TAKSTAR X5 Intelligent Induction Wireless Microphone User Manual

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SAFETY INSTRUCTIONS

- Only use the supplied power adapter, and confirm whether the power supply voltage is consistent with the adapter requirements before connecting. Power adapter of other specifications may damage the device.
- The external power adapter of this device uses 220V~AC. Using other voltages may cause fire and failure.
- Do not place the device in a high temperature, humid, dusty place or in contact with liquid substances, to avoid malfunction.
- Do not impact, throw or vibrate the device to avoid damage to it.
- Do not dissemble or modify the receiver, transmitter and power adapter. In case of device failure, please contact the local agent or our after-sales service.
- If there is any abnormality during use (e.g., smoke, strange odor), please kill the power switch and unplug from power source, then send the product to the local dealer for repair.
- Please observe the polarity when installing batteries. Remove the battery when the device is not to be used for a long time.
- Never use batteries with damaged insulation as it may cause short circuit.
- Do not leave the device running unattended for a long time. Turn off the power of the device and unplug the power adapter before leaving.

FEATURES

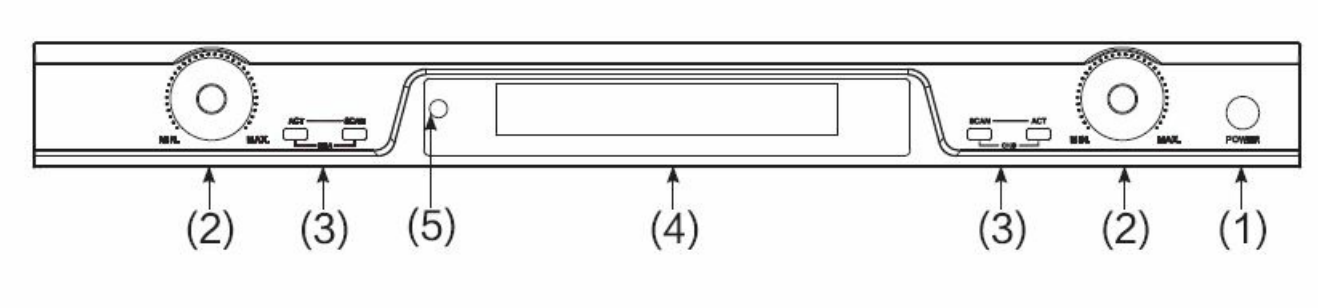
- Handheld microphone with induction sensor which automatically enables/disables microphone based on its use status after power-on, preventing feedback and extending battery life.
- UHF wide frequency band design with 200 preset frequencies optional. Able to use multiple sets at one venue simultaneously.
- D-PLL RF frequency lock technology for accurate frequency and stable performance.
- Double conversion communication provides strong resistance against interference.
- Pro audio commanding technology for wide dynamic range, low noise and tail sound.
- Button Lock function on receiver prevents misoperation.
- Intuitive LCD screen on receiver and transmitter.

CALIBRATION NOTES

- It is very important to adjust the audio sensitivity of the transmitter correctly. Too high sensitivity will cause over-modulation and signal distortion. Too low sensitivity will result in insufficient modulation, which will reduce the signal-to-noise ratio. The sensitivity of the handheld transmitter (mic) has been adjusted to an appropriate level according to the matched capsule before leaving the factory, and no user adjustment is required.
- Up to 12 transmitters can be used simultaneously within the same frequency band in the same space without crosstalk, provided that individual frequencies are set properly.
- If multiple sets of receivers are used in the same place, please try to avoid overlapping /stacking them together.

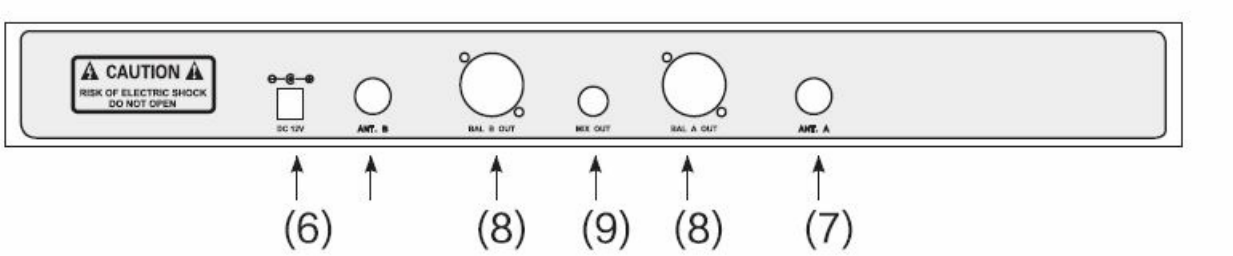
RECEIVER FUNCTION & OPERATION

FRONT PANEL



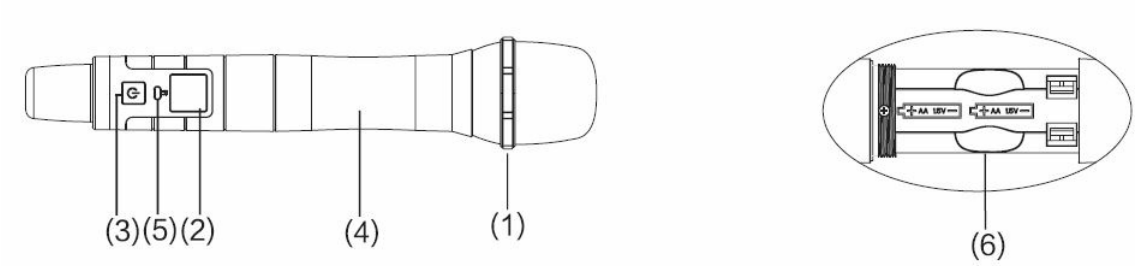
1. Power switch: turns on and off the power supply of the device. When the power switch is on, the LCD display lights up.
2. Volume dial: adjusts the output volume level.
3. Function keys: used for frequency adjustment, frequency matching, key lock, auto search and other operations.
4. Digital display: displays the working status, frequency/channel, squelch, received signal strength, audio dynamic level, etc.
5. Infrared pairing window: transmits frequency parameters to the transmitter using ACT key on the panel.

REAR PANEL



6. Power socket: connects to 12V DC power supply; the center electrode of the socket connects to a positive voltage.
7. Antenna connector: connects to external antenna to increase use distance.
8. Audio balanced output: XLR type socket. The two channel signals are output separately.
9. Audio unbalanced output: P type socket. The two channel signals are mixed.

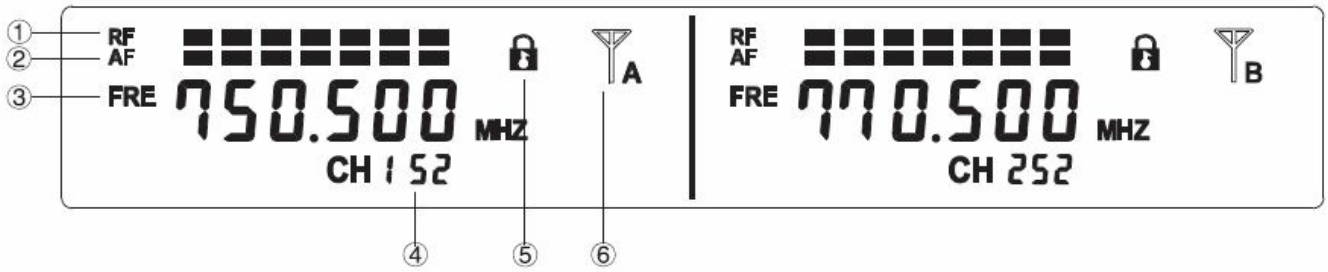
HANDHELD MICROPHONE



1. Mic grille & capsule: the mic grille protects the capsule which converts sound into electrical signal, reduces pop noise and prevents the mic from rolling on the table.
2. LCD screen: shows information such as operating frequency, battery power and IR lock status.
3. Power/Induction switch: for turning on/off the transmitter power and induction sensing.
4. Mic body: assembles the grille and capsule on the top, houses the battery and transmitting circuit board inside, and includes an internal transmitting antenna at the bottom.
5. IR sync window: receives frequency parameters using ACT key on the receiver.
6. Battery compartment: for loading 2pcs AA batteries (please observe the polarity of battery placement).

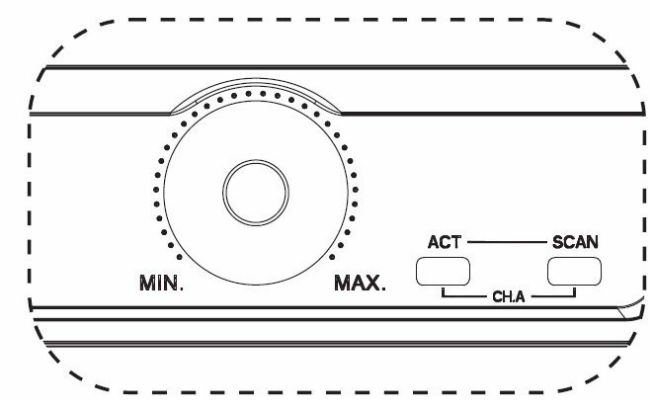
LCD PANEL OPERATION

LCD DISPLAY



1. RF indicator (7-bar): displays the received signal strength.
2. AF indicator (7-bar): displays the audio signal strength.
3. Frequency status: displays the operating frequency.
4. Frequency channel status: displays the operating frequency channel.
5. Lock indicator: displays the key lock status.
6. Channel status: displays the current channel.

BUTTON & OPERATION



1. Press [SCAN] key to automatically scan frequency, and press [ACT] key to automatically pair frequency.
2. Press and hold [SCAN] to start manual frequency adjustment, then press and hold [ACT] to lock on.

LCD PANEL OPERATION

A. Frequency Adjustment

1. **Auto Frequency Scan**

   On home screen Figure ①, press [SCAN] to start automatic scan of frequency. Frequency is set when the scan stops.
2. **Manual Frequency Adjustment**

   On home screen Figure ②, press and hold [SCAN] until the frequency flashes to start manual adjustment. Next, press or long press [ACT] or [SCAN] key to select the desired frequency, then release all key press until the screen stops flashing after 5s to set the frequency.

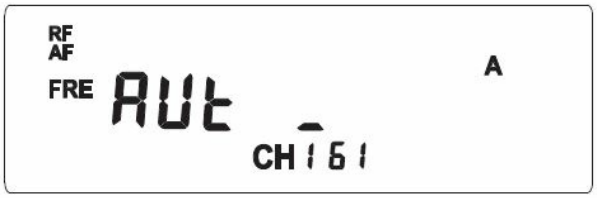


Figure ①

Figure ②

B. IR Sync

1. On home screen Figure ② after the frequency is set, turn on the transmitter, align both IR windows on the transmitter and receiver (within 10~30cm distance), then press [ACT] on the receiver panel to start sync process which is shown like Figure ③. Once synced, the screen shows frequency and channel again. You can re-press [ACT] to retry sync until successful.

C. System Lock

1. On home screen Figure ②, press and hold [ACT] to enter lock status shown like Figure ④. All function keys will be locked (except power switch). Press and hold [ACT] again to unlock like Figure ⑤.

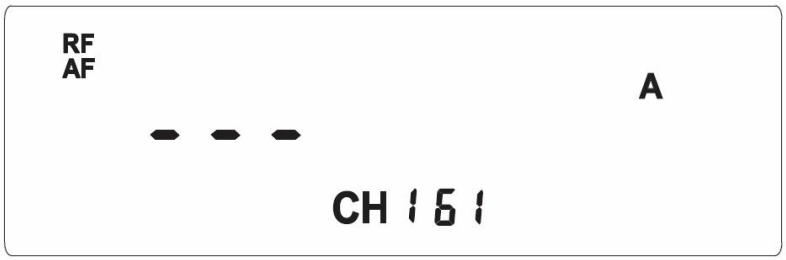


Figure ③

D. Power Off

1. To power off the device, press and hold [POWER] button, the LCD screen shows like Figure ⑥ before shutdown.

Figure ④

Figure ⑤

Figure ⑥

E. Mic LCD Display & Button Operation

1. When the transmitter is turned on, the LCD screen will illuminate and show the current operating frequency, battery level and infrared lock status, as shown in Figure ⑦. If you need to change the operating frequency, first change the frequency on the receiver, then align the IR Sync windows on the transmitter and receiver, and press [ACT] on the receiver to sync new parameters to the transmitter. IR sync function is active for 100 seconds after the transmitter is turned on. After that, IR sync is locked and a lock icon appears. To resync after lock, restart the transmitter.

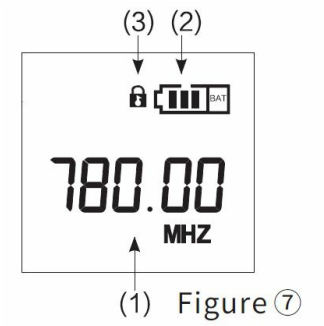


Figure ⑦

2. The handheld microphone has an induction sensor which can detect its own motion status:
    1. Still for 3~5 seconds: automatic mute which effectively prevents howling and environmental noise; Still for 30 minutes: automatic power-off which preserves battery life.
    2. Moving (including higher level of vibration): automatic unmute as soon as it detects motion, with seamless transition.

    Note:
        1. Displays current working frequency
        2. Displays transmitter battery level (3). Displays infrared lock status
3. Enable/Disable Induction Sensing

    Disable: when the induction sensing function is enabled (by factory default), power on the transmitter, then press and hold its power button for 7~10 seconds until the LCD screen shows SENSE, followed by OFF. Next, restart the transmitter, and its induction sensing will be turned off. **Enable:** when the induction sensing function is disabled, power on the transmitter, then press and hold its power button for 7~10 seconds until the LCD screen shows SENSE, followed by ON. Next, restart the transmitter, and its induction sensing will be turned on. (Note: when induction sensing is enabled: mic becomes muted automatically if still for 3~5 seconds (LCD panel flashes twice), and powers off automatically if still for over 30 minutes.)

    Note: It 's recommended to enable induction sensing in handheld applications (i.e., KTV, family, stage), and disable induction sensing in stationary uses (i.e., fixed on stands in meetings).

HOW TO OPERATE

Keep the transmitter turned off and lower the volume of the receiver before turning on the receiver. Once powered on, the screen shows the receiver channel, frequency, and automatic sync status. Before turning on the transmitter, observe the RF and AF meter on the receiver screen. Press [SCAN] to change frequency if there is strong interference.
After turning on the transmitter, the RF meter on the respective channel lights up. You can now adjust the receiver volume to an appropriate level and use the mic. The AF meter on the receiver lights up depending on the volume of the mic. If there is no sound output and the level meters are off, the system is not working properly.
Press and hold the power button for 3 seconds to power off the receiver.

1. **HOW TO PROPERLY USE WIRELESS HANDHELD MIC**

1. Grip in the middle of the mic body. Too close to the mesh head, it will affect sound pickup. Too close to the bottom antenna, it will reduce transmission efficiency and use distance.
2. Adjust the distance between the mic and your mouth to increase or decrease treble and bass.

2. **HOW TO PROPERLY USE RECEIVER**
    1. There are two types of receivers: diversity receivers and non-diversity receivers. Non-diversity receivers are more economical, while diversity receivers can have farther and better transmission. Choose whichever best suited for your needs.
    2. When the receiver uses an omnidirectional antenna, the distance between the antenna and the wall (especially metal ones) should be at least 0.5m.
    3. The receiving range is subject to many factors and can vary greatly. Make sure there is no large metal objects in between transmission to achieve best effects.
    4. You can use extension cables and external high-gain antennas, or even an antenna amplifier to boost use distance in less than ideal conditions.
    5. Install the antenna to the front panel for better reception when it’s closer to the user or when the receiver is placed inside a metal box.
3. **HOW TO PROPERLY USE MULTIPLE SETS OF WIRELESS MICS IN ONE PLACE**
    1. First, use non-intermodulation frequency setup. Within the 50MHz bandwidth, usually 12 transmitters can be used at the same time. To use more sets of wireless mics, you should include models that operate in other frequency bands.
    2. When using multiple sets of transmitters together, each transmitter should be at least 20cm apart to avoid interference.
    3. When using multiple sets of receivers together, it is recommended to install high-gain antennas, antenna amplifiers and receiving splitters.

TROUBLESHOOTING

Issue	Cause
No indicator on transmitter or receiver scre en.	Transmitter battery is dead; receiver power supply is not properly connected.
No RF signal on receiver.	Different frequency between transmitter and receiver; or out of ef fective range.
Has RF signal but no AF.	Transmitter mic is not connected.
Loud background noise in audio signal.	Low output level on receiver; there is interference Transmitter frequency deviation is too high; or receiver output leve l is too high.
Audio signal distortion.	Transmitter frequency deviation is too high; or receiver output leve l is too high.
Short operating distance, unstable signal.	Receiver antennas are not properly installed; or there is strong ele ctromagnetic interference around.
No sound several seconds after mic turned on	Induction sensing is enabled on transmitter and no motion detecte d (e.g., fixed on stand) (Refer to Page 6 for details on induction sensing)

No user serviceable part inside! If there is any issue not specified in the above table, please contact the manufacturer or local dealer for repair!

USAGE & STORAGE!

Do not use or store the device in environments with high humidity, strong electromagnetic fields, strong direct sunlight or high temperature. If not used for a long time, unplug the receiver and remove the transmitter battery.

Cleaning: Unplug the power plug before cleaning. Clean with a damp cloth. Do not use any cleaning agents or dissolving liquids, otherwise the surface finish will be damaged.

Power supply: Make sure that the power supply is within the range specified for use. Too high or too low will affect its performance. Do not install the batteries in wrong polarity direction, otherwise it may damage the device.

Maintenance: If the device is faulty or its performance is degraded, please do not disassemble the casing for maintenance, so to avoid electric shock or serious damage to the device, and not void the warranty. Please contact your local dealer or our after-sales service.

Accessories: Please use accessories provided by the manufacturer or approved accessories for optimum performance.

Warranty: This device does not contain modifiable parts, please do not disassemble and modify it by yourself, otherwise the warranty will be voided.

SPECIFICATIONS

System Parameters:
Frequency Range: 740~790MHz Adjustable Range: 50MHz

Channel Spacing: 250KHz
Dynamic Range: 95dB
Audio Response: 80Hz~15KHz (±3dB) Overall Distortion: ≤1.0%

Receiver Parameters:

Receiver Mode: double conversion superheterodyne IF Frequency: 1st IF: 110MHz
Antenna Interface: TNC/50Ω
Spurious Suppression: ≥75dB
Transmitter Parameters:
Output Power: ≤10mW
Power supply: 2 * AA battery

Modulation: broadband FM Number of Channels: 200 Frequency Stability: within ±0.005%Peak Frequency Deviation: ±45KHz Overall S/N Ratio:>100dB A+ Operating Temperature: -10°C~+40°C
2nd IF: 10.7MHz
Sensitivity: 12 dBμV (80dB S/N) Output Level: +3 dBV
Spurious Suppression: -60dB Battery Life: > 10 hours

PACKING LIST

- X5 Receiver ……1 PCS
- Handheld Mic……..2 PCS
- Audio Cable ……1 PCS
- Power Adapter…….. 1PCS
- Antenna…….. 2PCS
- Angle Bracket Set…… 1PCS
- 1.5V AA Battery…… 4PCS
- User Manual…….. 1PCS

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Documents / Resources

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