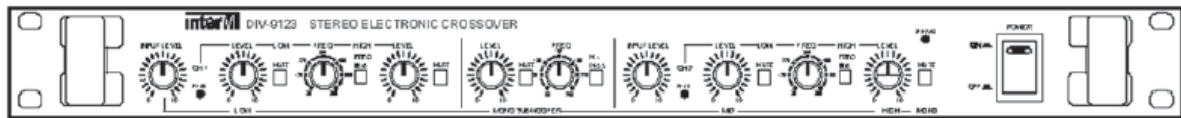


# Operating Manual

## DIV-9123 Electronic Crossover



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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 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 DIV-9123 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>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 speakers and input sources are properly connected before switching the unit 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 the speakers and other system components.

## **DIV-9123 Electronic Crossover**

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### **Features**

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#### **Two-way Stereo or Three-way Mono Operation**

- Functions in either mode with extra mono subwoofer channel.
- Two-way stereo mode: low, high.
- Three-way mono mode: low, mid, high.

#### **XLR Inputs and Outputs**

- Balanced, line-level, professional connections.

#### **80Hz – 8kHz Crossover Frequency**

- Precise rotary controls allow accurate selection of crossover frequencies.

#### **Mono Subwoofer Output**

- Mono summed circuit for single subwoofer systems.
- Adjustable from 60Hz to 250 Hz with a slope of 24dB per octave.
- 30Hz high-pass filter protects amps and speakers from subsonic noise.

#### **Mute Switch on each Output**

- Enables easy system setup.

#### **Ground Lift**

- Simple switching for eliminating ground loops.

#### **<0.01% THD**

- Low harmonic distortion rating under .01%.

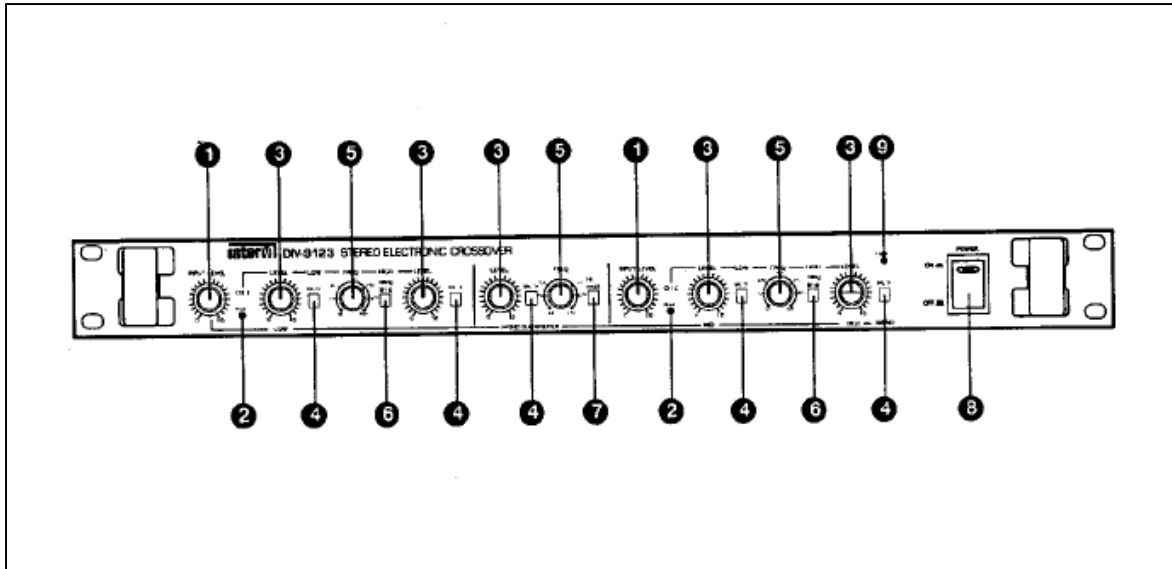
#### **Rack Mountable**

- 1RU, single rack space form factor.

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## Front Panel Controls

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### 1. Input Level Controls

Clockwise rotation yields an increase in level.

### 2. Peak LED

When the maximum output level exceeds +4dBu (at 0db=0.775 V rms) this peak LED illuminates. User Tip: Decrease input level until LED stops illuminating.

### 3. Output Level Controls

Allows individual output level adjustment of high, mid, and low frequencies.

### 4. Mute Switch

Allows adjustment of each frequency band without affecting other frequency band levels.

### 5. Crossover Frequency Controls

Selects the crossover point between frequency bands.

### 6. Frequency Range Switches

Selects crossover frequency sweep ranges.

### 7. High Pass Filter Switch

Enables a 30Hz (18dB/oct) filter for eliminating subsonic rumble.

### 8. Power Switch

Pressing this switch switches the unit on, as indicated by the Power LED in the switch. Pressing it again switches the unit off.

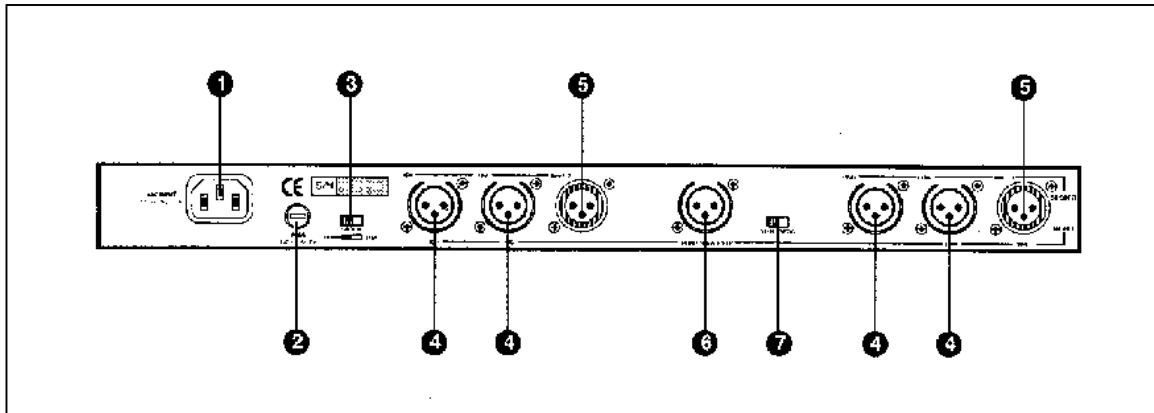
### 9. Mode Indicator

Indicates stereo mode operation when illuminated.

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## Rear Panel Controls

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### 1. AC Connector

Connect the supplied standard AC input cable here.

### 2. AC Fuse Holder

This holder contains the AC overload protection fuse. If the fuse has blown out, replace it with a fuse of the same type and rating.

If the fuse continues to blow, refer servicing to a qualified service technician.

### 3. Ground Lift Switch

For eliminating ground loops.

### 4. Crossover Output Connectors

Convenient XLR connectors for two band stereo connections to amplifiers.

### 5. Input Connectors

Two balanced line level inputs on XLR jacks.

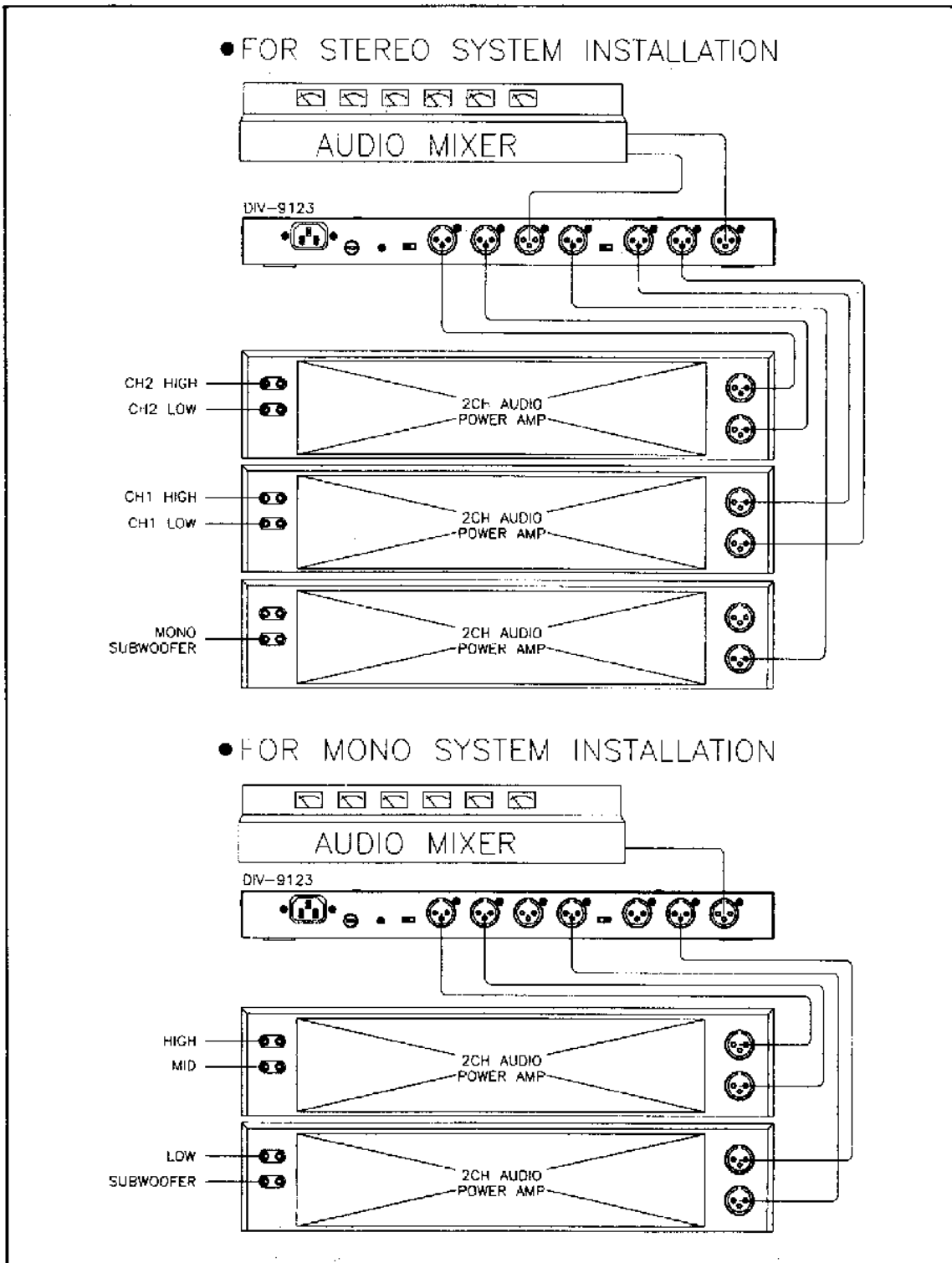
### 6. Subwoofer Output Connector

XLR output of a summed mono signal for connection to a subwoofer amplifier.

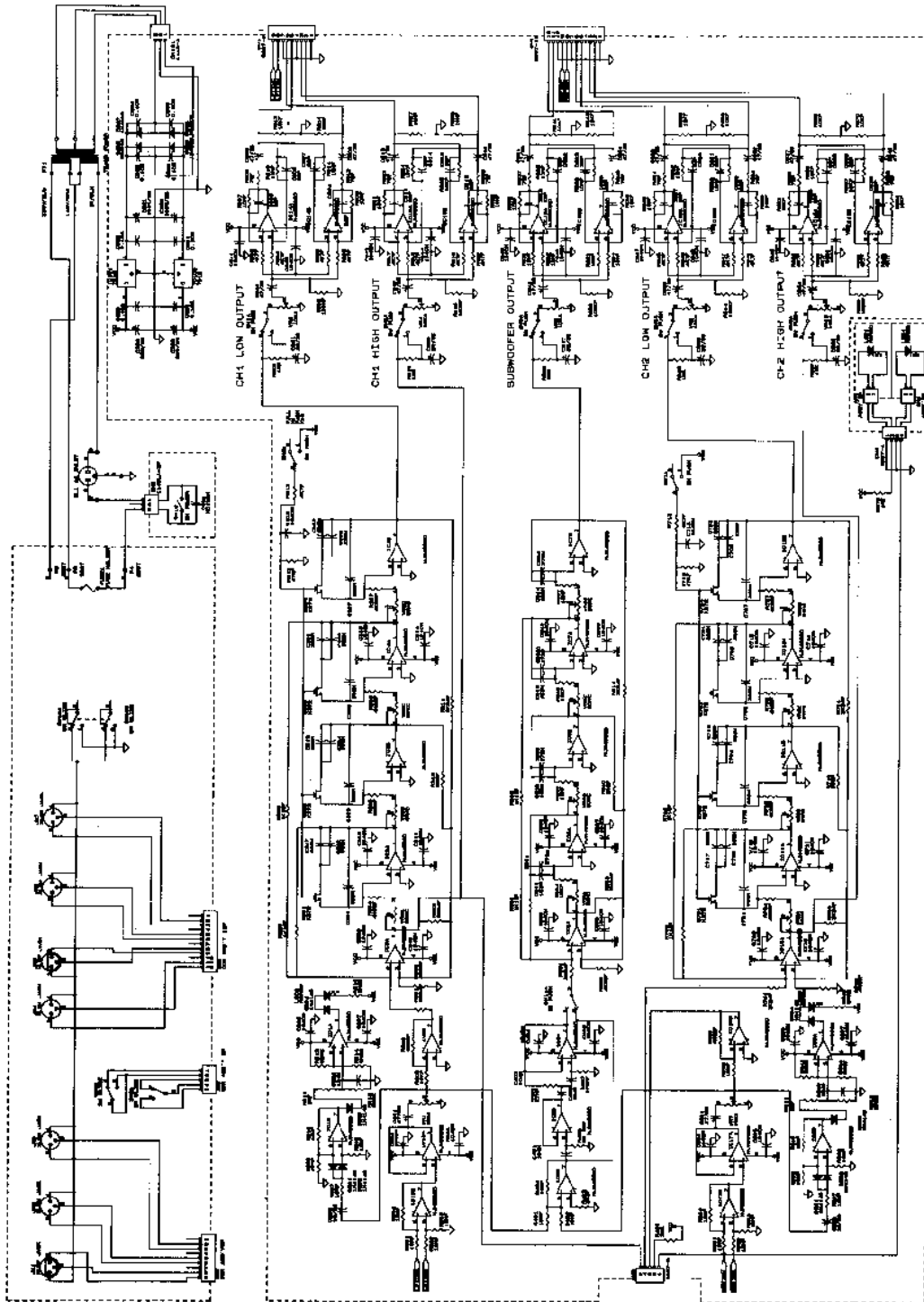
### 7. Mode Selector

Selects two-way stereo or three-way mono mode. Mode indicator located on front panel.

# Connections



# Schematic



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## Specifications

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### ELECTRICAL

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<b>Crossover Mode</b>	2-way stereo / 3-way mono
<b>Crossover Frequency</b>	80Hz to 8KHz (Sweepable)
<b>Crossover Cutoff Slope</b>	24dB/Octave
<b>Subwoofer Frequency</b>	60Hz to 250Hz (Sweepable) 24dB/Octave
<b>High Pass Filter</b>	30Hz, 18dB/Octave
<b>Input Level/Connector</b>	0dBu (0.775V rms)/Balanced XLR
<b>Input Impedance</b>	20K $\Omega$ active balanced
<b>Maximum Input</b>	+20 dBu
<b>Output Level/Connector</b>	0dBu (0.775 Vrms)/Balanced XLR
<b>Output Load Impedance</b>	600 $\Omega$ rated active balanced
<b>Maximum Output</b>	+20 dBu
<b>Frequency Response</b>	20Hz – 20KHz ( $\pm$ 1dB)
<b>Distortion (THD)</b>	Less than 0.1%
<b>Signal-to-Noise Ratio</b>	Greater than 75dB

### GENERAL

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<b>Power Source</b>	100-120 or 220–240VAC, 50/60Hz
<b>Power Consumption</b>	15 W
<b>Power Switch</b>	Push-on/Push-off with integral LED
<b>Weight</b>	4 Kg (8.8 lbs.)
<b>Dimensions</b>	482 (W) x 44 (H) x 280 (D) mm 19 (W) x 1.75 (H) x 11 (D) inches

*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.

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