

MIPRO

OPERATING MANUAL

Compact, Mobility, Lightweight, BIG SOUND!

MA-101

Wireless Personal PA Amplifier



MIPRO

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Wireless Portable PA Amplifier

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INTRODUCTION

Thank you for selecting this MIPRO MA-101 Wireless Portable PA Amplifier system. Before operating, please read this instruction manual carefully and thoroughly in order to understand the correct operating procedures to achieve the best results.

Don't be misled by the compact size of this highly efficient portable PA. Lightweight and powerful, it can be hand-carried, shoulder-strapped, set on a flat surface or mounted on a mic stand. Ideal for use in kindergartens or primary schools, places of worship, presentations, seminars, trade shows, auctions, tours, political events or any outdoor/indoor location where good quality speech announcements are a requirement.

Features

- Works with one wired and one wireless microphone. Cable-free for mobility.
- Available in VHF and UHF transmitter works with one or more MA-101 amplifiers. Ideal for small event PA.
- Lightweight and truly portable.
- Powerful and clear sound quality.
- 8 hours continuous operation per charge from its built-in rechargeable battery.
- Connects to portable CD/cassette/DVD/MP3 player or other audio sources to broadcast high quality music over a surprisingly long distance.
- Compatible with handheld, headworn or lavalier mic and guitar input.
- Built-in storage compartments.
- Reduces vocal fatigue.
- Amplified sound increases attention span and improves comprehension.
- Handles crowds of up to 200 people.

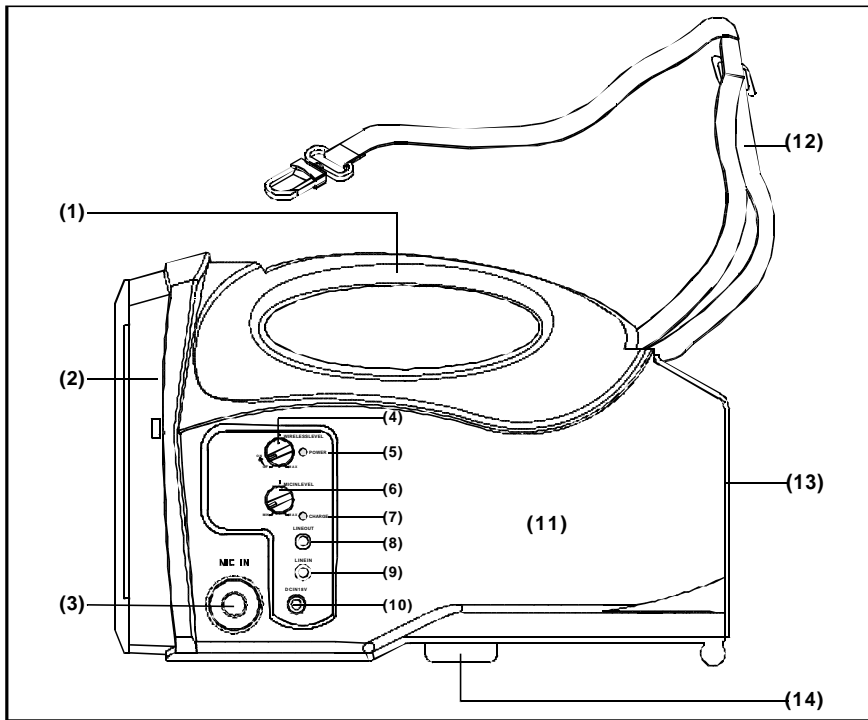
This system includes the following accessories:
 AC/DC Adapter × 1 Instruction Manual × 1

Optional SC-10 carrying bag for MA-101



Wireless Portable PA Amplifier

1. PARTS NAME AND FUNCTIONS



- (1) Fixed Handle: For convenient carrying by hand.
- (2) Speaker: Sound projects in the direction it is pointed.
- (3) Mic-In Jack: Accepts a 6.3mm (1/4" plug wired microphone.
- (4) Power Switch/Volume Control: Turn clockwise past the click for power-on and volume control for the wireless microphone.
- (5) Power Indicator: Red light illuminates when power is turned on to denote normal power status. Green light indicates a RF link (it is receiving signal from the wireless microphone).
- (6) Microphone Volume Control: Volume control for the wired microphone.
- (7) Charging Indicator:
 - a) Red light indicates the battery is weak and needs charging. Charging takes a minimum of 4 hours.
 - b) Green blinking light indicates charging is in progress.
 - c) Solid green light indicates the battery is fully charged.
 - d) This system is equipped with an auto cut-off charger. When the battery is weak (red light), power will cut off automatically to avoid any damage that could be caused by a power over-drain.
- (8) Line Out: Allows you to send audio signal (AF) to an external amplifier.

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Wireless Portable PA Amplifier

- (9) Auxiliary Input Jack: Uses a 3.5mm (1/8" "minijack" plug. Accepts external audio inputs, such as portable cassette/CD/MP3 player.
- (10) DC Power Input Jack: Plug into DC charger (supplied) for battery charging. The inner conductor is positive and should be connected to 18VDC 10%, +2.5A.
- (11) Body: Houses all electronic components.
- (12) Shoulder Carry Belt: May be stored inside the Battery Compartment.
- (13) Battery Compartment: The rechargeable battery is located behind the battery compartment door.
- (14) Microphone Stand Mount: For convenient mounting on a standard 35mm threaded microphone stand.

2. OPERATING INSTRUCTIONS

- (1) Personal Wireless PA System
 - a) Turn on Power Switch / Volume Control (4). Red light (5) should illuminate.
 - b) Turn on wireless transmitter. Green light (5) should illuminate.
 - c) Adjust volume level (4) clockwise to desired loudness.
 - d) One wireless microphone can simultaneously transmit to multiple MA-101 units receiving on the same frequency. However, multiple wireless microphones of the same frequency cannot transmit to an MA-101 receiver on that same frequency. For example, if you have both a hand-held wireless microphone and a body-pack transmitter on the same frequency, be sure to switch off one of the two to avoid severe interference between them!
- (2) Battery Charging Procedures:
 - a) Please make sure the built-in rechargeable batteries are fully charged before and after use. The battery itself will gradually self-discharge over a long period of time. Therefore, if the system will not be used for a long period of time, please make sure the batteries are fully charged before storing them properly. The Company warranty DOES NOT apply to over-discharged batteries; hence, please ensure the batteries are recharged every 3 months.
 - b) Simply plug the connector of the supplied DC adapter to the DC 18V Power Input Jack (10) and plug the other end into any available AC socket.
 - c) Charging begins immediately, and will be indicated by a flashing green LED. If the green LED is not flashing, it may be due to excessive power over-drain and it may take longer for the green LED to flash. This is normal and not faulty. If, after a while, there is still no flashing green LED, the rechargeable battery may be faulty.
 - d) If a battery replacement is needed, open the battery compartment and exchange the faulty battery for a new one. Be sure to insert the battery with the right polarity connection.
 - e) The battery is an expendable item and not covered by warranty. Under normal operation MIPRO offers a one-year limited warranty on the unit ONLY.
 - f) If you experience a short operating time after the batteries are fully charged, it is often an indication of aging batteries. Therefore, the rechargeable battery should be replaced as soon as possible at your earliest convenience.

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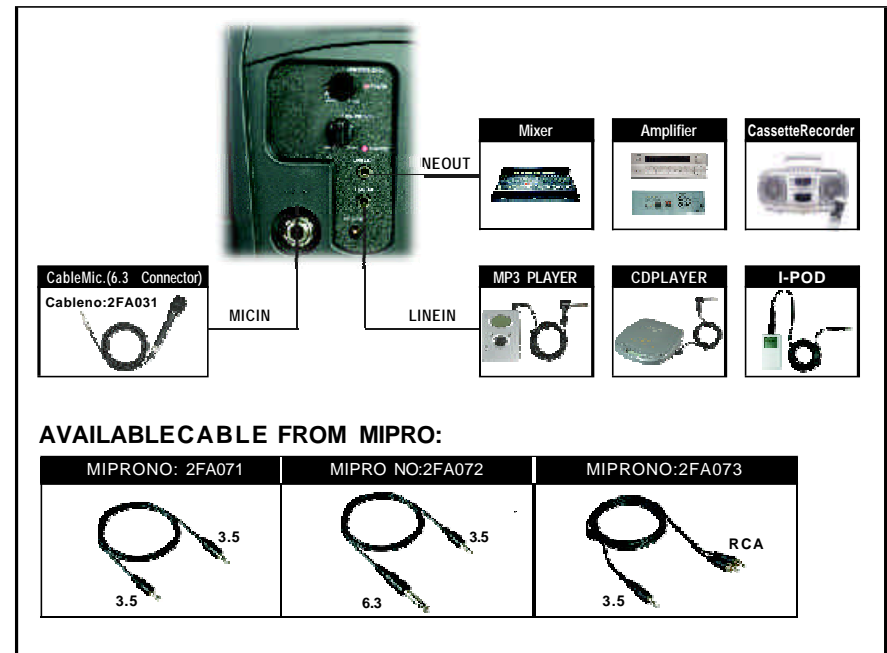
Wireless Portable PA Amplifier

- (3) Auxiliary In
 - a) Connect a line-level source, such as portable cassette/CD/MP3 player into the Aux input jack (9).
 - b) Turn on the PA system (4) and adjust volume as desired.
- (4) Installation
 - a) Hand Carrying: Remove the shoulder belt (12) and store in the Battery Compartment (13) directly above the battery. Use the Fixed Handle for transport.
 - b) Shoulder Carrying: Remove the shoulder belt (12) from the Battery Compartment (13) and hook the connector around the rod on top of the unit, between the Fixed Handle and the Speaker.
 - c) Mic Stand Mounting: The MA-101 will fit directly on top of a mic stand using the threaded mount (14) with no additional hardware. Simply align the hole with the protruding end of the mic stand and thread it on the stand.
- (5) Wired Microphone Instructions
 - a) Turn on Power Switch / Volume Control (4). Red light (5) should illuminate.
 - b) Plug a wired microphone into the Mic In Jack (3). Turn on the Wired Microphone Volume Control (6).
 - c) Turn clockwise for desired loudness (6).
 - d) The MA-101 allows simultaneous usage of both wired and wireless microphones.
- (6) AF Output

Allows the user to connect the MA-101 to an external amplifier with high power output. Connect to the Mic Input or Line Input on the amplifier. Use the Power Switch / Volume Control (4) to control the volume level.

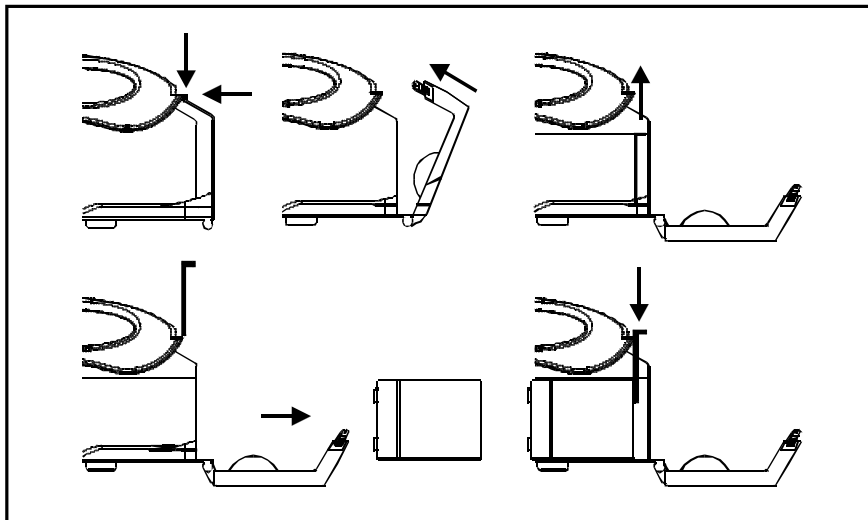
Wireless Portable PA Amplifier

3. CONNECTION TO EXTERNAL AUDIO SOURCES:



4. REPLACING THE MA-101 BATTERY

With proper care and charging, it is unlikely that it will be necessary to replace the MA-101 battery for some time. However, there is an access panel provided for this purpose. If extended periods of use are required without time to recharge the battery, you may wish to have a second battery fully charged and ready to install and use once the existing one is drained. The battery is a standard 12V/2.7Ah gel cell and is available from MIPRO.

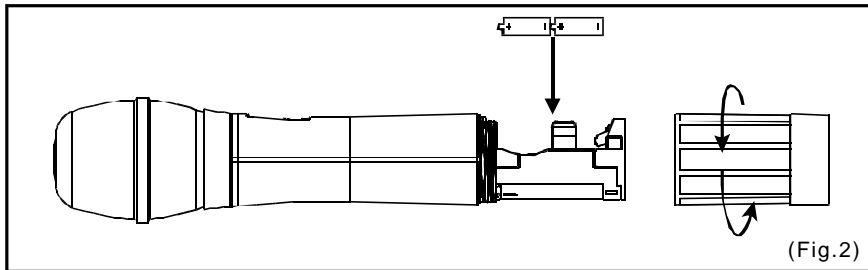


1. Lay the PA system on a flat surface.
2. Press down on the two fasteners at the top of battery compartment. The compartment door will now swing down on its hinge.
3. Remove the interior rear panel of the battery compartment by sliding it up. Use caution, as the battery may "spring" forward when you release this panel. Carefully remove the battery.
4. Insert a fully charged battery, observing the correct polarity. The two terminals on the battery should be near the top of the battery with the printed side near up. This alignment corresponds with the springs and terminals inside the unit.
5. Press the battery into the unit, holding it firmly against the springs, while sliding the rear panel back into space. This may require two hands.
6. Close the battery compartment door. Lift up on the two fasteners until they "click" into place.

5. SPECIFICATIONS:

Spec	Model	MA-101
RX	Carrier Frequency Range	UHF 600-950MHz
	Oscillation Mode	PLL
	Max. Deviation	40KHz
	Antenna	Built In
	Sensitivity	6dBmV at S/N > 70dB
Power Output		27W(RMS)/4 (load)
T.H.D.		< 1%
Frequency Response		50Hz-15KHz ± 3dB
Audio Input		Built-in wireless receiver, 1/4" mic and line-in jacks
Speaker		Built-in 5 inch high sensitivity full range speaker
Operation Mode		Direct operation on speaker unit
Power Supply		12/2.7AH rechargeable battery and intelligent charger with 90-260V AC adapter
Charging Time		4 hours (Automatic rechargeable battery management)
Operating Time		8 hours talktime
Dimensions (m/m)		285(L) x 160(W), 178(H)
Weight		3 Kgs (with battery)
Exterior Colors		Black
Approvals & Patent		New style patents; Telecom and safety regulations approved
Note		Various specifications on carrier frequency ranges, maximum deviations and RF output power comply with the regulations of different countries.

2. BATTERY INSERTION

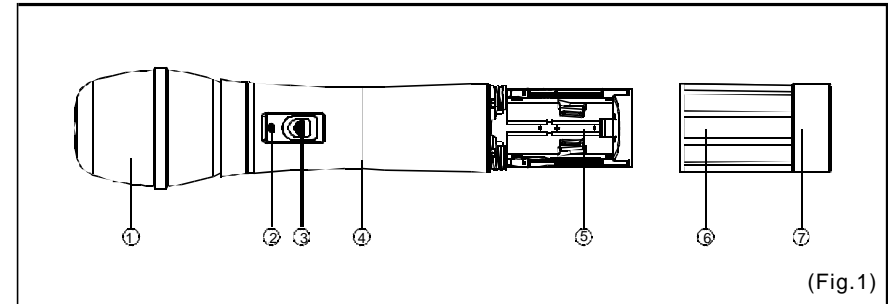


1. Unscrew battery cap (6) in a counter-clockwise direction.
2. Insert two 1.5V(AA) battery into the battery compartment observing the correct polarity. The moment the battery touches the terminals of the compartment, the indicator will flash briefly. This means the polarity is correct. However, if no flash occurs, this indicates wrong insertion or battery is dead. Please re-insert the battery observing its correct polarity or change to a fresh battery.

3. OPERATING INSTRUCTIONS

1. When microphone is switched on:
At the moment of the power is switched on, the indicator will flash briefly indicating normal operation.
 - (a) **When power on:**
SIGNAL LED indicator of receiver glows.
 - (b) **After power on:**
More LED indicators shows received signal strength is strong.
 - (c) **During Usage:**
AUDIO LED displays received AF level from the microphone.
 - (d) **When the microphone is not in use:**
Make sure the power of the microphone is off. If the microphone will not be used for some time, please remove the batteries from the battery compartment to avoid battery leakage and result in damaged battery springs and circuit. If a rechargeable battery was used, take it out and recharge it.

Latest modularized microphone structure. Built-in "NoiseLock" squelch circuitry eliminates "pop" interference.



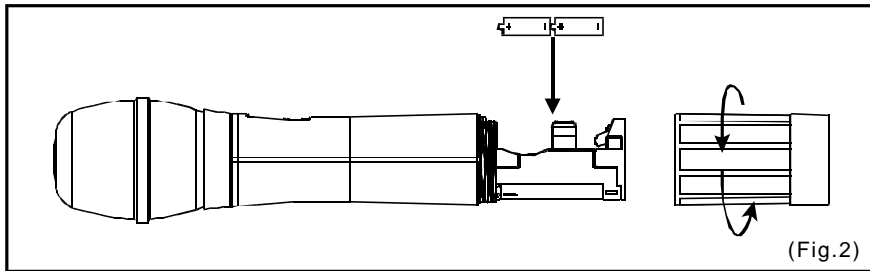
1. PARTS NAMES AND FUNCTIONS

1. Grille: Protects cartridge and prevents "POP" noise.
2. Battery Status Indicator: Indicates power on / off and the battery status. When the power switch is turned ON, the red LEDs indicator flashes briefly, indicating normal battery status. If no flash occurs, it means either no battery power or the battery is discharged or installed incorrectly. If the indicator stays lit after powering on, it warns the battery power is low and should be replaced.

PUSH KNOB UPWARD TO TURN ON AND DOWNWARD TO TURN OFF TRANSMITTER.

3. Power On-off Switch: Slide the switch for power "ON" or "OFF".
4. Housing: Upper portion is connected to capsule module and battery. Internally, it holds transmitter PCB.
5. Battery Compartment: Designed to accommodate one 9V battery.
6. Battery Cap: Covers the battery compartment.
7. Anti-roll Ring: For frequency differentiation.

2. BATTERY INSERTION

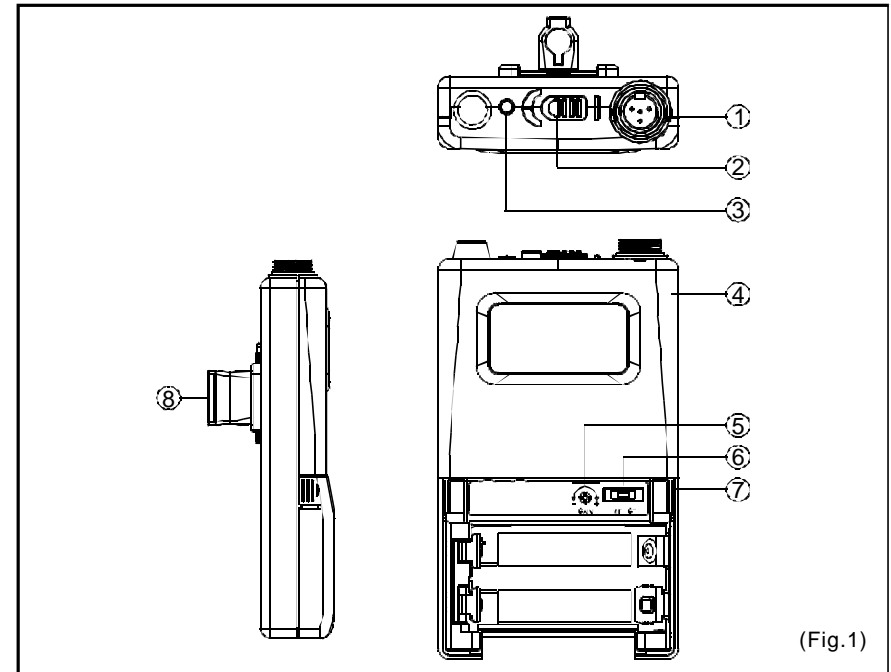


1. Unscrew battery cap (6) in a counter-clockwise direction.
2. Insert two 1.5V(AA) battery into the battery compartment observing the correct polarity. The moment the battery touches the terminals of the compartment, the indicator will flash briefly. This means the polarity is correct. However, if no flash occurs, this indicates wrong insertion or battery is dead. Please re-insert the battery observing its correct polarity or change to a fresh battery.

3. OPERATING INSTRUCTIONS

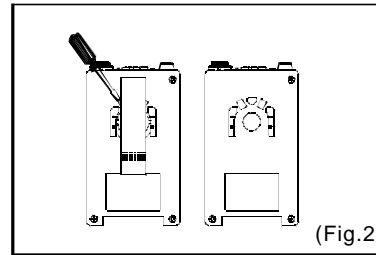
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Make sure the power of the microphone is off. If the microphone will not be used for some time, please remove the batteries from the battery compartment to avoid battery leakage and result in damaged battery springs and circuit. If a rechargeable battery was used, take it out and recharge it.

1. PARTS NAMES AND FUNCTIONS



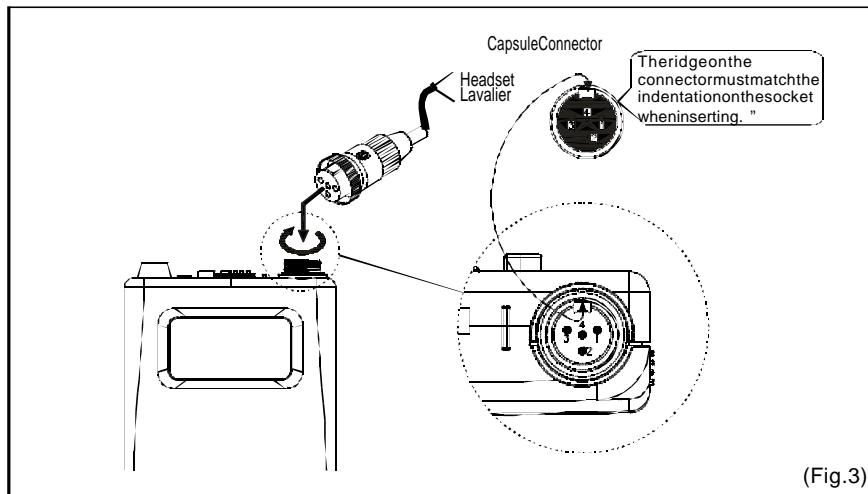
1. AF Input Jack: Connects to a lavalier or headset microphone. (See 5 ways of connection on AF Input Connections)
2. Power Switch: Switch to ON position for operation. Switch to OFF position when not in use.
3. Battery Status Indicator: Indicates the power on / off and battery status.
 - (a) When power switch is turned on: The LED indicator flashes briefly, indicating normal battery status.
 - (b) When RED light illuminates at either power on or during usage: The battery level is low, therefore, a new battery replacement is thus necessary.
4. Transmitter Housing: Packages the PCB and battery.
5. Gain Control: Adjusts the desired input gain.
6. GT/MT Level Selector: Switch GT position for electric guitar usage ONLY. Gain Control is irrelevant for "GT". Switch to "MT" for condenser microphone, wired microphone. Gain Control works in "MT" for input sensitivity adjusting.
7. Battery Compartment and Cover: Accommodates two 1.5V(AA) batteries.

8. Detachable Belt Clip: Allows 360 degrees rotating to suit transmitting angles. To detach simply use a screwdriver at a 45 degree angle to unfasten. see diagram.

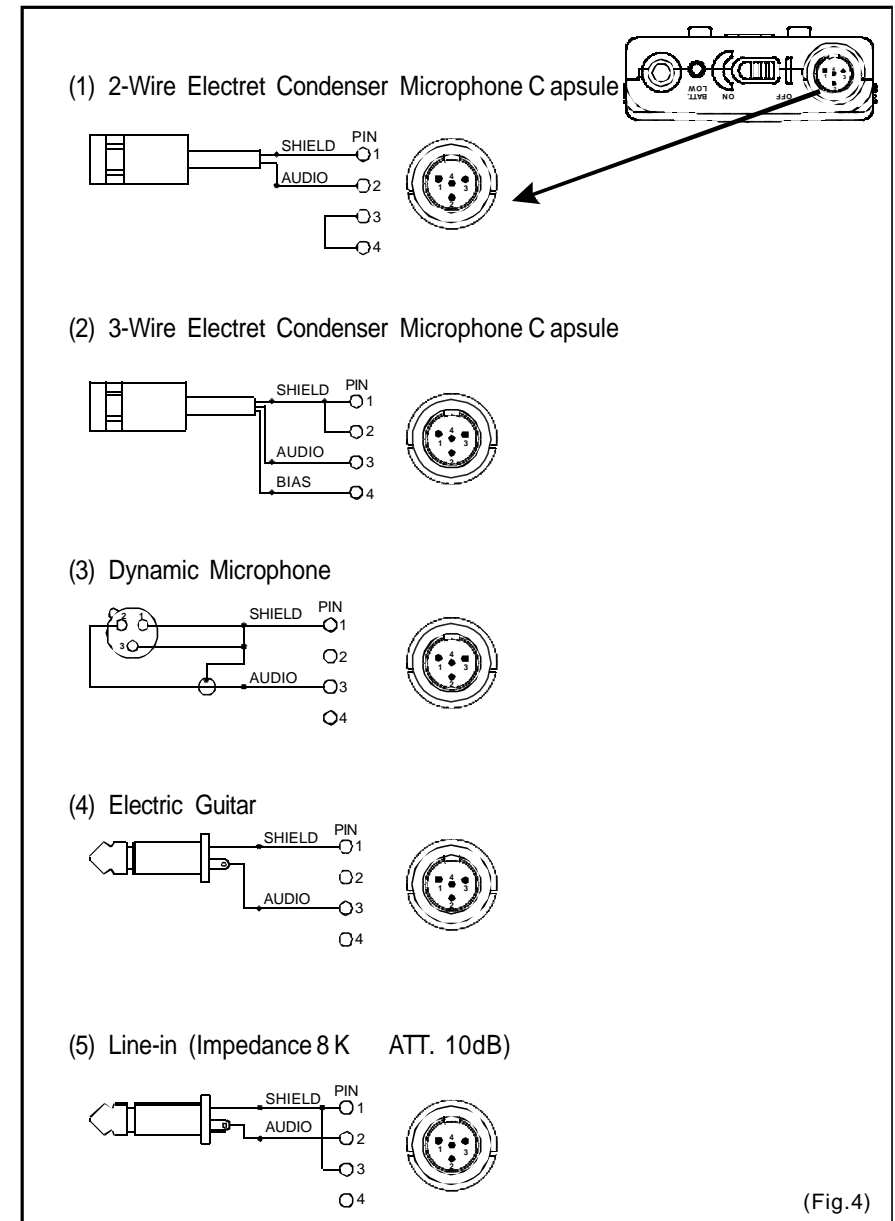


2. OPERATING INSTRUCTIONS

1. To adjust volume (5), GT/MT Switch (6), simply push down both snap locks on the sides of battery cover and flip it backwards to expose the adjustment panel.
2. The LED indicator flashes briefly when power on indicating normal battery status. If no flash occurs it has either no battery, the battery is drained or installed incorrectly. Change accordingly.
3. Adjust Gain Control to desired volume. (Gain Control is irrelevant when switch to G T position).
4. Plug the microphone connector into the input jack (1) and tighten the connector screw by clockwise direction as shown in (Fig. 3).

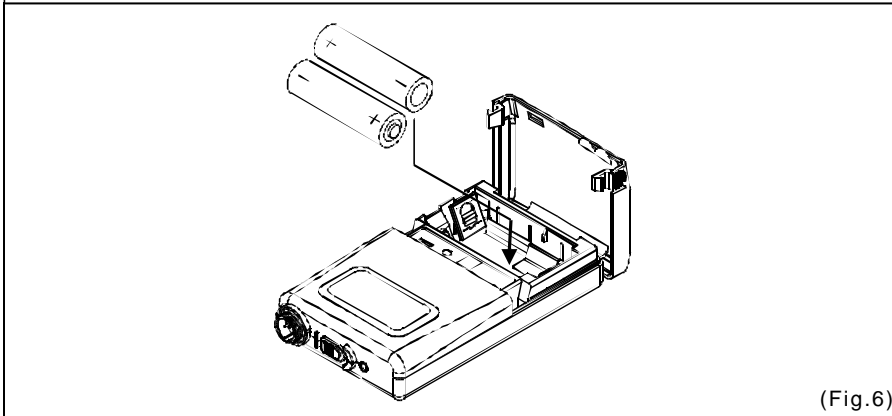
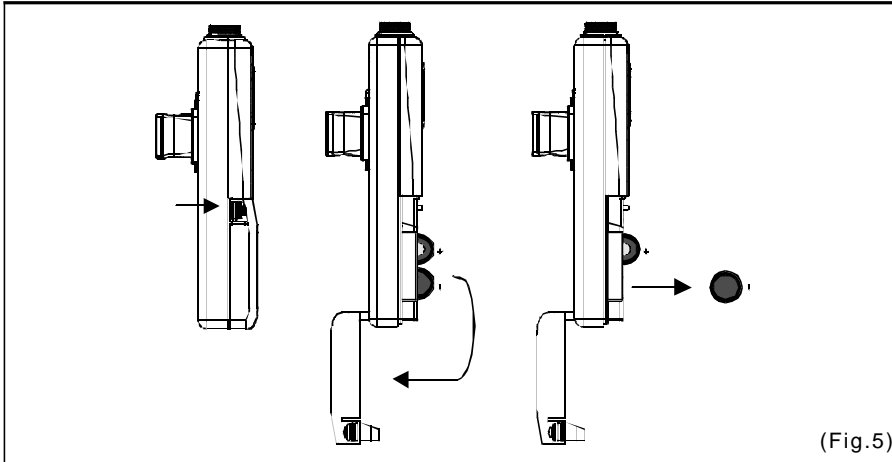


3. AF 4-PIN INPUT CONNECTION METHODS



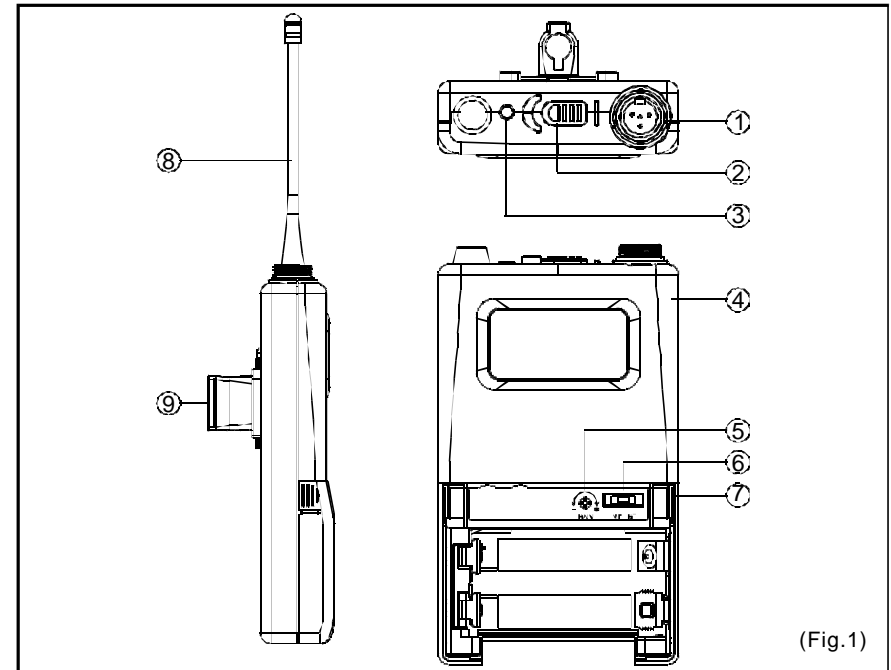
4. BATTERY INSTALLATION

1. Pushing down both snap locks on the sides of battery cover to open battery cover. Take out the batteries. (Fig.5).
2. Insert a two 1.5(AA) batteries into the battery compartment according to the correct polarity as shown in Fig. 5). Then push up to close the battery compartment as shown in Fig. 6).



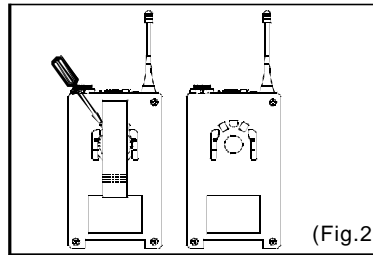
PS: When the microphone is not in use: Make sure the power of the microphone is off. If the microphone will not be used for some time, please remove the batteries from the battery compartment to avoid battery leakage and result in damaged battery springs and circuit. If a rechargeable battery was used, take it out and recharge it.

1. PARTS NAMES AND FUNCTIONS



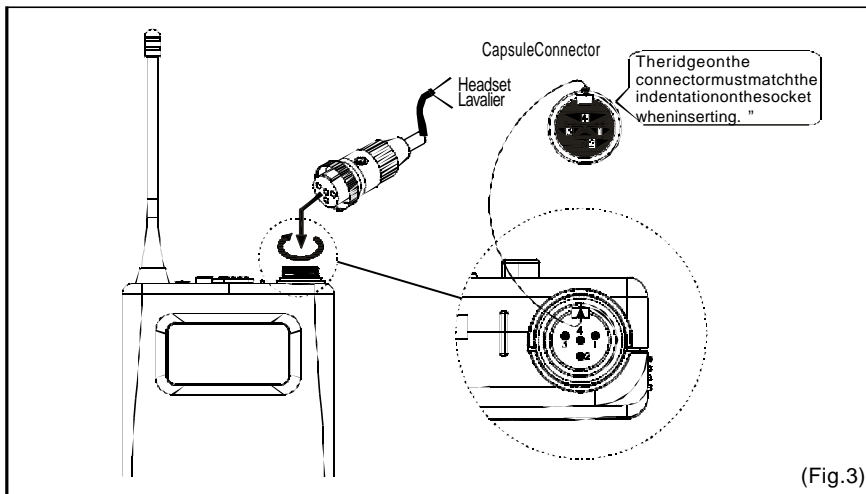
1. AF Input Jack: Connects to a lavalier or headset microphone. (See 5 ways of connection on AF Input Connections)
2. Power Switch: Switch to ON position for operation. Switch to OFF position when not in use.
3. Battery Status Indicator: Indicates the power on / off and battery status.
 - (a) When power switch is turned on: The LED indicator flashes briefly, indicating normal battery status.
 - (b) When RED light illuminates at either power on or during usage: The battery level is low, therefore, a new battery replacement is thus necessary.
4. Transmitter Housing: Packages the PCB and battery.
5. Gain Control: Adjusts the desired input gain.
6. GT/MT Level Selector: Switch GT position for electric guitar usage ONLY. Gain Control is irrelevant for "GT". Switch to "MT" for condenser microphone, wired microphone. Gain Control works in "MT" for input sensitivity adjusting.
7. Battery Compartment and Cover: Accommodates two 1.5V(AA) batteries.

8. Transmitting Antenna: 1/ 4 transmitting antenna.
9. Detachable Belt Clip: Allows 360 degrees rotating to suit transmitting angles. To detach simply use a screwdriver at a 45 degree angle to unfasten. see diagram.



2. OPERATING INSTRUCTIONS

1. To adjust volume (5), GT/MT Switch (6), simply push down both snap locks on the sides of battery cover and flip it backwards to expose the adjustment panel.
2. The LED indicator flashes briefly when power on indicating normal battery status. If no flash occurs it has either no battery, the battery is drained or installed incorrectly. Change accordingly.
3. Adjust Gain Control to desired volume. (Gain Control is irrelevant when switch to G T position).
4. Plug the microphone connector into the input jack (1) and tighten the connector screw by clockwise direction as shown in (Fig. 3).



3. AF 4-PIN INPUT CONNECTION METHODS

