 2 inputs of the Inter-M PX-6116 matrix unit.

2. 24V DC POWER INPUT TERMINALS

Connect the 24V DC output of the Inter-M power distributor PD-6359 to these terminals.

3. AUX INPUT TERMINALS

Connect the line output of a cassette deck, tuner or CD player to these terminals. The input sensitivity of the AUX input is -20dB.

4. LINE OUTPUT TERMINALS

Connect the line output terminals to the remote input jack of the Inter-M emergency panel EP-6216.

Suggestions for Rack Installation

1. Ensure that power is switched off before installation and before any wiring is connected to the equipment.

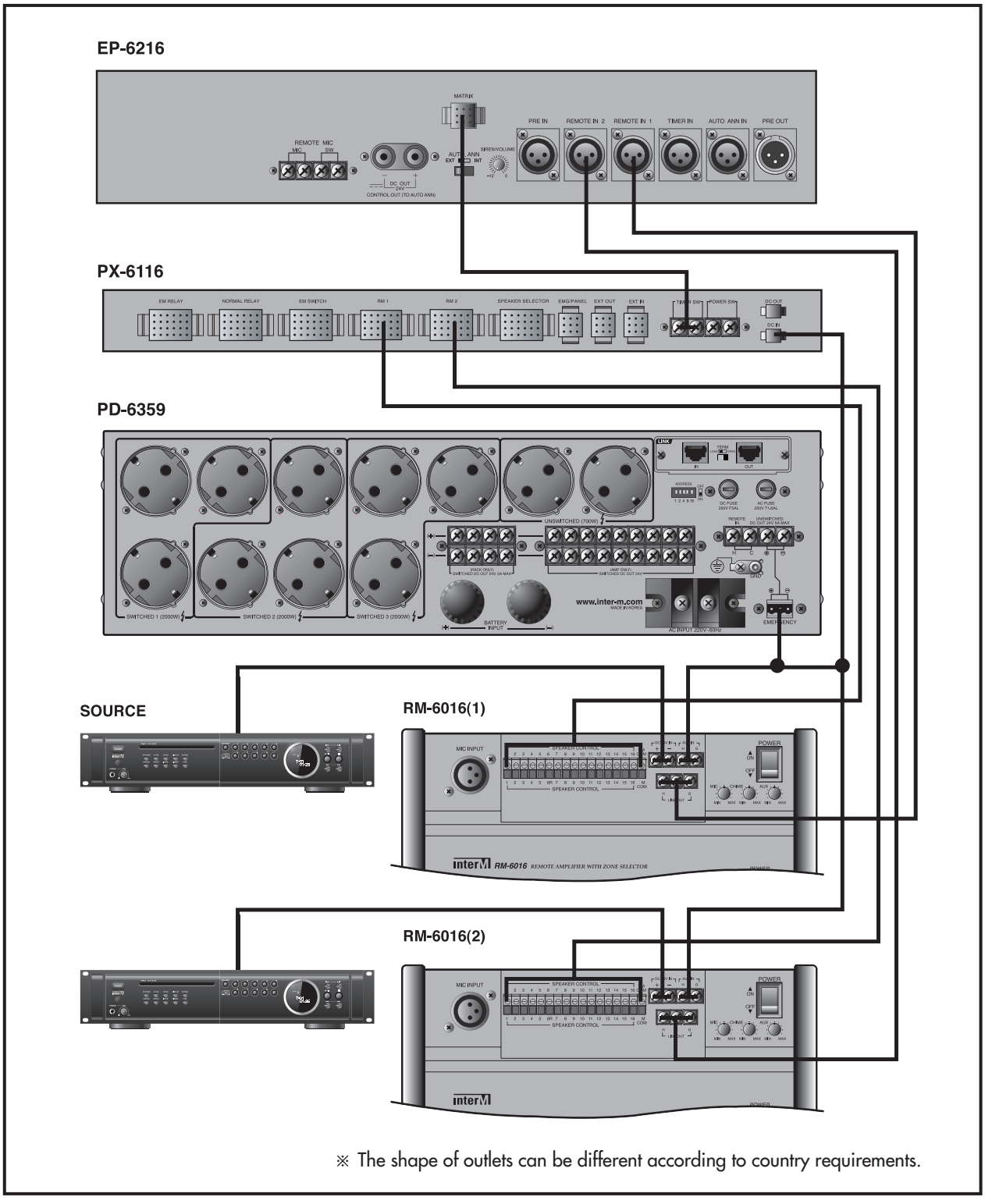
2. Site the equipment in well ventilated places and avoid places of high humidity.

3. Whenever possible, fit Inter-M MIC model CM-916. If a Phantom powered MIC is to be used, we recommend that it operates on +5V DC.

4. Please observe wiring polarity when connecting DC power to the equipment.

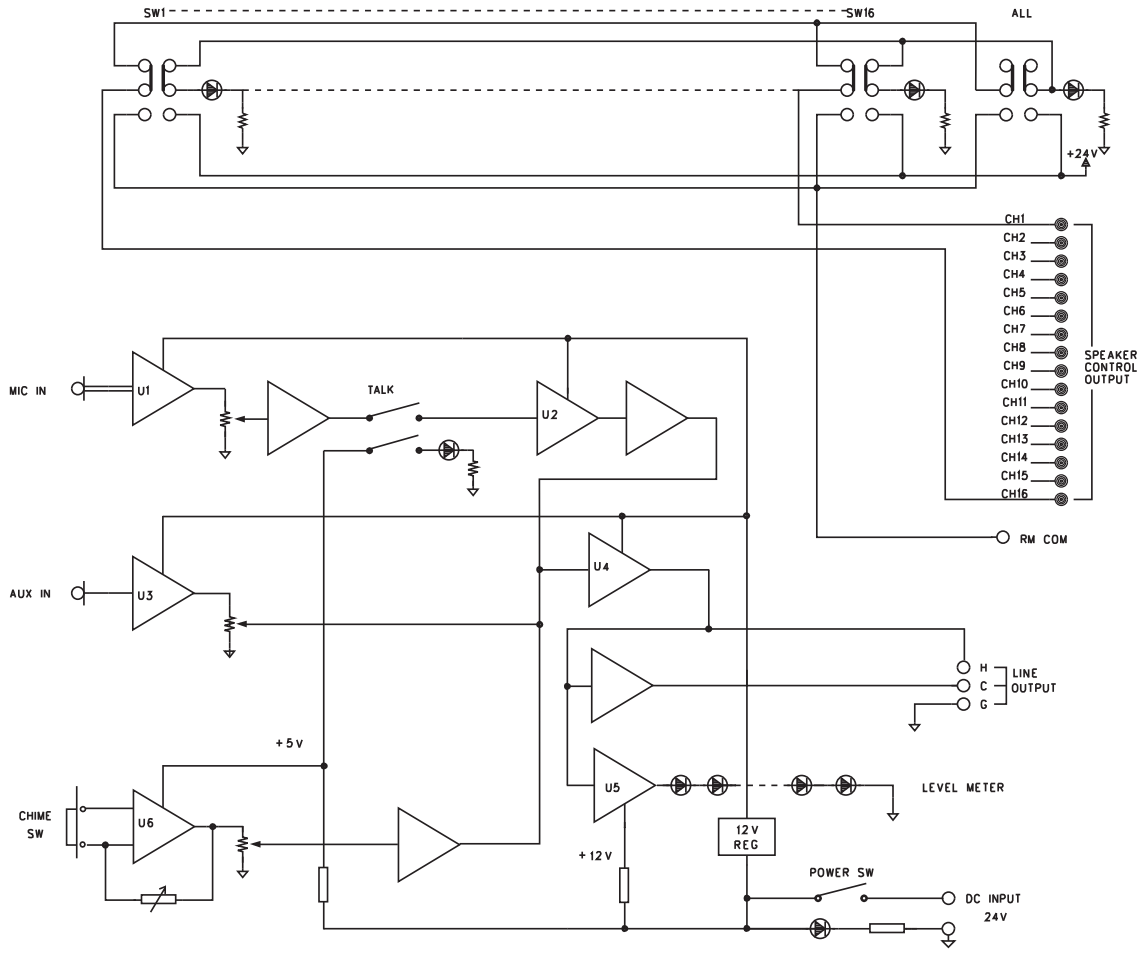
5. Before connecting to the RM-6016 line out terminals, check and match the incoming wiring for HOT, COLD & GND potential.

Applications



※ The shape of outlets can be different according to country requirements.

Block Diagram

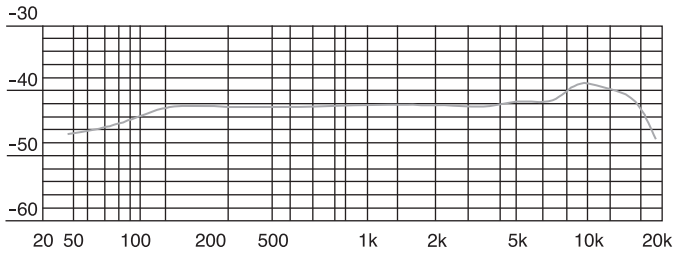


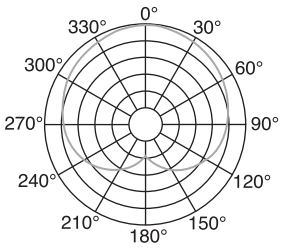
Specifications

		RM-6016
Output Level		1.2V ±200mV, BAL
Input Sensitivity/Impedance	MIC	-60dB/600Ω, BAL
	AUX	-20dB/10kΩ, UNBAL
Frequency Response (±3dB)	MIC	100Hz ~ 15kHz
	AUX	80Hz ~ 18kHz
T.H.D	MIC	Less than 0.5%
	AUX	Less than 0.3%
S/N	MIC	Batter than 47dB
	AUX	Batter than 50dB
Speaker Control Terminal & Switch		16 CH
Operation Temperature		-10°C ~ +40°C
Power Source		24V DC
Power Consumption		250mA
Weight (SET)		1.2kg/2.6lb (without MIC)
Dimensions (SET)		245(W)x60(H)x205(D)mm/9.6(W)x2.3(H)x8(D)in

* Specifications and design are subject to change without notice.

MIC(CM-916) Specifications





1. Element : Back Electret Condenser
2. Polar Pattern : Uni-directional
3. Requency Response : 50Hz-16kHz
4. Sensitivity : -42dB ±3dB(0dB=1v/pa at 1kHz)
5. Output Impedance : 250Ω ±30%

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.

NOTE

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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MADE IN KOREA
August 2021