Operation Manual

PAM-MPM4 CD MP3 Tuner Module



interM





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	4
Unpacking	4
Installation Environment	5
Important Safety Instructions	
Additional Explanation	
Method to treat Compact Disc (CD)	8
Characteristics	
Part Names and Function	10
Operation Method	13
Method to Use FM Tuner	13
Method to Use CD	14
Method to Use Long-Life	19
Method to Use DRP/ USB	20
Applications	26
Block Diagram	27
Specification and Performance	28
Service	
Procedures Schematic	
Parts List	
Warranty	29

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 vourself 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

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- 5. Do not use this apparatus near water.
- 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/apparatus 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.

Additional Explanation

☐ MP3 (MPEG AUDIO LAYER-3)

MP3 is one of music file formats that can contain music with stereo sound quality similar to audio CD using a type of MPEG which is compressive standards for audio and video. About 3~5MB is sufficient if recording music for 3min~5min as the compression ratio is average 1Mb per minute. In addition. 130 music or more can be contained in a CD for songs or folk song if making music files with MP3 differently from audio CD and MP3 has advantage in play time of 10 hours. MP3 has also advantage of compacting music into about 1/12 size while maintaining sound quality of the CD level as it can remove frequency range impossible for human to identify. For example, capacity of 50MB or so can be achieved if extracting music of a CD while maintaining sound quality of CD as it is but its size can be largely reduced to 4~5MB if compressing and converting it to a MP3.

☐ WMA (WINDOWS MEDIA AUDIO)

WMA is Microsoft's multimedia compression method and is technology to compress only music data from 'Window Media Technologies'. It provides sound quality equivalent to 128Kbps format of MP3 with 64Kbps format lower than MP3. In other word, the file size of 1.2 MP3 provides same sound quality as MP3.

□ DIGITAL OUTPUT AND SPECIFICATIONS

Sound signal of a CD is recorded via digital-conversion and digital sound signal is converted to analog signal by digitalanalog converter (DAC) within the usual player for output. Conversely, electrical digital signals are substituted with optical signal by coaxial cables, semiconductor or light emitting diode (LED), etc and can be connected with other devices with optical fiber cables. The device of the party which received optical signals converts optical signals to electrical signals for various treatments. Direct transmission of digital data has advantage that there is less data error as it is not affected by electrical noise than electrical signals. Digital interface used in this product, which has format of S/PDIF (Sony/Philips/Digital/Interface), complies with standard specifications called IEC958.

Method to treat Compact Disc (CD)

This device is a player only for a CD. Please use a CD with following mark:

COMPACT

Make the character surface where music name, etc is described on if mounting a CD on the disc tray of the DC player.

- ☐ Open a case with holding the right ending part of a case with the left hand and hold the both sides with the right hand from below
- ☐ Take off the CD with lightly holding both sides with the right hand while pressing the center of the case with right thumb.
- ☐ Lightly wipe out the CD with a soft cloth if fingerprint or dirt is stained on the signal recording surface. There is no sound slot like general record in the CD. Wiping out dirt or fingerprint stained with a smooth cloth if necessary is sufficient. There is no obstacle to sound quality even if some dirt or fingerprint remains.
- ☐ Record spray, charge preventing agent, benzene and thinner, etc should not be used. The surface of a CD may be damaged by these chemical drugs as it is a plastic product.
- □ Please keep the disc whose play is completed in a case. If the disc is bent or damaged, sound may be broken or become impossible to play with the disc.
- ☐ Avoid of leaving the disc at a place where direct light is shone or which is disclosed to high temperature or a great of humidity. Leaving it for a place where temperature is high may cause deformation, etc.
- Do not paste papers, etc to the character surface or write letters on it.

Characteristics

☐ MODULE FOR MOUNTING PAM SERIES

This is a module for mounting and is used with connecting to PAM-SERIES.

□ VARIOUS SOUND SOURCES

Desired sound source of the CD/USB/DRP (Digital Recording Player: SD Memory) and Digital Tuner cannot be output.

IN MOUNTING AND REMOVAL OF USB AND TUNER

It is possible to mount on or remove from USB (Host) and Tuner depending on basic function of CD + Internal Memory (DRP).

□ CD LONG-LIFE FUNCTION

Contents in a CD are saved at the Internal memory (DRP) if play of a CD is completed with execution of the Long Life function. Pickup Life of the CD mechanism is largely increased as the contents of CD are actually played as those saved in memory.

□ CD MP3 COPY FUNCTION

Contents of CD MP3 to DRP and USB are copied.

□ USB HOSTING FUNCTION

It is possible to execute copy with a DRP via USB or directly play sound source of the USB.

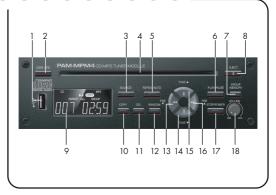
☐ 40 TOTAL MEMORIES OF TUNER

40 total memory functions exist with high sensitivity of digital tuner. It is possible to conveniently memorize frequency of the desired broadcasting stations for convenient use

□ MP3 / WMA RESPONSE

This device responds to both CD-DA and MP3/WMA.

Part Names and Function



1. USB TERMINAL

This is a terminal to mount USB memory, which can play MP3 or WMA file from USB and copy or save files from CD MP3 or the Internal memory (DRP) too.

2. LONG-LIFE BUTTON

If pressing the Long-Life button for more than 2sec, this function will save all music in a CD at the DRP within a device and play them. You can prolong the life of the CD mechanism by this function when continuing to play one CD repeatedly.

3. SOURCE BUTTON

This is a button to select input signal and is changed in order of CD \rightarrow USB \rightarrow DRP \rightarrow TUNER.

A. DISC SLOT

This is a slot for CD. If inserting CD in the slot, it is automatically inserted.

කි. REPEAT/AUTO BUTTON

- This is used when playing in the mode of Repeat of 1 Music/ Repeat of All Music/ Sector Repeat.
- This is a button to select Manual or Automatic Music Select mode when moving frequency from TUNER.

ති. PLAY/PAUSE BUTTON

- This is a button used for play and pause of CD/USB/DRP and the player temporarily stops if pressing this button during play.

7. GROUP/MEMORY BUTTON

- Use this button to move between folders when files exist under various folders for MP3/WMA
- This button is used to memorize broadcasting frequency from TUNER operation.

8. EJECT BUTTON

- This button is used when taking out a CD.

- This is a window to display system operation information.

10. COPY BUTTON

- This button is used to copy CD MP3 disc or USB, DRP files.
- This button can copy CD MP3 to USB or DRP, and it also possible file copy between DRP and USB.
- CD DA can be saved only to DRP due to regulatory restriction related with copyright.

111. DEL BUTTON

- This button is used to delete music saved in USB and DRP.

12. RANDOM BUTTON

This is function to optionally play music in CD/USB/DRP.

13. CD SKIP DOWN / TUNER PRESET DOWN

- This is function to return to first part of the music currently played or previous music.
- Used when moving the previous channel of the channel memorized in TUNFR

14. CD SEARCH DOWN / TUNER TUNING DOWN

- This button is function to move the front part of the music currently played.
- This function is used to decrease channel frequency from TUNFR

៕ន៏. CD SEARCH UP / TUNER TUNING UP

- This button is function to move the rear part of the music currently played.
- This function is used to increase channel frequency from TUNFR

16. CD SKIP UP / TUNER PRESET UP

- This button is function to move the next music of the music currently played.
- This function is used to move the next channel of the memorized channel at TUNFR

17. STOP/POWER BUTTON

- This button is function to stop during play of CD/USB/DRP. It turns off if pressing this button long for more than 3sec.

18. SOURCE SOUND TUNING VOLUME

- This button is function to tune volume of the currently selected source

Operation Method

- Set the volume to minimum before powering on.
- Make sure about properly connection of speaker and input iack.

Method to Use FM Tuner

1. Auto and Manual selection method of broadcasting frequency

- 1) Select TUNER by pressing the Source button.
- Frequency decreases or increases if pressing the TUNE ▼/▲ (frequency DOWN/UP) button. You can select desired broadcasting.
- * Auto Music Select: Auto Broadcasting Station Select mode is selected if "AUTO" is displayed by pressing the REPEAT/AUTO button. Operation of the Auto Broadcasting Station Select starts if pressing the Frequency Up or Down button and automatically stops at the position of broadcasting frequency receivable. "TUNED" is displayed on the Display Window and broadcasting is output.
- * Manual Select: Frequency can be increases or decreases in unit of 50 / 100 KHz for adjustment by pressing the Frequency Up or Down button shortly once. Frequency moves until unhand if holding to press it for a long time. If broadcasting frequency receivable is selected. "TUNED" is displayed on the Display Window and broadcasting is output.

2. Memory method of frequency and recall of memorized broadcasting channel

- 1) Select desired frequency with the TUNE ▼/▲ (Frequency DOWN/UP) button.
- 2) "M" is displayed on the Display Window and the address to save flickers if pressing the MEMORY button.

- Selected broadcasting frequency is saved at the relevant address if pressing the MEMORY button by selecting the address to memorize with the PRESET ▼/▲ button. The saved channel number appears on the Display Window and the Memory indication turns off. In this case, saving is done the given address even though current frequency is saved at other address
- No. 1 through No. 40 frequencies can be saved.
- Memorized broadcasting frequency can select the desired broadcasting frequency using the PRESET ▼/▲ button.

Method to Use CD

EFFECTIVE FILE PROCESSING NUMBERS OF CD MP3 ARE 499 FILES, ONLY 499 FILES ARE RECOGNIZED EVEN IF MORE THAN 500 FILES ARE STORED IN A DISC.

1 PLAY FUNCTION

- 1) Select CD by pressing SOURCE button in the front panel.
- 2) "NO DISC" is displayed on the Display Window if there is no disc and represents Standby status.
- 3) Lightly push a disc until it is automatically inserted into the Disc Insert Window
- 4) Reading music information of disc is displayed on the Display Window and the mode becomes Standby status.
 - For the CD DA: 00(track numbers) 000:00 (total play time indication)
 - For the CD MP3: 00(folder numbers) 000(total file numbers)
- 5) Operate by pressing the PLAY/PAUSE button. In this case, CD is played from the first music of CD.
- Pressing the STOP/POWER button enables to stop play.
- * Caution: Disc whose status is not good or where play is not possible is automatically ejected.
 - Check the disc status once more as it is not failure of system. Use only disc with size of 12cm and never use CD with size of 8cm

2. PLAY/PAUSE FUNCTION

- 1) Inserting a disc enables to become standby status after automatically reading information. The CD DA displays up to 99music and the CD MP3 displays up to 499music.
- * Music is only played as music numbers displayed.
- * For MP3, all files may not be displayed depending on status of disc
- Press the PLAY/PAUSE button to play. Press the PLAY/ PAUSE button to temporarily stop.
- 3) In this case, pressing the PLAY/PAUSE button enables to release the function and continuing play is done from the current part.

3. EJECT FUNCTION

- 1) This function is used to take out disc.
- 2) Disc comes out if pressing this button irrespective of operation status of CD player.
- * EJECT button does not operate when LONG LIFE function operates.

4. REPEAT FUNCTION

Conversion is done in the order of REPEAT 1 → REPEAT ALL → REPEAT BL → OFF whenever converting and pressing the REPEAT button.

Reference) Both REPEAT 1 and REPEAT ALL operate during play, and the REPEAT1, REPEAT ALL and REPEAT BL operate during stop.

1) REPEAT 1 function

This is function to repeat and play a music.

"REPEAT 1" is displayed on the Display Window during play or if pressing the REPEAT button once and the pressing the Play button. Music currently played is continuingly and repetitively played.

Function of REPEAT 1 is released if selecting RANDOM function.

GROUP function during play is also set for the CD MP3 disc.

2) REPEAT ALL function

This function is used to repetitively play the whole sector of disc.

"REPEAT ALL" is displayed on the Display Window during play or if pressing the REPEAT button twice. The whole music of the disc currently played is continuingly and repetitively played.

RANDOM function is performed if selecting the function at the same time as function of REPEAT ALL.

GROUP function is also set during play for the CD MP3 disc.

* However, both GROUP function and RANDOM function cannot be set at a time.

REPEAT BL function

This function is used if desiring to repetitively hear files within the sector selected by user among music in disc at stop status

001-001 is displayed if selecting REPEAT BL and you can select and hear desired music by the SKIP I ◀ ✓ / ▶ ▶ I button

Example) Method to set from Track No.22 to Track No. 30 when 47 music exist.

Check that ('001'-001) is displayed if setting REPEAT BL → Check that the first start music ('022'-022) is selected by pressing the ▶▶| button → Press the PLAY/PAUSE button \rightarrow Check (022-'022') \rightarrow Check that the last music (022-'030') is selected by pressing the ▶▶| button → Press the PLAY/PAUSE button → REPEAT BL function is performed. In this case, the SEARCH ◀ ◀ / ▶ ▶ button is used when moving to the First Track and the Last Track of the sector during setting of sector.

This function is used when repeating only sector of track or file

No RANDOM or GROUP function operates during operation of this function.

This function is released and stops if pressing this STOP button.

නි. RANDOM FUNCTION

- 1) This function is used when desiring to randomly hear music in the current disc.
- 2) "RANDOM" is displayed on the Display Window if pressing RANDOM button during stop. Music is randomly played in random sequence if pressing the PLAY/PAUSE button. Pressing the RANDOM button during play enables to pass music currently played to the next RANDOM music.
- 3) Only REPEAT ALL function is added and operated like RANDOM if pressing the REPEAT button during play. In this case, only REPEAT ALL is set.
- 4) Press the RANDOM button once more if desiring to cancel RANDOM function
 - In this case, REPEAT ALL is not released if REPEAT ALL function is set.

6. GROUP UP/DOWN FUNCTION

- 1) This function is only possible if saving files at a PC with classification of folder for the MP3 CD. Music moves in unit of directory.
- 2) "GROUP" is displayed on the Display Window if pressing the GROUP button during play. In this case, pressing the SKIP I ◀ ◀ / ▶ ▶ I button enables to move between folders if pressing the button and play is executed from the first music. In this case, REPEAT 1, REPEAT ALL functions are performed together if pressing the REPEAT button.
 - GROUP function released and RANDOM function is performed if selecting RANDOM function, REPEAT 1 function is also released if it is set.
 - GROUP function is released and both RANDOM and REPEAT ALL are performed if selecting RANDOM function with GROUP and REPEAT ALL function set

- The function is released if pressing the GROUP button once more where GROUP function is executed
- 4) GROUP function is released and becomes Standby status if pressing the STOP button where GROUP function is performed
- * GROUP function is only used during play.

7. CD COPY FUNCTION

- 1) This is function to save files in a CD to Internal memory (DRP) or USB memory.
 - ** CD DA is saved only in DRP.**
- Pressing the COPY button in STOP status enables to convert to COPY Standby mode and memory position to be saved on the Display Window flickers.
- elect position to save using the SKIP I ◀ / ▶ ▶ I button for the CD MP3 disc. (USB or DRP) Only DRP can be selected if USB memory is not built-in.
 - The CD DA can be saved only in a DRP.
- 4) Pressing the PLAY/PAUSE button enables to proceed to the next step and TRACK or ALL is selected by the SKIP I ◀ / ▶ ▶ I button.
- In case to select ALL, press the PLAY/PAUSE button.
- 6) Display is executed to input track range if pressing the PLAY/PAUSE button where TRACK is selected.

Enter number of Start Track and number of End /Track using the SKIP I ◀ / ▶ ▶ I button.

Example)

Method to set track No.22 and track No.30 if there are 47 music for CD MP3

CD >> DRP pressing the COPY button → Possible to select USB or DRP pressing the SKIP I ◀ / ▶ ▶ I button → Press the PLAY/PAUSE button → Check TRACK indication → Possible to select TRACK or ALL if pressing the SKIP I ◀ ◀ / ▶ ▶ I button (in this case all music are saved if pressing the PLAY button after selecting ALL) → (for setting of TRACK) Check that '001'-001 is displayed → Select the first start music by pressing the ▶▶I button → Check ('022'-022) is displayed → Press the PLAY/PAUSE button → Check that (022-'022') is displayed → Check that the last music (022-'030') is selected by pressing the ▶▶| button → Press the PLAY/PAUSE button → COPY function is performed.

(Copy operation is executed from Track No.22 to Track No. 30.)

- In this case, the SEARCH ◀ ◀ / ▶ ▶ button is used for movement to the Set Step during Copy Setting.
- 7) The mode is released if pressing the Stop button during copy. Only track that FILE COPY is completed is saved in the relevant memory.
- 8) Signal is output during copy operation of the CD DA but it is not output for the CD MP3. So minimize volume only if desiring to copy.

Method to Use Long-Life

- □ LONG-LIFE FUNCTION IS METHOD TO LARGELY PROLONG THE LIFE OF MECHANISM WITH SIMPLE MANIPULATION.
- 1) Long-Life function is used when largely prolonging the life of a CD.
- 2) Contents of CD are copied and sound source is played after SOURCE is automatically converted to CD if pressing the Long-Life button for more than 2sec.
- Files saved in DRP are played if copy is completed.
 - * In this case, the mode is displayed as DRP and REPEAT ALL function operates.
- 4) The mode is released if pressing STOP button during play. Only track that play is completed is saved in memory. Play stops in this status.
- ★ All files in DRP are removed if Long-Life function is executed. Files in DRP are firstly cleared if Long-Life function starts. Important files should be copied in USB and time of deleting files in DRP may be long. ★

- If Long-life function is operated, all button except STOP button is not operating.
- If Long-life function is operated, the signal is generated in REC of CD-DA but in case of CD MP3, the signal is not generated.

Method to Use DRP/ USB

USB CANNOT BE CONNECTED WITH A PC USING HOST FUNCTION.

1. PLAY FUNCTION

- 1) Select DRP or USB by pressing the SOURCE button.
- "NO FILE" is displayed on the Display Window if there are no files. File information (numbers of files can play) and folder numbers are displayed if there are files.
- Operate by pressing the PLAY/PAUSE button. In this case, play is executed from the first file.
- 4) It stops if pressing the STOP/POWER button.

2. PLAY/PAUSE FUNCTION

- Up to 999 played files are displayed by automatically reading memory if selecting DRP or USB.
- * More than 999 music are not played.
- Press the PLAY/PAUSE button to play and press the PLAY/PAUSE button once more to temporarily stop.
- Press the PLAY/PAUSE button a second time to release PAUSE function and files are continuingly played from the current part.

3. REPEAT FUNCTION

Conversion is executed in the order of REPEAT 1 \rightarrow REPEAT ALL \rightarrow REPEAT BL \rightarrow OFF whenever pressing the REPEAT button for conversion.

Reference) REPEAT 1 and REPEAT ALL operate during play and REPEAT1, REPEAT ALL and REPEAT BL operate at stop.

1) REPEAT 1 function

This is function to repetitively play a music.

"REPEAT 1" is displayed on the Display Window during play or if pressing the REPEAT button once and then pressing the Play button. Music currently played is continuingly repetitively played. Function of REPEAT 1 is released if selecting RANDOM function.

GROUP function is also set during play if there is a folder.

REPEAT ALL function

This function is used to repetitively play the whole sector of a storage device.

"REPEAT ALL" is displayed on the Display Window during play or if pressing the REPEAT button twice times. The whole music in a storage device currently played is continuingly repetitively played.

RANDOM function is performed if selecting RANDOM function. This function is performed together with function of REPEAT ALL

· However, both GROUP function and RANDOM function cannot be set at a time

REPEAT BL function

This function is used if desiring to repetitively hear files in the sector selected by user among music of saving media in stop status

001-001 is displayed if selecting REPEAT BL and you can select and hear desired music by pressing the SKIP I ◀ ◀ / ▶ ▶ I button.

Example)

Method to set track No.22 and track No.30 if there are 47 music

Check that ('001'-001) is displayed if setting REPEAT BL → Check that the first start music ('022'-022) is selected by pressing the ▶▶I button → Press the PLAY/PAUSE button → Check (022-'022') → Check that the last music (022-'030') is selected by pressing the ▶▶| button → Press the PLAY/PAUSE button → REPEAT BL function is performed.

In this case, the SEARCH ◀ ◀ / ▶ ▶ button is used when moving to the First Track and the Last Track of the sector during setting of sector.

This function is used to repeat only sector of TRACK or FILE. RANDOM or GROUP function does not operate while this function operates.

This function is released to stop if pressing the STOP button.

4. RANDOM FUNCTION

- 1) This function is used if desiring to randomly hear music in the current saving media.
- 2) "RANDOM" is displayed on the Display Window if pressing the RANDOM button during stop and play is randomly done if pressing the PLAY/PAUSE button.
 - Play passes from the currently played music to the next RANDOM music if pressing the RANDOM button during play.
- 3) Only REPEAT ALL function is added for operate with RANDOM if pressing the REPEAT button during play. In this case, only REPEAT ALL is set.
- 4) Press the RANDOM button once again to cancel RANDOM function.

REPEAT ALL is not released if REPEAT ALL function is set

ស៊ី. GROUP UP/DOWN FUNCTION

- 1) This is possible only if saving files with classification into folder in a storage device of PC where various files are in a folder. Music moves in unit of directory.
- 2) "GROUP" is displayed on the Display Window if pressing the GROUP button during play. In this case, music is played from the first music in a folder after moving between folders if pressing the SKIP I ◀ / ▶ ▶ I button.

REPEAT 1. REPEAT ALL functions are also performed together if pressing the REPEAT button.

RANDOM function is performed while GROUP function is released if selecting RANDOM function. Function of REPEAT 1 is released if it is set

- RANDOM and REPEAT ALL are performed if selecting BANDOM function with both GROUP and REPEAT ALL function set.
- 3) This function is released if pressing the GROUP button once again if GROUP function is performed.
- 4) GROUP function is released to become standby status if pressing the STOP button where GROUP function is performed.
- *GROUP function is available only during play.*

6. COPY FUNCTION OF CONTENTS OF USB TO INTERNAL MEMORY (DRP)

- Mount USB memory.
- Select USB by pressing the SOURCE button.
- 3) Pressing the Copy button in the Stop status enables to display as USB >> DRP.
- 4) Pressing the PLAY/PAUSE button enables to convert to the Copy Range Setting Mode and setting method is same as CD COPY function.
- 5) Copy starts if pressing the PLAY/PAUSE button after setting the range and the mode is automatically converted to STANDBY mode after completion.
- Converting to DRP mode enables to check contents of copy.
- 7) Pressing STOP button during copy enables to release the mode. Only track where copy is completed is saved at the relevant memory.

7. COPY FUNCTION OF CONTENTS OF INTERNAL MEMORY (DRP) TO USB MEMORY

- 1) Select DRP by pressing the SOURCE button.
- 2) Pressing the Copy button in the Stop status enables to display as DRP >> USB.
- 3) Pressing the PLAY/PAUSE button enables to convert to the Copy Range Setting Mode and setting method is same as CD COPY function.
- 4) Copy starts if pressing the PLAY/PAUSE button after setting the range and the mode is automatically converted to STANDBY mode after completion.

- Converting to USB mode enables to check contents of copy.
- 6) Pressing STOP button during copy enables to release the mode. Only track where copy is completed is saved at the relevant memory.
- * Caution:
- 1) Output is not done in case of copying between USB and
- 2) REC FULL indication Display on the Display Window if memory space is insufficient during copy operation.
- 3) Copied contents are copied in form of media as it is. MP3 format and WMA format are saved in a MP3 file and WMA file each.
- 4) Effective files of both USB and DRP are up to 999pcs and more than 999 files can not be saved in DRP.
- There is restriction in COPY if using over 999 files in USB.

8. DELETE (FILE DELETE) FUNCTION

This is function to deleted unnecessary files of files saved in internal memory or USB memory.

- 1) Select SOURCE (DRP or USB) when file to delete is contained.
- Pressing the DEL button enables to convert to Delete mode and TRACK is displayed on the Display Window.
- Pressing the SKIP I ◀ ✓ / ▶ ▶ I button enables to display TRACK or ALL for selection. Pressing the PLAY/PAUSE button enables to execute Partial Delete or All Delete

Example)

For deleting track.

Method to set Track No.22 through No. 30 where 47 music exist

Track is displayed if pressing the DEL button → Select TRACK or ALL by pressing the ▶▶I button. → Press the PLAY/PAUSE button after checking that TRACK is displayed (ALL is displayed. Function to delete all files if pressing the PLAY button). → Check that ('001'-001) is displayed. → Select the first start file by pressing the ▶▶| button → Check ('022'-022)→ Press the PLAY/PAUSE button. → Check (022-'022') → Check that the last music (022-'030') is selected by pressing the ▶▶| button → Press the PLAY/PAUSE button → DELETE function is performed.

In this case, the SEARCH ◀ ◀ / ▶ ▶ button is used when moving to the setting step during setting of DELETE.

9. MEMORY INITIALIZATION (INITIAL)

This function is used to delete files saved in the internal memory (DRP) and automatically initialize all setting status. In this case USB data are not deleted.

- 1) ERASING would flicker on the Display Window if pressing both STOP button and DEL button together for about 2 second long.
- When initialization is progress. ERASING is flickering. After completion, "PWR OFF" text is displayed on the Display Window
- At this time, turning off STOP/POWER button and powering off right away. It enables to operate with changed setting after about 10sec from powering off.

Applications FM TUNER PAM SERIES OPT HEAT SINK MAIN B'D PAM-120A AN7 PAM-340A/480A CN1 CN7 PAM-510/520 CN_CD CN_CD AN 503 AN 504 PAM-MPM4

Block Diagram O AGND O GND DC POWER SUPPLY CO VOLUME CD/USB/DRP L/R -ch ¹2√5+ 18√4 ₹333 SOURCE LCD DRIVER PAM- MPM4 BLOCK DIAGRAM PWM & EEPRO CD Servo+DSP/MP3/WMA Decoder DSP S5L8030 MICOM MB95F108AWPFM FM L/R ch SDRA SERIAL EEPRO Σ KEY IN LIMIT, OPEN/CLOSE RF, ACTUATOR. BTL DRIVER AM5869S CD MECHANISM FM TUNER SD CARD USB

Specification and Performance

	PAM-MPM4	
CD, USB, DRP		
Frequency Response	20Hz~20KHz ±1.5dB	
THD + N (WITH A FILTER)	0.08% (LESS THAN 0.1%)	
S/N Ratio	80dB (MORE THAN 75dB)	
(WITH A FILTER)		
Output Signal Level	1.2V ±0.2V	
Capacity of inner memory	2GByte	
TUNER		
Range of receipt frequency	FM: 87.5-108MHz	
Antenna input	75Ω Unbal.	
Sensitivity for practical use	2 _μ V 40Memory	
Operating temperature	-10°C ~ 40°C	
Power Source	DC 17V,22V	
Weight (SET)	950g / 2.1lb	
Dimensions (SET)	184(W)×55(H)×180(D)mm	
	7.2(W)×2.2(H)×7.1(D)in	

^{*} Specifications and design subject to change without 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.

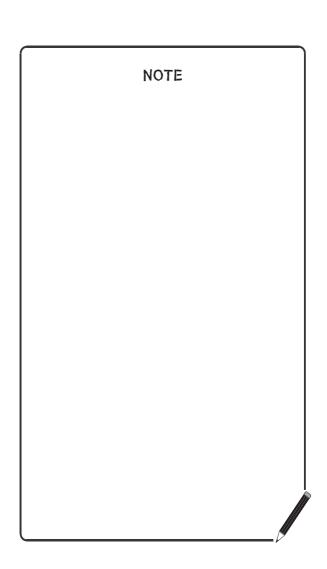
Parts List

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.









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.

13875 ARTESIA BLVD. CERRITOS, CA 90703 USA TEL: +1-562-921-0313, FAX: +1-562-921-0370 Home Page: http://www.inter-m.net, E-mail: info@inter-m.net

INTER-M Corporation

SEOUL OFFICE:653-5 BANGHAK-DONG, DOBONG-KU, SEOUL, KOREA TEL: +82-2-2289-8140-8, FAX: +82-2-2289-8149
Home Page: http://www.inter-m.com, E-mail: overseas@inter-m.com

MADE IN KOREA April 2010 125304