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无线科技、灵巧高效

Wireless Technology & Flexible High Efficiency

演绎无限精彩

Presenting Unlimited Wonder



用户手册

User Manual

X4 | 四通道无线接收主机
4 Channel Wireless Receiver

Preface

Dear Customer,

Thank you for purchasing Takstar X4 4 channel wireless receiver conference microphone. Please read the user manual carefully before operation and keep it for reference in future. If you have any question or suggestion, please contact our local dealer.

Safety Instructions

- Use the supplied adaptor only and confirm the power supply voltage is consistent with the adapter's requirement, the system may be damaged if other power adaptor is used
- Power supply of this system is 220V~AC, use of other voltage will cause fire or malfunction
- Do not expose the product to high temperature, humidity, dust or liquids
- Do not crash, throw, vibrate the unit so as to avoid damage to the product
- Do not dismantle the system, if there are any troubles such as fume or strange smell during using, please unplug the power adaptor and get in contact with your local dealer for further checking immediately
- Please install the batteries according to correct polarities. Take out the batteries when not using it for a long time
- Please do not use batteries with broken or scratched surface, or short circuit may occur
- Please turn off the product and unplug the power adaptor if the system is not used for a long time

Features

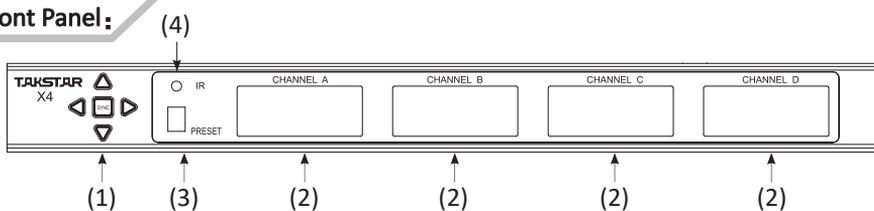
- UHF wide frequency band design provides 800 selectable frequencies
- D-PLL RF frequency lock technique for stable frequency and reliable performance
- Double conversion receiving technology features strong signal receiving ability
- 10 groups of interference-free reception frequencies pre-setting for convenient setup for multiple systems at one venue
- Adopts professional audio companding technique for low noise and wide dynamic range
- Microcomputer control enables 4 wireless microphones to work simultaneously
- 4 independent audio outputs and 1 mixed output for convenient connection with various audio equipments, adjustable single output volume control meets the demand of different applications
- Intuitive LCD on both receiver and transmitters

Set up Caution

- Correctly adjust audio sensitivity of the transmitter is very important. Higher sensitivity will cause signal distortion, lower sensitivity will cause low S/N ratio. The sensitivity of transmitter is set to a reasonable level when it is manufactured, no need user to adjust.
- If the frequencies are set reasonably, 12 transmitters within one frequency range can be used in one place simultaneously without mutual interference. Otherwise, it will cause mutual interference.
- When multiple receivers using in one place, avoid putting one receiver on top of another.

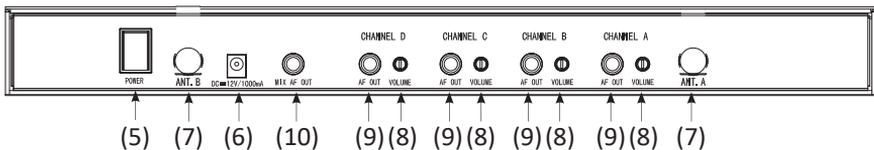
Receiver Function and Operating Instruction

Front Panel:



1. Function Button: the left and right button are used to select the set channel, the up and down button are used to adjust the correspond channel data; the central “SYNC” is confirm/frequency matching button, it can confirm the setting or transmit the frequency data to transmitter
2. LCD Screen: display the frequency data synchronization status, frequency/ channel, squelch, receiving signal and audio dynamic level
3. Preset Frequency Display Screen: “0” is user defined frequency, which can be set freely; “1-9” is preset frequency, which ensures 4 different frequency use at one venue simultaneously without mutual interference
4. Infrared Data Synchronization Window: works in conjunction with the “SYNC” button on the panel to transmit the frequency data to the transmitter

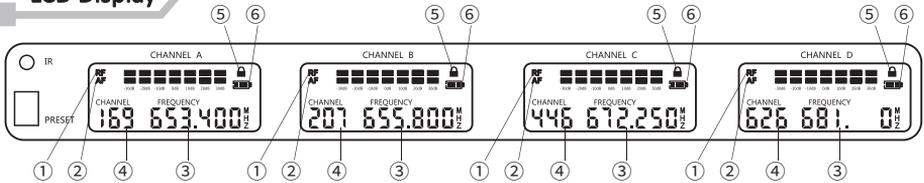
Rear Panel:



5. Power Button: to turn on/off the system
6. Power Socket: connect 12V DC power to the input socket, central electrode of the socket connects to positive voltage
7. Antenna Input Port: connect to external antenna to increase operating distance (this port output 9V/ 60mA current for antenna amplifier)
8. Volume Adjustment: adjust the correspond channel unbalanced output volume
9. Unbalanced Audio Output: with 6.3 unbalanced outlet, supports each channel independent signal output
10. Mixed Audio Output: to mix four channels signal for single output

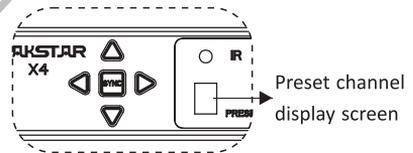
Operating Instruction of LCD Panel

LCD Display



- ① **RF Level Indication:** indicates the receiving RF signal strength
- ② **AF Level Indication:** indicates the AF signal status
- ③ **Frequency Menu:** indicates the current working frequency
- ④ **Channel Menu:** indicates the current working channel
- ⑤ **Lock Indication:** indicates the function button lock status
- ⑥ **Battery Level Indication:** indicates the correspond transmitter battery level

Button Function and Operating Instruction



A. Channel/ Frequency Display and Adjustment

1. Presetting Mode

Under the initial interface, short press the “SYNC” button on the front panel, when the screen of the channel need to be adjusted is glittering, short press the “◀” or “▶” button till the presetting frequency screen is glittering. Press “▲” or “▼” button to select the preference channel from the “1-9” presetting channel (four microphones within one presetting channel can be used simultaneously without mutual interference) and press “SYNC” button for confirm, then match frequency with different microphone before operation.

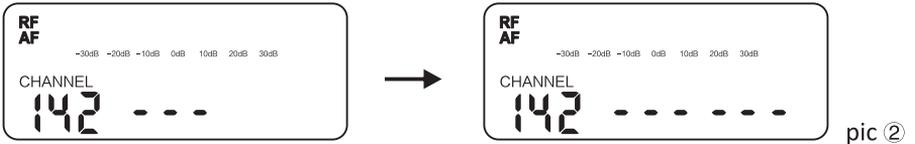
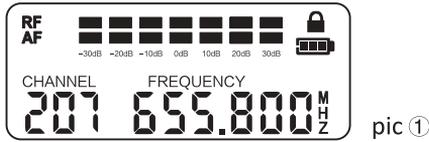
2. Manual Setting Mode

Under the initial interface, short press the “SYNC” button on the front panel, when the screen of the channel need to be adjusted is glittering, it means it is under the manual setting mode, short press the “◀” or “▶” button to adjust the channel; short press or long press the “▲” or “▼” button for preference channel. When release the button, the screen window glitter 10 seconds and stop, the frequency setting is succeeded, press “SYNC” button for frequency matching

B. Infrared Data Synchronization Operation

Under the initial interface, select the preference channel, turn on the transmitter and point the “IR” infrared frequency reception window to the “IR” infrared frequency transmitting window on the receiver (distance between transmitter and receiver is 10-30cm) press the “SYNC” button on the panel,

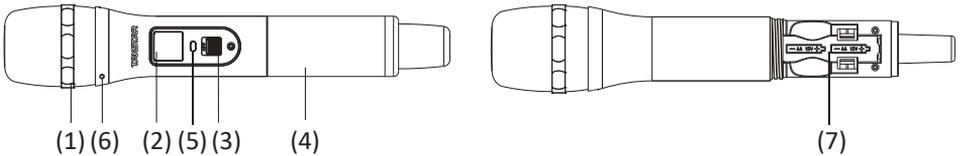
the screen window displays frequency matching interface (pic ②) and then displays frequency searching information, after the frequency matching succeeded, the indicator will automatically switch to the actual frequency display interface, if the frequency matching fails, it will exit the frequency matching automatically



C. System Lock Operation

Under the initial interface, long press the “SYNC” button on the panel for function button lock, when the function button lock succeeded, it displays as pic ①, all the function buttons are locked. Long press the “SYNC” button again for unlocked

Function and Operation of the Handheld Microphone



- (1) Wire-mesh Cap and Capsule: to protect the capsule and eliminate the “POP” sound, prevent rolling when it placed on the table
- (2) LED Display: displays channel and battery level
- (3) Power Switch: turn on/off the transmitter
- (4) Microphone housing: assemble the wire-mesh cap and capsule on the top, with batteries, PCBA inside and antenna at the rear
- (5) Infrared Data Synchronization Window: transmit the frequency signal to the transmitter by pressing the “SYNC” button on the receiver
- (6) Wire-mesh Fixing Screw: protect the capsule, prevent the non-professionals dismantle the wire-mesh and capsule randomly
- (7) Battery Compartment: put in 2pcs AA batter



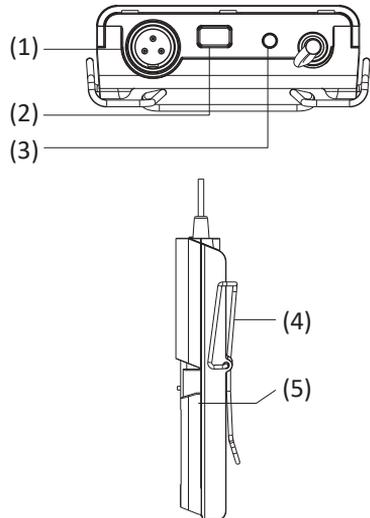
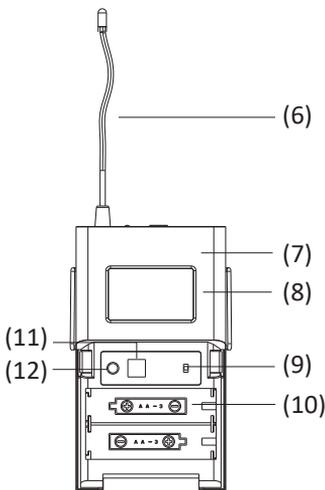
pic ③

LCD Display of Handheld Microphone

When the transmitter is turned on, LCD screen is lit (pic ③) and displays the current working channel, battery level. If the working channel need to be changed, change the receiver channel first, then point the infrared data synchronization window of the transmitter to that of the receiver, press the “SYNC” button on the receiver to transmit the new frequency data to the transmitter.(to prevent mis-operation, data synchronization can be operated within 100 seconds after transmitter turned on, otherwise, the transmitter should be restart, it will display “” icon when the data synchronization function is locked.

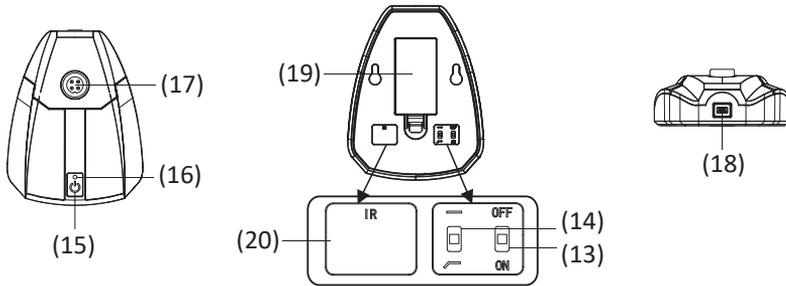
Function and Operation of the Bodypack Microphone

- (1) Audio Input Socket.
- (2) Power/Mute Button: long press the power button to turn on the microphone and LCD screen is lit. When the microphone turns on, short press the button for mute.
- (3) Status Indicator: when the transmitter turns on, the indicator lights green, it means the battery level is normal; when the transmitter is under the “AF MUTE” status, the green light is glitters; if the indicator keeps on red, it means the battery level is low and need to be replaced timely.



- (4) Belt Clip: facilitate the mini microphone to be fixed on the belt
- (5) Battery Cover: press the button on both sides of the compartment and pull outwards to open it, put in 2pcs AA battery according to the marked polarity
- (6) Transmitting Antenna: 1/4 wave length whip transmitting antenna
- (7) Microphone Housing: to fix PCBA and its component
- (8) LCD Panel: display the current working channel, battery level and mute status
- (9) Input Audio Signal Attenuation Switch: when the input audio signal is too strong, pull this switch to attenuate position to reduce modulation distortion
- (10) Battery Compartment: put in 2pcs AA battery
- (11) Audio Gain Adjustment: to adjust volume under the small scale
- (12) Infrared Data Synchronization Window: works in conjunction with the “SYNC” button on the panel to transmit the frequency data to the transmitter

Function and Operating Instruction of Gooseneck Microphone



- (13) Power Switch: to turn on/off the unit. Turn off it when the unit is unused
- (14) Low Frequency Attenuation Switch: attenuate the audio signal under 100Hz, reduce howling and ambient noise
- (15) Mute Switch: to pause the speech temporarily
- (16) Power LED: lights up red when the microphone is turned on, flashes when the power voltage is low, lights up green under normal talking status
- (17) Gooseneck Microphone Connector: to connect gooseneck microphone
- (18) External Power / Recharging MINI USB Interface: when connecting with external power supply, it will disconnect the internal battery power supply automatically. The external power supply can be used during long time operation and for recharging the rechargeable batteries
- (19) Battery Compartment: put in 2 pcs AA batteries
- (20) IR Frequency Matching Window: when matching the frequency, keep this window towards the receiver IR position and keep 5~15cm away from the receiver, the operation must be finished within 100 seconds, if time exceeds, you have to turn on the transmitter once again to continue the frequency matching

Operating Instruction

1. Before the receiver turns on, turn the volume to the minimum level and keep the transmitter power off, press the power button to turn on the receiver, when the receiver is powered on, the backlight of the LCD screen is lit, then the main screen displays the channel, frequency and working status
2. If the transmitter is not turned on, please check the RF and AF level on the auxiliary panel, if there is strong interference, please change the frequency channel to avoid interference signal
3. When the transmitter is turned on, the RF level meter of the correspond channel is lit, adjust the volume of the receiver to an appropriate level, sound to the microphone, the AF level meter of the receiver correspond to the microphone volume is lit, if there is no sound output or level meter do not lit, it means the system is failure and need to repair

1. How to operate the wireless handheld microphone

- (1) Hold the middle part of the microphone. If it is too close to the wire mesh, the sound will be influenced. If the hand is too close to the antenna at bottom, the operating distance will be shortened
- (2) By changing the distance between the microphone head-case and mouth to increase/decrease the treble/bass

2.How to use receiver

- (1) Receiver can be divided into two types, diversity and non-diversity receiver. Non-diversity receivers are usually the more budget friendly solution while diversity receivers provide a better RF transmission. Please choose it according your actual application
- (2) If omni-directional antenna is used, the antenna should be at least 0.5m away from walls or metal pieces
- (3) Receiving range is varied for many factors. It will get a better transmission effect if there is no large metal pieces blocking in the transmitting direction
- (4) If the receiving performance is not good enough, please use extension cable to connect with the external high gain antenna or antenna amplifier to achieve excellent receiving range
- (5) When the receiver panel is pointed to using direction or the receiver is put inside the metal box, please locate the antenna on the front panel for better performance

3.How to use multiple systems at one venue

- (1) First, choose an interference free RF frequency, usually 12 transmitters can be used simultaneously within 40MHz bandwidth. If more transmitters is needed, please add frequency band
- (2) When multiple transmitters using together, keep at least 50cm separation between each transmitter to avoid mutual interference
- (3) When using several receivers together, please install high gain antenna, antenna amplifier and receiver muti-coupler

Trouble / Troubleshooting

Troubles	Troubleshooting
No indication on transmitter and receiver	Transmitter running out of battery or bad connection between receiver and power supply
No RF signal on receiver	Different frequency between receiver and transmitter, or out of operating range
With RF signal, but no AF signal	Transmitter is not connect well or the transmitter set as mute mode
Background noise of AF signal is too big	Output level of receiver is too low, check if there is an interference signal or receiver without antenna, S/N decreased
Audio signal distortion	Transmitter frequency deviation is too large, or output level of receiver is too high
Operating distance is too short, signal is not stable	Receiver antenna do not located properly, there is strong electromagnetism interference around

If there are other troubles, please contact us or your local distributor / dealer. Please do not dismantle the product as it will void warranty

Usage and Maintenance

Do not use and keep the product in a high humidity, strong electromagnetic field, strong sunlight and high temperature environment. Please unplug the power adaptor and remove the battery if long time no use.

Cleaning: Unplug the adaptor before cleaning, do not use any detergent or soluble liquid but use a damp cloth to clean, otherwise it will damage the surface processing layer.

Power Supply: Make sure the power supply is within the specified range, too high or too low will affect the performance. Please install the batteries in the transmitter according to correct polarity, otherwise it will damage the product.

Maintenance: If the product is faulty or the performance is degraded, please do not disassemble the product for repair to avoid electric shock or severe damage to the product. Please contact your local dealer for after service.

Accessory: Please use the manufacturer-supplied or approved accessories for optimum performance.

Specification

System Specification:

Frequency Range: 645~690 MHz(Frequency band)	Modulation Mode: FM
Adjustable Range: 40MHz	Number of Frequencies: 800
Frequency Spacing: 50KHz	Frequency Steadiness: $\leq \pm 0.005\%$
Dynamic Range: 100dB	Max. Frequency Deviation: $\pm 48\text{KHz}$
Frequency Response: 80Hz-12KHz	S/N Ratio: $>85\text{dB}$ (A weighted)
Total Harmonic Distortion: $\leq 1.0\%$	Operating Temperature: -10°C - $+40^{\circ}\text{C}$

Receiver Specification :

Receiving Mode: Double conversion superheterodyne	
Intermediate Frequency: First: 184.2MHz ;	Second: 10.7MHz
Antenna Interface: TNC/50 Ω	Sensitivity: 12dBu V(80dB S/N)
Spurious Suppression: -60dB	Peak Output Level: +3dBv

Transmitter Specification :

Output Power: $< 10\text{mW}$	Spurious Suppression: -60dB
Power Supply: 2pcs AA battery	Play Time: More than 8 hours

Product Content

X4 Receiver	1pc
Audio Connecting Cable	1pc
Power Adaptor	1pc
Antenna	2pcs
Rack Mount	1pc
User Manual	1pc

The host unit should be paired with one or more of the following transmitters to compose one wireless system

- 1.X4-TD handheld wireless transmitter
- 2.X4-TL bodypack wireless transmitter(provided with lavalier and headset)
- 3.X4-TH gooseneck wireless transmitter (provided with gooseneck)

Cautions

To avoid electric shock, over temperature, catching fire, explosion, mechanical risk and hurt or property loss caused by improper use, please read the following items carefully before operation:

1. Before operation, make sure that this system power matches with that of the connected equipment. Adjust the volume to proper level during operation. Do not operate at high volume level to avoid hearing loss.
2. If abnormal phenomenon (smoke, abnormal smell) happens, please turn off the power switch and disconnect the power plug with power socket, and send the product to local dealer for maintenance.
3. Using battery of broken insulation material is forbidden to avoid short circuit. Please do not charge the non-rechargeable battery.
4. Put the waste battery into classification dustbin rather than used as toy by children or discarded directly to avoid potential danger or affecting the environment.
5. The product and accessories should be put in dry and ventilated place rather than humid or dusty environment. Prevent the product from fire, liquid, rain, water, over-colliding, throwing, vibrating, vent hole covered to avoid function destroyed.
6. When the product needs to be installed on wall or ceiling, please fix it tightly to avoid dropping risk.
7. Please abide by safety rules during operation. Do not use the product in the place prohibited by regulation or law to avoid accident.
8. Do not disassemble or repair the product by yourself to avoid hurt. If you have question or need service, please contact the local dealer.



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广东省电声工程技术研究开发中心 广东得胜电子有限公司制造

地址：广东省惠州市博罗县龙溪街道富康一路2号
服务热线：400 6828 333 传真：0752-6383950
邮箱：xs@takstar.com
网址：www.takstar.com

Guangdong Takstar Electronic Co., Ltd.
Address: No. 2 Fu Kang Yi Rd., Longxi Boluo
Huizhou, Guangdong 516121 China
Tel: 86 752 6383644 Fax: 86 752 6383952
Email: sales@takstar.com
Website: www.takstar.com

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