MIPRO®

MI-909T Digital Stereo Rack Transmitter

User Guide

MIPRO®

MICROPHONE PROFESSIONALS

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2CE497B

! 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.

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.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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.

FCC

THIS DEVICE COMPLIES WITH PART 74 AND   PART 15 SUBPART B OF THE FCC RULES
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.

IC

This device complies with Industry Canada licence-exempt RSS-123 ISSUE 2 / RSS-310 ISSUE 3
standards. 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio
exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage

radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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!

2005-08-13

I. Part Names, Fig. 1
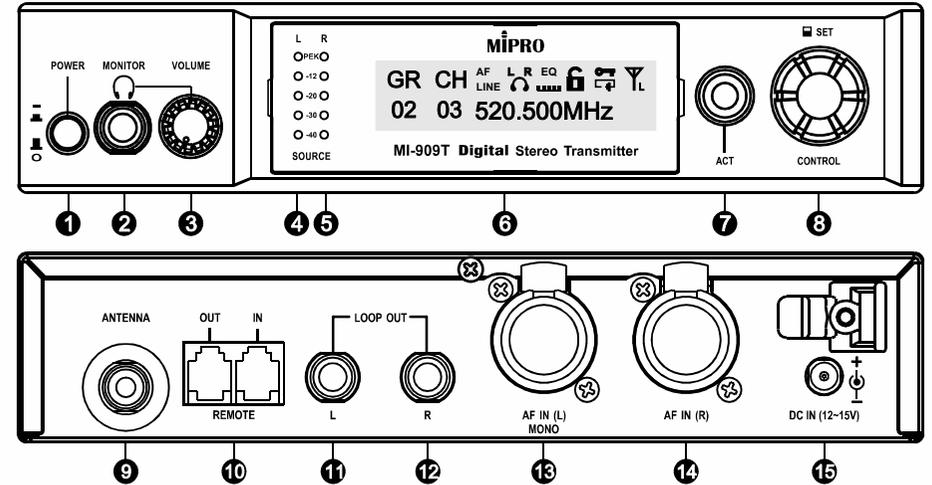

Fig. 1

❶ Power Button.

❷ Headphone Monitoring.

❸ Headphone Volume.

❹ Left Audio Indicators and Red Peak Indicator.

❺ Right Audio Indicators and Red Peak Indicator.

❻ LCD Screen.

❼ ACT Sync Button.

❽ Rotary Control Knob.

❾ Antenna Connector (TNC).

❿ ACT Bus.

⓫ LOOP OUT Left (6.3 Ø TRS).

⓬ LOOP OUT Right (6.3 Ø TRS).

⑬ Audio Input Left (Mono) (XLR & 6.3 Ø TRS).

⑭ Audio Input Right (XLR & 6.3 Ø TRS).

⑮ 12~15V DC Input Jack.

II. Operating Instructions

1. Rear Antenna Installation, Fig. 2:

   Attach supplied antenna to the transmitter. Ensure both the antenna and the transmitter have the same frequency band for optimal transmitting efficiency.
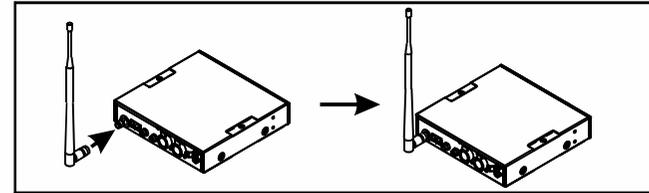
Fig. 2

2. Front Antenna Installation, Fig. 3:

   Install an option FB-71 rear-to-front rackmount kit with cable. Attach supplied antenna to the front for improved optimal transmitting efficiency.
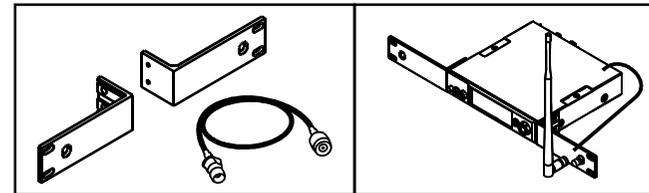
Fig. 3

3. External Antenna Installation, Fig. 4:

   Install optional MIPRO AT-100 wideband antennas & MS-90 wall-mount kit or microphone stand with high quality coaxial cable for improved performance. Ensure antennas are installed and positioned higher than the crowds and away from obstructions.

AT-100 + MS-90 Wall-mount Kit	AT-100 + Mic Stand
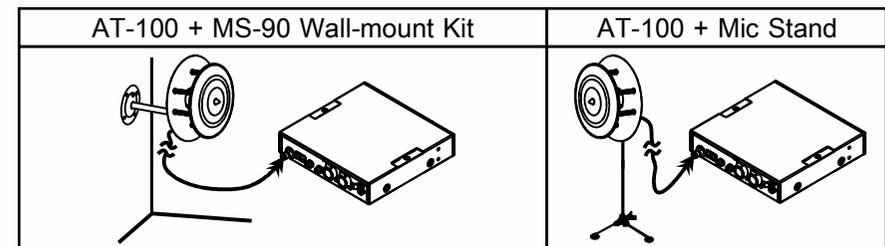
Fig. 4

4. Power:

Connect the supplied 12~15VDC / 0.5A power supply & cable to the DC Input Jack ❶ . Get the cable through the cable hole to prevent accidental disconnection.

5. Power On:

Press Power Button ❶ to the ON position. The backlight lightens and displays various parameters.

6. Audio Inputs:

Mono – Plug 6.3 Ø phone jack into AF IN (L) Combo Jack ❸ .

Stereo – Plug male XLR into AF IN (L) & AF IN (R) Combo Jacks ❸ ❹.

7. Headphone Monitoring:

(A) Insert a 6.3 Ø headphone here ❷ and adjust Volume Control ❸ to the adequate volume.

(B) Warning: Avoiding Hearing Damage –

Permanent noise-induced hearing damage or loss may occur on prolonged exposure to loud sounds wearing earphone or headphone.

(C) Minimize the volume level before the headphone is inserted.

III. LCD Panel Operating Instructions

1. LCD Screen Display, Fig. 5:
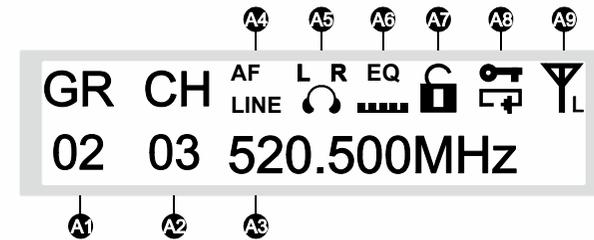
Fig. 5

Ⓐ1 GR: Group	Ⓐ6 EQ Icon
Ⓐ2 CH: Channel	Ⓐ7 Lock Icon
Ⓐ3 Working Frequency in MHz	Ⓐ8 Encryption Key Icon
Ⓐ4 AF: Audio Frequency	Ⓐ9 RF Output Icon
Ⓐ5 Left / Right Channel	

2. Rotary Control Knob: Menu Settings, Fig. 6:

(A) Press Rotary Control Knob to access menus.

(B) Turn right or left to access specific menus. Press to confirm setting changes.

← Rotary Control Knob
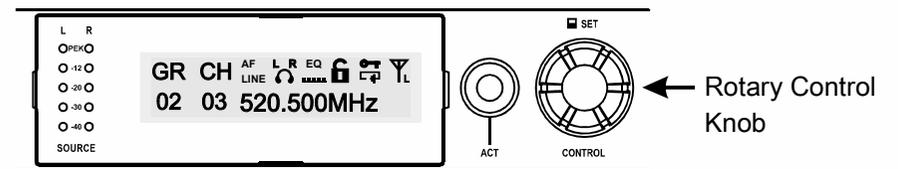
Fig. 6

(C) Rotary Control Knob operating instructions:

(1) ↵ Press Rotary Control Knob.

(2) ↻ Turn Clockwise or Counterclockwise.

3. Listed Menus, Fig. 7:

```
> GROUP & CHANNEL
  USER FREQUENCY
        ⇩
> RF POWER
  AF SENSITIVITY
        ⇩
> AF INPUT
  SOUND MODE
        ⇩
> EQUALIZER
  NAME SETTING
        ⇩
> NET ADDRESS
  SET LOCK
        ⇩
> ENCRYPTION
  SECURE KEY
        ⇩
> FREE SCAN
  EXIT & SAVE
```

Fig. 7

(A) GR CH: GROUP / CHANNEL settings, Fig. 8
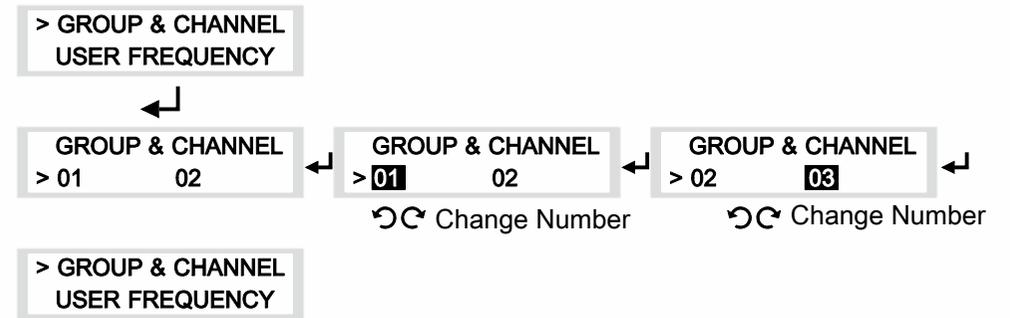
Fig. 8

(1) Locate GROUP & CHANNEL menu, press to activate setting.

(2) Turn left or right for desired GROUP. Press to save.

(3) Turn left or right for desired CHANNEL. Press to save.

(4) Once saved, indicator returns to listed menus.

(B) USER FRQUENCY Settings, Fig. 9:

```
GROUP & CHANNEL
> USER FREQUENCY
         ↵
```

```
USER FREQUENCY        USER FREQUENCY        USER FREQUENCY
> 520.500MHz      ↵   > 521.500MHz      ↵   > 521.525MHz      ↵
                      ↻↺ Change Number        ↻↺ Change Number
```

```
GROUP & CHANNEL
> USER FREQUENCY
```
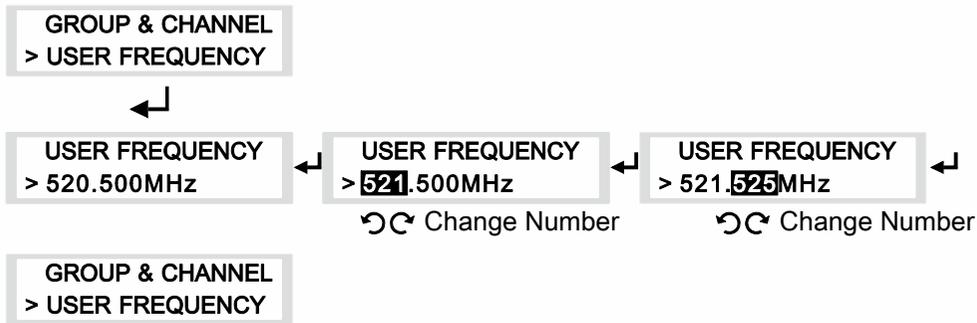
Fig. 9

(1) Locate USER FREQUENCY menu, press to activate setting.

(2) Press to enter setting (highlighted in black). Press to save.

(3) Frequency selection: adjustable in increments of 1 MHz or 25 kHz.

(4) Once saved, indicator returns to listed menus.

(5) Notes:

    (a) Factory preset Group and Channel have corresponding user frequencies. " ✳ ✳ " appears in GR & CH if user frequency is set up manually.

    (b) Once a new frequency is set up, do not forget to sync with a receiver by pressing ACT sync button.

(C) RF POWER: Radio frequency power settings, Fig. 10

```
USER FREQUENCY
> RF POWER
       ↵
```

```
RF POWER              RF POWER          ↻      RF POWER          ↻
> HIGH POWER      ↵   > HIGH POWER      ↺    > RF OFF            ↺
                      Highlighted              Highlighted
```

```
RF POWER          ↵   USER FREQUENCY
> LOW POWER           > RF POWER
Highlighted
```

Fig. 10

(1) Locate RF POWER menu, press to activate setting.

(2) Press to enter setting (highlighted in black).
Turn for HIGH POWER, RF OFF or LOW POWER. Press to save.

(3) Once saved, indicator returns to listed menus.

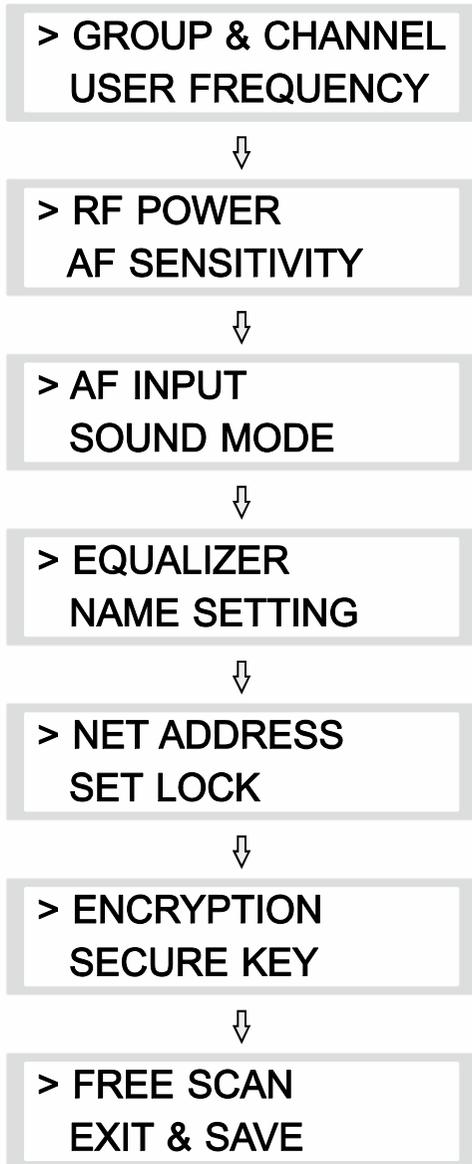(4) Notes: Fig. 11

    (a) High power is country dependent. Power levels vary by region or country.

    (b) RF OFF enables no RF power emitting without powering off the transmitter.

    (c) ⓨ icon: RF POWER setting is OFF.

    (d) ⓨ$_L$ icon: RF POWER setting is LOW.

    (e) ⓨ$_H$ icon: RF POWER setting is HIGH.

RF OFF ⓨ icon
```
GR  CH  AF  L R EQ  🔒 ⛌ ⓨ
        MIC
02  03  520.500MHz
```

LOW POWER ⓨ$_L$ icon
```
GR  CH  AF   L R EQ  🔒 ⛌ ⓨL
        LINE
02  03  520.500MHz
```

HIGH POWER ⓨ$_H$ icon
```
GR  CH  AF  L R EQ  🔒 ⛌ ⓨH
        MIC
02  03  520.500MHz
```
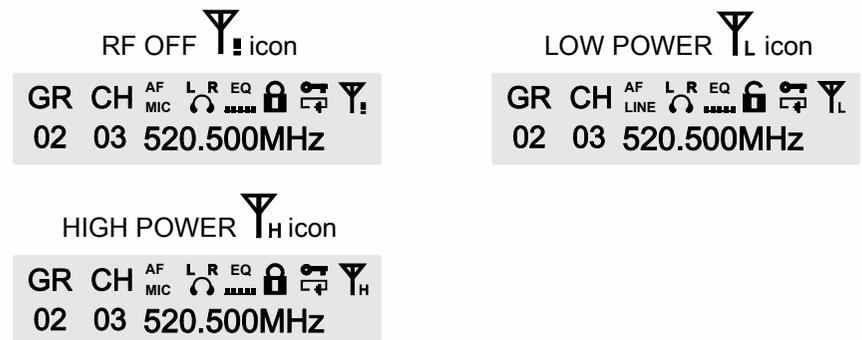
Fig. 11

(D) AF SENSITIVITY: Audio sensitivity settings, Fig. 12

```
RF POWER
> AF SENSITIVITY
        ↵
```

```
AF SENSITIVITY        AF SENSITIVITY   ↻     AF SENSITIVITY   ↻
>  0dB            ↵    >  0dB           ↺     >  -3dB          ↺
                         Highlighted              Highlighted     .....
```

```
AF SENSITIVITY    ↵    RF POWER
>  -30dB               > AF SENSITIVITY
   Highlighted
```

Fig. 12

(1) Locate AF SENSITIVITY menu, press to activate setting.

(2) Press to enter setting (highlighted in black). Turn for desired parameters. Press to save.

(3) Once saved, indicator returns to listed menus.

(4) Notes:

(a) Three bar indicators from the SOURCE are optimal. The red PEAK LED indicates the inputs are overdriven. Reduce the level at the audio source or change the AF sensitivity setting if 0 dB is still too high.

(b) If less than two bar indicators from the SOURCE with -30 dB setting, change AF INPUT to MIC LEVEL to improve AF input sensitivity level.

(E) AF INPUT: Audio Input settings, Fig. 13

```
AF SENSITIVITY
> AF INPUT
        ↵
```

```
AF INPUT              AF INPUT        ↻     AF INPUT
> LINE LEVEL     ↵    > LINE LEVEL    ↺     > MIC LEVEL      ↵
```

```
AF SENSITIVITY
> AF INPUT
```
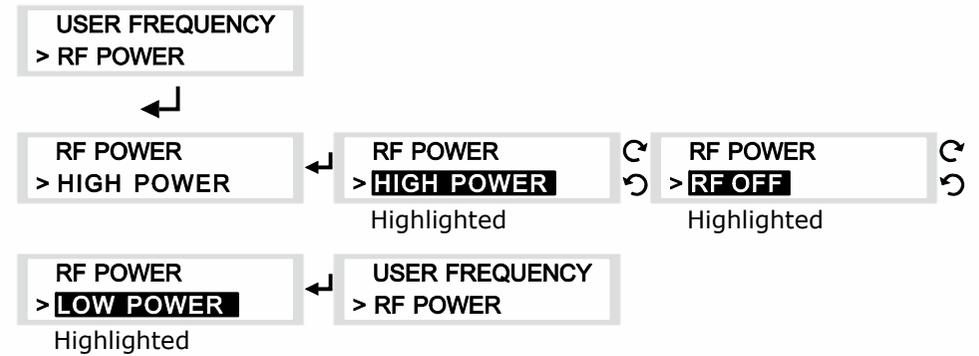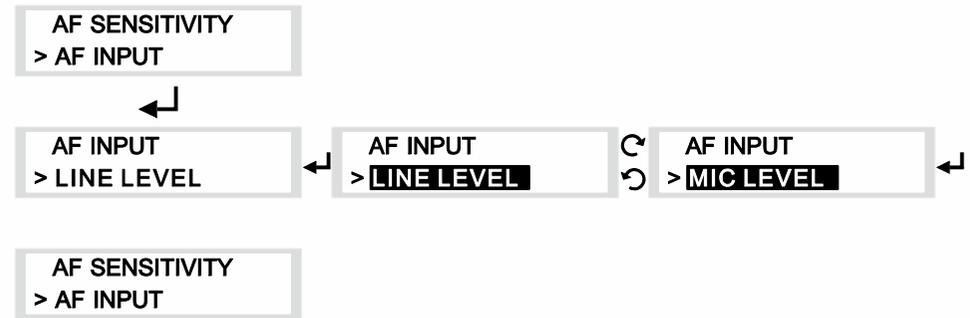
Fig. 13

(1) Locate AF INPUT menu, press to activate setting.

(2) Press to enter setting (highlighted in black). Turn for LINE LEVEL or MIC LEVEL. Press to save.

(3) Once saved, indicator returns to listed menus.

(4) Notes: Fig. 14

(a) Select appropriate output device with proper audio input signal strength to avoid distortion when it is set too high and deteriorated S/N ratio when it is set too low.

(b) AF_MIC icon: MIC LEVEL.

(c) AF_LINE icon: LINE LEVEL.

MIC LEVEL AF_MIC icon   LINE LEVEL AF_LINE icon

```
GR  CH  AF L R EQ 🔒 🖧 ᵞL        GR  CH  AF L R EQ 🔓 🖧 ᵞL
        MIC ⌒ ▂▂                        LINE ⌒ ▂▂
02  03  520.500MHz               02  03  520.500MHz
```

Fig. 14

(F) SOUND MODE: Sound mode settings, Fig. 15

```
┌─────────────────┐
│ AF INPUT        │
│ > SOUND MODE    │
└─────────────────┘
        ↵

┌─────────────────┐    ┌─────────────────┐  ↻    ┌─────────────────┐
│ SOUND MODE      │ ↵  │ SOUND MODE      │  ↺    │ SOUND MODE      │  ↵
│ > STEREO        │    │ > [STEREO    ]  │       │ > [MONO      ]  │
└─────────────────┘    └─────────────────┘       └─────────────────┘
                          Highlighted               Highlighted
┌─────────────────┐
│ AF INPUT        │
│ > SOUND MODE    │
└─────────────────┘
```
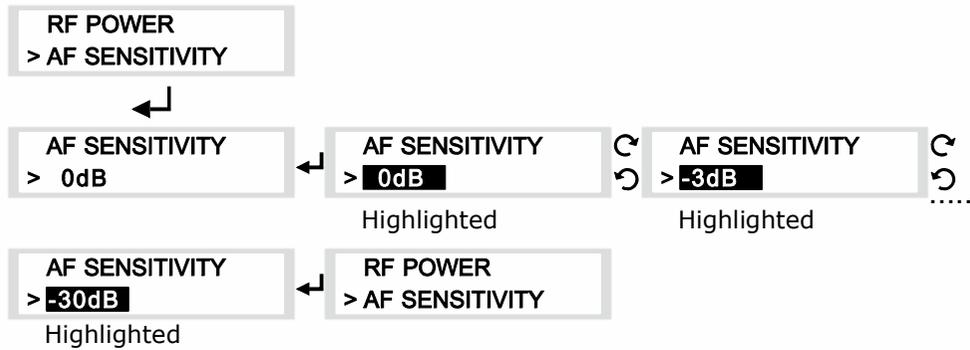
Fig. 15

(1) Locate SOUND MODE, press to activate setting.

(2) Press to enter setting (highlighted in black). Turn for STEREO or MONO. Press to save.

    (a) **L R** 🎧 icon: STEREO.

    (b) **L X** 🎧 icon: MONO.

(3) Once saved, indicator returns to listed menus.

(4) Note: Plug AF IN (L) only for MONO sound.

STEREO **L R** 🎧 icon   MONO **L X** 🎧 icon

```
┌──────────────────────────────┐   ┌──────────────────────────────┐
│ GR CH  AF  L R  EQ 🔒 ⏏ Ⴤ   │   │ GR CH  AF  L X  EQ 🔒 ⏏ Ⴤ   │
│        MIC 🎧 ▬▬▬        L   │   │        LINE 🎧 ▬▬▬       L   │
│ 02  03  520.500MHz           │   │ 02  03  520.500MHz           │
└──────────────────────────────┘   └──────────────────────────────┘
```

Fig. 16

(G) EQUALIZER: Equalizer settings, Fig. 17

```
┌─────────────────┐
│ SOUND MODE      │
│ > EQUALIZER     │
└─────────────────┘
        ↵

┌─────────────────┐    ┌─────────────────┐  ↻    ┌─────────────────┐
│ EQUALIZER       │ ↵  │ EQUALIZER       │  ↺    │ EQUALIZER       │  ↵
│ > FLAT ON       │    │ > [FLAT ON   ]  │       │ > [FLAT OFF  ]  │
└─────────────────┘    └─────────────────┘       └─────────────────┘
   ⇑ ↺ ↻ ⇓

┌─────────────────┐    ┌─────────────────┐  ↻    ┌─────────────────┐
│ EQUALIZER       │ ↵  │ EQUALIZER       │  ↺    │ EQUALIZER       │  ↻
│ > LOW BAND=-9dB │    │ > [LOW BAND=-9dB]│      │ > [LOW BAND=-6dB]│ ↺
└─────────────────┘    └─────────────────┘       └─────────────────┘

   ⇑ ⇓               ┌─────────────────┐
   ↺ ↻               │ EQUALIZER       │ ↵
                     │ > [LOW BAND=+9dB]│
                     └─────────────────┘

┌─────────────────┐    ┌─────────────────┐  ↻    ┌─────────────────┐
│ EQUALIZER       │ ↵  │ EQUALIZER       │  ↺    │ EQUALIZER       │  ↻
│ > MID BAND=0dB  │    │ > [MID BAND=-9dB]│      │ [MID BAND=-6dB] │ ↺
└─────────────────┘    └─────────────────┘       └─────────────────┘

   ⇑ ⇓               ┌─────────────────┐
   ↺ ↻               │ EQUALIZER       │ ↵
                     │ > [MID BAND=+9dB]│
                     └─────────────────┘

┌─────────────────┐    ┌─────────────────┐  ↻    ┌─────────────────┐
│ EQUALIZER       │ ↵  │ EQUALIZER       │  ↺    │ EQUALIZER       │  ↻
│ > HI  BAND=+9dB │    │ > [HI  BAND=-9dB]│      │ > [HI  BAND=-6dB]│ ↺
└─────────────────┘    └─────────────────┘       └─────────────────┘

   ⇑ ⇓               ┌─────────────────┐
   ↺ ↻               │ EQUALIZER       │ ↵
                     │ > [HI  BAND=+9dB]│
                     └─────────────────┘

┌─────────────────┐
│ EQUALIZER       │
│ > SET EXIT      │
└─────────────────┘
        ↵
┌─────────────────┐
│ SOUND MODE      │
│ > EQUALIZER     │
└─────────────────┘
```

Fig. 17

(1) Locate EQUALIZER, press to activate setting.

(2) Press to enter setting (highlighted in black).

Turn for FLAT→LOW BAND→MID BAND→HI BAND→SET EXIT. Press to save.

(a) FLAT: FLAT ON or FLAT OFF.

(b) LOW BAND / MID BAND / HI BAND: -9dB to +9dB: adjustable in increments of 3 dB.

(c) SET EXIT: Press to return to main LCD screen.

(3) Once saved, select SET EXIT and press to return to listed menus.

(4) Notes:

(a) **EQ** [icon] icon: FLAT ON.

(b) **EQ** [icon] icon: FLAT OFFFLAT OFF.

EQ
FLAT ON [icon] icon

EQ
FLAT OFF [icon] icon

GR CH AF L R EQ [icons]
        MIC
02   03 520.500MHz

GR CH AF L R EQ [icons]
        LINE
02   03 520.500MHz

Fig. 18

(H) NAME SETTING: Name settings, Fig. 19

EQUALIZER
> NAME SETTING

NAME SETTING
> DISPLAY   ON

NAME SETTING
> DISPLAY   ON

NAME SETTING
> DISPLAY   OFF

NAME SETTING
> DISPLAY   ON

NAME SETTING
> EDIT: 00MIPRO!00

NAME SETTING
> ./012 00MIPRO!00

NAME SETTING
> KLMNO 00MIPRO!00

NAME SETTING
> EDIT: 00MIPRO!00
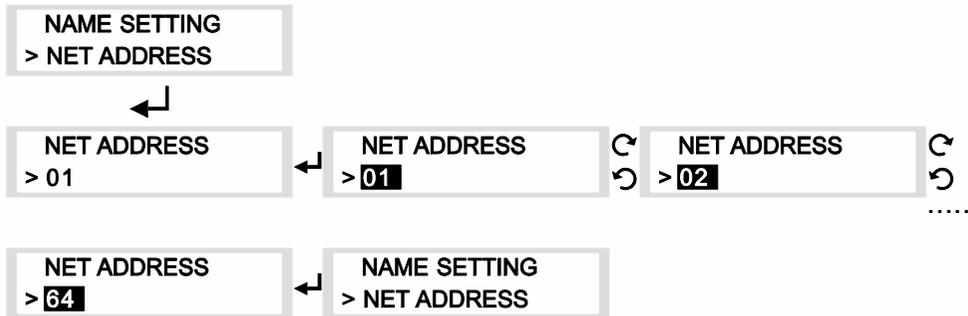
NAME SETTING
> SET EXIT

EQUALIZER
> NAME SETTING
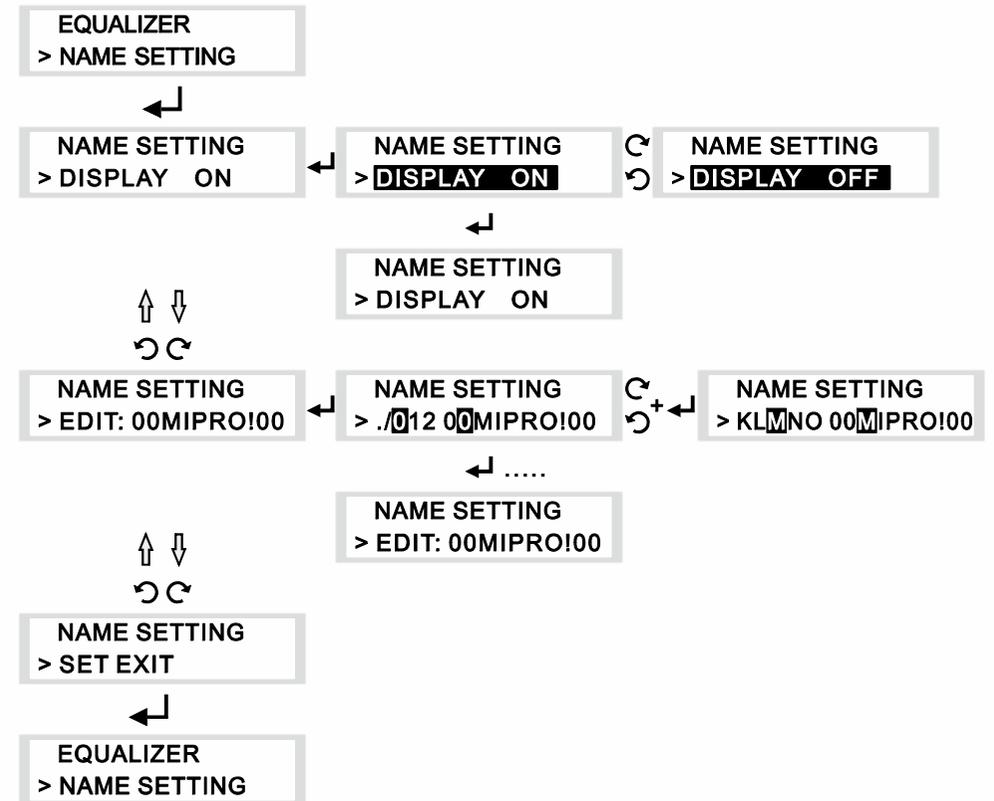
Fig. 19

(1) Locate NAME SETTING menu, press to activate setting.

(2) Press to enter setting (highlighted in black).
Turn for DISPLAY ON→EDIT: 00MIPRO!00→SET EXIT.

(a) DISPLAY: Turn for DISPLAY ON or DISPLAY OFF.

(b) EDIT: Up to 10 alphanumeric characters and symbols.

(c) SET EXIT: Press SET EXIT to return to main LCD screen.

(3) Once saved, select SET EXIT and press to return to listed menus.

(4) Note: DISPLAY ON – Alphanumeric characters are shown.

DISPLAY "ON"

| GR | CH | AF MIC | L R EQ 🎧 ▭ 🔒 ▭ 📶 L |
| 02 | 03 | 00MIPRO!00 |

DISPLAY "OFF"

| GR | CH | AF MIC | L R EQ 🎧 ▭ 🔒 ▭ 📶 L |
| 02 | 03 | 520.500MHz |

Displays alphanumeric characters   Displays user frequency

Fig. 20
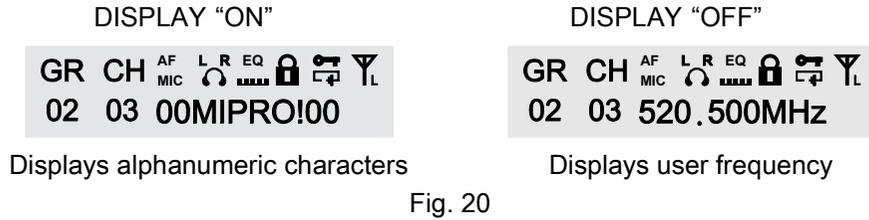
(I) NET ADDRESS Settings: For PC control network, Fig. 21

NAME SETTING
> NET ADDRESS

↵

NET ADDRESS
> 01

↵

NET ADDRESS
> 01

↻

NET ADDRESS
> 02

↻
.....

NET ADDRESS
> 64

↵

NAME SETTING
> NET ADDRESS

Fig. 21

(1) Interface with ACT-BUS for PC-control network. Can monitor up to 64 channels.

(2) 01~64 transmitter addresses can be set and monitor via an optional PC-control software remotely. All transmitters must be connected to a dedicated address for network identification.

(3) Locate NET ADDRESS menu, press to activate setting.

(4) Press to enter setting (highlighted in black). Press to save.

(5) Once saved, indicator returns to listed menus.

(J) SET LOCK 🔓 : Lock settings, Fig. 22

NET ADDRESS
> SET LOCK

↵

SET LOCK
> UNLOCK

↵

SET LOCK
> UNLOCK

↻

SET LOCK
> LOCK

↵

NET ADDRESS
> SET LOCK

Fig. 22
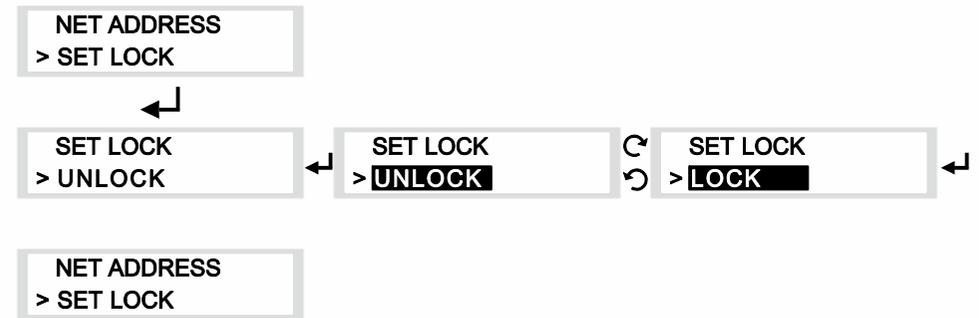
(1) Locate SET LOCK menu, press to activate setting.

(2) Press to enter setting (highlighted in black) for UNLOCK or LOCK. Press to save.

(a) 🔓 icon: UNLOCK.

(b) 🔒 icon: LOCKED.

(3) Once saved, press to return to listed menus.

(4) Once 🔒 icon appears the panel is locked. No new settings can be changed. Need to unlock the panel first prior to make new setting changes.

🔒 icon: LOCKED   🔓 icon: UNLOCK

| GR | CH | AF LINE | L R EQ 🎧 ▭ 🔒 ▭ 📶 L |
| 02 | 03 | 520.500MHz |

| GR | CH | AF LINE | L R EQ 🎧 ▭ 🔓 ▭ 📶 L |
| 02 | 03 | 520.500MHz |

Fig. 23
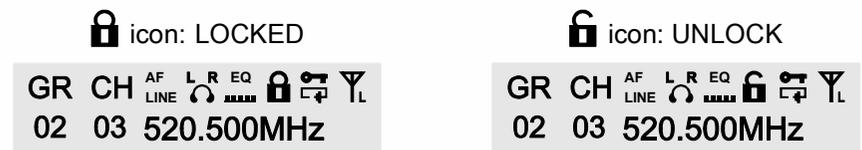
(K) ENCRYPTION ⚬━ : To add encryption or decryption, Fig. 24

```
SET LOCK
> ENCRYPTION
      ↵

ENCRYPTION          ENCRYPTION      ↻    ENCRYPTION
> OFF          ↵    > OFF           ↺    > ON              ↵

SET LOCK
> ENCRYPTION
```

Fig. 24

(1) Locate ENCRYPTION menu, press to activate setting.

(2) Press to enter setting (highlighted in black) for ON or OFF. Press to save.

    (a) ⚿ icon: Encryption key is ON.

    (b) No icon: Encryption key is OFF (not activated).

(3) Once saved, press to return to listed menus.

(4) Be sure to press ACT button for synchronization from transmitter to bodypack receiver after each time an Encryption is activated.

(5) After a new encryption key is added to the transmitter, the transmitter frequency is no longer valid and compatible with existing bodypack receivers. To be compatible, perform the ACT sync function.

⚿ icon: ENCRYPTION ON   No ⚿ icon: ENCRYPTION OFF

```
GR  CH  AF  L R EQ  🔒 ⚿ Ⴘ          GR  CH  AF  L R EQ  🔒      Ⴘ
        LINE              L                  LINE                    L
02  03  520.500MHz                  02  03  520.500MHz
```

Fig. 25

(L) SECURE KEY: Adding encryption key option, Fig. 26

```
ENCRYPTION
> SECURE KEY
      ↵

SECURE KEY          SECURE  KEY     ↻    SECURE  KEY
> STATIC       ↵    > STATIC        ↺    > SCROLL          ↵

ENCRYPTION
> SECURE KEY
```
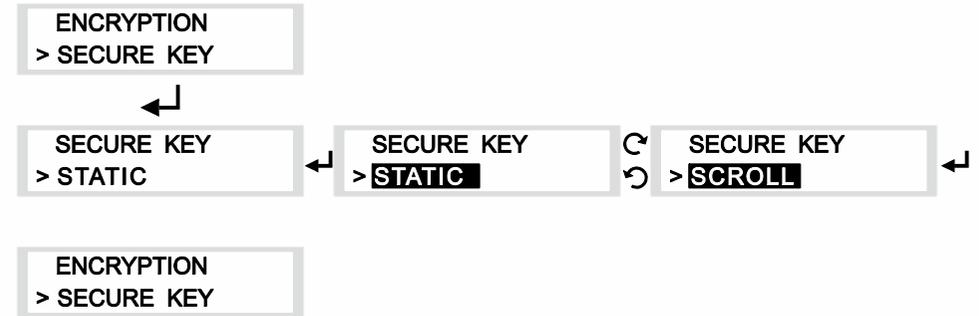
Fig. 26

(1) Locate SECURE KEY menu, press to activate setting.

(2) Press to enter setting (highlighted in black) for STATIC or SCROLL. Press to save.

    (a) STATIC ⚿ icon: No new encryption key is generated each time the ACT sync button is pressed.

    (b) SCROLL ⚿ icon: A new encryption key is generated each time the ACT sync button is pressed.

(3) Once saved, press to return to listed menus.

(4) Encryption key is generated randomly and very difficult to break or crack for eavesdropping occurrences.

(5) Notes:

    (a) STATIC encryption method is ideal for one transmitter to multiple receivers.

    (b) SCROLL encryption method is ideal for one transmitter to one receiver.

STATIC: existing encryption, ⚿ icon   SCROLL: new encryption, ⚿ icon

```
GR  CH  AF  L R EQ  🔒 ⚿ Ⴘ          GR  CH  AF  L R EQ  🔒 ⚿ Ⴘ
        LINE              L                  LINE              L
02  03  520.500MHz                  02  03  520.500MHz
```

Fig. 27

STATIC encryption mode is
ideal for multiple receivers
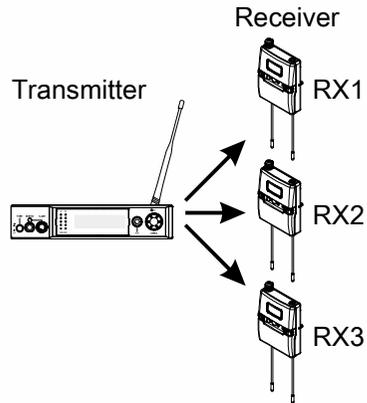
SCROLL encryption mode is
ideal for a single receiver

Receiver

Transmitter   RX1

                     RX2

                     RX3
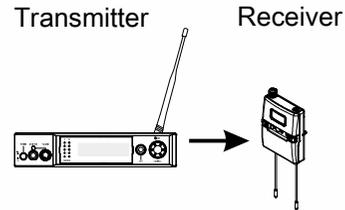
Fig. 28

Transmitter   Receiver

Fig. 29

(M) FREE SCAN: Scan for an interference-free transmitter channel, Fig. 30

SECURE KEY
> FREE SCAN

FREE SCAN
> 01 01 512.000MHz

FREE SCAN
> 01 **01** 512.000MHz

FREE SCAN
> 01 **02** 502.125MHz

.....

FREE SCAN
> 01 **08** 502.125MHz

SECURE KEY
> FREE SCAN
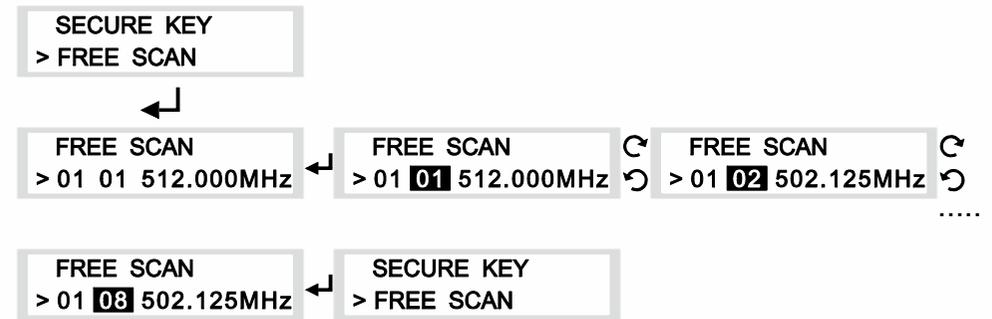
Fig. 30

(1) Locate FREE SCAN menu, press to activate setting.

(2) Press to enter setting (highlighted in black). Turn left or right to scan for an open Channel within the specified Group. Press to save.

(3) Once saved, press to return to listed menus.

(4) FREE SCAN scans for an interference-free channel within the specified Group only.

(5) Notes: During scanning process the transmitter stops transmission.

(a) Use FREE SCAN to analyze the RF environment for interference and identify available frequencies.

(b) When no interference-free channel is located, it reverses automatically back to the original channel.

(6) Note: When performing a FREE SCAN, turn on potential sources of interference such as other wireless systems or devices, computers, CD players, large LED panels, effects processors, and digital rack equipment so they are operating as they would be during the presentation or performance (so the scan will detect and avoid any interference they generate).

(N) EXIT & SAVE: Save changes and exit, Fig. 31

```
┌─────────────────────┐      ┌──────────────────────────────┐
│  FREE  SCAN         │  ◄┘  │ GR  CH  AF  L R EQ  🔒 ⇄ Υ∟  │
│ > EXIT & SAVE       │      │        MIC                    │
│                     │      │ 02  03 520.500MHz            │
└─────────────────────┘      └──────────────────────────────┘
```
                                    Fig. 31

Press to exit and return to the main LCD screen.

(O) MIPRO's Proprietary ACT sync function, Fig. 32

Press ACT sync button

ACT SYNC . . . .
> 01 01 512.000MHz

Press ACT to synchronize frequency to bodypack receiver

ACT FAIL
> 01 01 512.000MHz

ACT FAIL appears during a failed synchronization
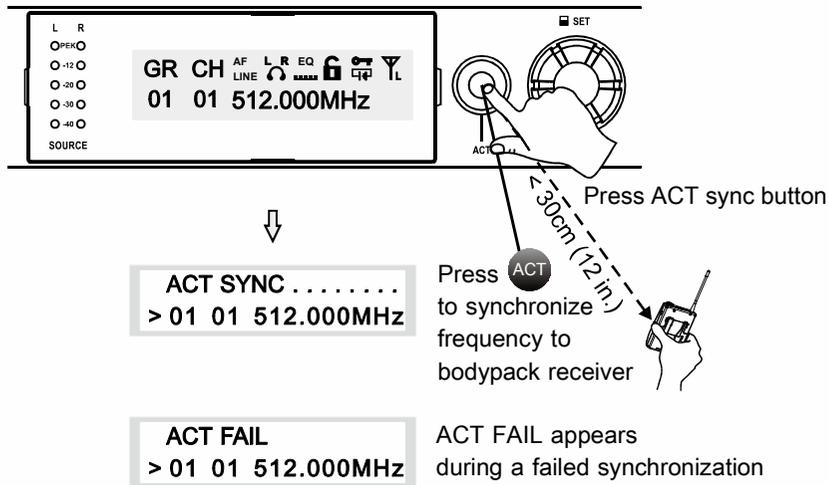
Fig. 32

(1) Press the ACT sync button on the rack transmitter to activate the synchronization. ACT FAIL appears during a failed sync. ACT SYNC word with moving "…" disappears during a successful sync and returns back to main LCD screen.

(2) Align the ACT sync windows of both transmitter and receiver within 30 cm(12-inch) and 10 seconds.

(3) During ACT sync, the frequency is synchronized from transmitter to receiver. Other setting as an encryption key (SCROLL or STATIC) is also synchronized during the transfer.

IV. Network Connection

Connect to USB Port on PC   MIPRO DVU
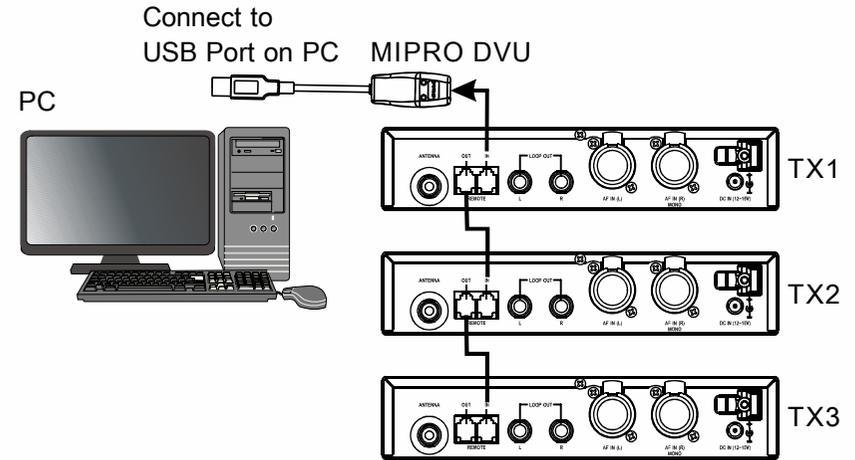
PC

TX1

TX2

TX3

Fig. 33

1. New network interface.

2. Connection from REMOTE connectors located at the rear panel of the transmitter via connection to USB PORT, Fig. 33

3. Wiring Instructions:

    (A) Connect REMOTE OUT to REMOTE IN of another transmitter for interconnection of other transmitters. First transmitter (TX) 1, connect REMOTE IN to a MIPRO-DV.

    (B) Up to 64 transmitters can be linked and connected.

    (C) Up to 300 meters of internet connection is possible. However, we recommend for up to 100 meters to ensure optimal performance and quality of high-speed transmission

V. Rackmount Kit for Two Units

1. Rack-mounting a 1/2 rack unit:

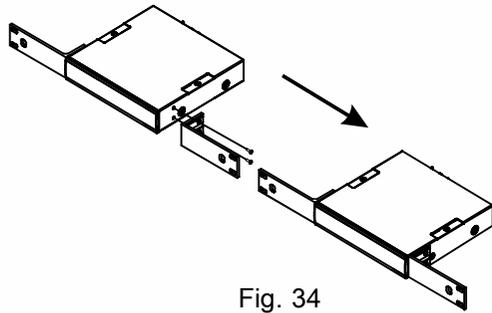   Rack-mount with an optional FB-71 rack-mount kit and fasten accordingly, Fig. 34.

Fig. 34

2. Rack-mounting two 1/2 rack units side-by-side:

   (A) Remove top & bottom screws.

   (B) Insert top and bottom plates to joint two transmitters. Fasten screws.

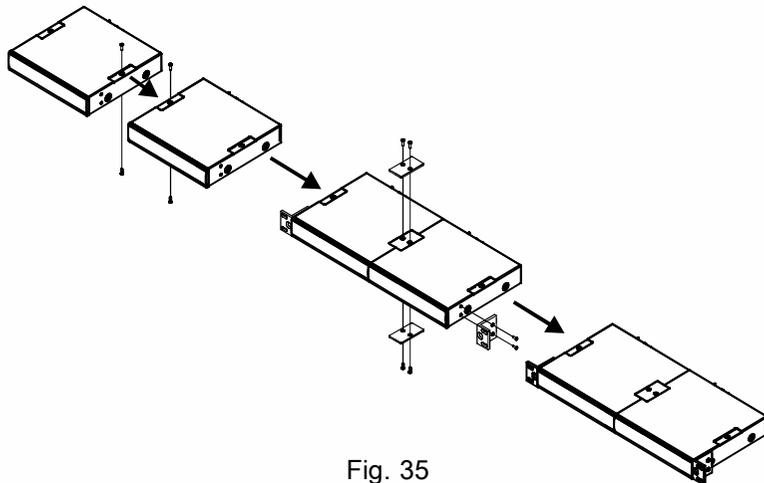   (C) Rack-mount with an optional FB-72 rack-mount kit, Fig. 35

Fig. 35

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. When using RG-58 or 3D cable, do not exceed 5 meters and use 50Ω coaxial cable to transmit signals to the external antenna.

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. Power supply voltage should not be less than 12V and not higher than 15V. Ensure at least 500mA or more output current. Deficient current causes operating voltage instability or malfunction and exceeding current causes shorter the product life cycle and possible short or damaging circuits.

5. MI-909T stationary transmitter has to be paired with MI-909R bodypack receiver.

VII. Notes

1. Refer to actual product in the event of product discrepancy.

2. Frequency range and maximum deviation comply with the regulations of different countries.