

Instruction Manual

MIPRO

MA-101 PERSONAL WIRELESS PA SYSTEM



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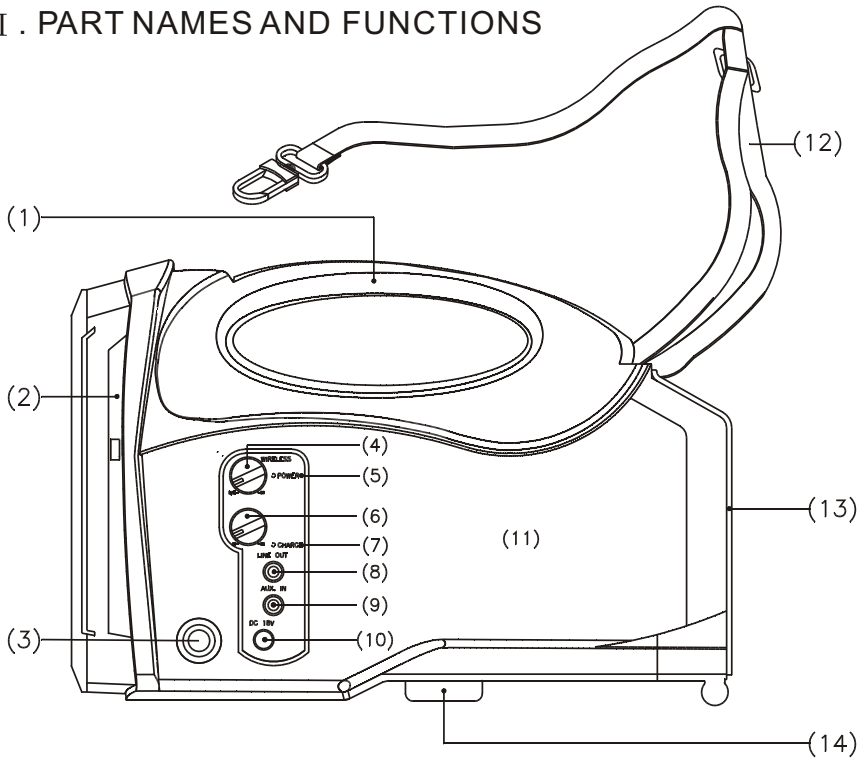
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Personal Wireless PA System

Many thanks for your purchasing the MIPRO's wireless multi-purpose PA system. Before using, carefully read this manual in order to understand the correct operating methods and achieve the best result.

I. PART NAMES AND FUNCTIONS



(Fig.1)

- (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 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).
- (6) Microphone Volume Control: Volume control for the wired microphone.
- (7) Charging Indicator:
 - ① Red light indicates the battery is weak and needs charging. Charging takes minimum 4 hours.
 - ② Green blinking light indicates charging is in progress.
 - ③ Solid green light indicates the battery is fully charged.
 - ④ This system is equipped with auto cut-off charger. When battery is weak (red light), power will cut-off automatically to avoid any damages that could cause by power over-drain.
- (8) Line Out: Allows you to send audio signal (AF) to an external amplifier.
- (9) Auxiliary Input Jack: Uses 3.5mm "minijack" plug. Accepts external audio inputs, such as portable cassette and CD players.
- (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.

II. OPERATING INSTRUCTIONS

(1) Personal Wireless PA System

- a) Power on Power Switch / Volume Control (4). Red light (5) should illuminate.
- b) Power 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-101s 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 the unused transmitter to avoid severe interference between the two!

(2) Battery Charging Procedures:

- a) Please make sure the inbuilt rechargeable batteries are fully charged before and after use. Battery itself has such a special characteristic of self-discharging gradually 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. 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 an 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 takes longer for the green LED to flash. This is normal and not faulty. If after a while and still no flashing green LED, the battery may be faulty.
- d) If a battery replacement is needed, open the battery compartment and exchange with a new battery. Insert the battery with the right polarity.
- e) Battery is an expendable item. Under normal operation, MIPRO offers one year limited warranty.
- f) When experiencing short operating time after batteries are fully charged, it is often a sign with aging batteries. Both rechargeable batteries must be replaced at your earliest convenience.

(3) Auxiliary In

- a) Connect a line-level source, such as portable cassette or CD player into the Aux input jack(9).
- b) Power on PA system (4) and adjust for volume loudness.

(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 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 hold with the protruding end of the mic stand and thread it on the stand.

(5) WIRED MICROPHONE INSTRUCTION METHODS

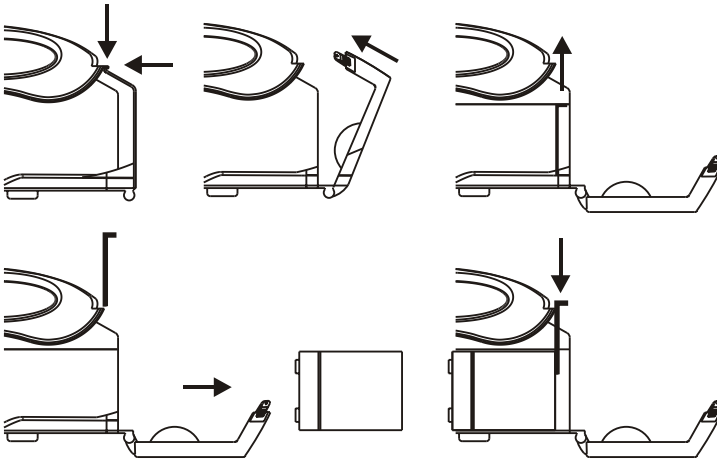
- a) Power on Power Switch / Volume Control (4). Red light (5) should illuminate.
- b) Plug a wired microphone into the Mic In Jack (3). Power on Wired Microphone Volume Control (6).
- c) Turn clockwise for desired loudness (6).
- d) Allow simultaneous usage of both wired and wireless microphones.

(6) AF Output

Allows one connecting to an external amplifier with high power output. Connect to the Mic Input or Line Input on the amplifier. Use Power Switch / Volume Control (4) for desired loudness.

III. REPLACING THE MA-101 BATTERY

With proper care and charging, it is unlikely that it will be necessary to replace the MA-101 battery. 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/2.7A 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, observed the correct polarity. The two terminals on the battery should be near the top of the battery with the printed side 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.

IV. Systems and Specifications:

A. MA-101 Personal Wireless PA Systems:

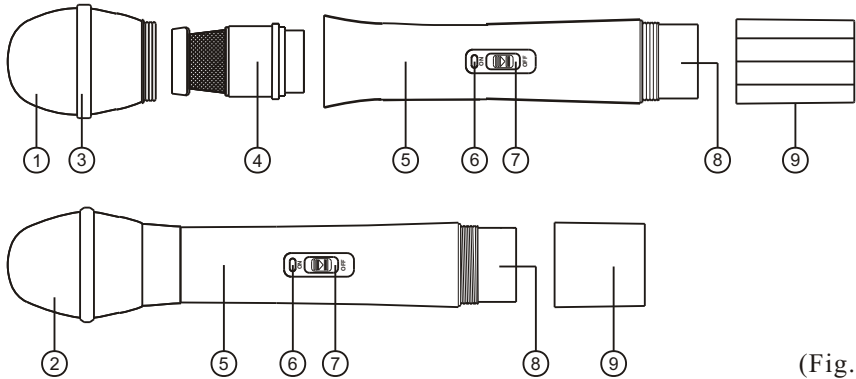
1. MA-101 Wireless PA System matching with handheld wireless microphone
2. MA-101 Wireless PA System matching with lavalier wireless microphone
3. MA-101 Wireless PA System matching with headworn wireless microphone

B. MA-101 Primary Specifications:

Model Spec		MA-101 VHF Wireless System	MA-101 UHF Wireless System
TX & RX	Carrier	VHF 160~250MHz	UHF 782~960MHz
	Oscillation Mode	Quartz-Controlled	Quartz-Controlled
	Max. Deviation	15KHz	40KHz
	Antenna	Built In	Built In
	Sensitivity	12dBmV at S/N> 80dB	6dBmV at S/N > 70dB
Power Output		27 W (RMS) / 4 WΩ (load)	27 W (RMS) / 4 WΩ (load)
T.H.D.		<1 %	<1 %
Frequency Response		50Hz-15KHz±3dB	50Hz-15KHz±3dB
Audio Input		Built-in wireless receiver and Line-in socket	Built-in wireless receiver and Line-in socket
Speaker		Built-in 5 inch high sensitivity Full range speaker	Built-in 5 inch high sensitivity Full range speaker
Power Supply		12/2.7AH rechargeable battery and intelligent charger with 90~260V AC adapter	12/2.7AH rechargeable battery and intelligent charger with 90~260V AC adapter
Charging Time		4 hours (Automatic rechargeable battery management)	4 hours (Automatic rechargeable battery management)
Operating Time		8 hours talk time	8 hours talk time
Dimension(m/m) (inch)		285(L) x 160(W), 178(H) 11.2(L) x 6.3(W) x 7.0(H)	285(L) x 160(W), 178(H) 11.2(L) x 6.3(W) x 7.0(H)
Weight		2.95 Kgs /6.5 lbs. (with battery)	2.95 Kgs (with battery)
Exterior Colors		Black	Black
Patent		Patented	Patented

HANDHELD WIRELESS MICROPHONE

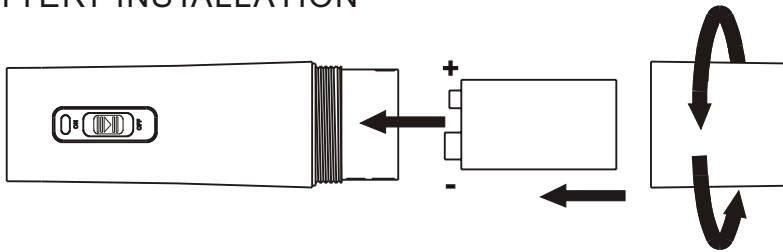
PART NAMES AND FUNCTIONS



(Fig.1)

1. Grille & Screen Assembly: Protects the mic capsule from structural damage as well as "POP" noise.
2. Capsule Module: It is mainly for protecting the capsule and eliminating the "POP" sound. This is the main component to transform sound into AF.
3. Anti-Roll Color Ring: Molded polygon shape prevents rolling on flat surfaces. A variety of colors are available to make Transmitter identification easy, even at a distance.
4. Microphone Cartridge: Transforms the acoustic signal into an electric signal.
5. Housing: Durable rubber velvet finish for handling comfort. Upper portion to be connected to capsule module. Internally, it holds transmitter PCB and battery compartment.
6. Battery Status Indicator: A brief flash at turn-on indicates that the battery is OK. No flash at turn-on indicates that the battery is either drained or not installed correctly. After power-on, a constant glow indicates a weak battery that should be replaced.
7. Power On-off Switch: Slide up to turn the Transmitter on and slide down to turn the Transmitter off.
8. Battery Compartment: Accepts a standard/universal 9-volt any type of battery.
9. Battery Cap: Unscrew battery cap in a counter clockwise direction to provide access to the Battery Compartment.

BATTERY INSTALLATION



(Fig.2)

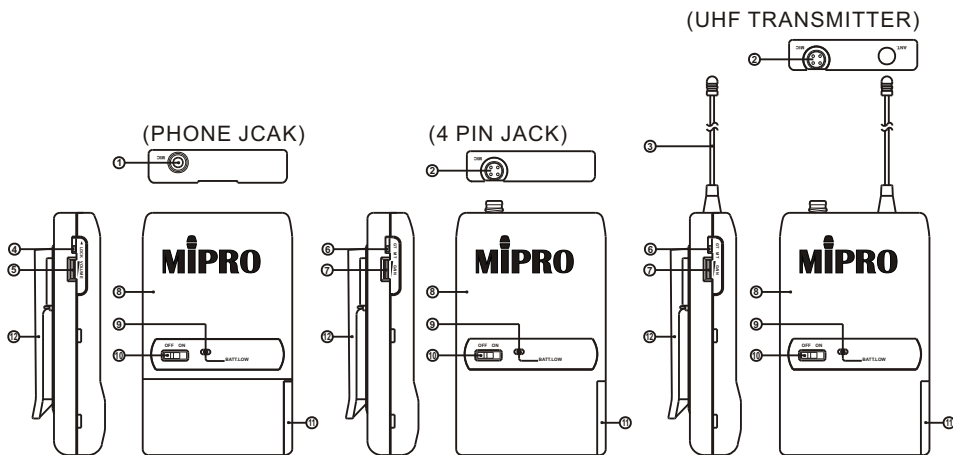
1. Carefully unscrew, in a counter-clockwise motion, the Battery Cap (9) from the Housing to export the Battery Compartment.
2. Insert a 9-volt battery, taking care to observe the correct polarity.
3. Screw the Battery Cap back into place turning clockwise, taking care not to force the turns or cross-tread.
4. If polarity is inserted correctly, the battery status indicator lamp(6) will flash briefly when the mic is turned on. If no flash is observed, then it is likely the polarity is incorrect or the battery is dead.

OPERATION

1. Battery Status Indicator: will flash briefly when the microphone is turned on to denote normal status.
2. The Power Indicator on the PA system will turn from red to green after the microphone is turned on to denote normal status.
3. Power off the microphone when not in used to extend the life span of the battery. Take out the 9-volt battery when certain it will not be use for an extended period of time to avoid leaking of conductive battery liquid and damage the battery spring and its internal PCB.

Body Pack Transmitter

I PARTS NAMES AND FUNCTIONS



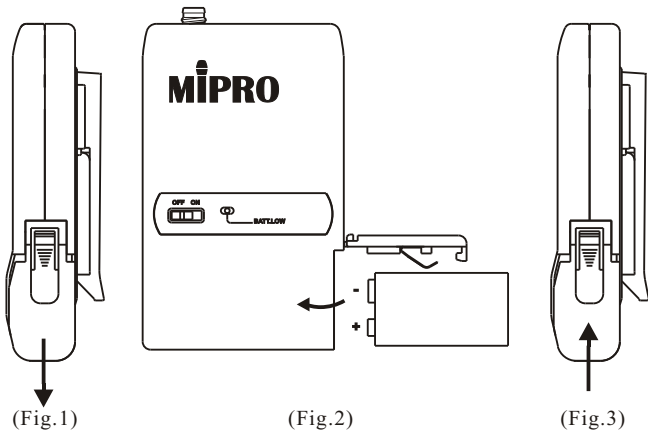
(Fig.2)

1. Audio Input Connector: Phone-jack connector accepts lavalier and head worn microphones.
2. Audio Input Connector: 4-pin MIPRO connector accepts a variety of input levels (consult the 5 audio input connection wiring detail. Diagram 3).
3. Transmitter Antenna: 1/4 transmitting antenna.
4. Fixed Volume Switch: When slide up, it will lock the volume at fixed level.
5. Volume Control: Adjusts the volume level.
6. GT/MT Level Selector Switch: Set this switch to GT (Guitar) position if you are connecting to the output of an electric guitar. Set the switch to the MT (microphone) position for all other connections.
7. Input Gain Control: Works only in the MT (microphone) position, giving the user input level control.
8. Transmitter Housing: Lightweight, compact, durable high-impact plastic for maximum comfort. Contains the PCB and other components.
9. Battery Status indicator: Glows briefly at turn-on to indicate that the battery is OK. No flash at turn-on indicates that the battery is either drained or not installed properly. A constant glow indicates a weak battery that should be replaced.

10. Power Switch: Turns power to the Transmitter "on" and "off".
11. Battery Compartment and Cover: Accept a 9-volt alkaline battery.
12. Detachable Belt Clip: To detach for pocket use, push in the direction of the arrow while lifting up on the tab. To install: Align the flanges on the clip with the tracks on the Transmitter. Slide the clip upward the connector until it snaps into place.

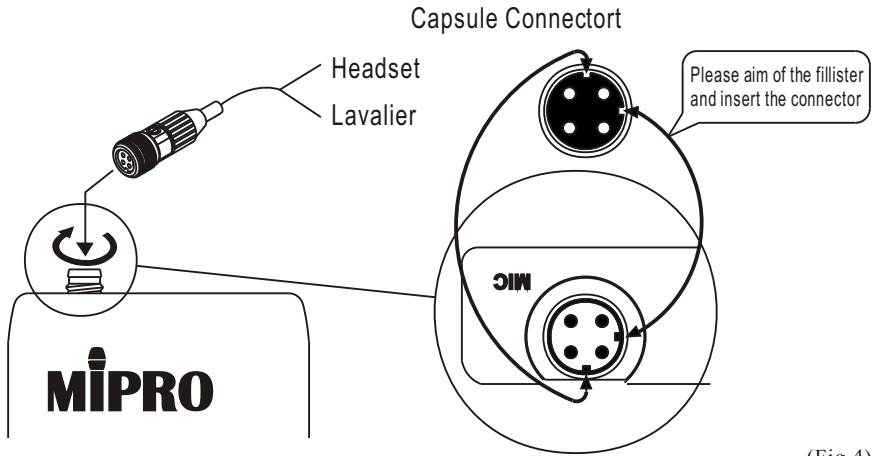
II Operating Instructions

1. Push down and in the direction of the arrow on the battery cover to open the compartment, as shown in Fig. 1.
2. Insert one piece 9-volt alkaline battery according to its correct polarity. (Fig 2). Then close the battery compartment cover. (Fig 3).



3. Glows briefly at turn-on to indicate that the battery is OK. No flash at turn-on indicates that the battery is either drained or not installed properly. A constant glow indicates a weak battery that should be replaced.
4. If with "Phone-jack" connector adjust Volume Control (5) for desired loudness.
5. If with "4-pin" connector adjusts the Input Gain Control(7) for desired loudness. Switch to GT for guitar connection. Use MT for all other inputs.
6. Connect an input cable (4-pin), ensuring the connection matches up as in figure 4 and tighten it with a clockwise turn until secure.

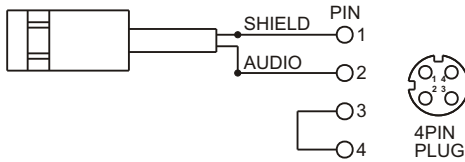
7. Connect an input cable (phone-jack), ensuring the connection matches up and tighten it with a clockwise turn until secure.



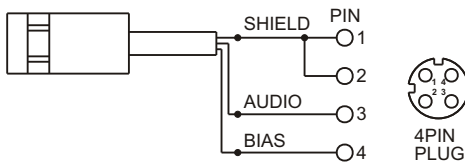
(Fig.4)

AF 4-Pin Input Connection Method

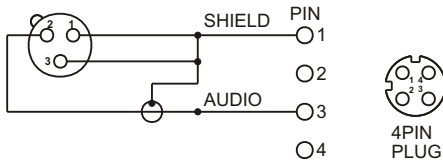
(1) 2-Wire Electret condenser microphone Capsule



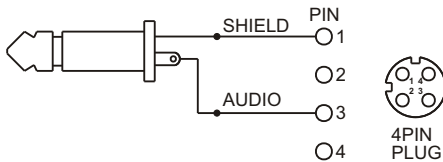
(2) 3-Wire Electret condenser microphone Capsule



(3) Dynamic Microphone



(4) Electric Guitar



(5) Line-in (Impedance $8K\Omega$ ATT. 10dB)

