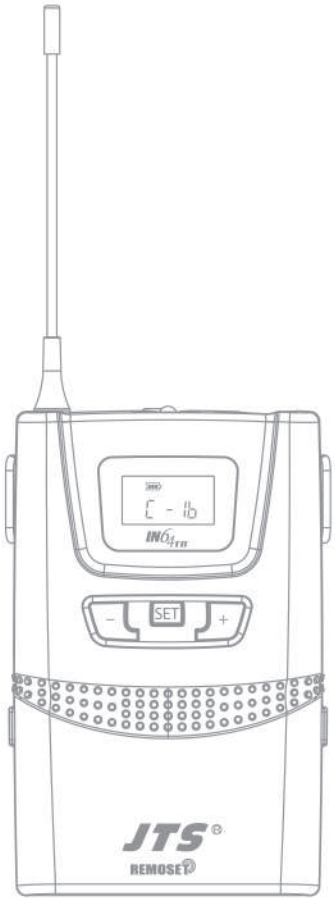
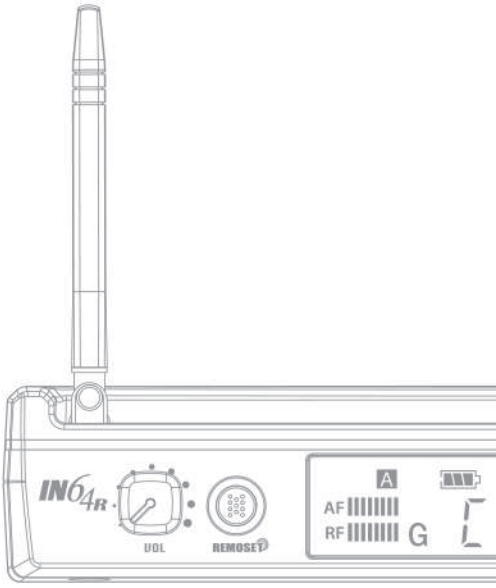
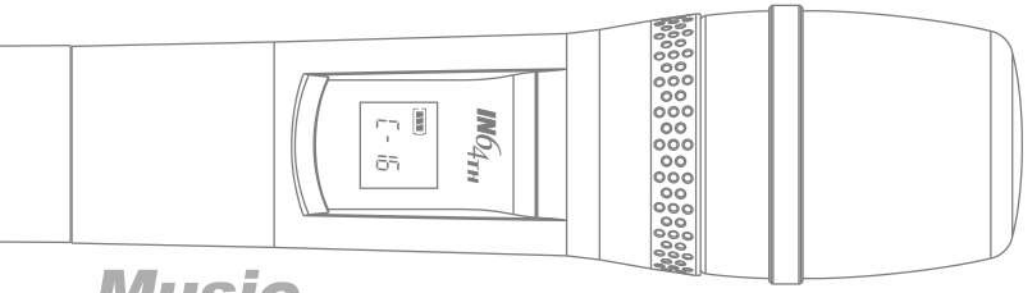


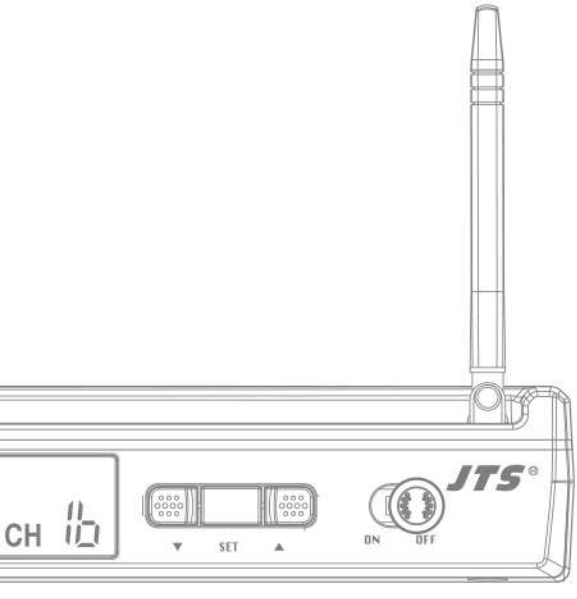


RoHS conform FC CE 1856

59508-017-06



Music Life **INFINITY**



UHF PLL Single Channel Diversity Wireless System

** The system is of the innovative design to allow changing the transmitter's frequency by long-distance.*
** Preset 4 groups each of 16 UHF channels.*

IN64

REMOSET®

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 makes all connections before plugging the unit into an AC power outlet.
- Do not leave the device 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.
- Pair the ID codes of the transmitter and the receiver to have proper function.

2. Features

JTS IN64 wireless microphone system is designed with the world first RF remote setting function (REMOSET). A user can set the receiver with desired frequency and press the "REMOSET" Key; then the transmitter will automatically be set. The operation distance can reach 10 meters. This brings great convenience to sound engineers during live performance.

A new capsule has been developed for IN64THSM (Optional) . The capsule, SAM-8W, is designed for large venue with hundreds of thousands watt power. The SAM-8W delivers vivid details of vocal and instruments.

The IN64 is of stylish industry design. Yet JTS bombproof quality remains as always.

3. Specification

3-1 UHF PLL Single Channel Diversity Receiver // IN64R

Frequency Preparation	PLL Synthesized Control
Remoset	Radio Frequency : 2.4GHz Effective distance: 10m
Carrier Frequency Range	502~960 MHz
S/N Ratio	>105dB
T.H.D	<0.6%@1KHz
Display	LCD
Display Contents	Channel, Antenna A/B, Mute Display, RF/AF Level Meter, Low battery, ID Number
Controls	Power On/Off, Frequency Up/Down, Audio Level, Lock-on, ID Pairing, Remoset
Audio Output Level	-12dB
AF Output Impedance	600Ω
Squelch	Pilot Tone & Noise Mute
Operation Voltage	12-18 VDC, 250 mA
Output Connector	1 XLR Balanced Socket / 1 Ø6.3mm unbalanced phone jack
Dimension(m/m)	210mm(W) * 38.5mm(H) * 165.5mm(D)

3-2 UHF PLL Handheld Transmitter // IN64TH IN64THSM

Frequency Preparation	PLL Synthesized Control
Channel number	64
Carrier Frequency Range	502~960 MHz
RF Outputs	10mW
Stability	±10KHz
Frequency Deviation	±48KHz
LCD Display	Channel, Battery Fuel Gauge, ID Number
Controls	Power On/Off, AF Level, Frequency Up/Down, Lock-on Mode,ID Pairing
Spurious Emissions	<-50 dBC
Audio Frequency Response	50~16,000 Hz
Battery	UM3, AA 1.5V*2

3-3 UHF PLL Body-Pack Transmitter // IN64TB

Frequency Preparation	PLL Synthesized Control
Carrier Frequency Range	502~960 MHz
RF Outputs	10mW
Stability	±10KHz
Frequency Deviation	±48KHz
LCD Display	Channel, Battery Fuel Gauge, ID Number
Controls	Power On/Off, AF Level, Frequency Up/Down, Lock-on Mode, ID Pairing
Output connector	4P mini XLR
Spurious Emissions	<-50 dBC
Audio Frequency Response	40~18,000 Hz
Battery	UM3, AA 1.5V*2

3-4 Optional Condenser Microphone

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

Model No.	CM-501	CM-201	CM-125
Connector	4P Mini XLR	4P Mini XLR	4P Mini XLR
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 // CM-214 CM-214U CM-214UL CM-235 CX-504

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 // CM-801 CM-804i CM-8015 CM-825i

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 // CX-500 CX-500F CX-520 CX-508W CX-516W

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

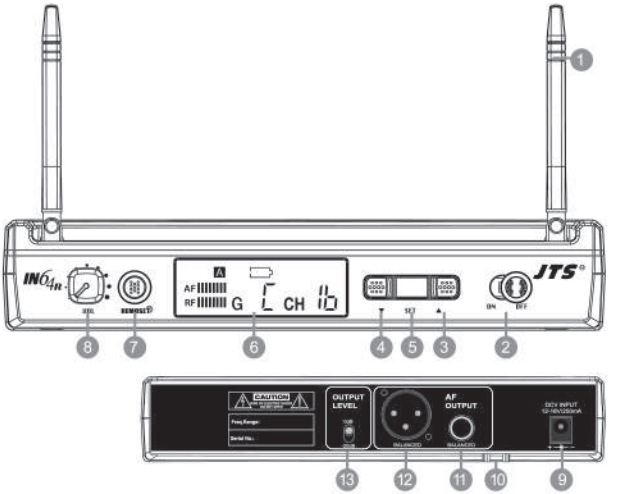
Model No.	CX-508W	CX-516W
Connector	4P Mini XLR	4P Mini XLR
Frequency Response	50~18,000 Hz	30~18,000 Hz
Polar Pattern	Cardioid	Cardioid
Sensitivity (at 1000Hz)	-67±3 dB	-67±3 dB
Impedance	220Ω	220Ω
Max. SPL for 1% THD	130 dB	130 dB
Good For	Winds	Accordion

4. Parts Identification & Accessories

4-1 UHF PLL Single Channel Diversity Receiver // IN64R

Front panel

1. Receiving Antennas
2. Power Switch
3. Channel Select: ▲ Up button
4. Channel Select: ▼ Down button
5. Channel Select: Set button
6. LCD Panel
7. REMOSET Key: press it to send a desired channel data to a transmitter
8. Volume Control

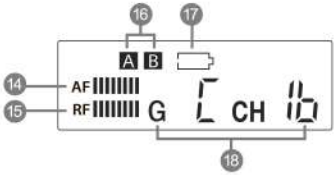


Rear panel

9. Power Supply Jack (12-18V/250mA): for connecting the power supply unit
10. Strain Relief: for the connection cable of the power supply unit, which lead the cable around the hook to prevent accidental disconnection of the plug from the jack.
11. AF Output (6.3mm jack, balance): for connection to a balance input, e.g. of a mixer or amplifier
12. Balanced XLR Output: for connection to the balanced input, e.g. of a mixer or an amplifier
13. Output Level Attenuation(-20dB): to attenuate the balanced XLR output level by 20dB

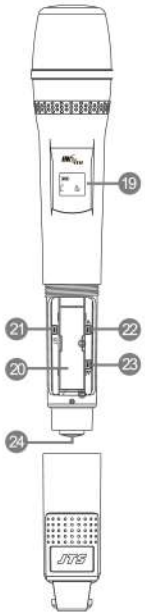
LCD Panel of the Receiver

⑭ AF Level: display the strength of audio signal
⑮ RF Level: display the strength of radio signal
⑯ Antenna Status: the receiver will automatically select an antenna with stronger signal level
⑰ Low battery indicator: display the low battery status of its transmitter
⑱ Group & Channel: there are four groups, A, B, C, and D with 16 Channels each



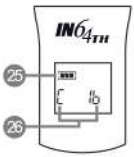
4-2 UHF PLL Handheld Transmitter // IN64TH IN64THSM

⑲ LCD Display
⑳ Battery Tray
㉑ Set button: set the configuration of handheld transmitter
㉒ Up button: select the settings of transmitter
㉓ Down button: select the settings of transmitter
㉔ Power and Mute Switch



LCD Panel of the Handheld Transmitter

㉕ Battery status: display battery status
㉖ Group & Channel: there are four groups, A, B, C, and D with 16 Channels per group

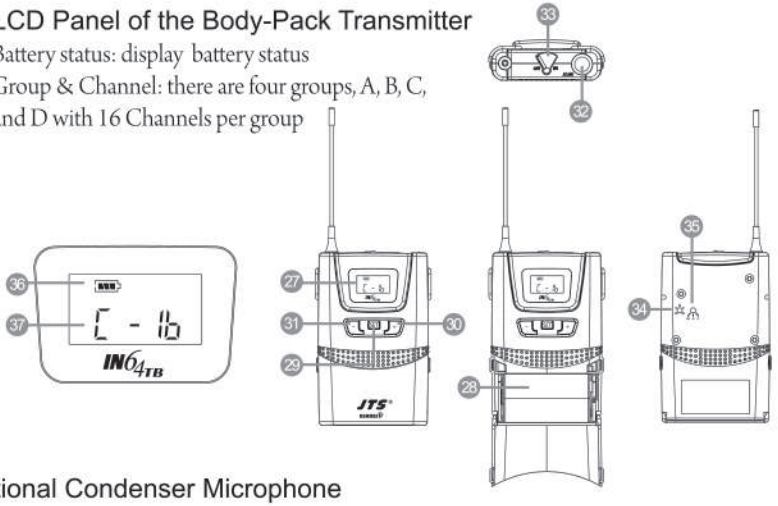


4-3 UHF PLL Body-Pack Transmitter // IN64TB

27 LCD Display
28 Battery Tray
29 Set button: set the configuration of bodypack transmitter
30 Up button: select the settings of transmitter
31 Down button: select the settings of transmitter
32 4pin mini XLR mic. input
33 Power Switch
34 Gain control: control sensitivity of the transmitter
35 Pad: -20dB, -6dB, 0db

LCD Panel of the Body-Pack Transmitter

36 Battery status: display battery status
37 Group & Channel: there are four groups, A, B, C, and D with 16 Channels per group



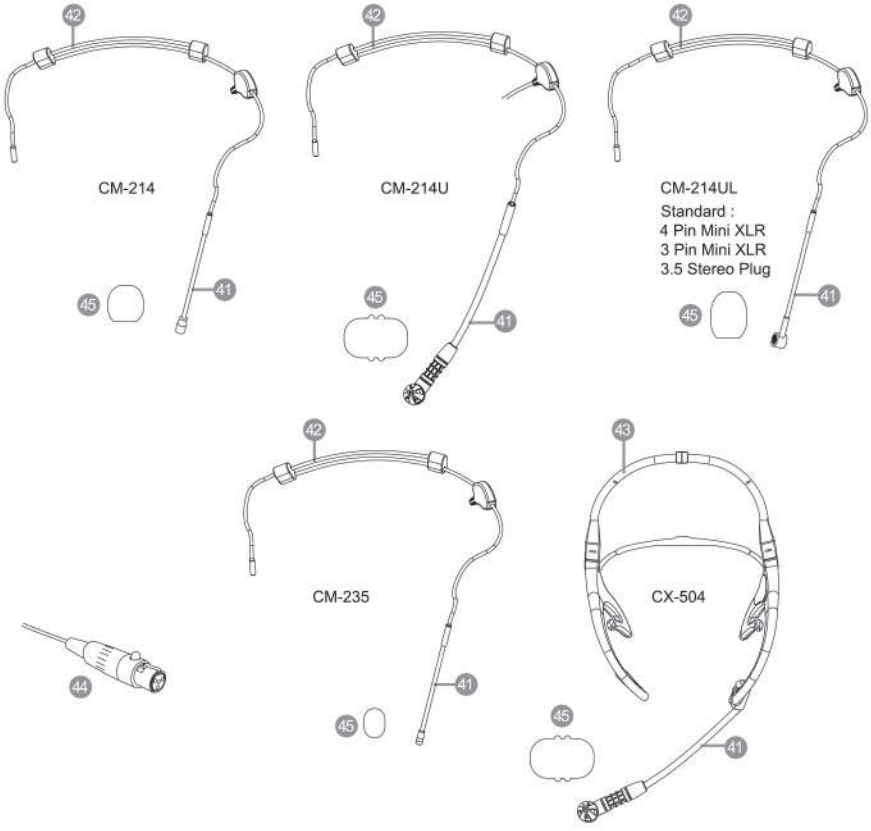
4-4 Optional Condenser Microphone

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

38 Clip
39 4 Pin Mini XLR
40 Windscreen

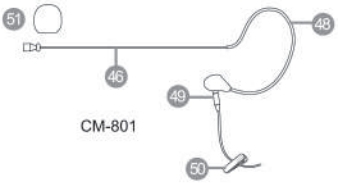
Headset Microphone // CM-214 / CM-214U / CM-214UL / CM-235 / CX-504

41 Gooseneck
42 Adjustable headband
43 Headband
44 4 Pin Mini XLR
45 Windscreen

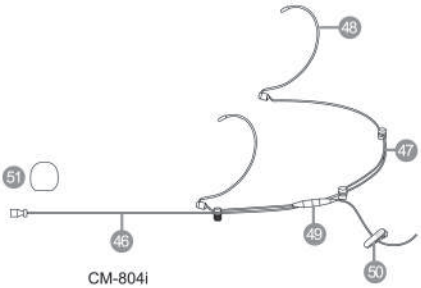


Ear-hook Microphone // CM-801 / CM-804i / CM-8015 / CM-825i

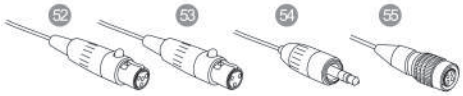
46 Boom
47 Adjustable Headband
48 Adjustable ear hook
49 Detchable Cable
50 Cable Clip
51 Windscreen
52 4 Pin Mini XLR
53 3 Pin Mini XLR Option
54 3.5 Stereo Plug Option
55 4Pin Hirose connecter Option

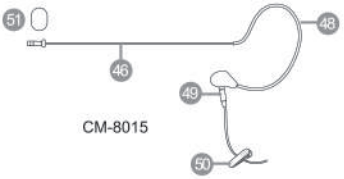


CM-801

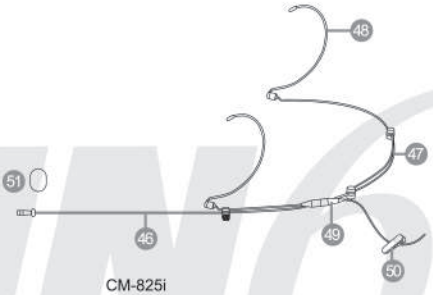


CM-804i





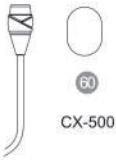
CM-8015



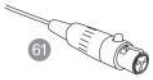
CM-825i

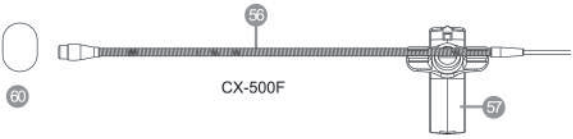
Compatible Instrument Microphone // CX-500 / CX-500F / CX-520 / CX-508W / CX-516W

56 Gooseneck
57 Clip
58 Bracket
59 Volume Control
60 Windscreen
61 4 Pin Mini XLR



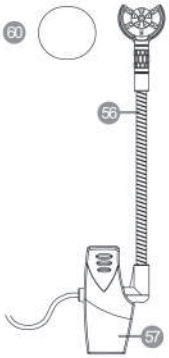
CX-500



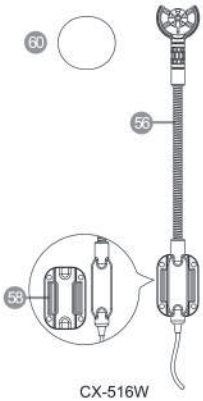


CX-500F

CX-520



CX-508W

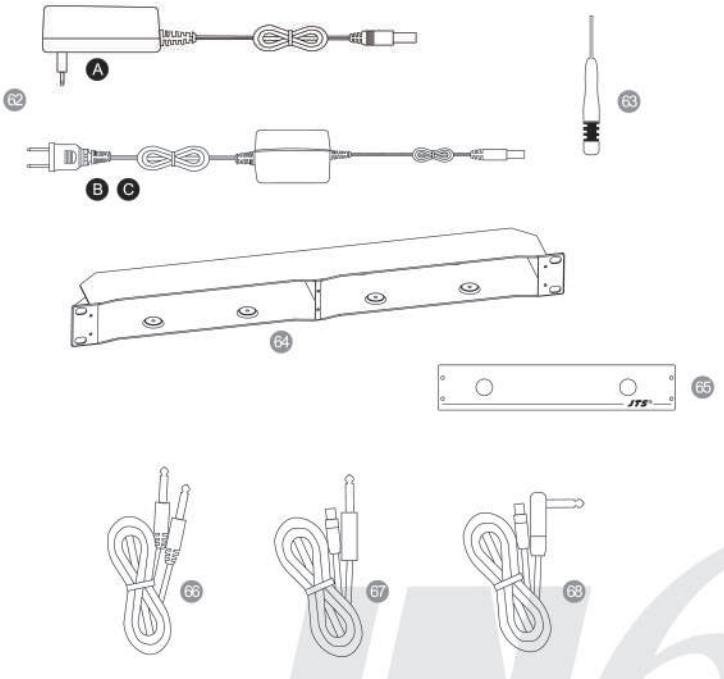


CX-516W

4-5 Accessories

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

63 Screwdriver
64 DR-900 dual rack adaptor Option
65 RP-900 panel cover Option
66 AF output cable (with Ø6.3 plug at both ends)
67 GC-80/GC-100 Guitar Cable Option
68 GC-80L/GC-100L Guitar Cable Option



5. Connection

5-1 Receiver //

(1) Connect to the subsequent unit (e.g. mixer, or amplifier)
Connect one end of a proper AF cable to the AF Output ⓫ or Balanced XLR Output socket ⓬, then plug another end to the "MIC IN" input socket of a mixer or a amplifier (Step 1 for Figure 1)

(2) Connect the power supply unit
Plug in one end of AC/DC adaptor cable ⓬ to Power Supply Jack ⓽ in the rear panel of receiver, and plug another end into an AC outlet
(Step 2 for Figure 1)

Caution

To prevent accidental disconnection of the plug of the power supply unit from the jack, lead the cable around the hook for strain relief. ⓾

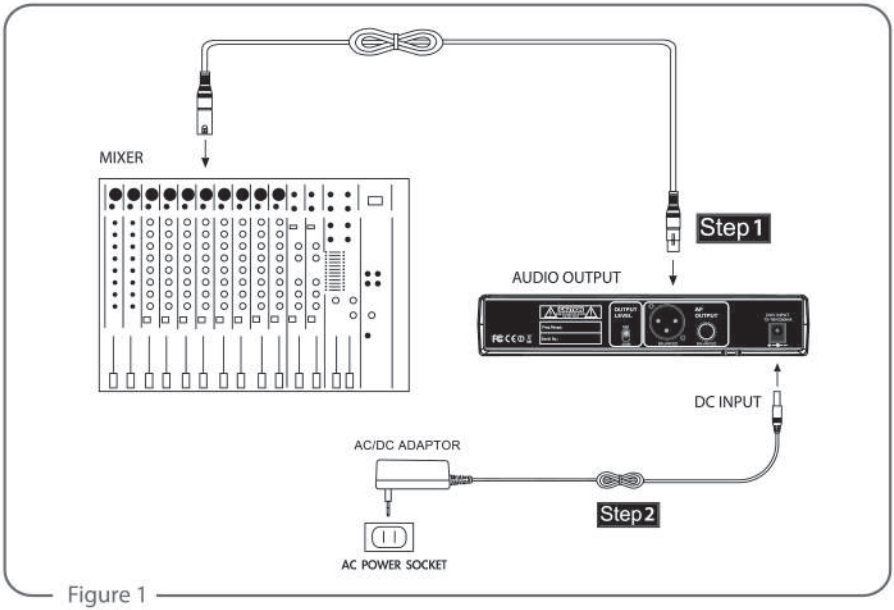


Figure 1

6. Operation

6-1 Set up the system

(1) Turn on the power of the receiver
Switch the "Power Switch" ❷ to "ON". The "LCD Panel" ❻ and "REMOSET" Key ❼ will light up.
(2) Turn on the power of the transmitter
Press the "Power Switch" ㉔ ㉝ . The "LCD Display" ⑲ ㉗ will light up.
(3) Mute Function (for transmitter)
After the transmitter's power is on, short pressing the "Power Switch " will mute the microphone. Press the "Power Switch" again will re-activate the microphone.
Notice: You have to hold the "Power Switch" for 3 seconds in order to turn off the transmitter.
(4) Put the antennas ❶ in a vertical position

6-2 Set up ID code

In order to match one receiver to only one transmitter, IN64 is designed with" ID code". If and only if both ID codes of a receiver and a transmitter match each other, the "REMOSET" function works. There are 100 ID codes available.

Receiver

(1) Press "Set" button ❺ for 3 seconds, LCD Panel will start flashing.
(2) Press "Set" twice to enter "ID Code" setting window. (Figure 2)
(3) Press " ▲Up ❸ " or " ▼Down ❹ " button to select a distinct ID code from "id 0" to "id 99"
(4) After setting, press "Set" again to save the settings.

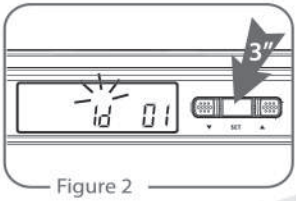


Figure 2

Handheld and BodyPack transmitter
ID code ON/OFF setting

(1) Press "Set" button 21 29 for 3 seconds, LCD Panel will start flashing.
(2) Press "Set" a couple of times until "ID Code ON/OFF" setting window shows.
(3) Press " ▲Up 22 30 " or " ▼Down 23 31 " button to select between " ID ON " and " ID OFF ".
(4) After setting, press "Set" again to save the settings.

Caution

When ID code is off (idOFF), the transmitter will accept any synchronization from any receiver.

ID code selecting

(1) Press "Set" button 21 29 for 3 seconds, LCD Panel will start flashing.
(2) Press "Set" a couple of times until "ID Code" setting window shows.
(3) Press " ▲Up 22 30 " or " ▼Down 23 31 " button to select a distinct ID code from " id 0" to "id 99 ". (Figure 3)
(4) After setting, press "Set" again to save the settings.

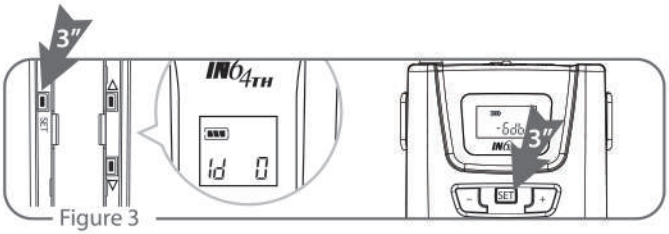


Figure 3

6-3 Synchronize the channel

(1) Press "Set" button ❺ for 3 Seconds, the group (G) in the "Group & Channel" ⓲ area will flash. (Figure 4)
(2) Press "▲Up ❸" or "▼Down ❹" button to select a desired group
(3) Press "Set" again and the Channel (CH) in the "Group & Channel" area will flash.
(4) Press"▲Up" or "▼Down" button to select a desired channel.
(5) After setting, press "Set" again to save the settings.
(6) Press "REMOSET" ❼ to synchronize the channel of a transmitter. (Figure 5)
(7) If the channel of the transmitter fails to change, the "REMOSET" key will keep flashing.
Notice: The transmitter has to be set to "synchronization on (SYnOn)" in order to allow the receiver to synchronize.(Handheld and body Pack Setting List p.19)

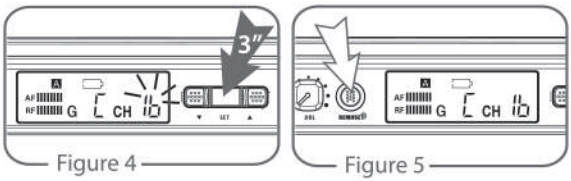


Figure 4 Figure 5

6-4 Check system status

(1) Antenna Status: the receiver will automatically select an antenna with stronger signal reception and highlight that antenna ⓰ (Figure 6)
(2) Low Battery indicator: if the transmitter is under low battery status, the "low battery indicator" will appear. (Figure 7)

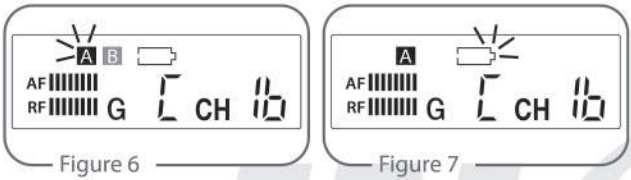


Figure 6 Figure 7

6-5 Adjust output volume:

Adjust output volume by twisting the Volume Control ⑧

6-6 Manual select channel:

Receiver

(1) Press "Set" button ⑤ for 3 seconds, the group (G) in the "Group & Channel" area will flash. (Figure 8)
(2) Press " ▲Up ③" or " ▼Down ④" button to select a desired group
(3) Press "Set" again and the Channel (CH) in the "Group & Channel" area will flash.
(4) Press " ▲Up" or " ▼Down" button to select a desired channel.
(5) After setting, press "Set" again to save the settings.

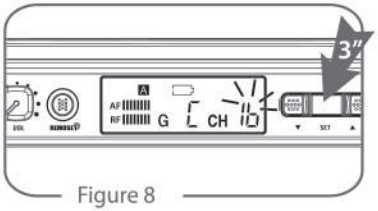


Figure 8

Handheld and Body-pack transmitter

(1) Press"Set" button ㉑㉙ for 3 seconds, the group (G) will flash. (Figure 9)
(2) Press " ▲Up㉒㉚ " or " ▼Down㉓㉛ " button to select a desired group
(3) Press "Set" again and the Channel (CH) will flash.
(4) Press " ▲Up" or " ▼Down" button to select a desired channel.
(5) After setting, press "Set" again to save the settings.

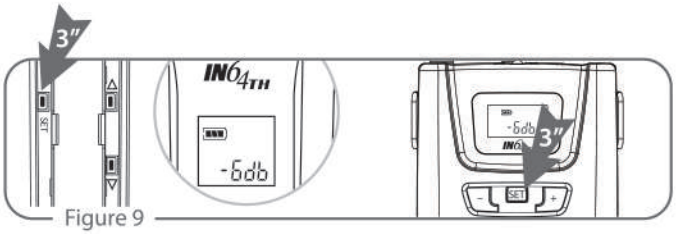


Figure 9

6-7 Lock ON Function

Receiver

(1) Press "Set" button ❺ for 3 seconds to enter setting window

(2) Press "Set" again until the Lock setting window shows. (Figure 10)

Notice: Original setting is lock off (Lo OF).

(3) Press "▲Up ❸ " or "▼Down ❹ " button to select the mode between "Lock On" and "Lock off".

(4) After setting, press "Set" again to save the settings.

To release the "Lock ON"

(1) Press "Set" for 2 seconds.

(2) Press"▼Down" to select "Lock OFF".

(3) Press "Set" to store.

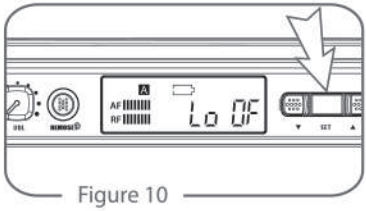


Figure 10

Handheld and Body-pack transmitter

(1) Presss"Set" button ㉑ ㉙ for 3 seconds to enter setting window. (Figure 11)

(2) Press "Set" again until the Lock setting window shows.

Notice: Original setting is lock off (Lo OF).

(3) Press " ▲Up ㉒ ㉚ " or " ▼Down ㉓ ㉛ " button to select the mode between "Lock On" and "Lock off".

(4) After setting, press "Set" again to save the settings.

To release the "Lock ON"

(1) Press "Set" for 2 seconds.

(2) Press"▼Down" to select "Lock OFF".

(3) Press "Set" to store.

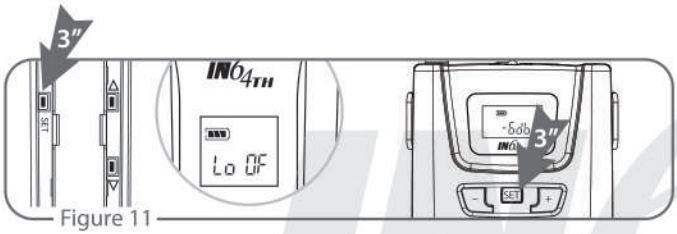


Figure 11

6-8 Adjust the sensitivity of the microphone

Handheld transmitter

(1) Press"Set" button ㉑ for 3 seconds to enter setting window. (Figure 12)

(2) Press "Set" again until the Sensitivity setting window shows.

(3) Press " ▲Up㉒ " or " ▼Down㉓ " button to select the sensitivity among 0db, -6db,-12-db,and -18db.

(4) After setting, press "Set" again to save the settings.

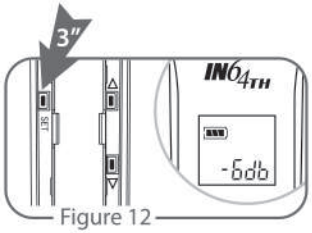
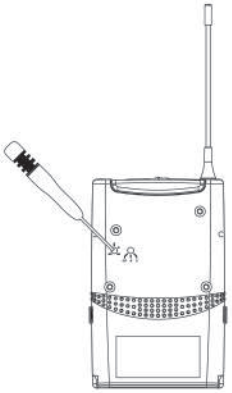


Figure 12

Body-pack transmitter

(1) Use the screwdriver ㉝ included to adjust the sensitivity from gain control ㉞. (clockwise is "increase")



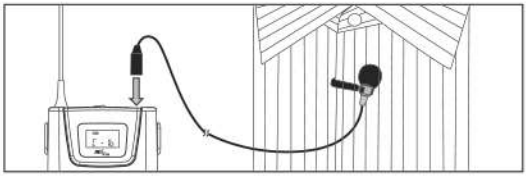
Handheld and body Pack Setting List

Manual Channel Select	A-1 ~ A-16 b-1 ~ b-16 C-1 ~ C-16 d-1 ~ d-16	There are 4 groups with 16 channel per group
Sensitivity Settings	0db -6db -12db -18db	0 dB is the highest sensitivity
Synchronization ON/OFF	SYnOn SYnOFF	"On" means "REMOSET" function always opens; "OFF" means "REMOSET" function is turned off
ID code ON/OFF	idOFF idon	When ID code is OFF (id OFF), the transmitter will accept any synchronization from any receiver.
ID code select	id 0 ~ id 99	There are 100 ID codes.
Lock ON	LocOFF LocOn	button unlock button lock

6-9 Installation of Condenser Microphones

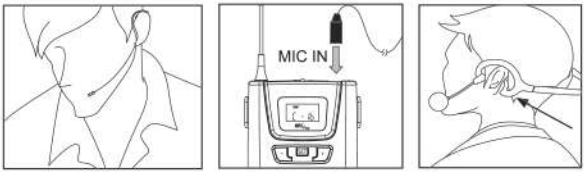
(1) Lavaliere microphone

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.



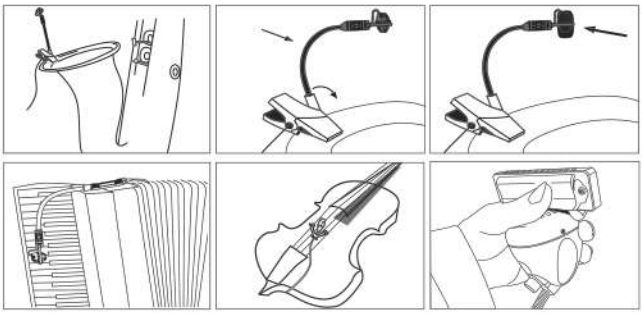
(2) Headset microphone

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

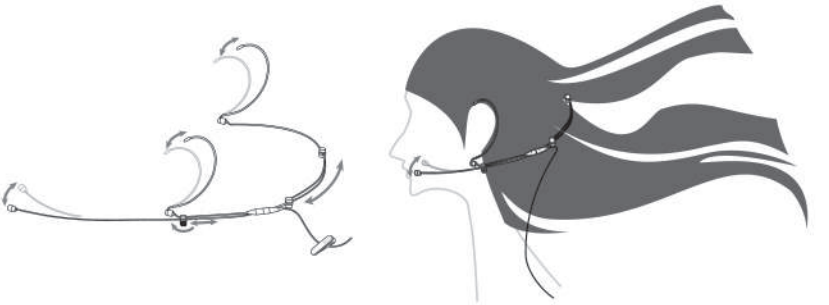
The system is compatible with JTS various instrument microphones.
For detail please refer to user's manuals of these microphones.



(4) Ear-hook Microphone

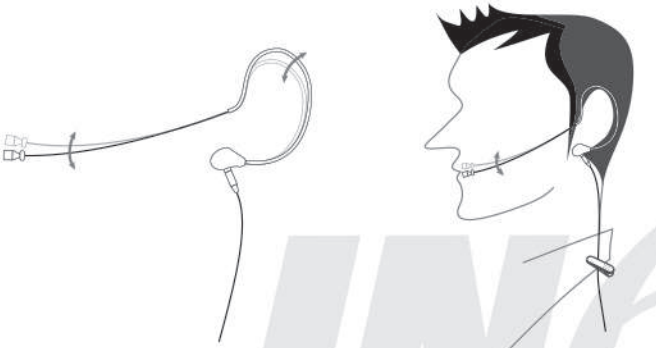
1. Lightweight Dual Ear Hook Microphone

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.



7. 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.

8. 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.