

# MIPRO®

## MTG-100 Series

### Digital Wireless Tour Guide System

#### User Guide

MTG-100T  
MTG-100Ta



MTG-100R  
MTG-100Ra



MTG-100C-28



MTG-100C-12




MTG-100C-4 & MTG-100C-CR





## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
  2. Keep these instructions.
  3. Heed all warnings.
  4. Follow all instructions.
  5. Do not use the apparatus near water.
  6. Clean only with dry cloth.
  7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
  8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus(including amplifiers) that produce heat.
  9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is 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 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. When the main plug or appliance coupler used as the disconnect device, it shall remain readily operable.
  16. Please keep the unit in a good ventilation environment.
  17. The appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
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## Digital Wireless Tour Guide System

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### WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



**CAUTION:** To reduce the risk of electric shock, do not remove any cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.



The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.

### CAUTION

To prevent electric shock, do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

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## Digital Wireless Tour Guide System

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### Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

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This device complies with part 15 of the FCC rules.

Operation is subject to the following two conditions

- (1) This device may not cause harmful interference and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

IC

This device complies with Industry Canada licence-exempt RSS-210 standard.

“ Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device. ”

This device complies with RSS-310 of Industry Canada.

Operation is subject to the condition that this device does not cause harmful interference.

### Disposal



2005-08-13

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!

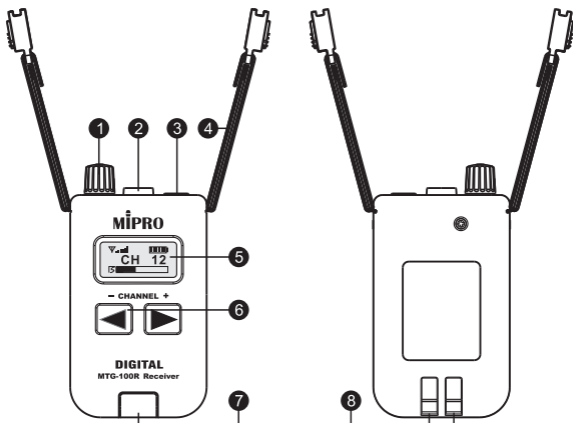
Batteries/NiCad cells often contain heavy metals such as cadmium(Cd), mercury(Hg) and lead(Pb) that makes them unsuitable for disposal with domestic waste. You may return spent batteries/accumulators free of charge to recycling centres or anywhere else batteries/accumulators are sold.

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

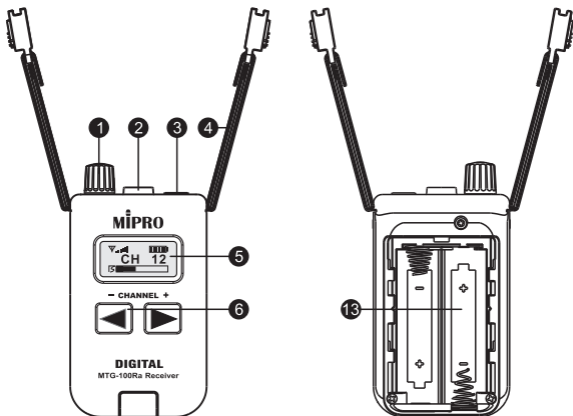
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# I. Part Names, Fig. 1

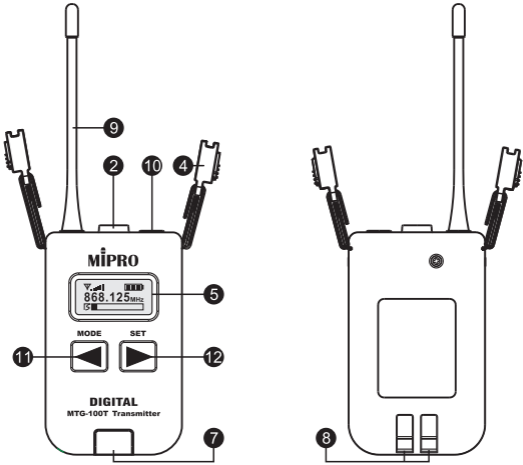
## 1. MTG-100R (Built-in Rechargeable Lithium Ion Battery)



## 2. MTG-100Ra (AA Battery)



3. MTG-100T (Built-in Rechargeable Lithium Ion Battery)



4. MTG-100Ta (AA Battery)

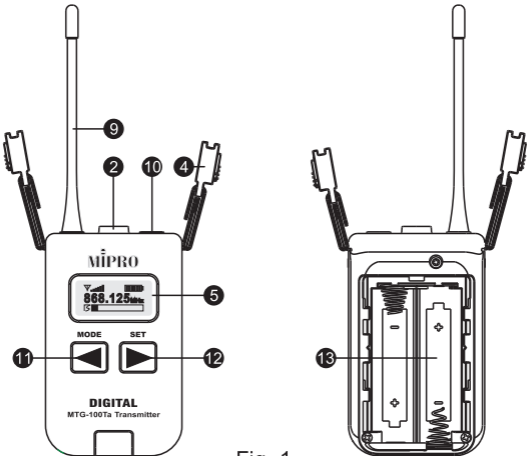


Fig. 1



- ❶ Volume Control
- ❷ Power button
- ❸ 3.5 Ø Jack
- ❹ Lanyards & Buckle
- ❺ LCD Display
- ❻ Channel Buttons: 16 factory preset channels. ◀ one channel down; ▶ one channel up.
- ❼ ACT Sync (synchronization) Port:  
Rechargeable lithium ion battery receivers can be recharged, execute synchronization and Ethernet network management by the charger and storage case.
- ❽ Charging Contacts: for rechargeable lithium ion battery models.
- ❾ Antenna
- ❿ 3.5 Ø Audio Input
- ⓫ MODE button
- ⓬ SET button
- ⓭ Battery Compartment: Holds 2 “AA” batteries

## II. LCD Screen, Fig. 2

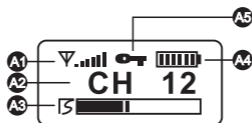


Fig. 2

- Ⓐ Received / Transmitted RF Signals
- Ⓑ Current Function Display
- Ⓒ Received / Transmitted Audio Signals
- Ⓓ Battery Level Indicator
- Ⓔ Locked icon

## III. Setting Up Receiver

1. Press ◀ or ▶ channel button for a factory pre-set channel. Channels CH 01 ~ 16 will be displayed accordingly, Fig. 3.
2. Choose the desired channel.

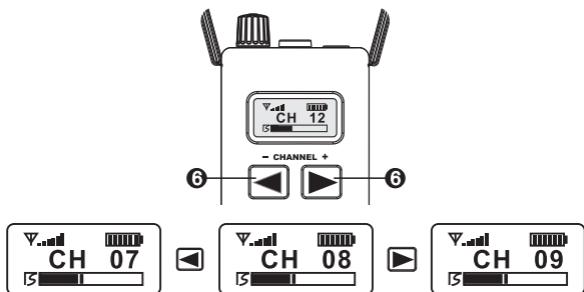


Fig. 3

### 3. Volume Control, Fig. 4:

- (A) Insert the earphones or headphones and slowly turn up the volume to a comfortable, safe sound level. Turn clockwise to increase the volume; turn counterclockwise to lower the volume.
- (B) “ Mute ” is lowest volume level. “ VOL 20 ” is highest volume level.
- (C) Warning: Avoiding Hearing Damage - Permanent hearing loss may occur if earphones or headphones are used at high volume. Set the volume to a safe level.

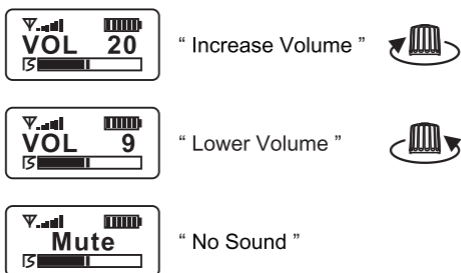




Fig. 4

#### 4. To Lock or Unlock Receiver Channel,

Fig. 5:

- (A) To Lock Receiver Channel: Press and hold both buttons **6** for approx. 3 seconds. The “” icon then appears on the display. The receiver channel is now locked.
- (B) To Unlock Receiver Channel: Press and hold both buttons **6** for approx. 3 seconds. The “” icon disappears. The receiver channel is now unlocked.
- (C) Under locked mode, the ability to change channels manually is inoperative. This function is not existed in the transmitters.

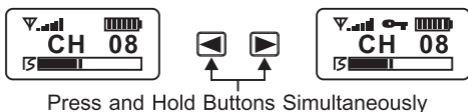


Fig. 5

## IV. Setting Up Transmitter

1. Press “ MODE ” button **11** for one of the five functions, Fig. 6.

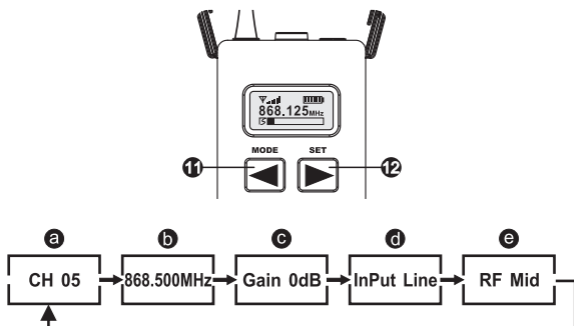
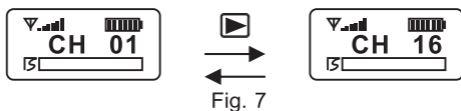


Fig. 6

- a** Channel
- b** Frequency
- c** Sensitivity Level
- d** Audio Input Source
- e** RF Output Power

## 2. Channel Set-Up, Fig. 7:

- (A) There are CH 01~CH 16 for selection.
- (B) Press MODE **Ⓜ** button until CH mode appears.  
Press SET **Ⓝ** button once to activate function. CH 00 blinks once when activated.
- (C) Press SET button increases the channel number by one.
- (D) Press MODE button to confirm and save the change.



### 3. Frequency, Fig. 8:

The displayed frequency corresponds to the selected channel number. Frequency cannot be changed.



Fig. 8

### 4. Sensitivity Level Set-Up, Fig. 9:

- (A) Gain Levels: Microphone Input (-12dB~9dB), Line Input (-12dB~3dB).
- (B) Press MODE **1** button until Gain mode appears. Press SET **2** button once to activate function. Gain 0 dB blinks once when activated.
- (C) Press SET button for -12, -9, -6, -3, 0, or 3 dB.
- (D) Press MODE button to confirm and save the change.
- (E) Note: Approximately 70% of the level indicator is optimal and recommended.



Fig. 9

## 5. Audio Input Source Set-Up, Fig. 10:

- (A) Two types of audio input: Line (Line In) and MIC (MIC In).
- (B) Press MODE **11** button until InPut mode appears.
- (C) Press SET **12** button once to activate function. InPut Mic or Line blinks once when activated.
- (D) Press SET button for either Mic (Microphone) or Line (Line level).
- (E) Press MODE button to confirm and save the change.
- (F) Mic-level provides biased power for electret condenser microphone.
- (G) Line-level provides audio transmission of MP3/CD/DVD player.



Fig. 10



## 6. RF Output Power Set-Up, Fig 11:

- (A) Three levels: Hi, Mid or Low.
- (B) Press MODE **11** button until RF mode appears.
- (C) Press SET **12** button once to activate function. RF Hi, Mid or Low blinks once when activated.
- (D) Press SET button for Hi, Mid or Low power.
- (E) Press MODE button to confirm and save the change.
- (F) Low or Mid setting is recommended for indoor, smaller environment.
- (G) Hi setting has 10mW RF power output.

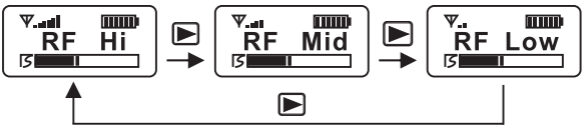


Fig. 11

## V. Battery Level Status, Fig. 12

1. Charge the battery when zero or one level indicator (10%) remains or when the battery icon is flashing indicating a lower battery level. Power will shut off automatically if continuous use without charging to protect battery from being overly discharged.
2. When the power is turned off, the LCD screen shows nothing and indicates it is under "OFF" status.
3. Each receiver has a built-in 6-hour factory preset auto shut-off timer to prevent wasted battery hours. Receiver LCD screen will display "TIME OUT" for 30 seconds prior to auto shut-off. Power-on the receiver manually after auto shut-off.
4. MTG-100R/MTG-100T has a built-in, non-user-replaceable rechargeable battery. Please contact local authorized MIPRO distributor or dealer service provider for servicing.

## 5. Battery and Power:

- (A) Built-in rechargeable lithium-polymer battery.
- (B) Up to 14 hours of operation when fully charged.
- (C) Fast-charge time: about 2.5 hours. (charges up to 80% of battery capacity)
- (D) Note: Rechargeable batteries have a limited number of charge cycles and may eventually need to be replaced. Battery life and number of charge cycles vary by use and settings.

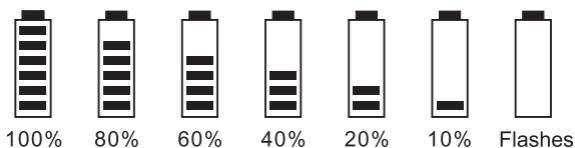
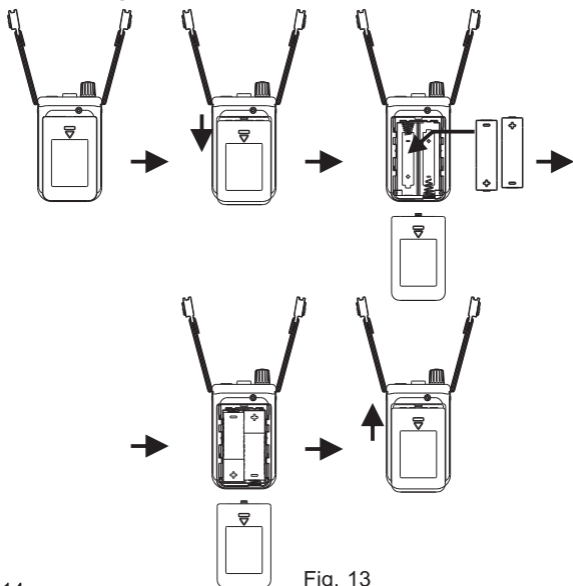


Fig. 12

## VI. MTG-100Ra | MTG-100Ta Battery Removal and Installation, Fig. 13

1. Slide the battery latch down and lift out of the battery cover.
2. Place new, fresh 2 AA batteries into the slots and slide up until the latch locks into place.
3. Caution: Remove the batteries if unused for a long period of time to prevent battery leakage, corrosion and causes possible damage to electronics.



## VII. Accessories Assembling

### 1. Wearing Neck Lanyards, Fig. 14:

Insert into both side-release buckles and adjust the straps for ideal length.

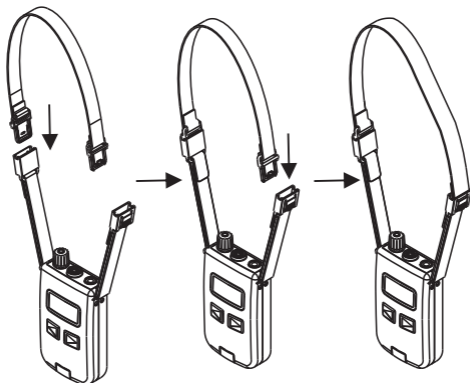


Fig. 14

## 2. Transmitter Audio Input, Fig. 15:

Insert the microphone or line-in audio input. Fasten it clockwise.

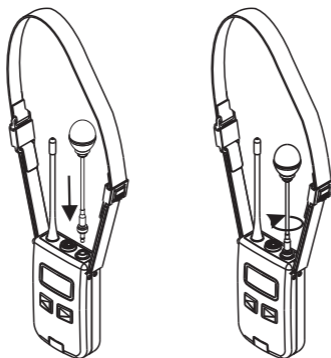


Fig. 15

3. Receiver Audio Input , Fig. 16:

Insert the earphones or headphones into the earphone input.

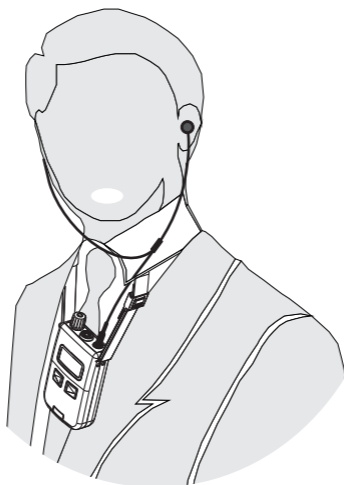
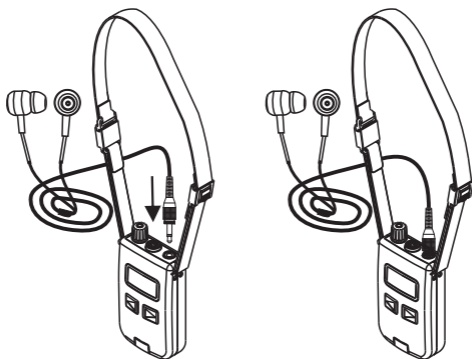


Fig. 16

#### 4. Receiver Earphones Storage, Fig. 17:

Each set of earphones can be stored orderly in the provided convenience storage case.

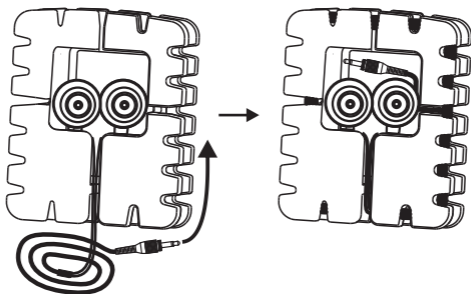


Fig. 17



## VIII. Accessories

### 1. Optional Microphone Accessories for Transmitters:

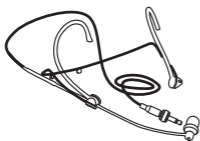
- (A) MM-10:  
Mini-Gooseneck  
Microphone with 3.5 Ø  
screw-lock plug.



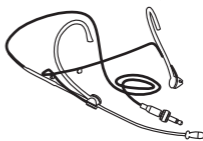
- (B) MM-202P:  
Mini-Gooseneck  
Microphone with 3.5 Ø  
screw-lock plug.



- (C) MU-101P: Headworn  
Microphone with 3.5 Ø  
screw-lock plug.



- (D) MU-23P: Headworn  
Microphone with 3.5 Ø  
screw-lock plug.



- (E) MU-53HNP: Premium  
Headworn Microphone  
with 3.5 Ø screw-lock  
plug.



## 2. Optional Earphone Accessories for Receivers:

- (A) E-5S: Single-sided Earphone with 3.5 Ø mini-jack plug



- (B) E-10S: Stereo Earphones with 3.5 Ø mini-jack plug



- (C) E-20S: Stereo Headphones with 3.5 Ø mini-jack plug.



### 3. MTG-100C-28 28-Slot Charger and Storage Case, Fig. 18:

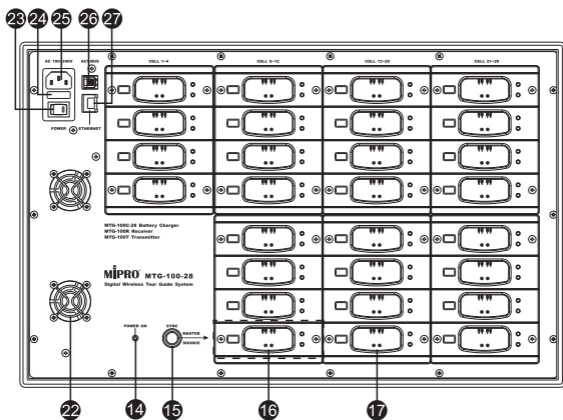


Fig. 18

4. MTG-100C-12 12-Slot Charger and Storage Case, Fig. 19:

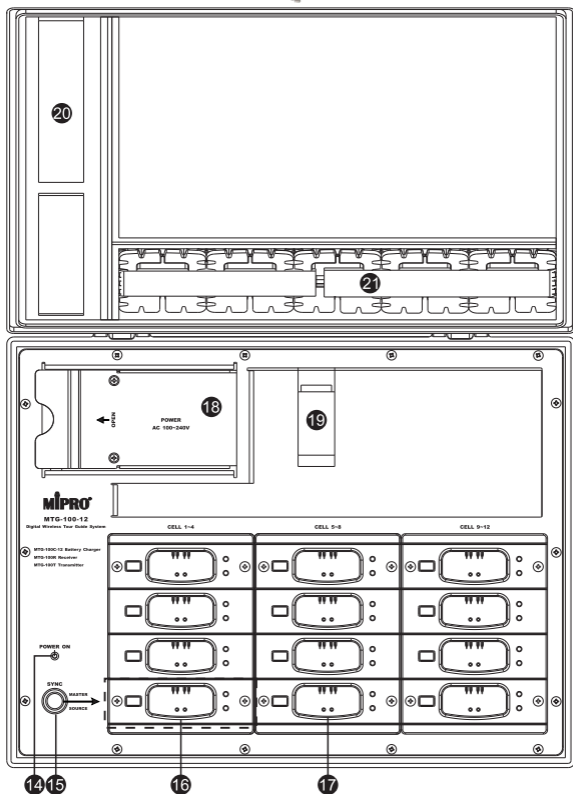


Fig. 19

5. MTG-100C-4 4-Slot Charger Case, Fig. 20:

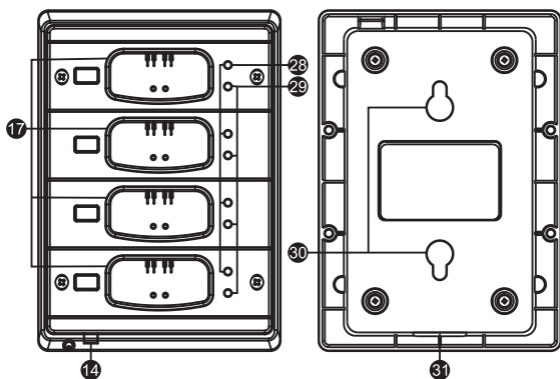


Fig. 20

6. MTG-100C-CR Charger Rack, Fig. 21:

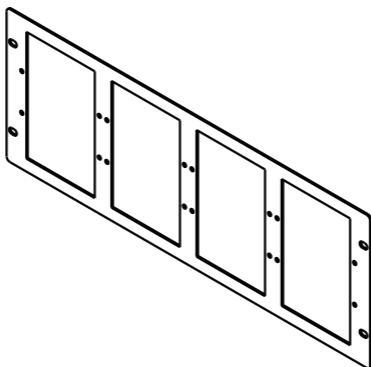


Fig. 21

- 14 Power Indicator
- 15 SYNC button: To synchronize all receivers to the same transmitter channel.
- 16 SYNC Master Cell: MTG-100C-12 CELL 4; MTG-100C-28 CELL 12.
- 17 Charging Cells
- 18 AC Power Supply Storage: Stores AC power cord.
- 19 Stores headworn and/or mini-gooseneck microphones, neck lanyards and user guide.
- 20 AC Power Cord Storage
- 21 Earphones Storage: Stores earphones and its storage cases.
- 22 Ventilating Fan
- 23 Power Switch
- 24 Power Fuse: 1A/250V
- 25 AC Power Socket
- 26 ACT-BUS: Static IP set up interface.
- 27 ETHERNET: Ethernet Interface Port
- 28 Green LED indicator: Still green is charged and ready

- 29 Red LED indicator: Still red during charging
- 30 Wall-mounting Keyholes
- 31 DC input jack: Connects to 12V DC power. The center pole is positive voltage.

## IX. Operating Instructions

### 1. Power Connection:

- (A) MTG-100C-28: Plug the power cord into the AC mains input socket and then plug it into a power outlet (110~250V AC), turn on the power switch 23 to "ON" position, and the power indicator 14 is lit.
- (B) MTG-100C-12: Plug the power cord into the AC mains input socket and then plug it into a power outlet (110~250V AC) and the power indicator is lit, Fig. 22.



Fig. 22

- (C) MTG-100C-4: Plug the power cord into the DC mains input socket and then plug the adaptor into an AC power outlet. Then the power indicator lights, Fig. 23.

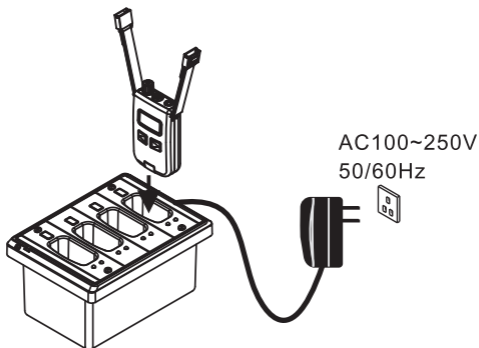


Fig. 23



2. MTG-100C-CR Installation, Fig. 24:

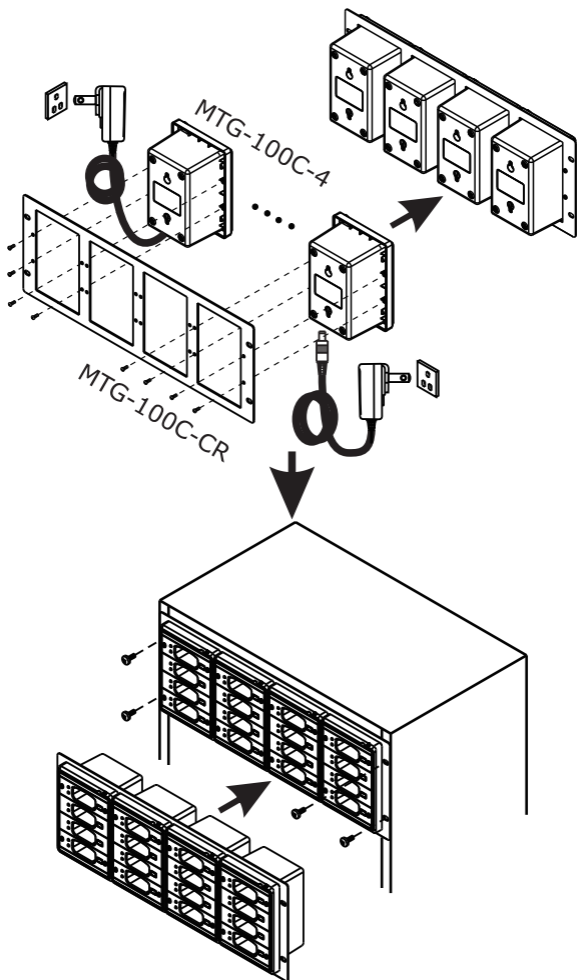


Fig. 24

### 3. Charging the Transmitters and Receivers, Fig. 25

- (A) Insert the receivers and/or transmitter into the charging cells. Make sure the battery contact points are aligned with those inside the charging cell.
- (B) During charging state, the LCD panel on the portable receiver or transmitter will display the word "Charging" and still red indicator appears on the charger case. Word will disappear on the LCD panel once it is fully charged and still green indicator appears on the charger case.
- (C) These charging cases are used for MTG-100R | MTG-100T only.

### 4. SYNC (Channel Synchronization), Fig. 25:

- (A) The SYNC function facilitates channel synchronization between receivers and transmitter automatically.
- (B) Power on the charger. Insert the transmitter or receiver (the channel can be preset in advance) into cell #4 (MTG-100C-12) or cell #12 (MTG-100C-28), marked as Master/Source.
- (C) Insert other receivers and transmitters in charging cells. Make sure all battery contact points are aligned with those inside the cell.

(D) Press and release the SYNC button **15** to activate synchronization. SYNC button will lit for approx. 2 seconds once activated. When channels are synchronized, SYNC button will no longer be lit. The channel of all the receivers and transmitters are set as the same channel of Master.

(E) Notes:

- (1) Receivers and transmitter can be powered on or off during synchronization.
- (2) Synchronization works even if a receiver is placed inside the Master/Source cell that is the same intended channel.

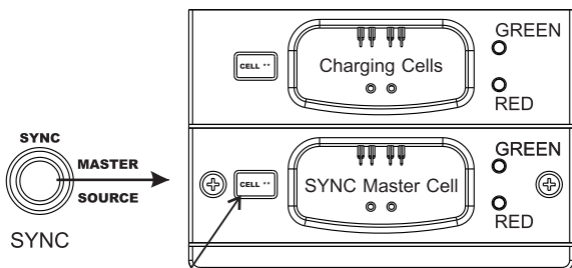


Fig. 25

MTG-100C-12 (CELL 4)

MTG-100C-28 (CELL 12)

## X. MTG-100C-28 PC Software Installation & Management, Fig. 26

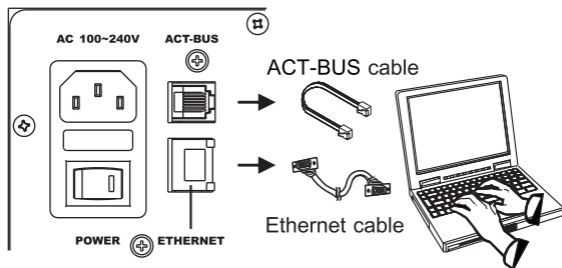


Fig. 26

### 1. Manual Internet IP Set-Up:

- (A) Connect MIPRO-DV to the ACT-BUS socket.
- (B) Start the optional managing software from the PC, power off the charger carry case, hold the SYNC button and then restart the power, the internet IP manual set-up will show up in the PC screen accordingly.

### 2. Ethernet Networking Interface:

- (A) Connect one end of an Ethernet cable to the Ethernet port on charger carry case. Connect the other end to a PC Ethernet port.
- (B) PC networking enables multi monitoring and controls.

- (C) Ethernet cable wiring, Fig. 27:

EIA/TIA T568B Crossover Diagram

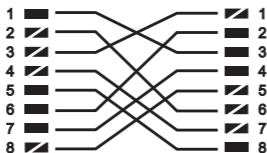


Fig. 27

- (D) Optional accessories are required prior to making internet connection between Ethernet and ACT-BUS interface ports.

### 3. PC Software Requirements:

- (A) Ethernet interface and Ethernet cable.
- (B) PC:
- (1) CPU: PENTIUM 1.6G (or faster processor)
  - (2) RAM: In accordance with Microsoft Windows Operating System
  - (3) Hard drive size: 256MB (for installing the software)
  - (4) Display: 1024 x 768
  - (5) OS: Microsoft Windows XP (or newer)

### 4. Terminal Set-Up:

- (A) Baud Rates: 115200
- (B) Data bit: 8
- (C) Parity: None
- (D) Stop bit: 1
- (E) Flow Control: None

## XI. Storage

### 1. MTG-100C-12, Fig. 28:

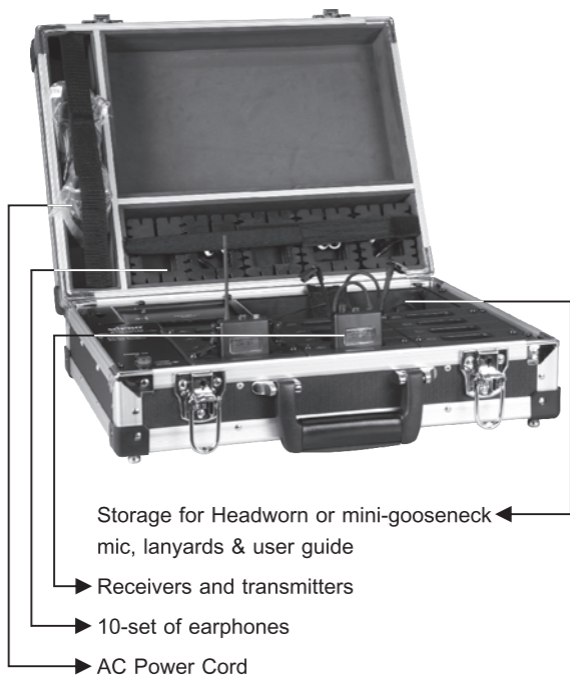


Fig. 28

2. MTG-100C-28 Bottom Case for Transmitters and Receivers Storage, Fig. 29.

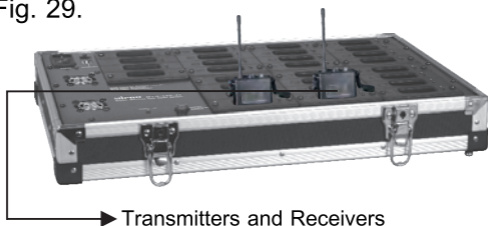


Fig. 29

3. MTG-100C-28 Top Case for Power Cords and Neck Lanyards Storage, Fig. 30.

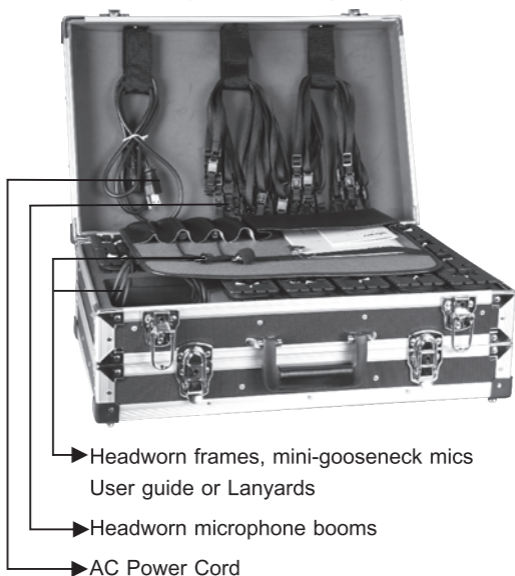


Fig. 30

4. MTG-100C-28 Earphones and Headworn Microphones Storage, Fig.31:



Fig. 31



5. System configurations, Fig. 32, 33:

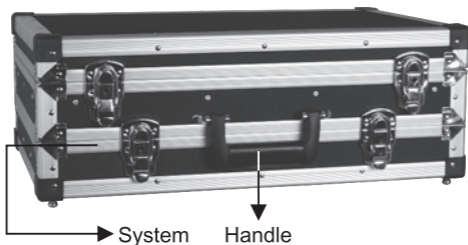


Fig. 32: MTG-100C-28

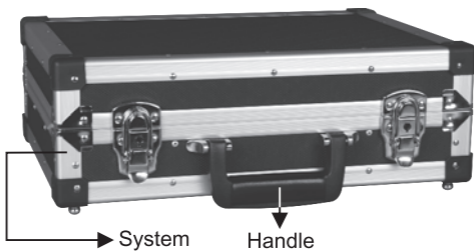


Fig. 33: MTG-100C-12

## XII. 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 and maximum deviation comply with the regulations of different countries.





**MIPRO**<sup>®</sup>  
MICROPHONE PROFESSIONALS

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