

# MIPRO®

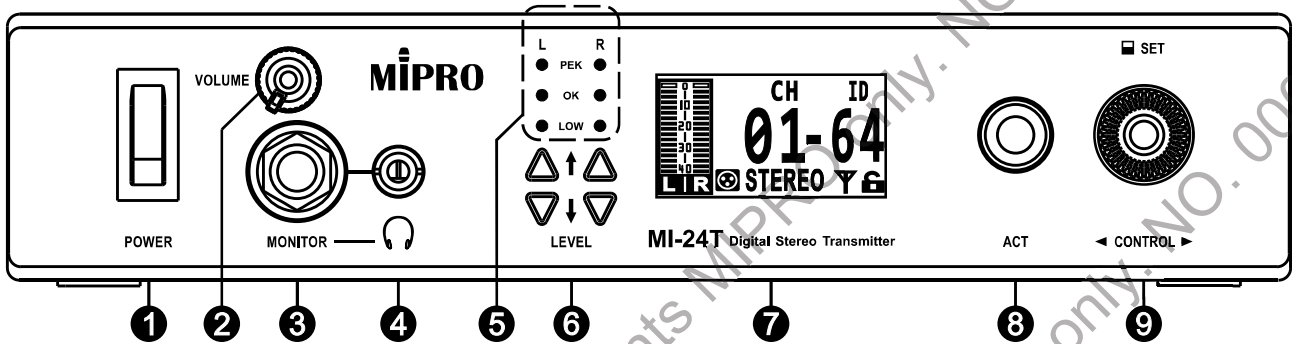
## MI-24T / MI-24TD

### 2.4 GHz Digital Stereo Transmitter

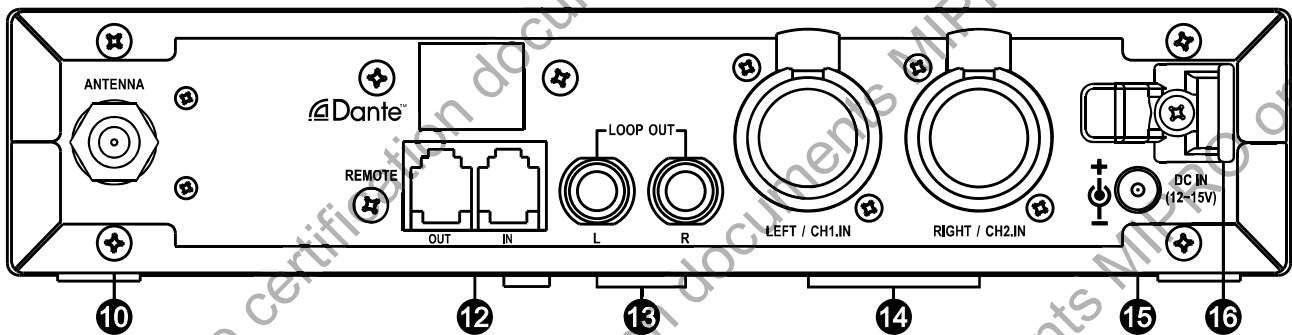
#### User Guide



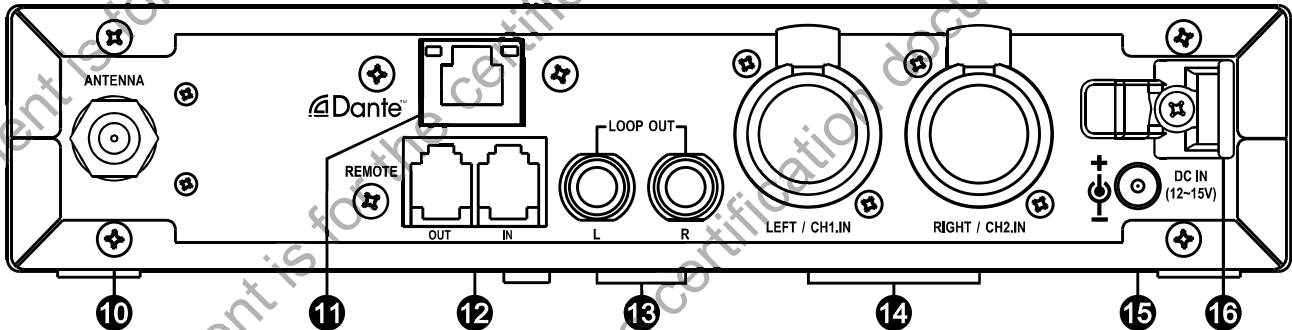
## I. Part Names



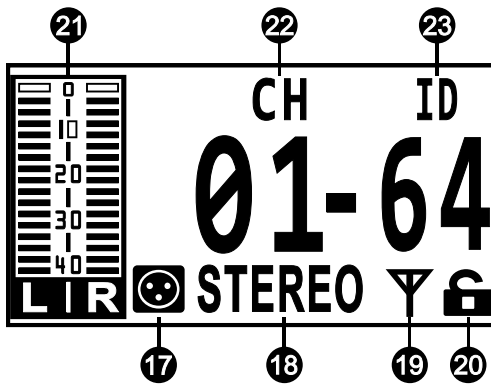
MI-24T



MI-24TD



- |                          |                                    |                                 |                                 |                                  |                                       |               |                        |  |                                  |                                    |   |   |   |                               |                   |
|--------------------------|------------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------------------|---------------|------------------------|--|----------------------------------|------------------------------------|---|---|---|-------------------------------|-------------------|
| ❶ POWER: AC Power Switch | ❷ VOLUME: Headphone Volume Control | ❸ MONITOR: 6.3 Ø Headphone Jack | ❹ MONITOR: 3.5 Ø Headphone Jack | ❺ Left / Right Quality Indicator | ❻ L / R AF Input Gain Setting Buttons | ❼ OLED Screen | ❽ ACT: ACT Sync Button | ❾ CONTROL: Parameter Setting Rotary Control Knob | ❿ ANTENNA: TNC Antenna Connector | ⓫ Dante: Dante Interface Connector | ⓬ REMOTE: RJ-11 Network Interface Connector | ⓭ LOOP OUT: Left / Right 6.3 Ø TRS Balanced Audio Output Jack | ⓮ Left CH1 / Right CH2 XLR COMBO Audio Input Jack | ⓯ DC IN: 12~15V DC Input Jack | ⓰ Power Cord Hole |
|--------------------------|------------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------------------|---------------|------------------------|--|----------------------------------|------------------------------------|---|---|---|-------------------------------|-------------------|

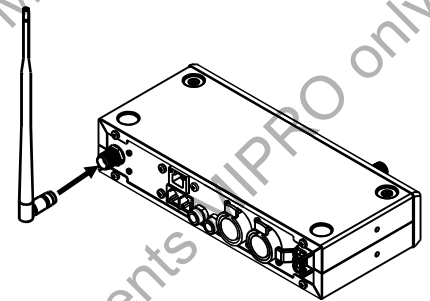


- 17 Audio Source Input Interface Icon: XLR or Dante
- 18 Audio Input Mode Type: Stereo or Mono
- 19 RF Signal Output: ON/OFF
- 20 Lock: Panel Locked Icon
- 21 L R: Left / Right Channel Audio Input Level Meter
- 22 CH: Channel Setting
- 23 ID: ID Code Setting

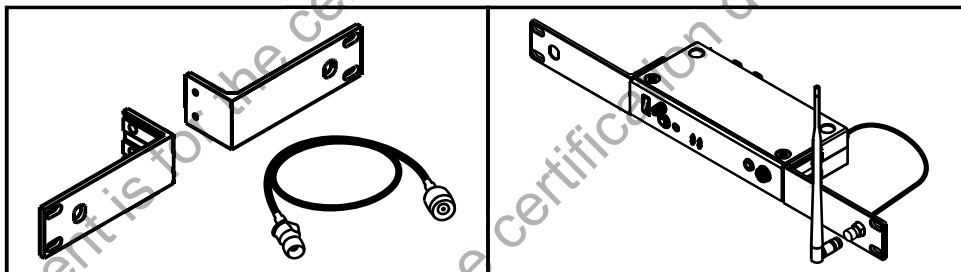
## II. Operating Instructions

### 1. Antenna Installation

(A) Rear Antenna Installation: Attach supplied antenna to the antenna connector 10. Ensure both the antenna and the transmitter have the same frequency band for optimal transmitting efficiency.



(B) Install an optional FB-71 rear-to-front rackmount kit with cable. Attach supplied antenna to the front for improved optimal transmitting efficiency.



### 2. Power

Connect the supplied 12~15VDC / 1A power supply & cable to the DC Input Jack 15. Get the cable through the cable hole to prevent accidental disconnection.

### 3. Power On

Press the Power Button 1 to the ON position. The OLED screen backlight lightens and displays various parameters.

### 4. Analog Audio Input and Output Connection

In stereo mode, the stereo input signals with XLR plugs or the mixed mono signal with a 6.3 Ø phone plug by plugging into AF IN XLR Combo 14. The LOOP OUT 13 L and R output sockets are possible to transmit the audio signals from one transmitter daisy chaining the signals to other transmitters in balanced transmission mode.


## 5. Input Signals Level Indicator Setting

If the audio input signal is too low, it will result in a high noise floor and worse sound quality; if the audio input signal is too high, it will result in distortion.

Recommended setting methods as below:

- Press the L/R-LEVEL Buttons **6** to set the LEVEL Meter to 0. Activate the source audio output and set the output level to the maximum.
- Watch the color of the L/R Input Quality Indicator **5** and adjust the proper gain by the L/R-LEVEL Buttons **6** until the green indicator (OK) lights on.
- Orange indicator (LOW) indicates the audio input signal or gain is set too low.
- Red indicator (PEK) indicates the audio input signal or gain is set too high.
- When the audio input signal continues to be too high, the screen will display "CLIP !" warning message to denote the sound distortion. It is necessary to check if the input signal level is set too high to avoid distortion.
- During the setting process, plug the headphone into the monitor jack on the transmitter, and watch the color of OLED indicators to adjust the proper input level, and then turn on the receiver to monitor the sound.

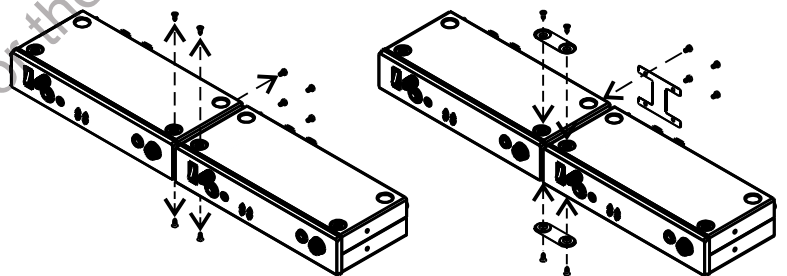
## 6. Headphone Monitoring

- Insert a 6.3 Ø or 3.5 Ø headphone into the Headphone Jacks **3** **4** , and adjust Volume Control **2** to the adequate volume.
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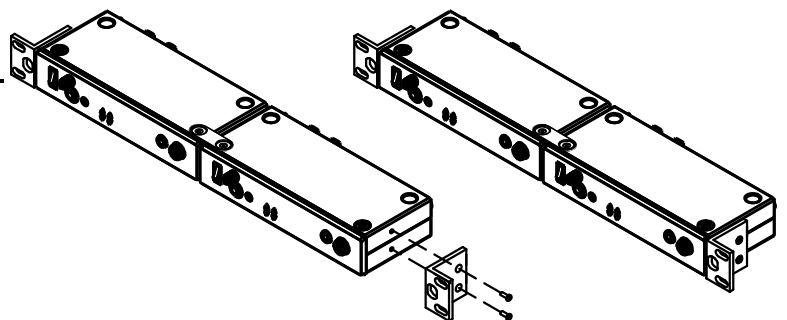
Warning: Permanent noise-induced hearing damage or loss may occur on prolonged exposure to loud sounds wearing earphones or headphones.
- Minimize the volume level before the headphone is inserted.

## 7. Rack-mount Two units Side-by-side (optional accessories are required)

- Remove top and bottom screws, insert top and bottom plates to joint two transmitters. Fasten screws.

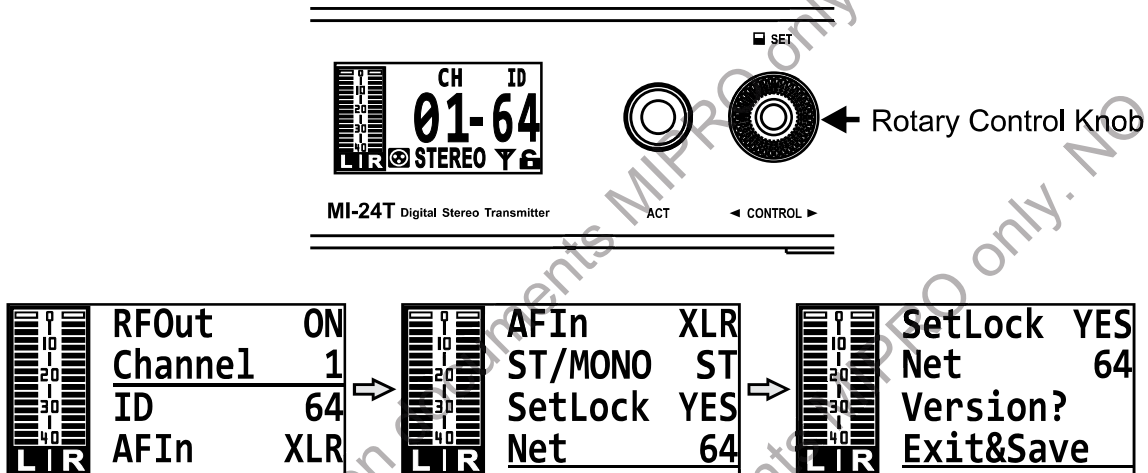


- Rack-mount with the rack-mount kit (optional accessory).



### III. OLED Display & Operating Instructions

#### 1. Rotary Control Knob: Menu Settings

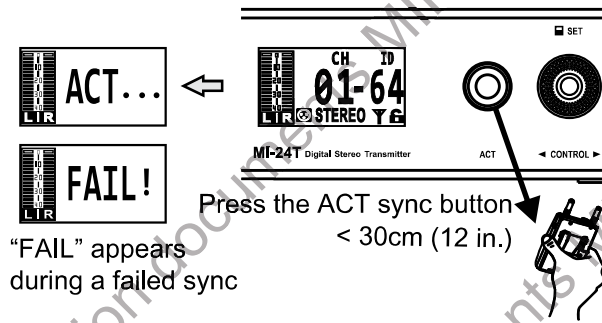


- (A) Press Rotary Control Knob to access Home Screen.
- (B) Turn right or left to access specific menus. Press to set the parameter. Turn to Exit & Save ? and press to save the setting and return to Home Screen.

2. RF OUT: RF signal ON or OFF
3. Channel: 1~8
4. ID Code: 1~64. A total of 64 different IDs (01-64) can be selected for each channel.
5. AF IN: Analog XLR or digital Dante  
Caution: In Dante mode, LEVEL buttons **6** are not functional. Do gain adjustment from the source of digital audio.
6. ST/MONO: ST (Stereo) or MONO (L/R Mixed)
7. Set Lock: YES (Lock) or NO (Unlock)
8. Net : 1~64 , ACT BUS interface for address setting
9. Version?: Displays the current firmware version
10. Exit & Save?: Save changes and exit to the Home screen

### 11. ACT sync operation:

- (A) Press the ACT sync button on the panel of the transmitter to activate the synchronization. The screen displays “ACT....” Align the ACT sync windows of both transmitter and receiver within 30 cm. The word “ACT...” disappears during successful sync, and then it returns to the Home screen.
- (B) “FAIL” appears during a failed sync. Repeat the procedure.



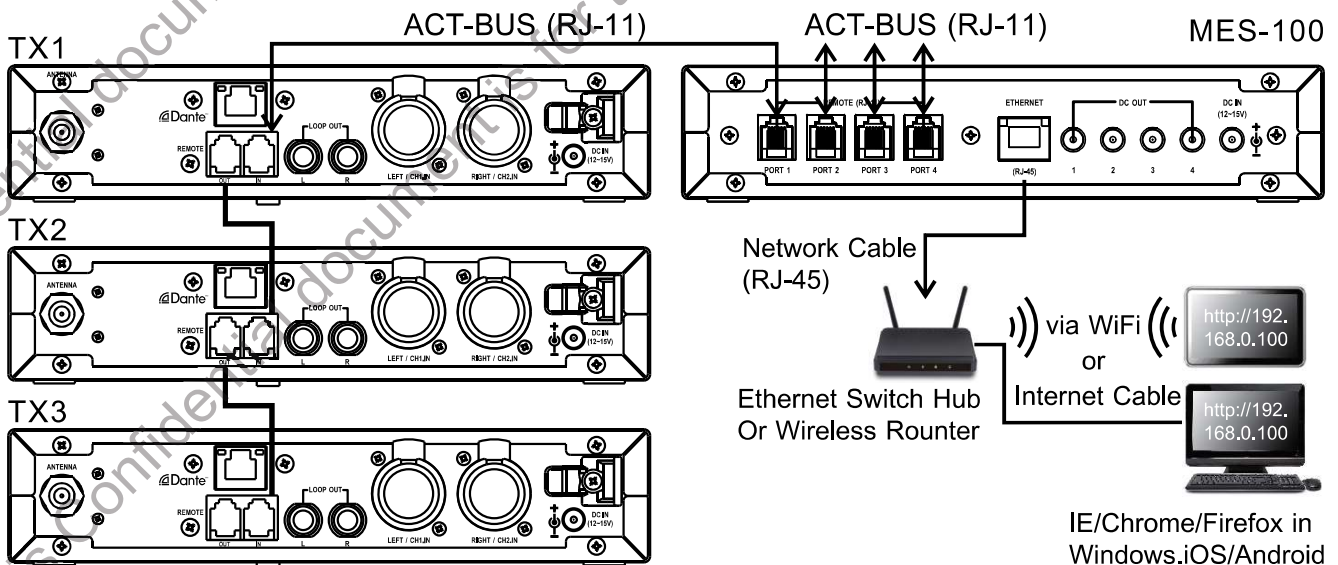
## IV. Network Connection

1. New network interface. Connect to the MES-100 (optional) for remotely control by web browsers, such as Chrome/Firefox/Safari/IE.

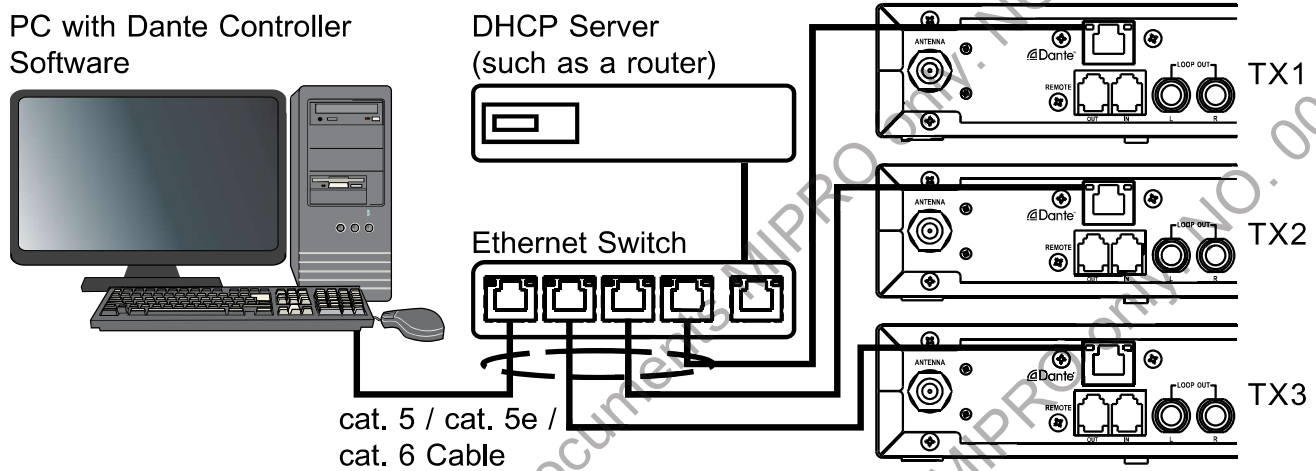
Note: Please refer to the MES-100 firmware version supported.

2. ACT-BUS Wiring Instructions:

- (A) Use one RJ-11 cable to connect TX1 and TX2, another RJ-11 to connect TX2 and TX3, and so on.
- (B) Use an RJ-11 cable to connect TX1 to MES-100.
- (C) Up to 64 transmitters can be linked.
- (D) The recommended cable length of RJ-11 should not exceed 100 m to ensure high-speed transmission quality.



## V. MI-24TD Dante Network Operation (optional)



### 1. Dante Wiring:

- (A) Connect MI-58TD via Dante port by Cat.5, Cat.5e, or Cat.6 cable with Ethernet switch to construct the Dante network.
- (B) Note: The Ethernet switch needs to be connected with a DHCP server such as a router to provide the DHCP function.

2. Software Operating Instructions: Install Dante Controller software on PC to perform audio stream routing and monitoring.

3. The user guide of Dante Controller can be downloaded at the website of Audinate: <https://www.audinate.com/products/software/dante-controller>

## VI. Cautions & Recommendations

1. Do not use the same frequency bands when mixing MIPRO IEM and MIPRO wireless microphone systems to avoid potential interferences.
2. Do use 50Ω coaxial cable to connect the transmitter to the external antenna. RG-58 or 3D cable should not exceed 2 meters. Recommend to use 5D-FB or 8D-FB cable for an even longer length to decrease the cable loss of 2.4 GHz transmission.
3. If possible, maintain line-of-sight between transmitter and receivers for optimal reception quality during outdoor or indoor performances. Indoor reception quality tends to degrade due to obstacles and objects absorbing radio waves making the reception distance shorter compared with outdoor performances.
4. The power supply voltage should not be less than 12VDC and not higher than 15VDC. Ensure at least 1A or more output current. Insufficient voltage causes operating instability or malfunction; exceeding voltage causes reduced product life cycle and possible short or damaging circuits.
5. MI-24T/MI-24TD stationary transmitter should pair with the MI-24R bodypack receiver.

## VII. Notes

1. Refer to the actual product in the event of product discrepancy.
2. Carrier frequency range, RF power and maximum deviation range comply with the regulations of different countries.

### 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).

### FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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.

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

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