

MIPRO®

User Guide

MA-202B | ACT-222T
Personal Wireless PA System



MIPRO®
MICROPHONE PROFESSIONALS

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! 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 a 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 polarised or ground plug: A polarised plug has two blades with one wider than the other. The wide blade is provided for your safety. When 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 plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a 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.
15. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
16. Apparatus should not be exposed to dripping or splashing and no objects filled with liquids, should be placed on the apparatus.
17. Use only with the battery which specified by manufacturer.
18. The power supply cord set is to be the main disconnected device.
19. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.



WARNING

1. **FOR OUTDOOR USE:**
To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
2. **UNDER WET LOCATION:**
Apparatus should not be exposed to dripping or splashing and no objects filled with liquids, such as vases should be placed on the apparatus.
3. **SERVICE INSTRUCTIONS:**
CAUTION - These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

	This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.
	This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

FC & IC - ID

THIS DEVICE COMPLIES WITH PART15 OF THE FCC RULES AND RSS-123 ISSUE2 OF CANADA. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.



"This product can only be used at the area that the altitude is lower than 2000m for safety purpose."



"This product can be used in non-tropical locations only for safety purpose."

Disposal

Dispose of any unusable devices or batteries responsibly and in accordance with any applicable regulations.



Disposing of used batteries with domestic waste is to be avoided!

Batteries / NiCad cells often contain heavy metals such as cadmium(Cd), mercury(Hg) and lead(Pb) that makes them unsuitable for disposal with domestic waste. You may return spent batteries/ accumulators free of charge to recycling centres or anywhere else batteries/accumulators are sold.

By doing so, you contribute to the conservation of our environment!

I. MA-202B Part Names, Fig. 1, Fig. 2

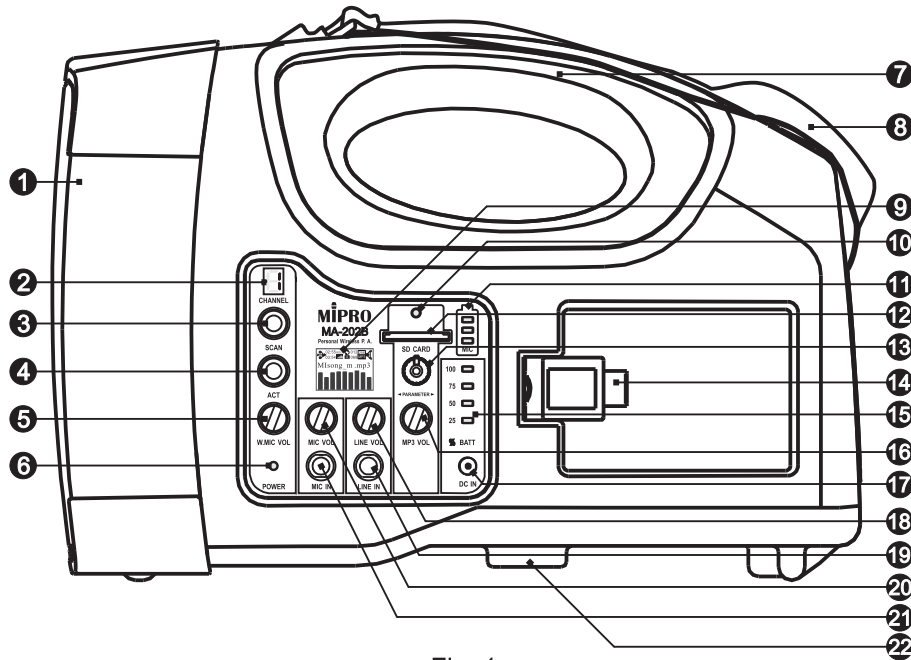


Fig. 1

- 1 Speakers
- 2 CHANNEL Indicator
- 3 SCAN Channel Button
- 4 ACT Channel Sync Button
- 5 W. MIC VOL: Power and Wireless Microphone Volume
- 6 POWER: Power and RF Indicator
- 7 Fixed Carry Handle
- 8 Adjustable Shoulder Belt
- 9 MP3 LCD Screen

- 10 ACT Sync Window
- 11 Wireless Microphone Battery Gauge
- 12 SD Card Slot
- 13 MP3 Player Parameter Knob
- 14 USB Port
- 15 Main Battery Gauge & Battery Charging Indicator
- 16 MP3 VOL: MP3 Player Volume
- 17 DC IN: DC Input Jack
- 18 LINE VOL: Line Level Input Volume
- 19 LINE IN: 6.3 Ø Line Input Jack
- 20 MIC VOL: Wired Microphone Volume
- 21 MIC IN: 6.3 Ø Wired Microphone Input Jack
- 22 Microphone Stand Adapter
- 23 Shoulder Belt Compartment
- 24 Wireless Microphone Charging and Compartment
- 25 Lithium Battery Module
- 26 Battery Compartment Cover

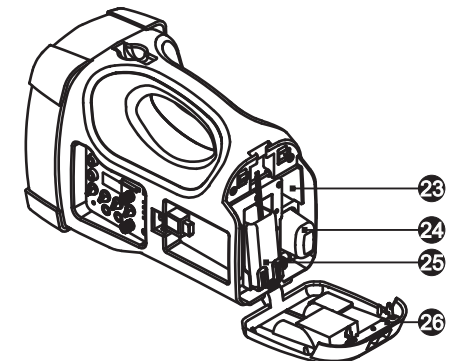


Fig. 2

II. Operating Instructions

1. Wired Microphones:

- (A) Turn on the Power/Volume Control **5**. Power Indicator glows red **6**.
- (B) Plug a wired microphone into MIC IN **21**.
- (C) Adjust the MIC VOL **20** to desired volume.
- (D) Both wired and wireless microphones can be used concurrently.

2. Line-Input:

Turn on the Power/Volume Control. Connect the external audio source to LINE IN jack **19** and adjust Line Input Vol **18** to adequate volume.

3. Wireless Microphones:

- (A) Turn on the Power/Volume Control. Power Indicator glows red.
- (B) Power on a transmitter, Power Indicator glows green **6** when RF signal is received.
- (C) Adjust to desired volume level.
- (D) It is not possible to transmit two wireless microphones on the same channel to MA-202B system. Only one transmitter can be used at a time on that channel. Be sure to turn off one of the two transmitters to avoid interference. Same wireless microphone, however, can transmit to multiple MA-202B systems on the same channel for a wider and expanded coverage.

4. Audio Playing Operating Instructions:

(A) MP3 Audio Playback:

- (1) Turn on the MP3 VOL **16** to power on. LCD screen is on. Adjust to desired volume level.
- (2) Press Parameter Knob **13** to pause.
- (3) Turn Knob to right and release for next track. Turn Knob to right and hold for next 10 tracks.
- (4) Turn Knob to left and release for previous track. Turn Knob to left and hold for previous 10 tracks.
- (5) Turn off the MP3 VOL to power off. LCD screen is off.

(B) Two Ways in Audio Playback Sequence:

- (1) USB and SD card are formatted before use, format specifications is FAT.
- (2) Copy each track into USB or SD card storage individually until all audio files are copied. Playback sequence is based on order of tracks bring programmed.
- (3) Number the desired tracks when copying them into folders. Then copy the folders into USB or SD card storage. Note the tracks must be numbered by the same digit sequence like 00, 01, 02 or 000, 001, 002 or 0000, 0001, 0002.. and so on.
- (4) USB has the play priority over SD card if both are installed to be played.

III. Advanced Operating Instructions

1. To Setup a new Receiver Channel:

(A) To Scan for a Clear Receiver Channel:

Press & hold the SCAN button **3** until current channel blinks. During blinking, press SCAN once and a new receiver channel is scanned, located and automatically saved. SCAN function stops when no action is taken during 10 blinks, Fig. 3.

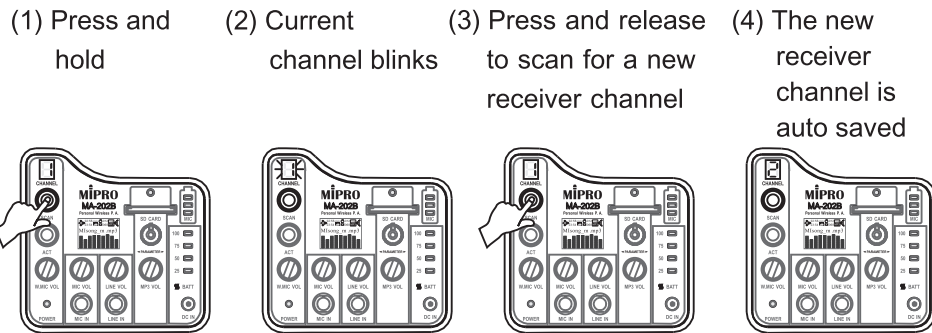


Fig. 3

(B) Manually Forcing a Channel Change:

Press & hold the SCAN button until current channel blinks. Press & hold SCAN button until a desired channel is reached. This will force the receiver to change to the next available channel, Fig. 4.

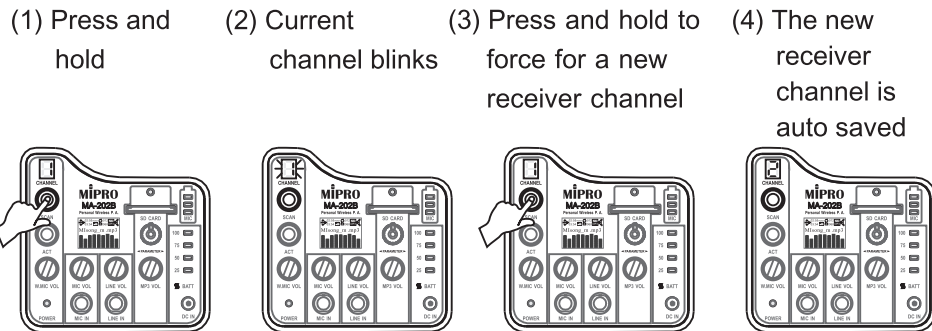


Fig. 4

2. When to Change Channel:

- (A) Interference or noise occurs during performance.
- (B) When two or more wireless PA systems need to be used at the same venue and at the same time.

3. Caution during Changing Channel:

- (A) Do not change and select a new channel while another MIPRO wireless system is operating as it may cause interference to each other.
- (B) If “_” symbol displays during channel scanning this indicates the current channel in this frequency band is experiencing interference. If problem persists, it is recommended to change and use a different frequency band.

4. ACT Synchronization (Sync) between Receiver and Transmitter Channels:

- Press and release ACT button ④, the current channel ② blinks and is ready for ACT synchronization.
- Power on handheld or bodypack transmitter. During channel blinking, bring transmitter sync window within 30 cm (12-inch) of ACT Sync Window ⑩ of PA, Fig. 5.
- Once ACT synchronization is performed correctly, the channel stops blinking and POWER indicator glows green from red to indicate a successful RF pairing.
- To cancel an accidental activation of ACT function, just press ACT button again.

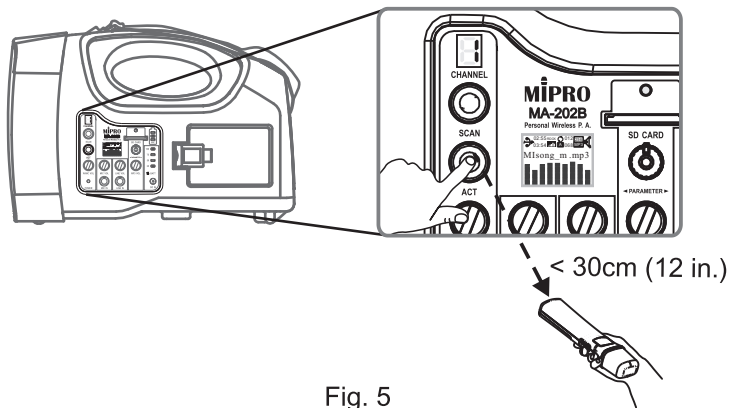


Fig. 5

5. Music Playback:

(A) MP3 Player Display Screen, Fig. 6:

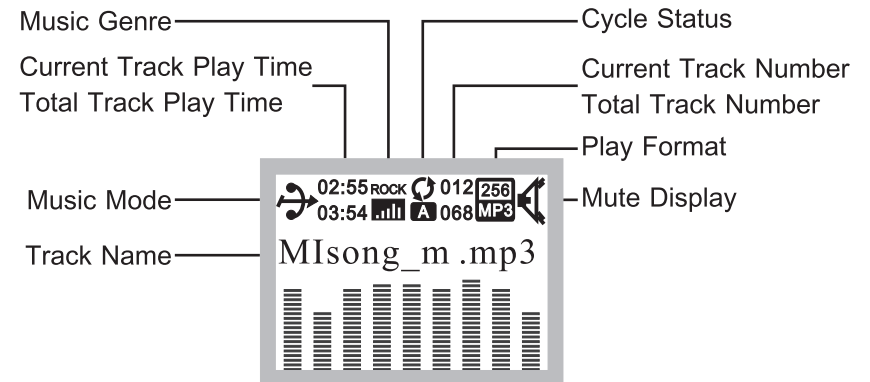


Fig. 6

(B) Press Parameter knob ⑬ to pause track, Fig. 7:

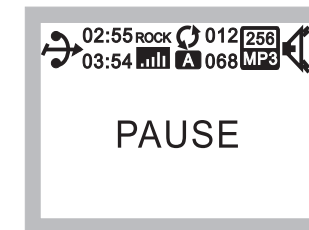


Fig. 7

(C) Audio device is not inserted display, Fig. 8:

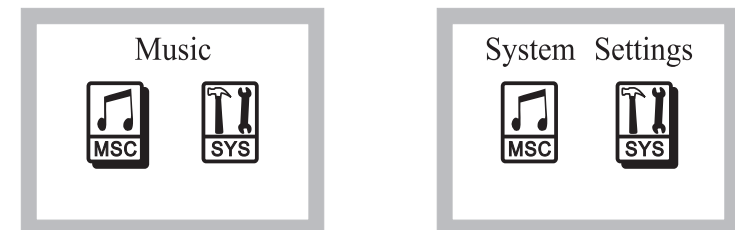


Fig. 8

- (D) Panel Operating Instructions: During track playing, press & hold Parameter knob to enter music parameter selection for changes. Turn Parameter knob right or left to locate the desired parameter. Press to confirm change and save, Fig. 9.
- (E) Remote Operating Instructions: During track playing, press Mode button to enter audio parameter selection for change. Press ◀◀ or ▶▶ to highlight selection. Press ▶ to confirm.



Fig. 9

- (F) Repeat Mode: Turn right or left Parameter knob to select parameters, Fig. 10.

- (1) Repeat All.
- (2) Repeat Folder.
- (3) Repeat Single Track.
- (4) Random.

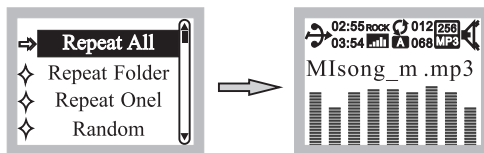


Fig. 10

- (G) Equalizer Mode, Fig. 11:

- (1) Turn right or left Parameter knob to select parameters.
- (2) Press Parameter knob to confirm.
- (3) Natural: Normal → Pop: Popular → Rock: Rock → Jazz: Jazz → Classic: Classical → Soft: Soft → DBB: Deep Bass.

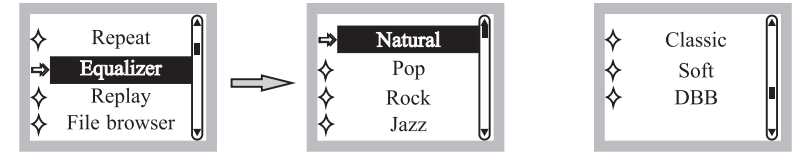


Fig. 11

- (H) Replay Mode, Fig. 12:

- (1) Replay A- / -B mode.
- (2) Press Parameter knob to select parameters.
- (3) Turn right to select A-, starts memory; turn right again to select -B for ending memory. Then it will replay A-B.
- (4) Press Parameter knob to stop Replay Mode and return to playback mode.

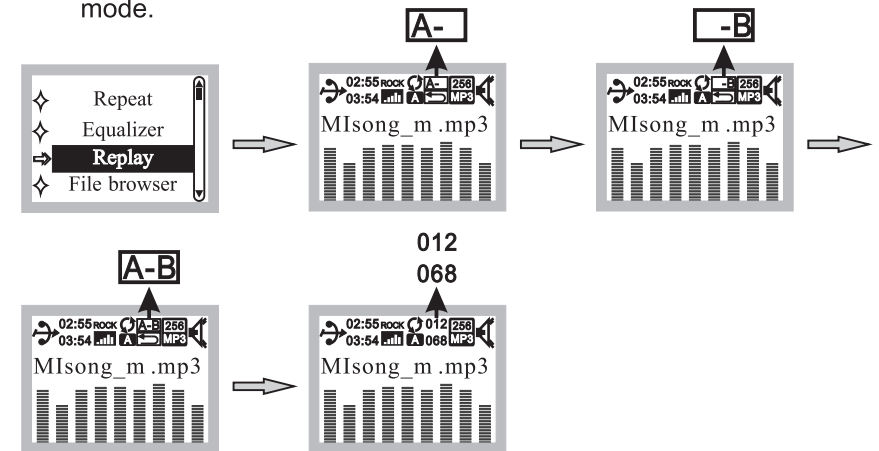


Fig. 12

- (I) File Browser Mode: Press Parameter knob to enter track directory. Turn right or left to select the desired track. Press Parameter knob to play the song tracks, Fig. 13.

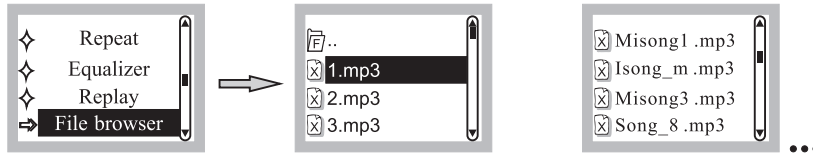


Fig. 13

- (J) Exit: In exit option, press Parameter knob to return to the playback mode, Fig. 14.

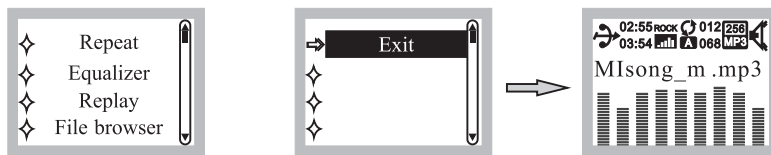


Fig. 14

- (K) Enter the Main Mode: USB flash drive or SD card is not inserted.

- (1) Music Mode: Insert USB flash drive or SD card and press Parameter knob to play music, Fig. 15.

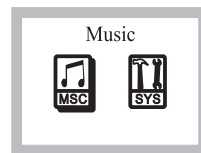


Fig. 15

- (2) System Settings Mode: Turn right or left Parameter knob to change functions, press Parameter knob to confirm and enter system settings, Fig. 16.

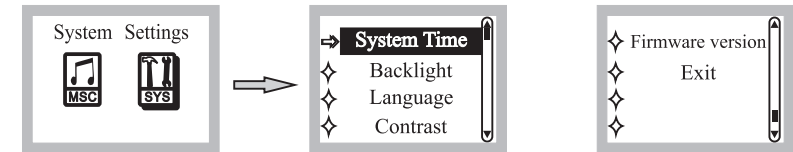


Fig. 16

- (3) Changing Date & Time: Press Parameter knob to enter the System Time setting mode, press Parameter knob to change. Press Parameter knob to confirm, Fig. 17

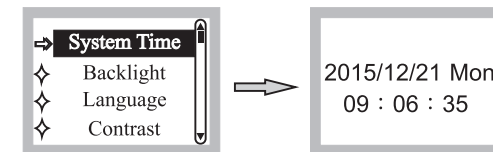


Fig. 17

- (4) Changing Backlight Brightness Time: 00 is constant. The parameter can be set by an interval of 10 seconds between 00 and 240 seconds, Fig. 18.

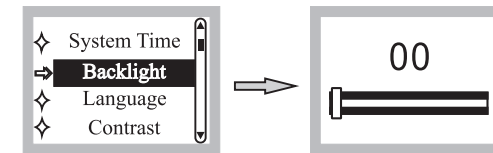


Fig. 18

- (5) Changing Language, Fig. 19.

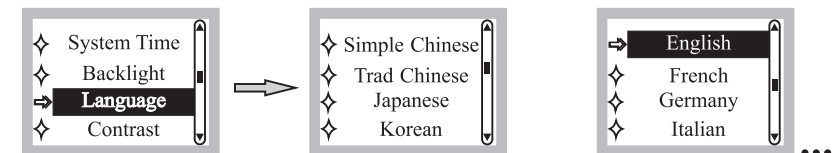


Fig. 19

(6) Changing LCD Contrast, Fig. 20.

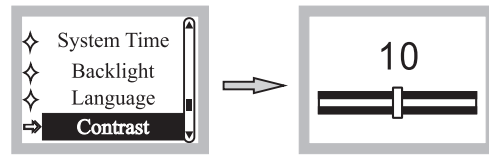


Fig. 20

(7) Firmware Version, Fig. 21.

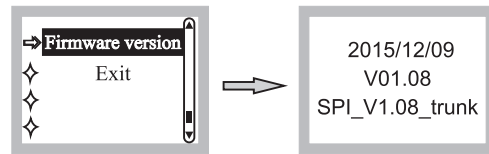


Fig. 21

(8) Exit: Return to Music & System Settings (Main Mode), Fig. 22.

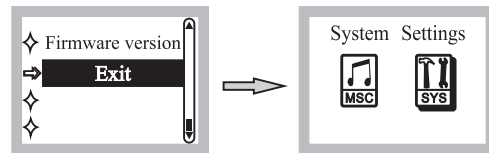


Fig. 22

(L) Directory Selection:

- (1) File Browser: Press Parameter knob during playback and screen displays PAUSE. Press & hold to enter the directory option. Turn right or left to sequentially select the directory option, Fig. 23.

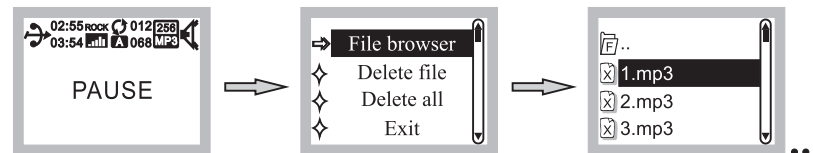


Fig. 23

- (2) Delete File: Press Parameter knob to enter the “Delete file” screen. Turn right or left to select “NO” or “YES”. Press Parameter knob to confirm, Fig. 24.

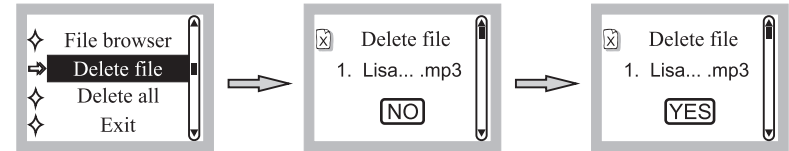


Fig. 24

- (3) Delete All: Press Parameter knob to enter the “Delete all” screen. Press right or left for “NO” or “YES”. Press to confirm, Fig. 25.
- (4) Note: This function will delete ALL files in the flash drive, so careful action is highly recommended.

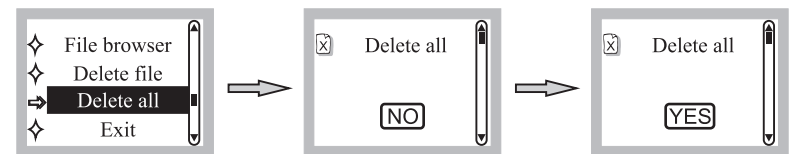


Fig. 25

- (5) Select “EXIT” to return to the PAUSE screen. Press Parameter knob to return to playback mode.



Fig. 26

3. Remote Controls and Indicators, Fig. 27:

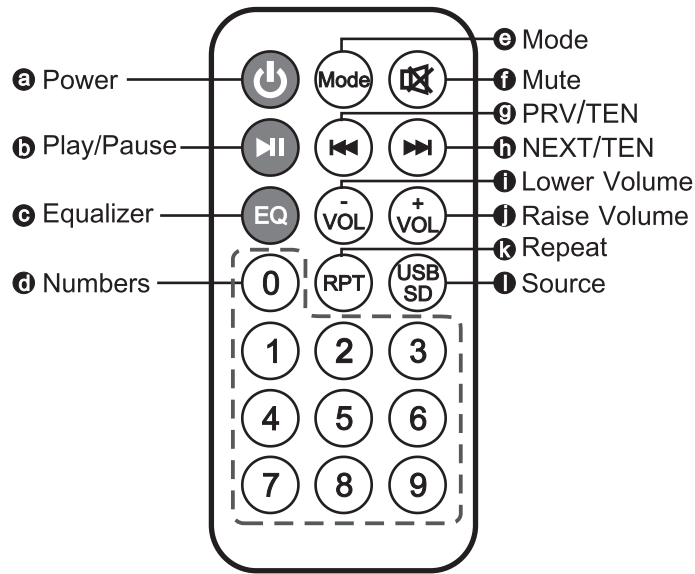


Fig. 27

4. Replacing Remote Control Battery, Fig. 28:

- Press and hold the tenon on the bottom of the remote control and then slide out the battery tray.
- Remove the old battery and insert the new battery in, making sure that the battery's positive (+) side is facing up.
- Slide the battery tray back into the remote control until it clicks.
- The remote control can function at distances of up to 5 meters. The remote control uses CR2025 lithium 3V coin battery.

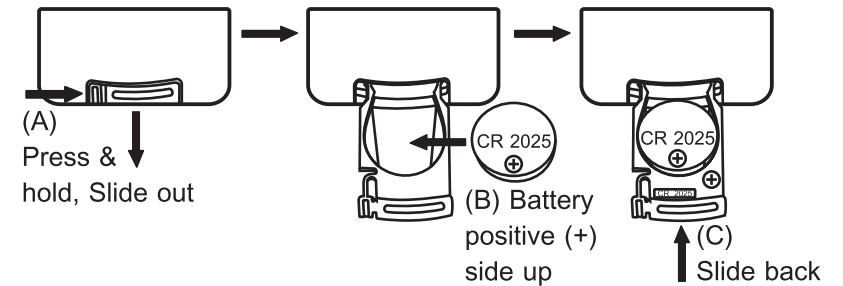



Fig. 28

IV. Rechargeable Battery

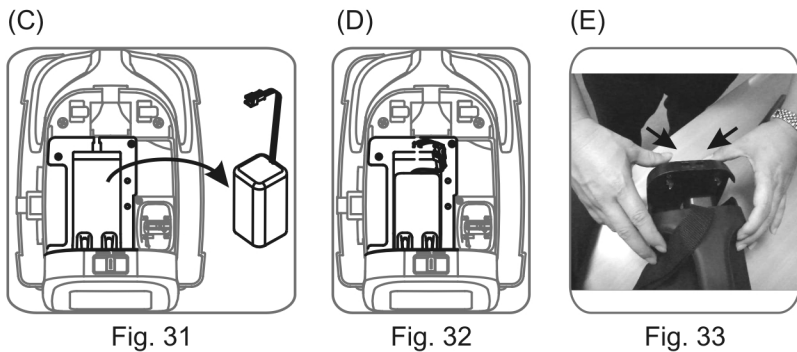
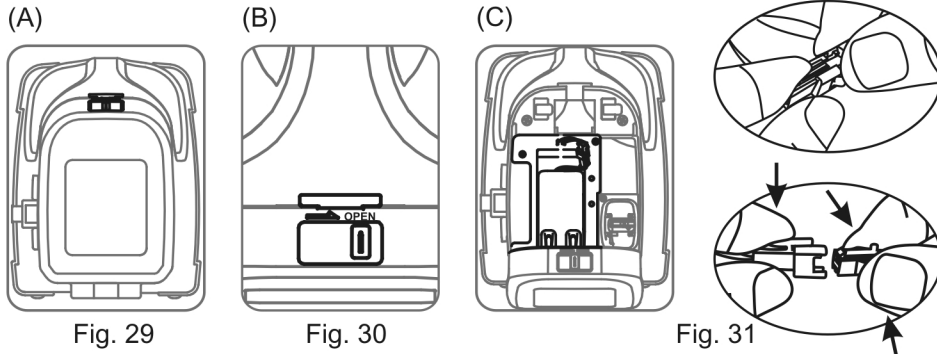
1. Instructions of Charging the Rechargeable Battery:

- (A) Charge the battery completely in its first use to obtain its maximum capacity.
- (B) Connect to any available AC power outlet using the included DC adapter to the DC IN jack.
- (C) The Battery Charging Indicator  LED blinks while charging. Blinking LED may start later if the battery suffers from excessive battery drain. The battery may be damaged if the LED does not blink after charging for a while.
- (D) The battery is low when only the red LED is on. Please recharge the batter for at least 4 hours (the time of charging depends on the type of battery).
- (E) All LED blinking means the battery is charging. Charging completes when all LEDs glow.
- (F) Fully charge the battery for storage if it will not be used for an extended period of time. Battery may lose some capacity overtime. Over-discharged occurs and may damage the battery if not recharged for a long period of time. Thus, it is recommended to recharge often or every 3 months.
- (G) This device has 2 automatic power cut-off functions. Battery display will drop to red color for a period of time during low power status. Power will automatically shut-off to prevent battery operation. Recharge the battery immediately to avoid damage due to over-discharging.
- (H) Change to a new, fresh battery when battery hours are shortened after recharges due to battery aging.

- (I) All rechargeable batteries are consumables and have a limited lifespan, and eventually need to be replaced. A standard lithium battery from MIPRO is recommended to ensure compatibility and performance.

2. Instructions of Changing the Rechargeable Battery

- Place the PA system on a flat surface, Fig. 29.
- Push latch to OPEN position to open battery compartment cover, Fig. 30.
- Detach the connecting battery cable and take out battery module, Fig. 31.
- Insert a new battery module and re-connect the battery cable together, Fig. 32.
- Use both hands to cover up the battery compartment cover securely and in place, Fig. 33.



V. MP3 Player LCD Screen, Fig. 34

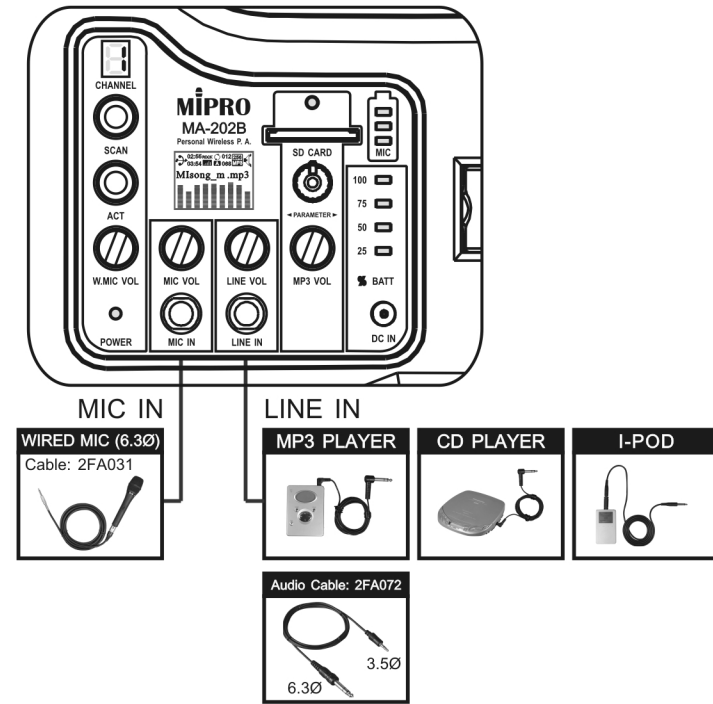


Fig. 34

VI. Insert an USB, Fig. 35

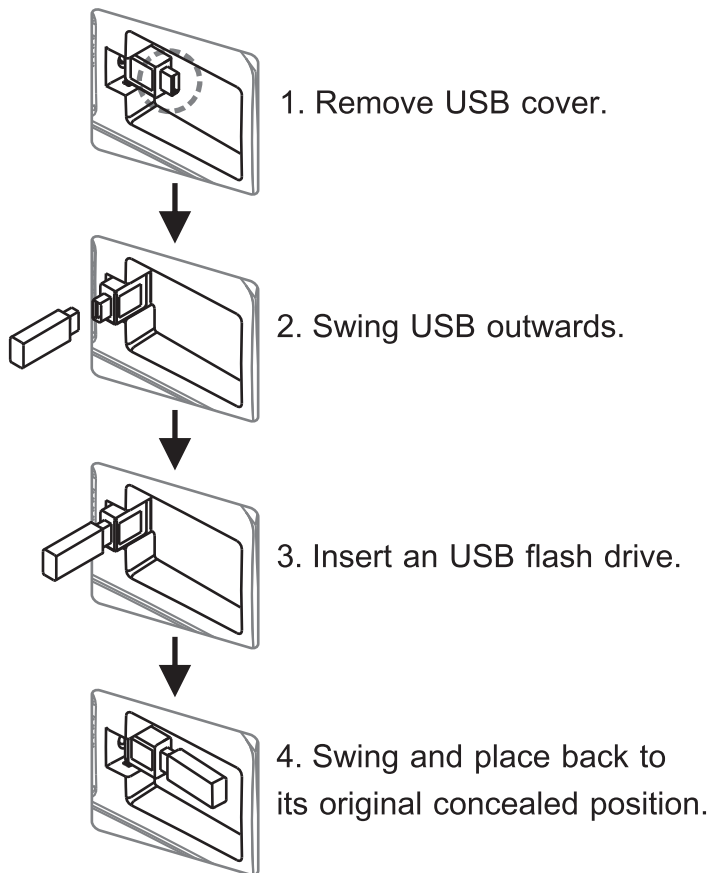


Fig. 35

VII. ACT-222T Parts Names, Fig. 36

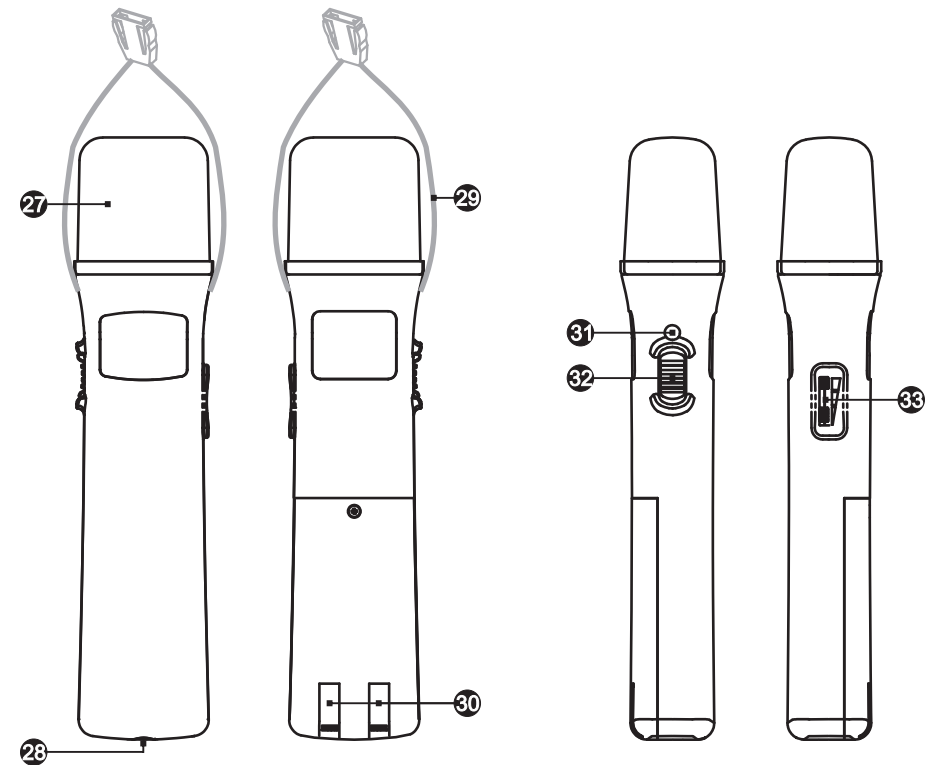


Fig. 36

- 27 Microphone and Microphone Grille
- 28 ACT Sync Window
- 29 Lanyard Hanger
- 30 Charging Contact Points
- 31 Transmitter Power Indicator
- 32 Transmitter Power Switch
- 33 Volume Control

VIII. Operating Instructions

1. Power On:

(A) Power on handheld transmitter microphone. Power indicator glows red and dims.

(B) Charge the transmitter when power indicator glows continuously. Glowing denotes a lower battery status.

2. After Power On:

The power indicator on PA will glow green after transmitter is powered on.

3. Power Off:

Power off the transmitter microphone to conserve battery power when not in use.

4. Caution:

Ensure both receiver and transmitter microphone has the identical frequency codes in order to perform a successful ACT channel sync. Channel cannot be synchronized (paired) with different frequency codes.

5. Neck Lanyard:

Wearing a neck lanyard can be an option when handheld is not possible. Adjust the volume level appropriately before feedback occurs. Feedback occurs when level is turned out excessively, Fig. 37.

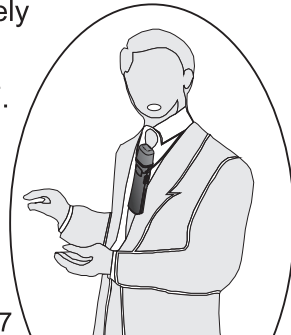


Fig. 37

IX. Charging Handheld Transmitter Microphone, Fig. 38

1. Place the PA system on a flat surface.

2. Open battery cover.

3. Power off the transmitter microphone. Insert into the battery charging slot. Indicators on MIC will glow accordingly.

4. Cover the battery cover for a secured fit.

5. Once charging is completed, it shut-off charging automatically and stops power draining.

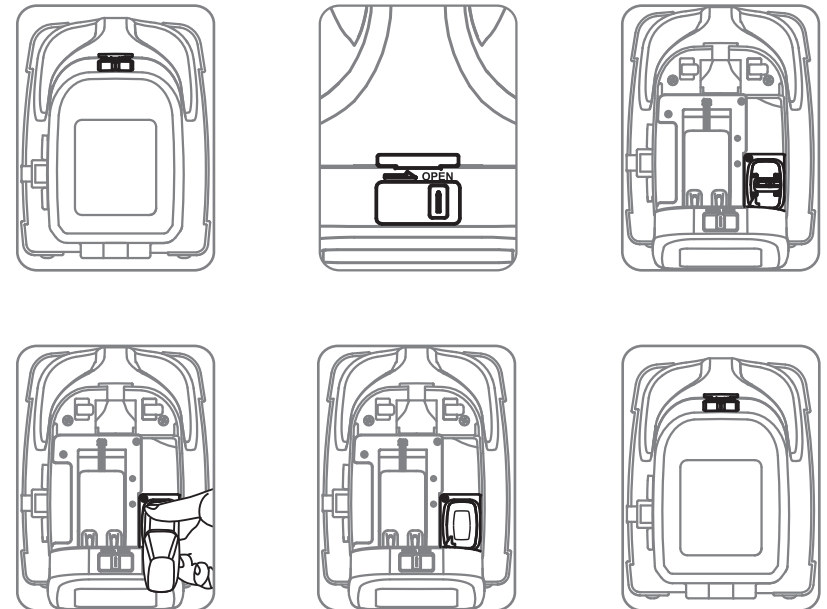


Fig. 38

X. Installation

Can be hand or shoulder carried and install on a microphone tripod stand.

XI. Note

1. Design and specifications are subject to change without prior notice. Refer to actual product in the event of product discrepancy.
2. Frequency range, output power and maximum deviation to adhere to local telecom regulations.