# USER MANUAL

## PAM-FMT

# Warning

**CAUTION**
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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.

**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: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not any perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

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.

*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.
*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 than objects do not fall and liquids are not spilled into the enclosure through openings."

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.

# Contents

# 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!

# Unpacking

Please take a few minutes to read this manual to familiarize yourself with important information regarding installation, product features, and operation.

As with most electronic devices, ORIGINAL PACKAGING (OR EQUAL) IS REQUIRED in the unlikely event that the product needs to be returned for servicing.

# 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/ap-

S3125A

paratus 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.

- AVOID EXCESSIVE HEAT, HUMIDITY, DUST AND VI-BRATION
  Keep the unit away from locations where it is likely to be exposed to high temperatures or humidity-such as near radiators, stoves, etc. Also avoid locations which are subject to excessive dust accumulation, or to vibration that could cause mechanical damage.
- AVOID PHYSICAL SHOCKS
  Strong physical shocks to the unit may cause damage. Handle the unit with care.
- DO NOT OPEN THE CASE OR ATTEMPT REPAIRS OR MODIFICATIONS YOURSELF
  This product contains no user-serviceable parts. Refer all maintenance to qualified Inter-M service personnel. Opening the case and/or tampering with internal circuitry voids the warranty.
- ALWAYS POWER OFF BEFORE MAKING CONNECTIONS
  Always turn the AC mains OFF before connecting or disconnecting cables. This is important to prevent damage to the unit itself as well as other connected equipment.
- HANDLE CABLES CAREFULLY
  Always plug and unplug cables (including the AC mains power cord) by gripping the connector, not the cord.
- CLEAN WITH A SOFT DRY CLOTH
  Never use solvents such as benzine or paint thinner to clean the unit. Wipe clean with a soft, dry cloth.

# Features

❑ **MODULE FOR MOUNTING PAM SERIES**
This is a module for mounting and is used with connecting to PAM-SERIES.

❑ **SYSTEM INFORMATION VIA OLED DISPLAY**
The system information can be checked through the OLED display which is easy to operate.

❑ **40 TOTAL MEMORIES OF TUNER**
40 total memory functions exist. It is possible to conveniently memorize frequency of the desired broadcasting stations for convenient use.

❑ **RADIO FREQUENCY AUTO SCAN FUNCTION**
It is possible to automatically scan the radio frequency.

❑ **AUDIO VOLUME ADJUSTMENT AND MUTE FUNCTION**
It is possible to adjust and mute the audio volume.

❑ **SLIDING MOUNTING METHOD (PAM-312/324/336/348)**
It is convenient to install in PAM-Series by applying sliding mounting method.
※ The PAM-510/520/120A/340A/480A systems are not sliding mounting types. Open the top cover for this model and connect it with the inner connector.
※ It cannot be used in No.1 bay of PAM-120A.

# Contents and Accessories

1. PAM–FMT x 1EA
2. Screws for PAM–Series x 4EA
3. Power and Audio Cable x 1EA
4. FM Antenna x 1EA
5. Operation Manual x 1EA

# Part Names and Function
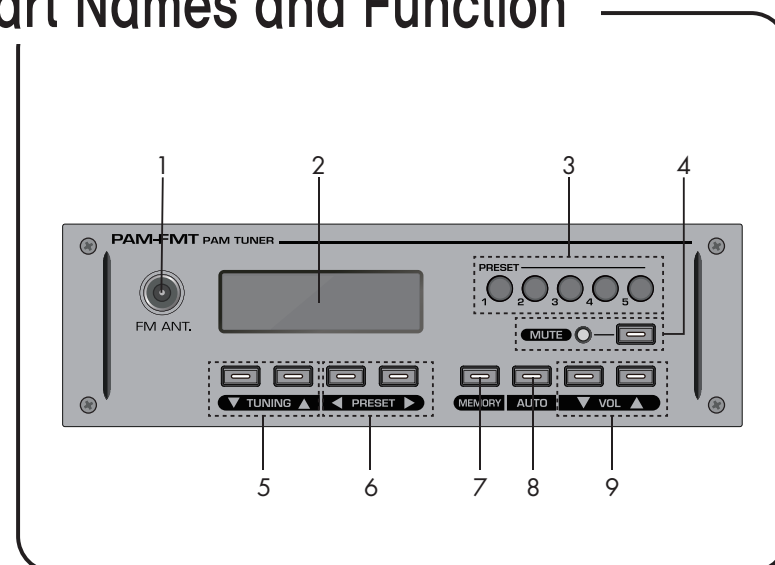


### 1. FM ANTENNA TERMINAL
This is a terminal to connect with FM antenna.
※ Decide the installation location and direction to make the reception the best, and fix it firmly.

### 2. OLED DISPLAY
This is a window to display tuner operation information.

### 3. PRESET BUTTON
These are the buttons to call saved PRESET. You can call the saved PRESET from 1 to 5.

### 4. MUTE BUTTON, STATUS LED
This is a button to mute the tuner. Press the button to turn on the RED LED and mute the output. Press the button again to turn off the LED and output the tuner sound source.

### 5. FREQUENCY TUNING BUTTON
This is a button to set the radio frequency as you wish by increasing or decreasing it.

### 6. PRESET SELECTION BUTTON
These are buttons to browse saved PRESET. You can select your desired PRESET from P01 to P40.

### 7. MEMORY BUTTON
This is a button to set PRESET.
※ For detailed information, refer to "How to Use the Tuner" on page 10 of this manual.

### 8. AUTO BUTTON
This is a button to select the frequency automatically.
※ For detailed information, refer to "How to Use the Tuner" on page 10 of this manual.
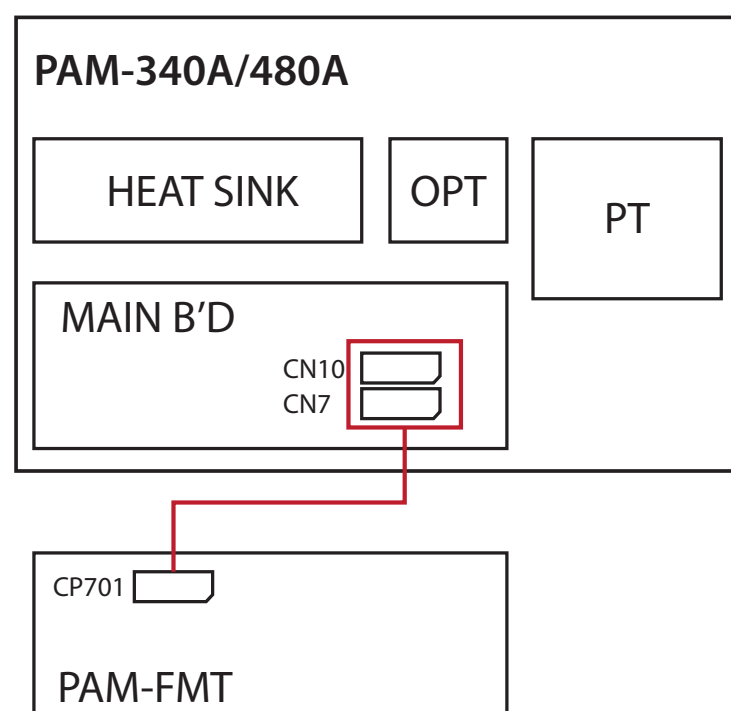
### 9. VOLUME BUTTON
This is a button to adjust the tuner volume. You can control the volume between 0 and 100.
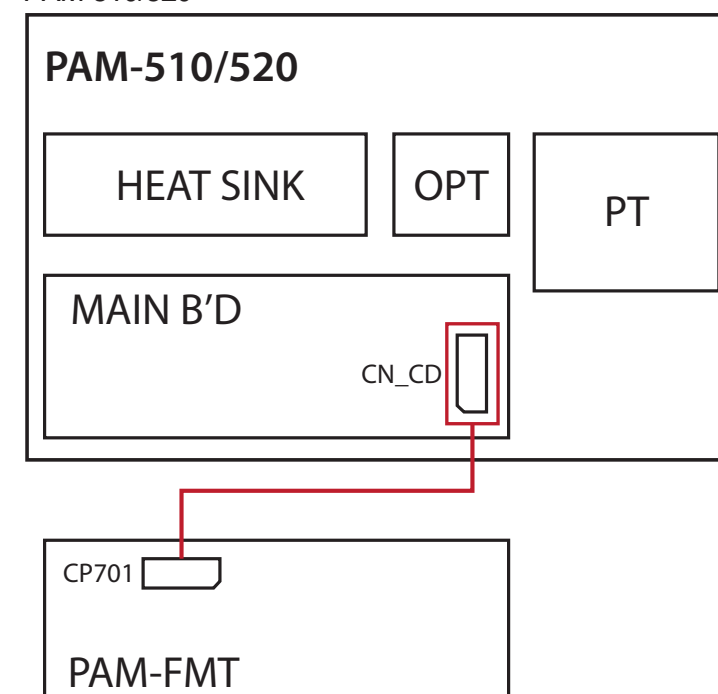
# How to Use the Tuner

**1. HOW TO INSTALL THE MODULE**

1) Turn off the PAM-Series amplifier before installation.
2) Connect the PAM-FMT module to the terminal of the PAM-Series main body using the enclosed 5-pin connector. Then, slide the module into the slot until it is fully mounted. Terminal information by product is as follows:

※ PAM-312/324 does not require an enclosed connector. Slide the module all the way into the slot to connect the internal connector to the module.

- PAM-340A/480A



PAM-340A/480A
HEAT SINK    OPT    PT
MAIN B'D
CN10
CN7
CP701
PAM-FMT

- PAM-510/520



PAM-510/520
HEAT SINK    OPT    PT
MAIN B'D
CN_CD
CP701
PAM-FMT

3) Fix the module by using the enclosed screw and turn on the PAM-Series main body.
4) Turn on the device and check whether relevant module information is provided on the front OLED DISPLAY.
5) Adjust the volume appropriately and check whether the sound source is output.

**2. BROWSING RADIO FREQUENCY**

1) Browsing Frequency
   - Connect the enclosed FM antenna to the antenna connection terminal.
   - Press the FREQUENCY TUNING button to browse the frequency above/below the currently displayed frequency and move to the radio frequency.
   ※ Each time you press the button, the frequency is changed by 0.05 MHz(0.1MHz for Americas). You can set the frequency from 87.5 MHz to 108 MHz.
   - When the radio frequency is detected, TUNED is displayed in the upper-left area of the screen and the corresponding broadcast is output.

※ If there is a lot of noise in the radio frequency, adjust and
　 fix the antenna position appropriately.

2) Auto Scan
　 - Press the AUTO button to move to Auto Scan mode.
　 - When Auto Scan mode is activated, AUTO is displayed
　 　in the upper-left area of the OLED DISPLAY.
　 - Press and hold the FREQUENCY TUNING button to au-
　 　tomatically search for the best-received radio frequency
　 　up/down the current radio frequency.
　 - When the search is completed, the current radio fre-
　 　quency is displayed and the broadcast is output.
　 - To deactivate Auto Scan mode, press the AUTO button
　 　again.

**3. USING THE PRESET FUNCTION**
　 1) PRESET SETTING
　 - Search for the radio frequency to save.
　 - When the search is completed, press the MEMORY but-
　 　ton to go to PRESET Setting mode.
　 - When PRESET Setting mode is activated, P is displayed
　 　in front of the frequency and the relevant number is blink-
　 　ing.
　 - Press the PRESET button (1–5) to specify the PRESET
　 　number to save.
　 ※ You can save up to 40 numbers.
　 - If the PRESET number (P##) is one digit, specify your
　 　desired number and press the MEMORY button to save
　 　the PRESET. If the PRESET number is two digits, your
　 　desired PRESET number is specified and saved at the
　 　same time.
　 - When the saving process is completed, the message
　 　PRESET SAVE OK appears on the OLED DISPLAY.
　 - Check the number in front of the current PRESET num-
　 　ber (P##) to confirm whether the PRESET is correctly
　 　set.
　 2) BROWSING AND CALLING PRESET
　 - Press the PRESET selection button to select your de-
　 　sired PRESET from P01 to P40.
　 - Press the PRESET button (1–5) to call the radio fre-
　 　quency of the saved PRESET.

# Block Diagram
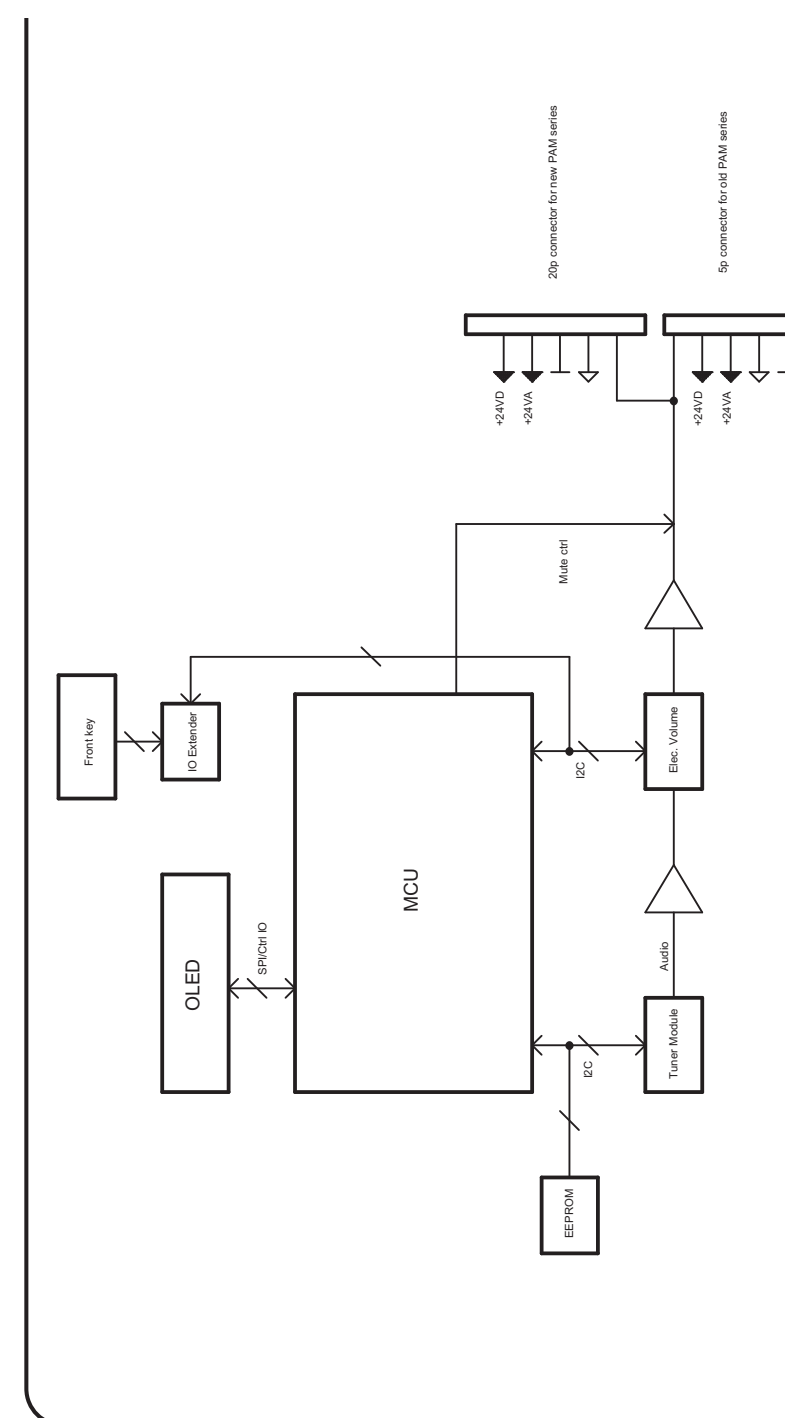
# Specification

|  | PAM-FMT |
|---|---|
| TUNER Specification |  |
| Receiving Frequency Range | 87.5~108MHz |
| Antenna Input | 75Ω Unbalanced |
| Frequency Response | 50Hz~12KHz |
| THD + N (20KHz LPF) | Less than 1% |
| S/N Ratio | More than 60dB |
| Output Signal Level | 0dBV ±3dBV |
| Operating temperature | -10˚C~+40˚C |
| Power Source | DC 24V |
| Weight(Set) | 0.49kg/1.08lb |
| Dimensions(Set) | 184(W) x 55(H) x 182(D)mm<br>7.24(W) x 2.16(H) x 7.16(D)in |

\* Design and specification are subject to be changed for the improvement
   of product quality without pre notice.

# Service

### Procedures
Ensure the problem is not related to operator error, or external system devices, 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.

**PAM-FMT**
User manual V1.1