

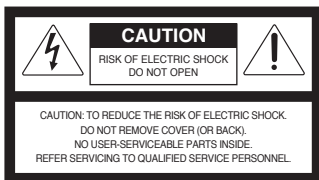
Operation Manual

PAM-BTU PAM Bluetooth® USB MODULE



interM

Warning



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 être 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.

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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-



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 VIBRATION**

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.

❑ **RECEIVING AUDIO SOUND THROUGH Bluetooth® (Bluetooth® V5.0)**

You can receive and play Bluetooth® audio sound.

❑ **USB DRIVE AUDIO PLAY FUNCTION**

Desired sound source of the USB MEMORY can be output.

※ Formats supports only: MP3, WAV, WMA

❑ **SYSTEM INFORMATION VIA OLED DISPLAY**

The system information can be checked through the OLED display which is easy to operate.

❑ **SLIDING MOUNTING METHOD (PAM-312/324/336/348)**

It is convenient to install in PAM-Series by applying sliding mounting method.

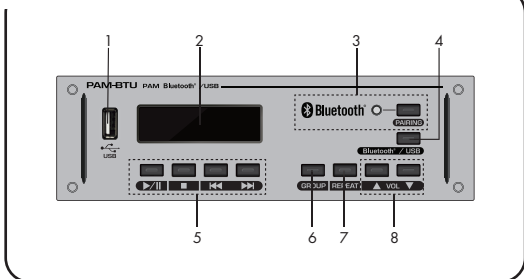
※ The PAM-510/520/120A/340A/480A systems are not sliding mounting types. Open the top cover for this model and connect it with the inner connector.

※ It cannot be used in No.1 bay of PAM-120A.

Contents and Accessories

1. PAM-BTU x 1EA
2. Screws for PAM-Series x 4EA
3. Power and Audio Cable x 1EA
4. Operation Manual x 1EA

Part Names and Function



1. USB TERMINAL

This is a terminal to mount USB memory, which can play audio file from USB.

2. OLED DISPLAY

This is a window to display status information of PAM-BTU. The USB play information, Bluetooth® connecting status, are displayed.

3. PAIRING BUTTON, STATUS LED

This is a button to turn ON / OFF the pairing function. The Bluetooth® operation is displayed through the LED indicator on the right side of the button.

※ For more information, refer to the How to Use Bluetooth® Module on page 10.

4. Bluetooth®/USB SELECTION BUTTON

This is a button to select Bluetooth® or USB mode. In Bluetooth® mode, BT is displayed at the upper left in USB mode, USB is displayed at the upper left.

5. PLAY/PAUSE, STOP, BACK SKIP, FORWARD SKIP BUTTON

- ►||: This is a button used for play and pause of audio files and the player temporarily stops if pressing this button during play.

- ■ : This button is function to stop during play of audio.
- |◀◀ : Press the BACK SKIP button during playback to play the sound source file from the beginning. (However, if you press the button within 1 second, the previous sound source file will be played.)
- ▶▶| : Press the FORWARD SKIP button to go to the next sound source file.

6. GROUP BUTTON

This is a button to activate GROUP mode. Press the GROUP button to display the GROUP mode in the upper area of the OLED DISPLAY.

In GROUP mode, press the FORWARD SKIP or BACK SKIP button to go to the next or previous folder.

※ Available only in USB mode.

7. REPEAT BUTTON

This is a button to change the REPEAT status.

If powered on, the REPEAT ALL status is reset when the sound source file is changed.

The status is changed in the order of REPEAT ALL → REPEAT ONE → REPEAT FLD → RANDOM ALL.

- REPEAT ALL: Repeats all the folders and tracks in order.
- REPEAT ONE: Repeats the currently playing sound source file.
- REPEAT FLD: Repeats the sound source files in the currently playing folder in order.
- RANDOM ALL: Plays all the folders and tracks randomly.

8. VOLUME BUTTON

This is a button to adjust the output volume of the sound source file.

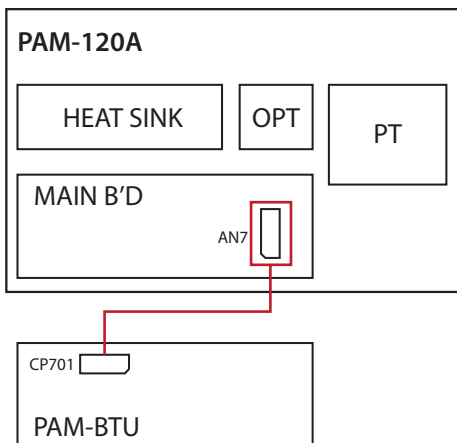
- You can adjust the output volume from 100 (maximum) to 0 (minimum) by each level.
- Each time you press the VOLUME button, the volume is increased or decreased step by step.
- Press and hold the VOLUME button to increase or decrease the volume continuously.

Method to Bluetooth® Module

1. How to install the module

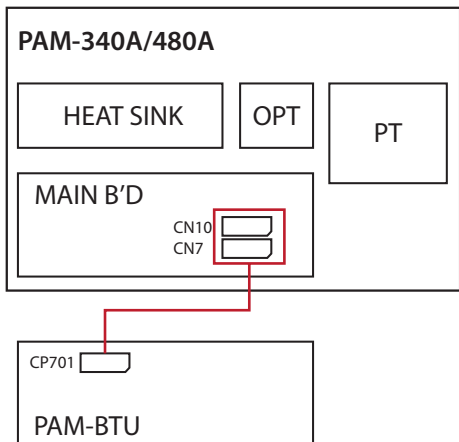
- 1) Turn off the PAM-Series amplifier before installation.
- 2) Connect the PAM-BTU module to the terminal of the PAM-Series main body using the enclosed 5-pin connector. Then, slide the module into the slot until it is fully mounted. Terminal information by product is as follows:
 - ※ PAM-312/324 does not require an enclosed connector. Slide the module all the way into the slot to connect the internal connector to the module.

- PAM-120A

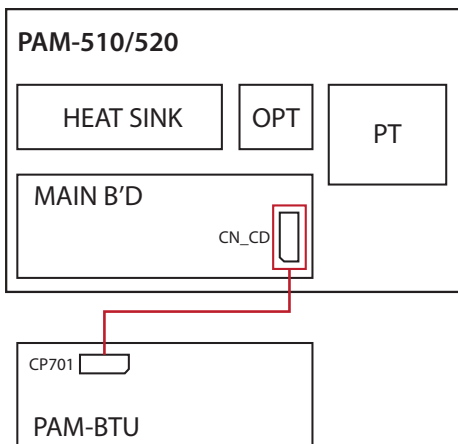


※ It cannot be used in No.1 bay of PAM-120A.

- PAM-340A/480A



- PAM-510/520



- 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. How to Use Bluetooth® Module

1) Standby Screen

- Prepare for the Bluetooth® device to connect to the PAM-BTU.
 - ※ Before using, check whether the device supports the Bluetooth® function.
- Before connecting to the Bluetooth® device, press the Bluetooth® Selection button to display BT Standby on its OLED display.



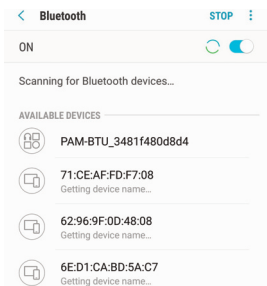
2) PAIRING

- Press the PARING button in the PAM-BTU to switch into Pairing mode.
- Once in Pairing mode, you can search for the PAM-BTU on the Bluetooth® device to connect to. The pairing LED on the left side of the button flashes and BT Scan... is displayed on the OLED display.



- ※ Press the Pairing button again to switch into BT Standby mode.

- ※ The Pairing mode lasts for 2 minutes and 30 seconds, and then it switches back to BT Standby mode.
- Check whether the PAM-BTU is detected in the Bluetooth® device to connect. When you select a device to connect to, the pairing is complete.



- ※ PAM-BTU_XXXXXXXXXXXX is detected and the name of module can be checked on the bottom right of the OLED DISPLAY of the PAM-BTU. ("X" is the Bluetooth® Address and each module is assigned a proprietary number.)

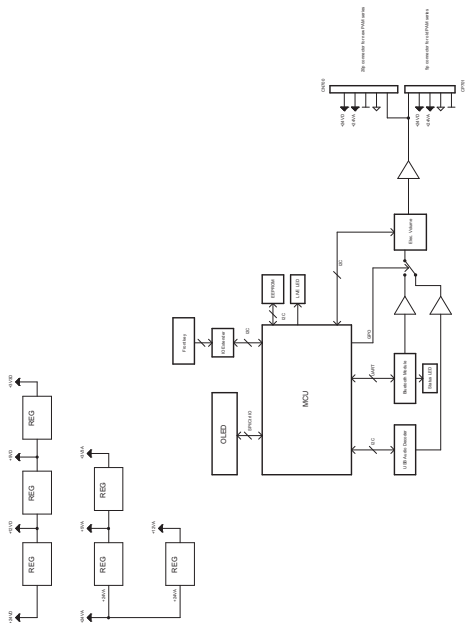


3) Connecting and Auto-connecting

- When pairing is complete, it will connect automatically and output audio. The pairing LED stays on and BT Connected appears on the OLED DISPLAY.

- Auto-Connect Function: The Bluetooth® device that has been connected once is automatically connected without the pairing process by turning the PAM-BTU's power ON / OFF or activating / deactivating the Bluetooth® mode of the Bluetooth® device to be connected. (The last connected Bluetooth® device is automatically connected.)
 - ※ Since the music can be played back immediately after connection, adjust the volume of the PAM-BTU appropriately in advance.
 - ※ The available distance between devices is 10 m. (If you go out of range, the connection is automatically released.)
 - ※ Bluetooth® connection compatibility may vary depending on the software version of the source device.

Block Diagram



Specification

	PAM-BTU
Bluetooth® Specifications	
Version	v5.0
Maximum Receiving Distance	10m(Class2)
Frequency Band	2.4GHz ISM Band
Profile	A2DP v1.2/AVRCP v1.5
USB Specifications	
Maximum Memory Support Capacity	32Gbyte
Supported File Format	FAT16, FAT32
Supported Audio File Format	MP3, WAV, WMA
General Specifications	
Audio Output Level	0dBV±3dB
S/N	More than 73dB
THD	Less than 0.2%
Operating Temperature	-10°C~+40°C
Operating Power	DC 24V
Weight(Set)	0.46kg/1.01lb
Dimensions(Set)	184(W) x 55(H) x 182(D)mm 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.

NOTE



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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