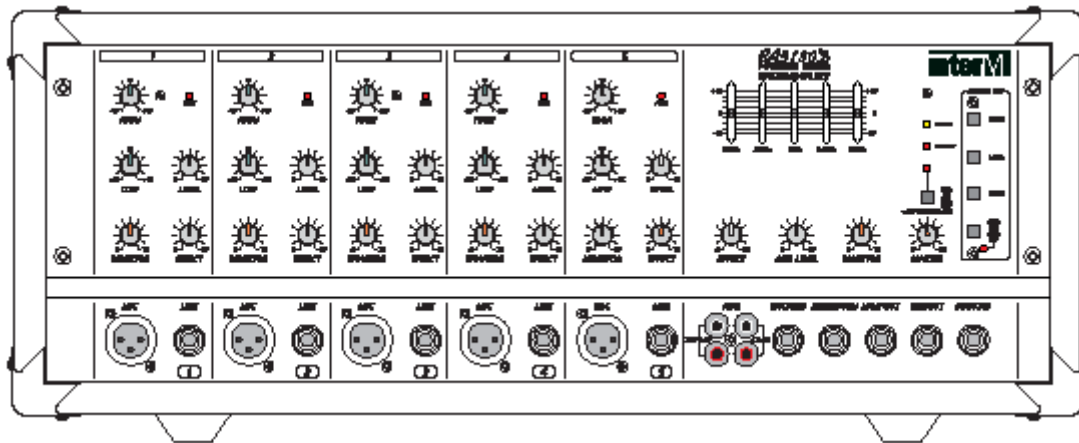


Operating Manual

CA-5115D/CA-5130D Powered Mixer



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interM

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Welcome

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!

Unpacking

Please 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.

Warnings




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 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>WARNING</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

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

Keep volume levels at minimum gain and equalization set to 0dB position before switching on.

When the AC Mains power switch is pressed, this unit starts operation with tuner display. 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.

CA-5115D/CA-5130D Powered Mixer

Features

Versatile and Powerful

- Mic and line inputs accommodate a variety of input sources. Powerful 150W (CA-5115D) or 300W (CA-5130D) power amplifier built in.

Built-In Protection Circuitry

- Integrated protection circuitry with LED indicators for overheating, speaker shorting and overload protection.

Versatile EQ Controls

- Two-band EQ on each input channel, plus five-band graphic EQ on main output.

Phantom Power

- Built-in +48V Phantom Power for condenser microphones.

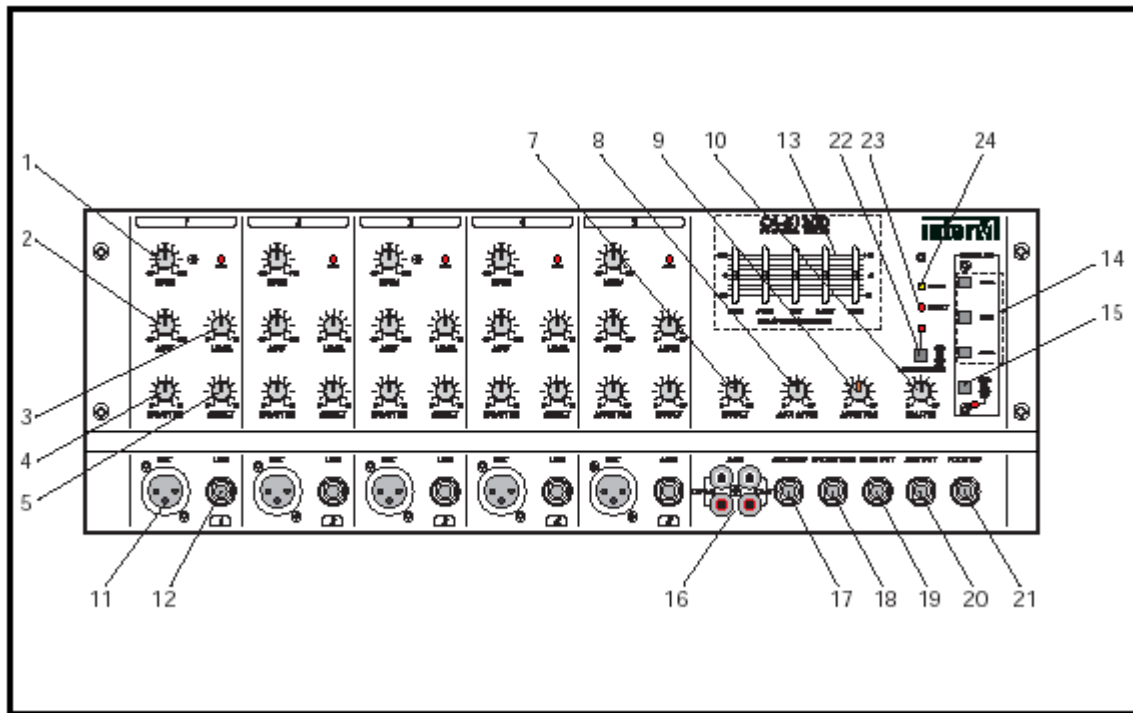
Tape In and Aux In

- Additional inputs for connecting instruments and other line level sources.

On-board Signal Processing

- Built-in 3-preset digital signal processing.

Front Panel Controls



1. High EQ Controls

These knobs control the associated channel's high frequency equalization. This is a 10kHz shelving type EQ with a maximum cut or boost of ± 15 dB

2. Low EQ Controls

These knobs control the associated channel's low frequency equalization. This is a 100Hz shelving type EQ with a maximum cut or boost of ± 15 dB.

3. Level Control

These knobs control the associated channel's output signal level sent to the Master mix buss.

4. Monitor Send Level

These knobs control the level sent to the Monitor buss. The Monitor buss signal is sent to the Monitor Output jacks (19). The Monitor buss signal is pre-fader, and is unaffected by the channel's Level Control (3).

5. Effect Send Level

These knobs control of level sent to the built-in digital signal processor (DSP), as well as to the effect send buss. The Effect Send is pre-fader, and is unaffected by the channel's Level Control (6).

6. Peak Indicators

These LED indicators will light when the associated channel's input level reaches

-3dB before clipping. If the Peak Indicator is lighting frequently or glowing steadily, lower the channel's input level.

7. EFX Master

This knob controls the signal from the onboard digital signal processor (DSP).

8. Aux In

This knob controls the signal level from the Aux Input, sent to the Master mix buss.

9. Monitor Output Level

This knob controls the combined Monitor Send Level (4) signal sent to an external amplifier connected to the Mon Out jack.

10. Master Level

This knob controls the combined signal level of the Main mix buss, sent to the Main Outputs.

11. Mic Inputs

These are mic-level (low-impedance) inputs on balanced three-pin XLR connectors.

12. Line Inputs

These are line-level (high-impedance) inputs on unbalanced 1/4" phone connectors, provided for connection of line-level or instrument-level sources, such as synthesizers, guitar preamps, etc.

13. Master Graphic Equalizer

These sliders control the EQ settings for the overall audio signal to the Master mix buss. Each slider controls the cut (decreased gain) or boost (increased gain) for its associated frequency band. Moving the slider upwards increases that frequency's gain, while moving it down decreases the level of that frequency. Five frequency bands of equalization are provided: 100Hz, 340Hz, 1kHz, 3.4kHz and 10kHz. You can cut or boost each frequency band by ± 12 dB.

14. Digital Effects Switches

This switch is used to select among the three internal settings of the onboard digital signal processor (DSP).

15. DSP On/Off Switch

This switch switches on and off the onboard digital signal processor (DSP).

16. Aux Inputs

These are line-level inputs on unbalanced RCA connectors, provided for connection of external playback sources such as CD or tape deck.

17. EFX Send

This is a line-level output on unbalanced 1/4" phone connector, provided for connection of an external effects processor. The signal at this output is derived from the sum of the Channel Effects Send Level controls (5).

18. EFX Return

This is a line-level input on unbalanced 1/4" phone connector, provided for connecting the return of an external signal processor.

19. Monitor Out

This is a line-level input on unbalanced 1/4" phone connector, provided for connection of an external monitor amplifier and speaker. Its signal is derived from the Monitor Output buss.

20. Mix Out

This is a preamp output on unbalanced 1/4" phone connector, provided for connection to an external power amp. The signal at this output is derived from the Master mix buss.

21. Footswitch

Connect an external footswitch to this input for switching the onboard DSP on and off.

22. Phantom Power Switch

This switch activates the phantom power supply for channels 1-6. When the switch is switched on, +48VDC power is supplied to pins 2 and 3 of each channel's input connector.

Use phantom power when connecting condenser microphones, which require an external power supply.

NOTE: It is safe to connect most modern dynamic microphones or line level devices to the channel inputs when phantom power is activated. However, some older ribbon microphones may be damaged by phantom power, and certain unbalanced line level devices may malfunction or produce an audible hum when phantom power is active.

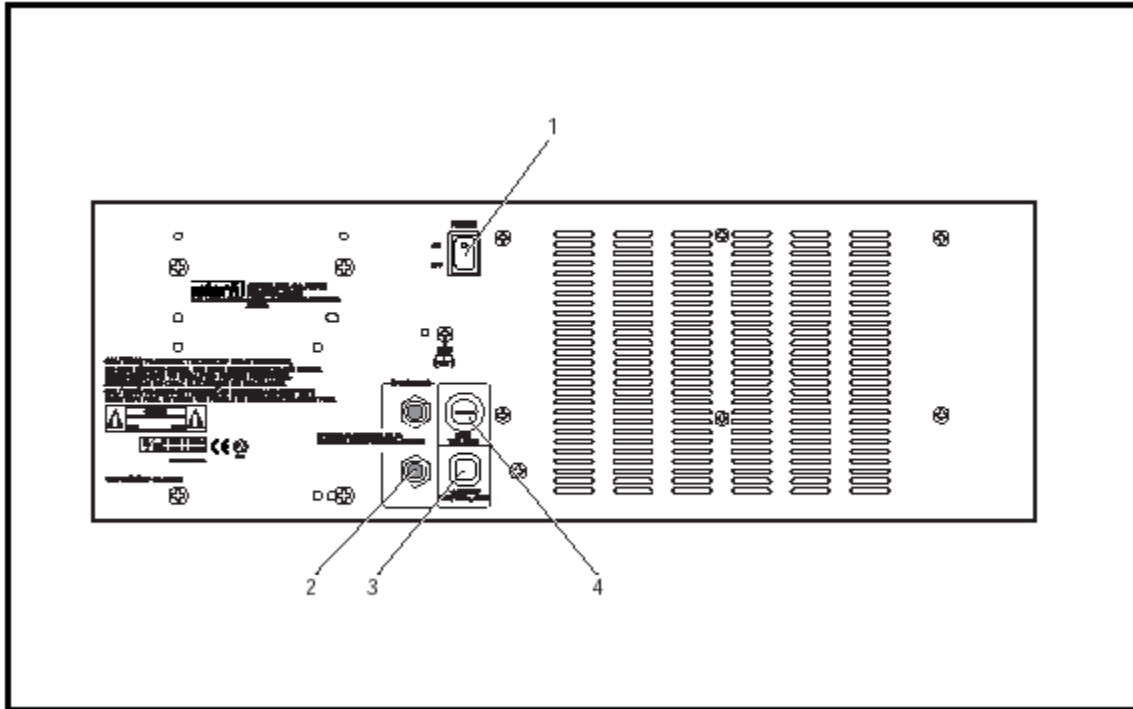
23. Protection Indicator

This LED indicates the state of the amplifier's protection circuitry. When the Protection LED is on (illuminated), the protection circuitry is active, indicating that the unit is not operating normally. This is typically due to overheating, a speaker short circuit or power limiting. Please check the Input and Output condition of the amplifier.

24. Power Indicator

This LED indicator is lit when the CA-5115D/5130D is switched on.

Rear Panel Controls



1. Power Switch

This switch is used to switch the unit on and off. When the unit is on, the front panel Power Indicator LED (Front Panel Section #24) is lit.

CAUTION: Reduce MASTER and MONITOR levels before switching the CA-5115D/5130D on or off.

2. Speaker Output Jacks

These power amp outputs are provided for connection of external speakers, and derive their source from the Master mix buss. The total impedance connected to the Speaker Outputs must be no less than 4 Ω , regardless of whether one or both outputs is used. Any of the following speaker combinations may be used safely:

- One 8 Ω speaker
- One 4 Ω speaker
- Two 8 Ω speakers
- Four 16 Ω speakers (in two parallel pairs).

3. AC Connector

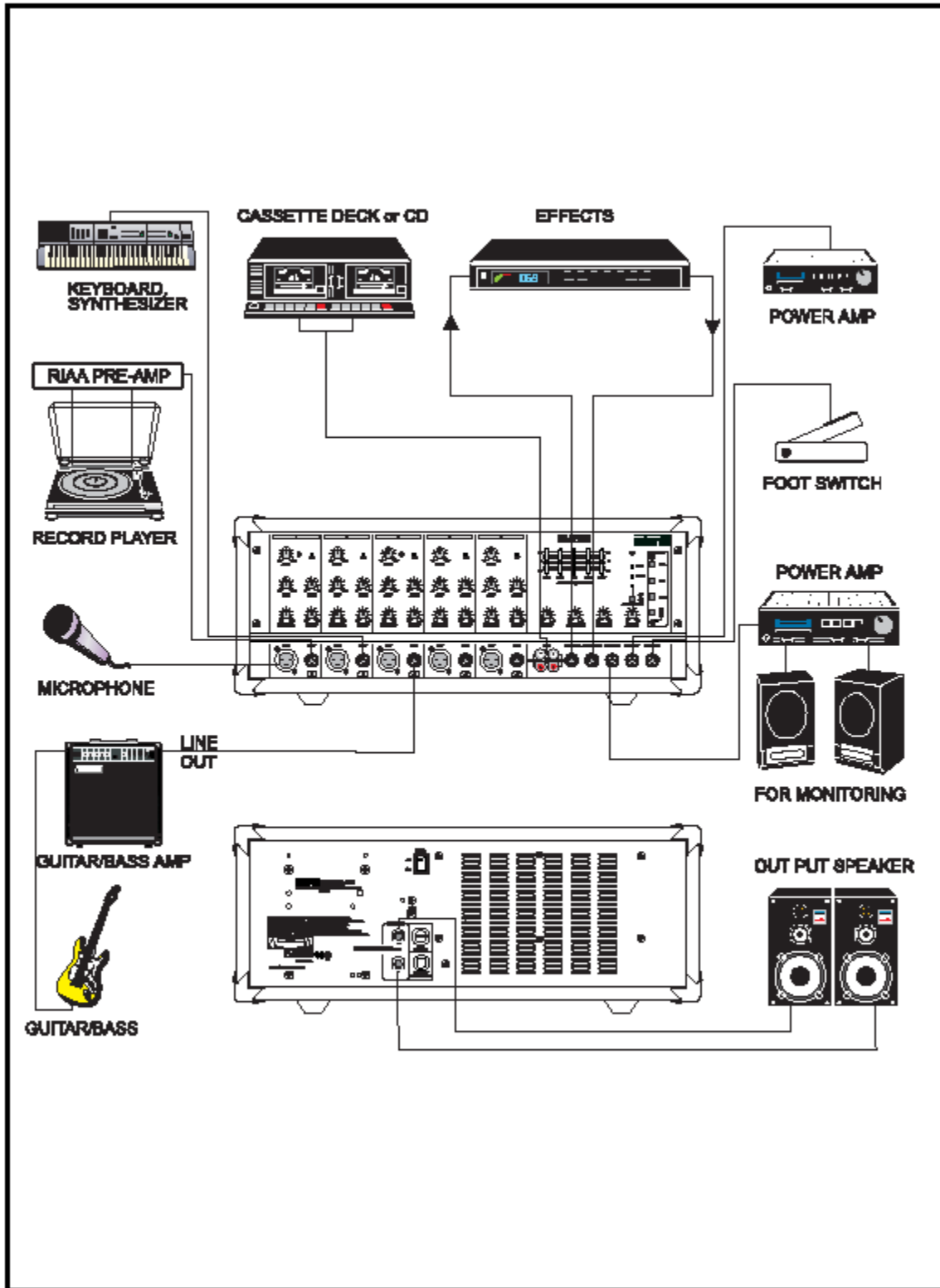
Plug this cable into an active AC power supply.

4. 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.

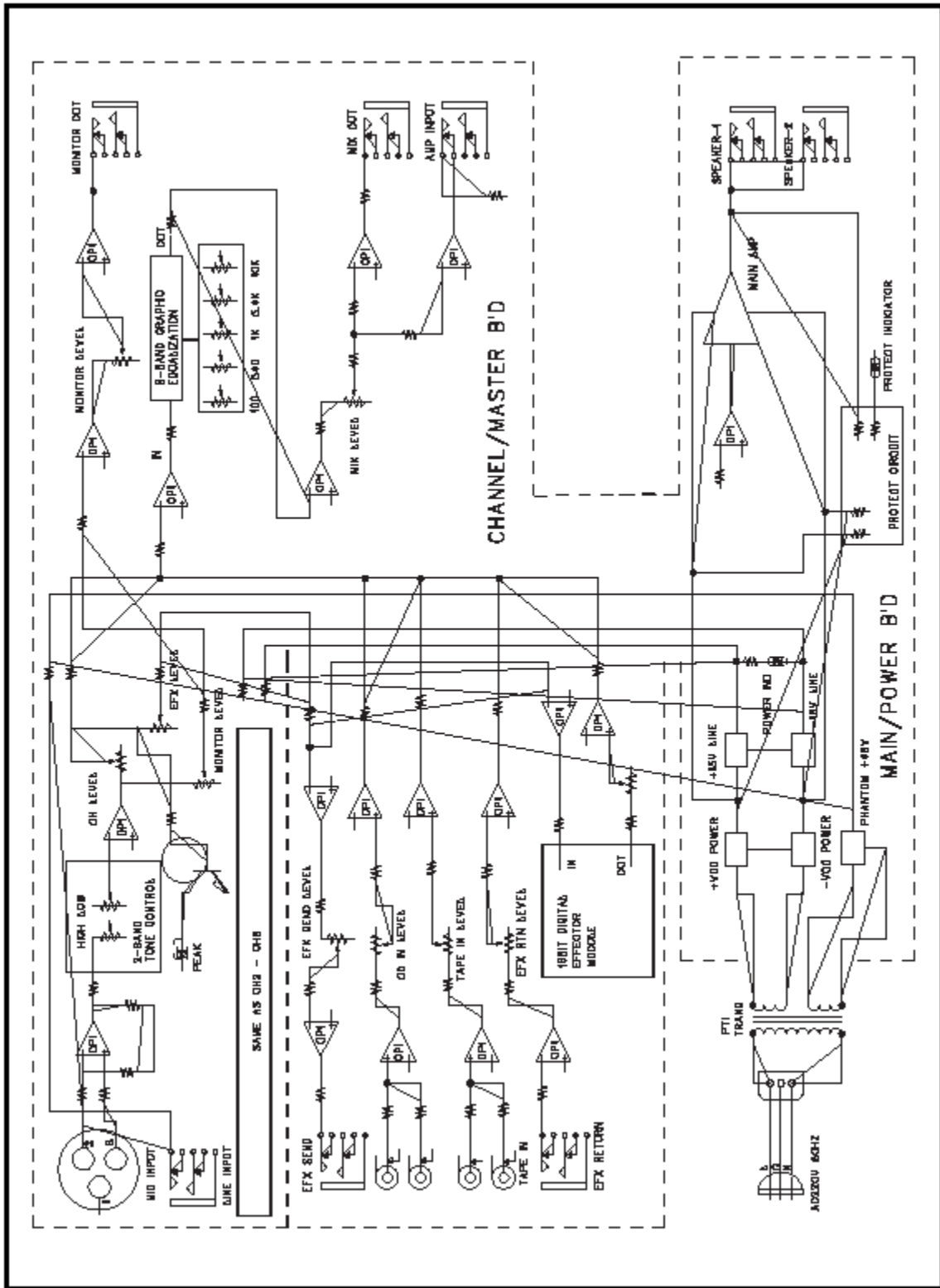
If the fuse continues to blow, refer servicing to a qualified service technician.

Connections



CAUTION: When connecting devices to your CA-5115D/CA-5130D, avoid using non-standard plugs and cables.

Block Diagram



Specifications

Rated Output Power	
CA-5115D	150W/4Ω, 100W/8Ω
CA-5130D	300W/4Ω, 150W/8Ω
Frequency Response (0/-3dB)	20Hz – 20kHz
T.H.D.	1%
Distortion	
Amp	1.0% at max RMS power at 4Ω
Mixer	0.5% at Mic or Line input to EQ out
Channel Equalization	
High	10kHz, ±15dB shelving type
Low	100Hz, ±15dB shelving type
Graphic Equalizer (Master Section)	100Hz, 340Hz, 1kHz, 3.4kHz, 10kHz, all at ±12dB cut/boost
Hum and Noise (EIN)	Less than -65dBm
Input Sensitivity	
Mic	-50dBm
Line	-20dBm
Aux In	-10dBm
EFX Rtn	+4dBm
Output Sensitivity	
EFX Send	+4dBm
Monitor Out	+4dBm
Mix Out	+4dBm
Phantom Power	+48VDC
Primary Fuse	250V/T3.15A (230-240VAC/50Hz) 125V/F5.0A (120VAC/60Hz)
Mains Power Source	100V–120VAC, 220-240VAC 50/60Hz
Mains Power Consumption	190W
Weight	
CA-5115D	12kg (26.5 lbs)
CA-5130D	15kg (33.1 lbs)
Dimensions	536 mm(W)x 193 mm(H) x295 mm (D) 21.1 in(W) x 7.6 in (H) x 11.6 in (D)

Specifications and design subject to change without notice for product 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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