JTS®

US-36G2 / Mh-36G2 / PT-36BG2

FC CE 1856 RoHS conform

59508-043-01

JTS PROFESSIONAL CO., LTD.

UHF PLL

US-36G2

TRUE DIVERSITY WIRELESS SYSTEMS

Instruction Manual

Thank you for choosing the JTS wireless system. In order to obtain the best efficiency from the system, you are recommended to take few minutes to read this instruction manual carefully.

INDEX

1. Important Caution

- Always make all connections before plugging the unit into an AC power outlet.
- Do not leave the devices in a place neither with high temperature nor high humidity.
- Always do not handle the power cord with wet hands !
- Keep the devices away from fire and heat sources.

2. Features

- Due to the PLL synthesized technology, the system can offer up to 1441 selectable frequencies for choosing simultaneously.
- 6 groups, maximum 23 channels in one group.
- The true diversity reception with 2 independent RF receivers ensure the stable transmission and reception.
- Adjustable Pilot tone squelch control can effectively reduce the noise.
- Equipped with S.A.W. filter benefits the interference-resistant.
- Tuned antennas can benefit the stable RF reception.
- Built-in Noise Squelch circuity & Mute function are available to restrain the interference for signals.
- Rugged metal housing can pass through the difficult environment.
- Equipped with balanced XLR and balanced output allow great convenience.
- Anti-interference design is available to work with every computer device.
- Transmission power selectable between 10 and 50mW (depends on local regulation).

3. Specification

3-1 Receiver // US-36G2

Frequency Preparation	PLL Synthesized Control
Carrier Frequency Range	**470.0~607.950MHz, 614.050~697.950MHz**
S/N Ratio	> 105dB
T.H.D.	<0.6%@1KHz
Display	LCD / LED
Display Contents	Group, Channel, Frequency, Antenna A/B, Mute Display, AF Meter (LED BAR), RF Meter (LED BAR) , Battery Status
Controls	Power On/Off, Group, Channel, Frequency Up/Down, Frequency Scan, Audio Level, Lock-on, Output Pad
Audio Output Level	-12dB
AF Output Impedance	600Ω
Squelch	Pilot Tone & Noise Mute
Operation Voltage	12V, 500mA
Output Connector	1 XLR Balanced Socket 1 Ø6.3mm Unbalanced phone jack
Dimension(m/m)	212.3mm (W)* 38.3mm (H)* 144mm (D)

3-2 Handheld Transmitter // Mh-36G2

Frequency Preparation	PLL Synthesized Control
Carrier Frequency Range	**470.0~607.950MHz, 614.050~697.950MHz**
RF Outputs	10mW / 50mW (Depend on Local Regulation)
Stability Frequency	<±10KHz
Deviation	±48KHz (Peak)
LCD Display	Group, Channel, Frequency, Battery Status, Sensitivity
Controls	Power On/Off, Mode Setting, AF Level, Frequency Up/Down, Lock-on Mode
Spurious Emissions	<-50 dBC
Audio Frequency Response	50~16,000 Hz
Battery	UM3, AA 1.5V*2

3-3 Body-pack Transmitter // PT-36BG2

Frequency Preparation	PLL Synthesized Control
Carrier Frequency Range	470.0~607.950MHz, 614.050~697.950MHz
RF Outputs	10mW / 50mW (Depend on Local Regulation)
Stability Frequency	<±10KHz
Deviation	±48KHz (Peak)
LCD Display	Group, Channel, Frequency, Battery Status, Sensitivity
Controls	Power On/Off, AF Level, Group, Channel, Frequency Up/Down, Lock-on Mode
Output connector	4P mini XLR
Spurious Emissions	<-50 dBC
Audio Frequency Response	50Hz~18k Hz
Battery	UM3, AA Alkaline x2

3-4 Optional Condenser Microphone

Lavaliere Microphone

Model No.	CM-501	CM-201i	CM-125i
Connector	4P Mini XLR	201C4 (4P Mini XLR)	201C4 (4P Mini XLR)
Option Connector		201C3 (3P Mini XLR)	201C3 (3P Mini XLR)
		201CS (3.5 stereo plug)	201CS (3.5 stereo plug)
		201CR	201CR
Frequency Response	100~15,000 Hz	60~15,000 Hz	50~18,000 Hz
Polar Pattern	Cardioid	Omni-directional	Omni-directional
Sensitivity (at 1000Hz)	-60±3 dB	-60±3 dB	-53±3 dB
Impedance	2.2kΩ	2.2kΩ	4.4kΩ
Max. SPL for 1% THD	130dB	130dB	130dB
Dimension(mm)	Ø10.1mm(W) * 26.4mm(H)	Ø5mm(W)* 9mm(H)	Ø4mm(W)* 11mm(H)
Net Weight	21.5g	20.7g	7g (cable excluded)

Headset Microphone

Model No.	CM-214	CM-214U	CM-214UL
Connector	801C4 (4P Mini XLR)	4P Mini XLR	801C3 (3P Mini XLR) 801C4 (4P Mini XLR) 801CS (3.5 stereo plug)
Option Connector	801C3 (3P Mini XLR) 801CS (3.5 stereo plug) 801CR		801CR
Frequency Response	60~15,000 Hz	30~18,000 Hz	100 ~ 18,000Hz
Polar Pattern	Omni-directional	Cardioid	Cardioid
Sensitivity (at 1000Hz)	-60±3 dB	-68±3 dB	-65±3 dB
Impedance	1.8kΩ	680Ω	1.8kΩ
Max. SPL for 1% THD	130dB	130dB	120dB
Dimension(mm)	125mm(W) *134mm(H) *157mm(D)	205mm(W) *134mm(H) *157mm(D)	125mm(W) *134mm(H) *157mm(D)
Net Weight	32.9g	38.4g	18g (cable excluded)

Model No.	CM-235	CX-504
Connector	801C4 (4P Mini XLR)	4P Mini XLR
Frequency Response	50~18,000 Hz	30~18,000 Hz
Polar Pattern	Omni-directional	Cardioid
Sensitivity (at 1000Hz)	-53±3 dB	-68±3 dB
Impedance	1.8kΩ	680Ω
Max. SPL for 1% THD	130dB	130dB
Dimension(mm)	155mm(W) *134mm(H) *157mm(D)	285mm(W) *55mm(H) *111.3mm(D)
Net Weight	17g (cable excluded)	56.3g

Ear-hook Microphone

Model No.	CM-801/CM-804i	CM-8015/CM-825i
Connector	801C4 (4P Mini XLR)	801C4 (4P Mini XLR)
Option Connector	801C3 (3P Mini XLR) 801CS (3.5 stereo plug) 801CR	801C3 (3P Mini XLR) 801CS (3.5 stereo plug) 801CR
Frequency Response	60~15,000 Hz	50~18,000 Hz
Polar Pattern	Omni-directional	Omni-directional
Sensitivity (at 1000Hz)	-64±3 dB	-53±3 dB
Impedance	1.8kΩ	1.8kΩ
Max. SPL for 1% THD	130dB	130dB

Compatible Instrument Microphone

Model No.	CX-500	CX-500F	CX-520
Connector	4P Mini XLR	4P Mini XLR	4P Mini XLR
Frequency Response	20~20,000 Hz	20~20,000 Hz	50~16,500 Hz
Polar Pattern	Omni-directional	Omni-directional	Supercardioid
Sensitivity (at 1000Hz)	-58±3dB	-58±3dB	-78±3dB
Impedance	1.5kΩ	1.5kΩ	600Ω
Max. SPL for 1% THD	130 dB	130 dB	148 dB
Good For	Violin	Flutes	Harmonica

Model No.	CX-508W	CX-516W
Connector	4P Mini XLR	4P Mini XLR
Frequency Response	50~18,000 Hz	30~18,000 Hz
Polar Pattern	Cardioid	Cardioid
Sensitivity (at 1000Hz)	-67±3 dB	-67±3 dB
Impedance	220Ω	220Ω
Max. SPL for 1% THD	130 dB	130 dB
Good For	Winds	Accordion

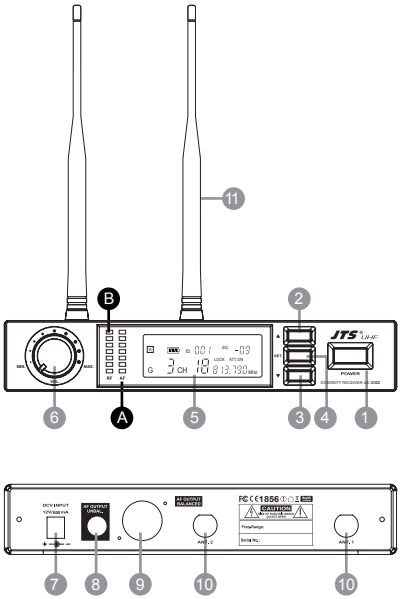
4. Parts Identification & Accessories

4-1 Receiver // US-36G2

1. Power On/Off switch
2. Up button (frequency adjustment)
3. Down button (frequency adjustment)
4. Set button (frequency adjustment)
5. LCD Display
6. Volume control
7. DC socket for connection of main unit
8. AF output, jack socket (AF UNBAL)
9. Balanced XLR socket
10. Antenna input socket
11. Antenna

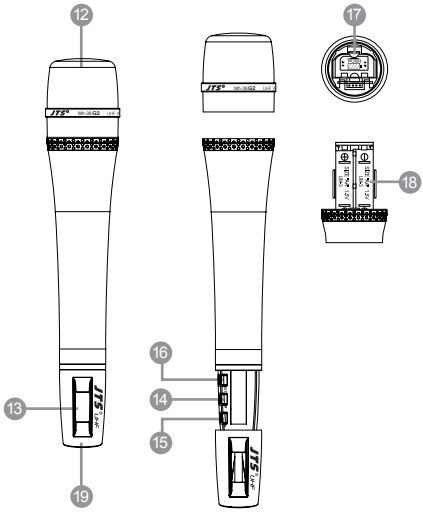
A. AF signal level

B. RF signal level



4-2 Handheld Transmitter // Mh-36G2

⑫ Interchangeable capsule
⑬ LCD display
⑭ Down button
⑮ UP button
⑯ Set button
⑰ Battery tray button
⑱ Battery tray
⑲ Power On/Off switch

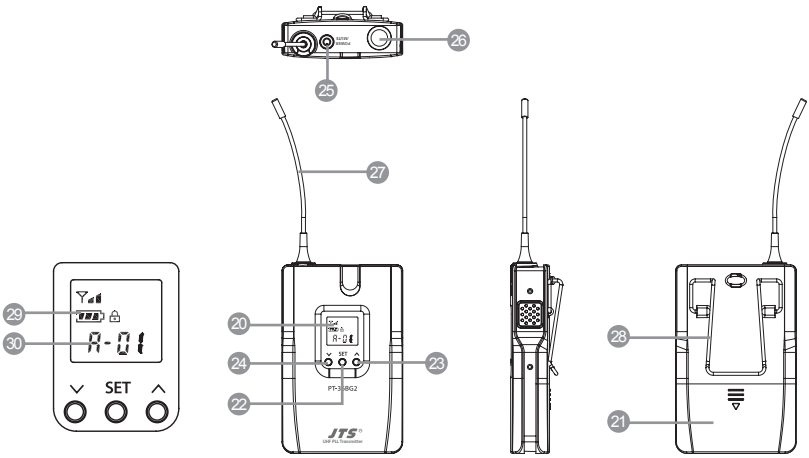


4-3 Body-pack Transmitter // PT-36BG2

20. LCD Display
21. Battery Tray
22. Set button: set the configuration of bodypack transmitter
23. Up button: select the settings of transmitter
24. Down button: select the settings of transmitter
25. Power Switch / Mute
26. 4 Pin mini XLR mic. input
27. Antenna
28. Belt Clip

LCD Panel of the Body-Pack Transmitter

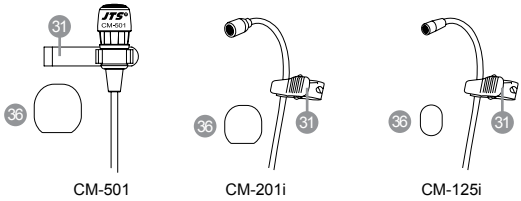
29. Battery status: display battery status
30. Group & Channel

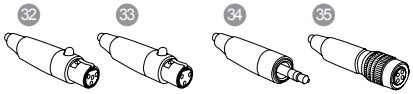


4-4 Optional Condenser Microphone

Lavaliere Microphone // CM-501 CM-201i CM-125i

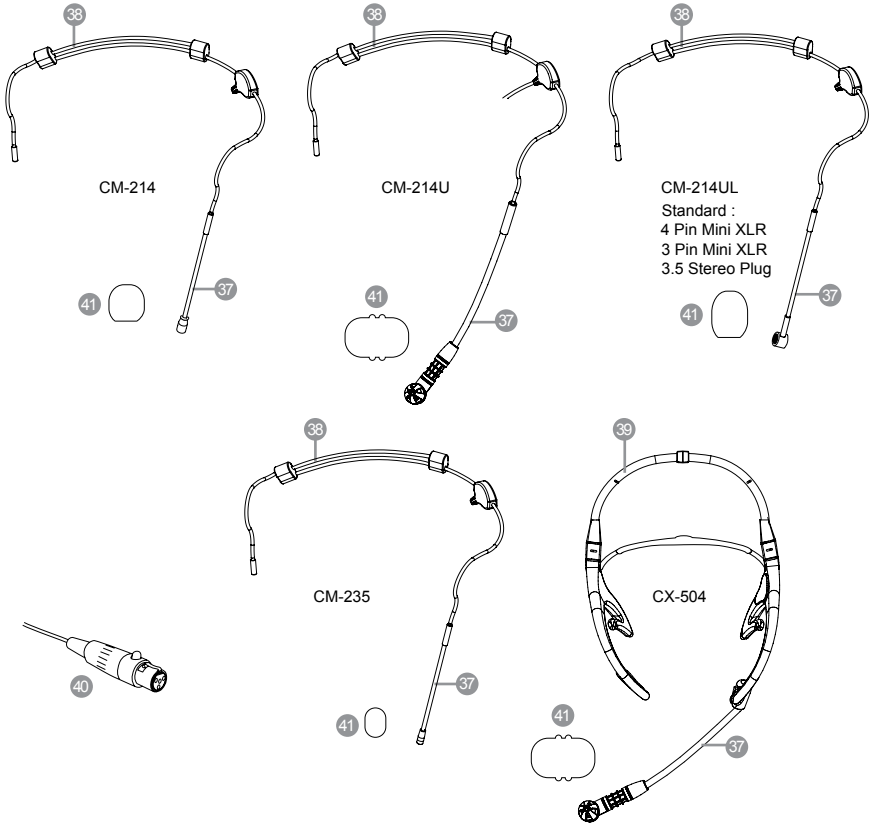
31 Clip
32 4 Pin Mini XLR
33 3 Pin Mini XLR Option
34 3.5 Stereo Plug Option
35 4Pin Hirose connecter Option
36 Windscreen





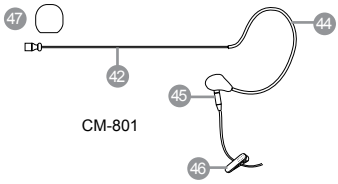
Headset Microphone // CM-214 / CM-214U / CM-214UL / CM-235 / CX-504

37 Gooseneck
38 Adjustable headband
39 Headband
40 4 Pin Mini XLR
41 Windscreen

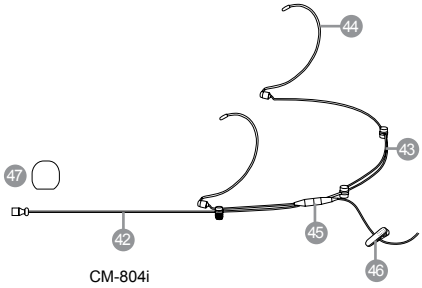


Ear-hook Microphone // CM-801 / CM-804i / CM-8015 / CM-825i

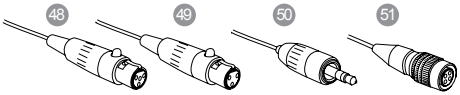
42 Boom
43 Adjustable Headband
44 Adjustable ear hook
45 Detchable Cable
46 Cable Clip
47 Windscreen
48 4 Pin Mini XLR
49 3 Pin Mini XLR Option
50 3.5 Stereo Plug Option
51 4Pin Hirose connecter Option

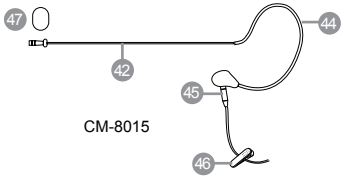


CM-801

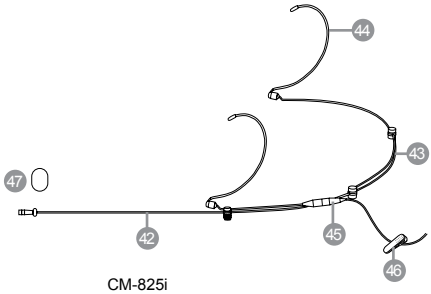


CM-804i





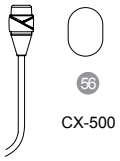
CM-8015



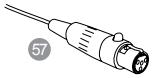
CM-825i

Compatible Instrument Microphone // CX-500 / CX-500F / CX-520 / CX-508W / CX-516W

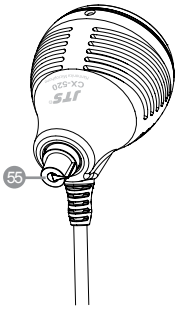
52 Gooseneck
53 Clip
54 Bracket
55 Volume Control
56 Windscreen
57 4 Pin Mini XLR



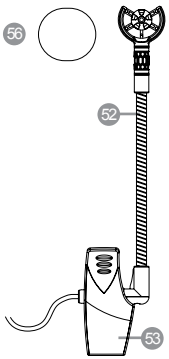
CX-500



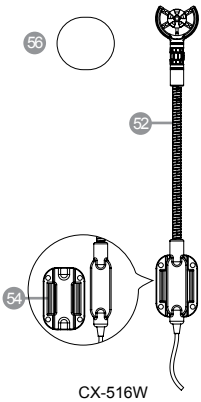
CX-500F



CX-520



CX-508W

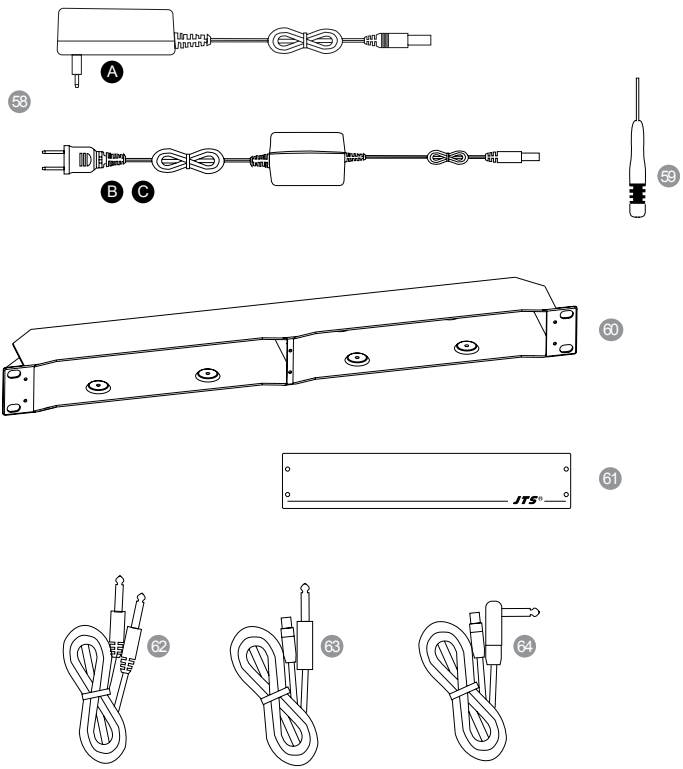


CX-516W

4-5 Accessories

58 AC/DC adaptor
- Ⓐ Switching Power Supply(100V~240V , 50~60Hz)
- Ⓑ Linear Power Supply (220V , 50Hz) Option
- Ⓒ Linear Power Supply (220V , 60Hz) Option

59 Screwdriver
60 DR-900 Dual Rack Adaptor Option
61 RP-900 Panel Cover Option
62 AF output cable (with Φ6.3 plug at both ends)
63 GC-80/GC-100 Guitar Cable Option
64 GC-80L/GC-100L Guitar Cable Option



5. Preparing Procedures & Basic Operation

5-1 Receiver // US-36G2

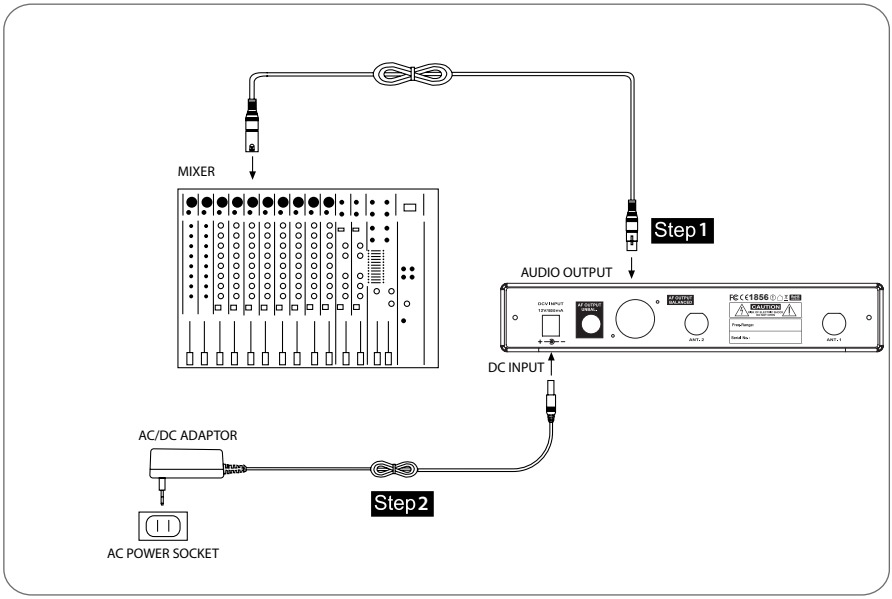
(1) Power output connector

Plug in one end of AC/DC adaptor cable to DC input socket in the rear panel of receiver, and plug another end into an AC outlet.(Step 1)

(2) Audio Output Connector

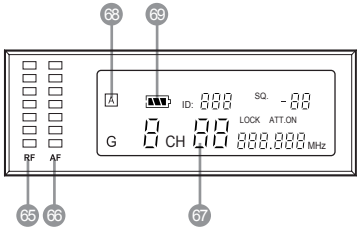
Connect one end of the AF output cable to the AF output socket in the rear panel, then plug another end to the "MIC IN" input socket of a mixer or amplifier.(Step 2)

Receiver equipped with balanced XLR output and Unbalanced φ6.3mm output, choose the proper way for use.



(3) LCD panel

- 65 RF signal level
- 66 AF signal level
- 67 Main display
- 68 Diversity display (A or B antenna)
- 69 Battery gauge of the transmitter



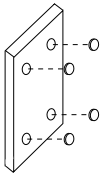
Basic operation

POWER Turning the receive on and off by pressing the POWER button.

SET Press the SET button for 3 seconds to select group/frwquency scan, squelch, and output level.
Press the SET button again to store once you make any changes.
Press the UP or DOWN button to adjust the setting.

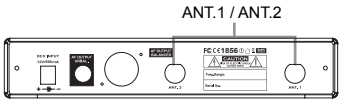
(4) Setting the rubber pad

Four self-adhesive rubber pads are provided to ensure the stability.
They are to be placed on the bottom side of the receiver.



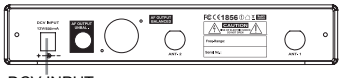
(5) Connecting the antennas

The user-friendly receiver antenna comes with easy mount on socket for effortless connection. Connect two antennas on the back of the receiver and align them upward.



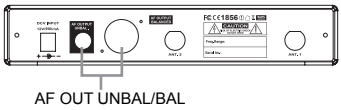
(6) Connecting the main unit

Plug in the DC connector on the back of the receiver (DCV INPUT).



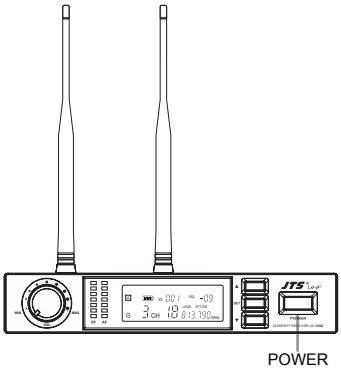
(7) Connecting the amplifier/mixer console

Plug in the amplifier/mixer console to the (AF OUT UNBAL / BAL) sockets.



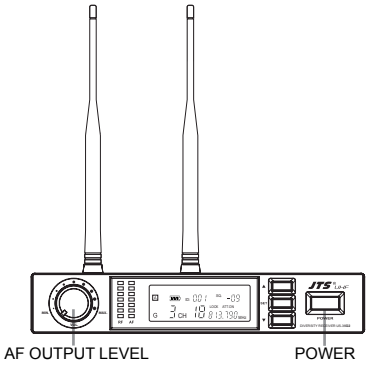
(8) Turning the receiver on/off

Turn the receiver on by pressing the Power button.



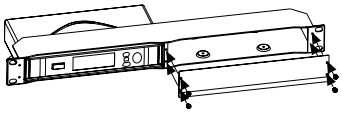
(9) Adjusting the AF output level

Use the AF output level control located on the front side of the receiver to adjustthe AF signal level that appears at output.



(10) Dual Rack Adaptor set

The dual rack adaptor is available to unify the half rack space into a standard EIA size with single or dual units.



5-2 Handheld Transmitter // Mh-36G2

(1) Turning the transmitter on/off
The on/off switch is located on the bottom of the microphone.

(2) Inserting and changing the battery
1. Loosen the microphone head counter-clockwise. (Figure 1)
2. Push both battery tray button to release it. (Figure 2)
3. Insert 2 pieces of UM-3 1. 5 V batteries, remember to match correct polarity. (step1 of Figure3)
4. Push the battery tray back. (step2 of Figure3)
5. Aim the connectors exactly for screwing on the microphone head clockwise. (Figure 4)

(3) LCDpanel
70 Main display
71 Battery indicator

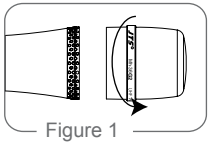


Figure 1

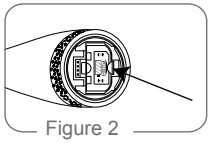


Figure 2

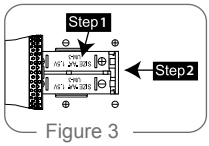


Figure 3

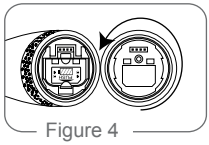


Figure 4

(4) Press the SET button to select between frequency /group/ sensitivity / RF outputs.

1. Frequency adjusting
   Press the UP or DOWN button to adjust the setting of a menu.
   1-1 Hold SET button for 3 seconds to activate frequency.
   1-2 Once you see "MHz" blinking , you are ready to select your desired frequency by using UP and DOWN buttons.
   1-3 Press the SET button again to store your changes.
2. Group adjusting
   2-1 Press"Set" button 16 for 3 seconds, the group (G) will flash. (Figure 5)
   2-2 Presss" ▲Up 15 " or " ▼Down 14 "button to select a desired group.
   2-3 Press "Set" again and the Channel (CH) will flash.
   2-4 Press " ▲Up" or " ▼ Down" button to select a desired channel.
   2-5 After setting, press "Set" again to save the setting.
3. Sensitivity adjusting
   3-1 Press the SET button twice to select sensitivity. Lasting for 3 seconds at the first press, then 1 second for the second press, and the display appears SEnSit .
   3-2 Use UP and DOWN buttons to adjust changes.
   3-3 Finally press SET button again to store your changes.
4. RF Outputs adjusting
   4-1 Push the "Set" button 16 several times until the "rF Lo " or "rF Hi" flashes.
   4-2 Then push " ▲Up 15 " to choose "Hi" for high transmitting power and push " ▼ Down 14 "to choose "Lo" for low transmitting power.
   4-3 Selectable transmission power betwem 10mW & 50mW.
   4-4 Push the "Set" again to save the setting.

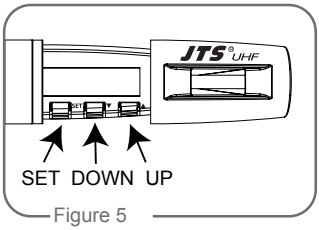


Figure 5

5-3 Body-pack Transmitter // PT-36BG2

(1) Press the SET button to select between frequency /group/ sensitivity / RF outputs. (depends on country)

1. Frequency adjusting
   Press the UP or DOWN button to adjust the setting of a menu.
   1-1 Hold SET button for 3 seconds to activate frequency.
   1-2 Once you see "MHz" blanking , you are ready to select your desired frequency by using UP and DOWN buttons.
   1-3 Press the SET button again to store your changes.
2. Group adjusting
   2-1 Press"Set" button 22 for 3 seconds, the group (G) will flash. (Figure 6)
   2-2 Presss" ▲Up 23 " or "▼Down 24 "button to select a desired group.
   2-3 Press "Set" again and the Channel (CH) will flash.
   2-4 Press " ▲Up" or " ▼ Down" button to select a desired channel.
   2-5 After setting, press "Set" again to save the setting.
3. Sensitivity adjusting
   3-1 Press the SET button twice to select sensitivity. Lasting for 3 seconds at the first press, then 1 second for the second press, and the display appears SEnSit .
   3-2 Use UP and DOWN buttons to adjust changes.
   3-3 Finally press SET button again to store your changes.
4. RF Outputs adjusting
   4-1 Push the "Set" button 22 several times until the "rF Lo " or "rF Hi" flashes.
   4-2 Then push " ▲Up 23 " to choose "Hi" for high transmitting power and push " ▼ Down 24 "to choose "Lo" for low transmitting power.
   4-3 Selectable transmission power betwem 10mW & 50mW.
   4-4 Push the "Set" again to save the setting.

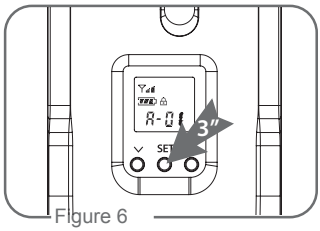
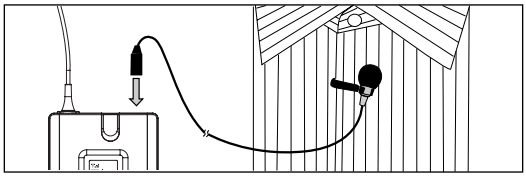


Figure 6

5-4 Installation of Condenser Microphones

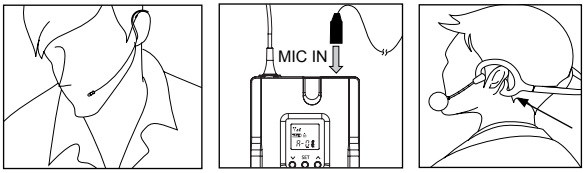
(1) Lavaliere microphone

Attach lavaliere microphone to a tie, lapel, where is suitable for sound pick-up. Plug the connector into input socket on the body-pack transmitter.



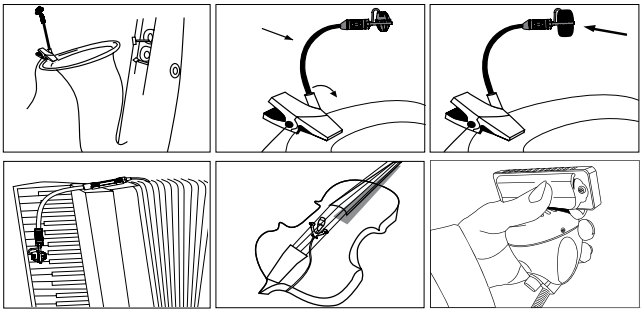
(2) Headset microphone

Put the headband behind your head, and fix the temples on your ears as shows, then adjust the gooseneck to have best miking. Plug the connector into input socket on the body-pack transmitter.



(3) Instrument Microphones

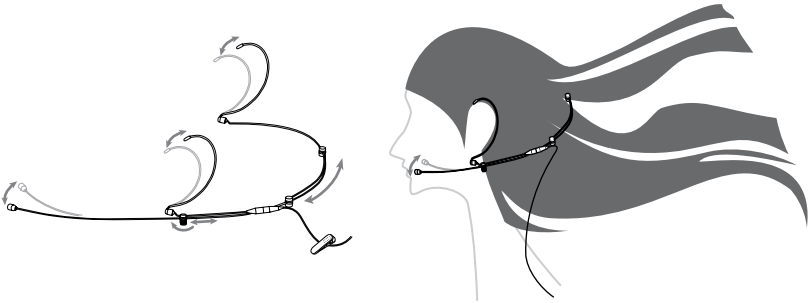
The system is compatible with JTS various instrument microphones.
For detail please refer to user's manuals of these microphones.



(6) Ear-hook Microphone

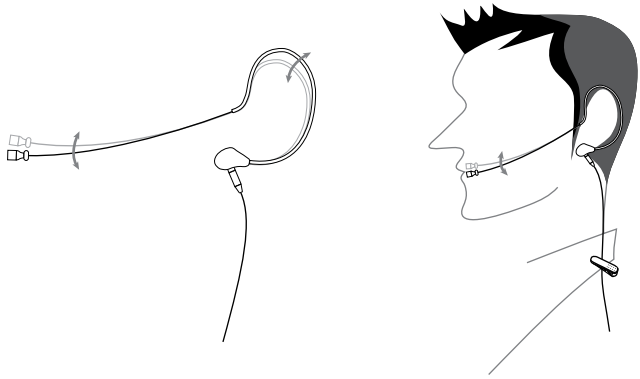
1. Lightweight Dual Ear Hook Microphone

Try on whether the headset is fit.
Adjust the headband to a suitable width.
Tighten or loosen the curve of the ear-hook by twisting the loop or expanding it.
Curve and bend the boom to fit your face.
Attach the detachable cable to a suitable place by a cable clip.



2. Lightweight Single Ear Hook Microphone

Try on whether the original curve is tight or loose.
Re-try and push the fixed curve against your earlobe.
Curve and Bend the boom to fit your face.
Attach the detachable cable to a suitable place by a cable clip.



6. Recommendation

(1) In order to achieve the optimum reception condition and also extend the operating distance, please leave a "open space" between the receiver and transmitter.
(2) Keep the devices away from the metal objects or any interference sources, at least 50 cm.
(3) To avoid the feed-back effect, don't leave the mic. to aim at the speakers directly.
(4) For best pick-up pattern, please hold the middle of the mic. body.
(5) Remove batteries from the battery compartment when the transmitter will not be used for a long time.
(6)When you need to replace the batteries, please replace both batteries at the same time with new ones.

7. Important Notice

(1) JTS offers wireless systems in a selection of bands that conform to the different government regulations of specific nations or geographic regions. These regulations help limit radio frequency (RF) interference among different wireless devices and prevent interference with local public communications channels, such as television and emergency broadcasts.

(2) For information on bands available in your area, consult your local dealer or phone JTS. More information is also available at JTS's website (www.jts.com.tw).

(3) This Radio apparatus may be capable of operating on some frequencies not authorized in your region. Please contact your national authority to obtain information on authorized frequencies and RF power levels for wireless microphone products.

Notice:
The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

IMPORTANT NOTE:
To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.