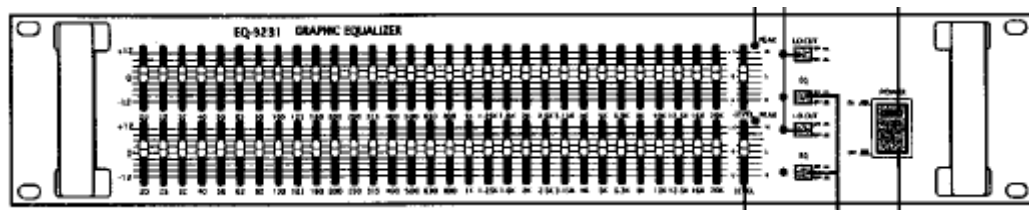


# Operating Manual

## EQ-9231

Two-Channel 31-Band Graphic Equalizer



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**interM**

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## Welcome

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

Thank you for purchasing this fine Inter-M product. All of us here at Inter-M are dedicated to providing you with the highest quality products and the best value.

We sincerely trust this product will provide you with 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 a part of our worldwide extended family!

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## Unpacking

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Although your EQ-9231 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.

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## Warnings

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### **Environment**

Never place this product in an environment that could alter its performance or reduce its service life. Such environments are usually characterized by high levels of heat, dust, moisture, or vibration.

### **Safety**

1. Read these instructions carefully.
2. Follow all instructions.
3. Keep all warnings.
4. Do not operate this apparatus near water.
5. Clean only with a damp cloth.
6. Do not block any of the ventilation openings.
7. Install only in accordance with the instructions in this manual.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (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 is 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 it is attached to the apparatus.
11. Use only the attachments/accessories specified.
12. Use only with a cart, stand, tripod, bracket, or table specified, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid overturning.
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.

 <p><b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN</p> <p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>	 <p>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.</p>
<p><b>WARNING</b></p> <p>To prevent fire or shock hazard, do not expose the unit to rain or moisture.</p>	 <p>This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.</p> <p>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.</p> <p>Attention: 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.</p>
<p>*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 as vases, shall be placed on the apparatus. *Worded: "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."</p>	

## Operation

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Make certain that input sources, output devices, and speakers are properly connected before switching on.

Keep volume levels at minimum gain before switching on.

**NOTE:** The system's operation is delayed by approximately three seconds after pressing the AC Mains power switch. This is due to the built-in protection circuitry, designed to protect speakers and other system components.

## **EQ-9131**

### **Two-Channel 31-Band Graphic Equalizer**

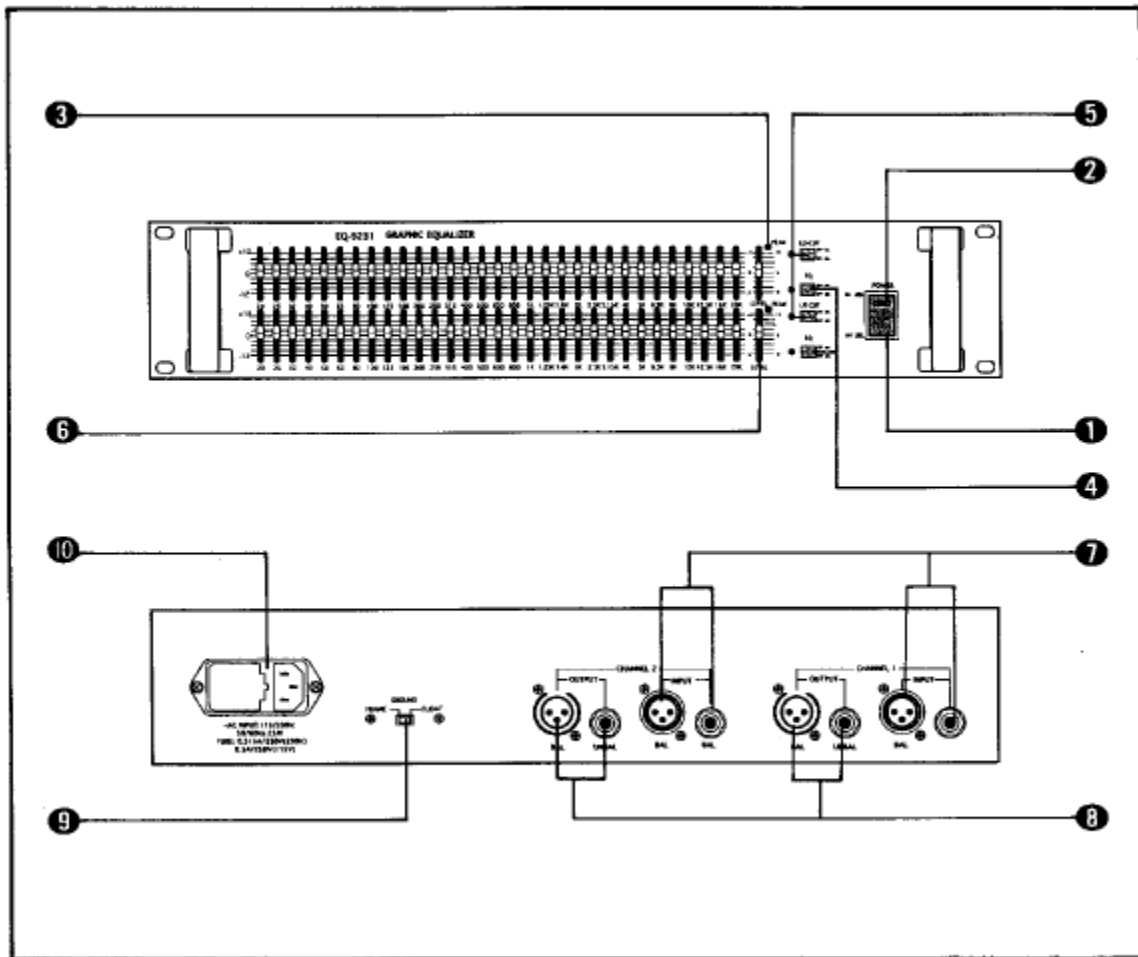
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## **Features**

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- **Two-Channel 31-Band Graphic Equalizer**  
Two-channel graphic equalizer providing 31 bands of equalization in 1/3-octave intervals from 20Hz to 20kHz.
- **Active Balanced Circuit**  
Electronically balanced circuits with XLR and 1/4 TRS inputs and outputs (unbalanced compatible), where XLR and phone jacks can be used simultaneously.
- **40Hz Low-Cut Filter**  
Switchable low-cut filter eliminates rumble and other low-frequency problems.
- **Automatic Bypass**  
When unit is off or in case of AC failure, the input signal to the EQ connects directly to the outputs.

## Front and Rear Panel Controls



### 1. Power Switch

This switch is used to switch the unit on and off. When the unit is on, the integrated Power Indicator LED is lit.

### 2. Power Indicator LED

When the unit is on, the Power Indicator LED is lit.

### 3. Peak Indicator LED

This PEAK LED will light at 3dB before clipping, to indicate that the input signal is near clipping. It is placed after the EQ in the signal chain. One PEAK LED is provided per channel.

### 4. EQ Switch

An EQ switch provided for each channel is used to switch the channel's EQ circuitry on and off. When the switch is on, the associated EQ indicator LED is lit. When the switch is off, the EQ circuitry is bypassed.

The EQ switch functions as a true hardware bypass – that is, it directly connects the unit's inputs and outputs. The EQ Switch is useful for quick comparison of the original sound with EQ'ed sound.

#### **5. Low-Cut Filter Switch**

This switch engages the low-cut filter, designed to aid in removing unwanted low frequencies such as rumble and wind noise, while leaving other frequencies unaffected. Each channel has a Low-Cut filter, switch, and indicator LED. When the filter is activated, the associated LED lights. Switching the filter to the OFF position removes the filter completely from the signal path.

#### **6. Input Gain Control**

An INPUT slider is provided for each EQ channel to adjust the level of the input signal. This slider covers a maximum cut/boost range of  $\pm 12$ dB.

The Input Level Control allows for optimal gain adjustment and highest sonic quality. Optimal dynamic range is achieved in the 0dB, or center position. Avoid illuminating the red (overload) LED except on rare occasions and for short duration.

If the source level is too low, input level may be increased with the Input Level Control, with only minimal signal degradation.

#### **7. Input Connectors**

Input Connectors for each channel are balanced three-pin XLR connectors and balanced 1/4" TRS three-conductor phone connectors. Each channel's XLR and TRS input jacks may be used simultaneously.

#### **8. Output Connectors**

Output Connectors are balanced three-pin XLR connectors and unbalanced 1/4" TS (tip-sleeve) phone connectors. Each channel's XLR and TS output jacks may be used simultaneously.

#### **9. Ground Lift Switch**

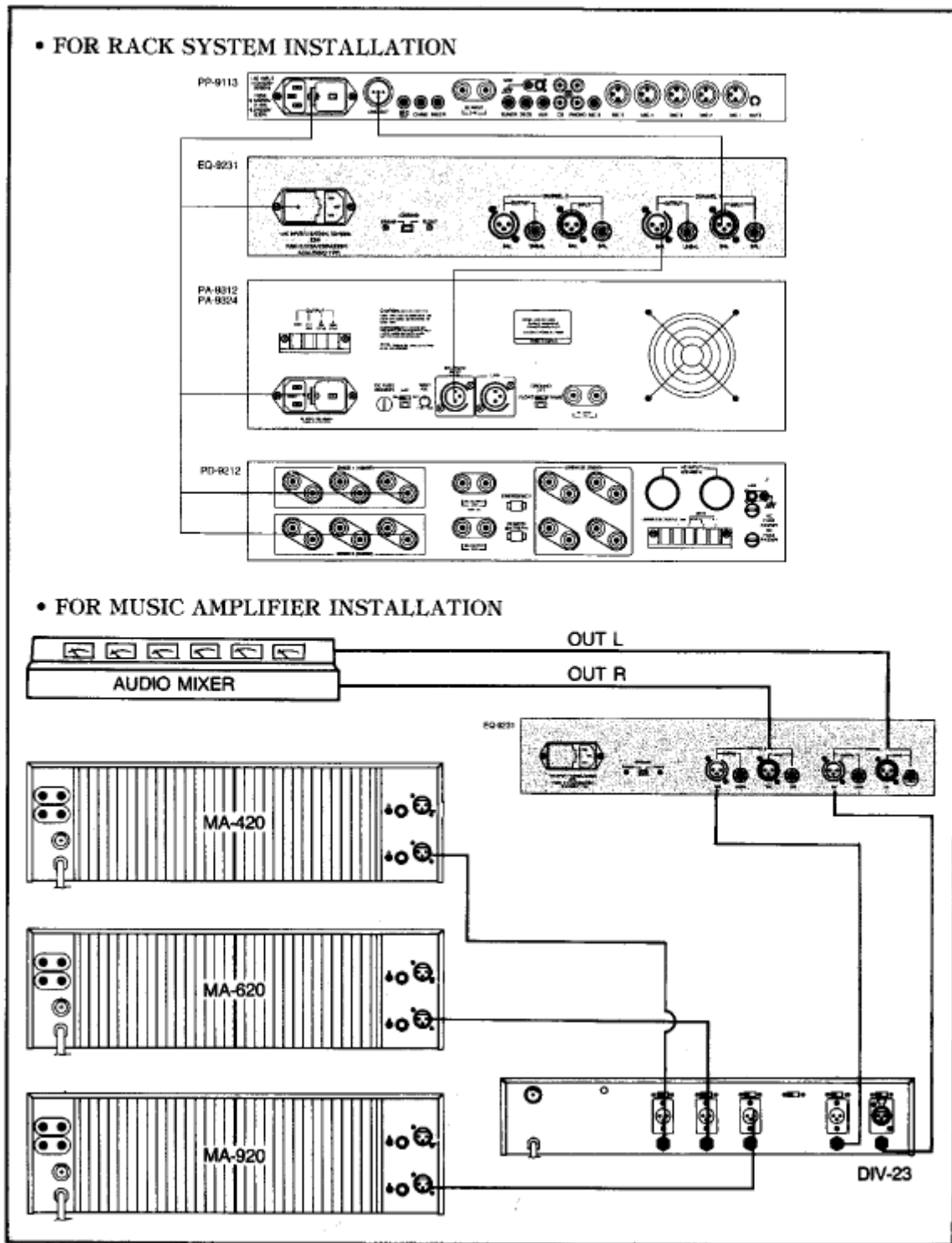
In the Lift position, this switch is useful in eliminating ground loops and other electrically induced hum from equipment connected to the unit's inputs.

#### **10. AC Power Input**

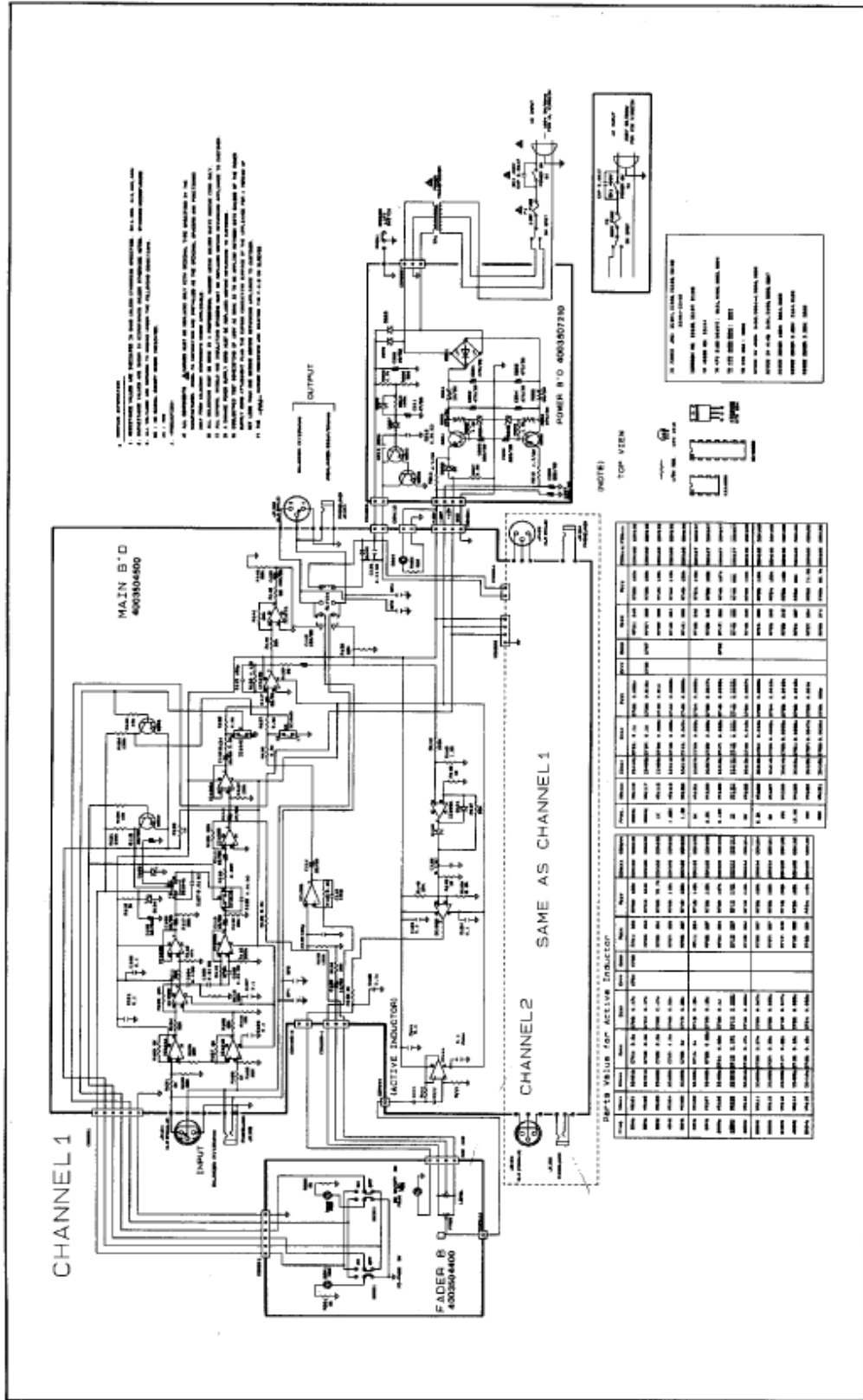
Connect a standard three-pin AC cable to this connector.

**TIP:** When utilizing EQ to compensate for acoustic problems and eliminate feedback, it is always best to use EQ cut, rather than boost.

# Applications



Schematic Diagram



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## Specifications

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### ELECTRICAL

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<b>Frequency Response (<math>\pm 1</math>dB)</b>	20Hz – 20kHz
<b>Input Sensitivity</b>	1V balanced
<b>Output Level</b>	1V balanced
<b>Equalizer Level</b>	$\pm 12$ dB
<b>Equalizer Frequency (in Hz)</b>	20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1k, 1.25k, 1.6k, 2k, 2.5k, 3.15k, 4k, 5k, 6.3k, 8k, 10k, 12.5k, 16k, 20k
<b>Low-Cut Filter</b>	-12dB/octave
<b>S/N</b>	More than 80dB
<b>T.H.D.</b>	Less than 0.01%

### GENERAL

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<b>Power Source</b>	115/230VAC, 50/60Hz
<b>Power Consumption</b>	20W
<b>Weight</b>	4 Kg (8.8 lbs)
<b>Dimensions</b>	482(W) x 88(H) x 280(D) mm 19(W) x 3.5(H) x 11(D) in.

*Specifications and design subject to change without notice for improvements.*



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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