ClearOne®

Dialog Aero Wireless Microphone System

User Manual

Please read this manual carefully before using the product

Notification

⚠ WARNING

In order to ensure the equipment reliability and the personnel safety, please observe the following during installation, use and maintenance:

- If you find any of the following abnormal conditions during use, please turn off the power immediately, unplug it and quickly contact your sales manager. Please stop using the machine, because it may cause fire or electric shock.

  - If smoke or strange odor is emitted from it
  - If water or metal objects fall into it
  - If it is dropped or the housing is damaged
  - If the wire is damaged (wire core exposed, disconnected, etc.

- The machine contains high-voltage parts inside. Do not open the cabinet without professionals in order to avoid fire or electric shock. Any questions, please notify sales manager.

- Do not place cups, bowls, vases or other liquid-filled objects on it. Accidental spillage of liquid may cause fire or electric shock.

- Do not expose it to rain or any place that is wet or prone to water, which may cause electric shock or fire.

- Do not put metal, flammable materials or coin through the vents on the cover plate, as this may cause fire or electric shock.

- Do not place heavy objects on it, as the machine may fall and cause personal injury or property damage.

- Make sure the volume is turned down to the lowest before turning on the power, since high volume may damage your hearing.

- Do not continue to use the machine when the sound is distorted. This means malfunctions, which may cause high temperature and fire inside.

- If there is long-term accumulation of dust, please notify your sales manager to clean the machine regularly to avoid damage or fire.

- When replacing the battery, it is required to replace with the product of the same specification and ensure the correct installation to avoid electrical damage and explosion hazard.

- It is a Class III device that must be connected to a power socket with a grounding device to ensure that it is adequately grounded.

- It uses a power plug or appliance input socket as a disconnection device from the mains power supply. For safety, it must be disconnected when necessary.
-  It is only suitable for safe use in areas with an altitude of 2000 meters and below.

Precautions

1. Installation Environment

To ensure the normal heat dissipation of the host, please avoid poor ventilation, high temperature and direct sunlight during installation.

It is recommended for indoor use. Please place it in a cabinet or other place with good ventilation and heat dissipation. If you use the machine outdoors, please pay attention to waterproof, moisture and lightning protection measures.

Do not use it in places with wireless shielding equipment.

Do not install it in places subject to severe vibration, and do not place other devices on this machine.

2. Avoid electric shock and fire

Do not touch the machine and the power supply with wet hands.

Do not splash liquid on the machine, otherwise it may cause short circuit or fire inside.

Do not place other devices directly on top of the machine.

Non-professional personnel should not disassemble the machine by themselves to avoid damage and electric shock.

3. Transportation

The packaging has undergone shock-proof designs and experiments to ensure that the host will not be damaged accidentally during transportation. It is best to use the original packaging during transportation.

Do not move the host between over-cold and over-heated places to avoid condensation inside, otherwise it will affect the lifespan.

4. Please follow the warning instructions on the machine. These warning signs indicate:

	Only suitable for safe use at an altitude of 2000 meters and below
	Only suitable for safe use in non-tropical climates

5. Agreement

Please strictly follow the instructions in this manual. The software, hardware, and appearance will be constantly upgraded and updated. The above changes will not be notified. The manufacturer reserves the final interpretation right of this product manual.

Non-professional maintenance personnel do not disassemble the machine to avoid damage and electric shock.

Content

1.Product Description

This product is a digital wireless microphone with a new solution architecture. It adopts unique digital U-band transmission technology and pi/4-DQPSK modulation, offering a low bit error rate, stable transmission, and strong anti-interference capabilities compared to most U-band analog modulation products in the industry. It features ID code pilot technology to prevent co-frequency crosstalk, as well as frequency scanning to avoid interference. It also supports Type-C charging, charging base charging, and three different types of battery power supply. This product is widely applicable in conferences, training sessions, teaching, KTV, public broadcasting, weddings, large-scale parties, and other events.

2.Product Features

1. The bodypack transmitter supports volume adjustment and one-button mute, which is very practical.
2. The bodypack transmitter uses an OLED display, allowing easy access to current device information.
3. A unique encryption method is used for audio transmission to protect the content of the meeting.
4. The bodypack transmitter adopts a low-power design and has a maximum continuous speaking time of over 10 hours.
5. The bodypack transmitter supports 3 types of battery power to meet the needs of various scenarios.

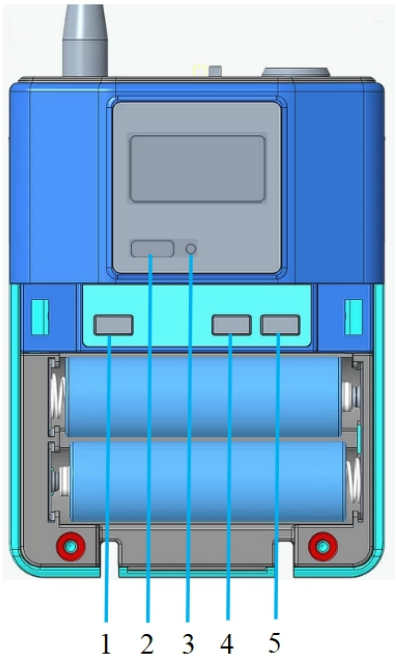
6. The bodypack transmitter supports Type-C port charging and charging base charging, which is more convenient and environmentally friendly.

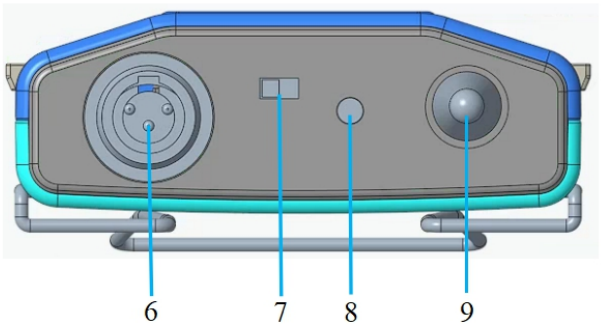
7. The bodypack transmitter has adjustable transmission power, ranging from 1 to 7 levels to meet the needs of different scenarios.

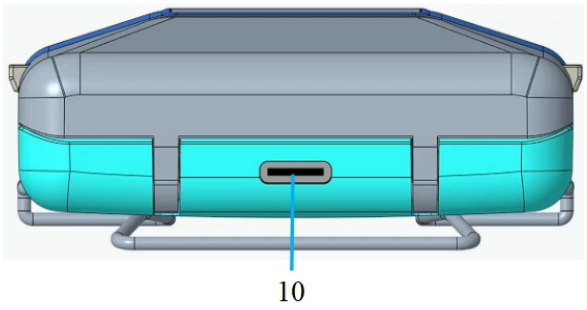
8. It adopts unique digital U-band transmission technology and pi/4-DQPSK modulation, which has strong anti-interference ability, low bit error rate and stable transmission.

3.Functional introduction of each department

3.1.Bodypack transmitter introduction







1. **Mute button:** used to turn on/off the volume output of the bodypack transmitter.

2. **Infrared binding window:** press the SYNC button and the infrared light on the receiver will flash. When the infrared light is flashing, you can bring the infrared receiving port of the bodypack transmitter close to the infrared light of the receiver to complete the binding operation.

3. **Reserved indicator light:** reserved indicator light to facilitate subsequent debugging.

4. **Volume down button:** short press this button to reduce the audio output.

5. **Volume Up Button:** short press this button to increase the audio output.

6. **Mini XLR port:** used to connect the microphone.

7. **Power button:** press the power button to turn the device on or off.

8. **Red and green indicator light:** the green indicator light is always on for normal use, and the green light flashes for charging. The red indicator light is always on for mute mode, and the red light flashes for abnormal charging.

9. **Antenna port:** used to connect the antenna.

10. **Power port:** Type-C port charging and charging base charging.

4.Operating Instructions

4.1.Power on/off

Toggle the power button to turn the machine on and off; when it is turned on, it will display "POWER ON" and then the home page, and when it is turned off, the screen will be turned off directly. The specific effect of turning on the machine is shown in Figure 4-1-1.1 below:

Figure 4-1-1.1 Bodypack transmitter power on page

4.2.Main page

The bodypack transmitter main page mainly displays the transmission power strength, audio encryption status, battery power, frequency value, and mute mark. The bodypack transmitter main page and main page function logo are shown in Figure 4-1-2.1 and 4-1-2.2 respectively:

Figure 4-1-2.1 Bodypack transmitter main page

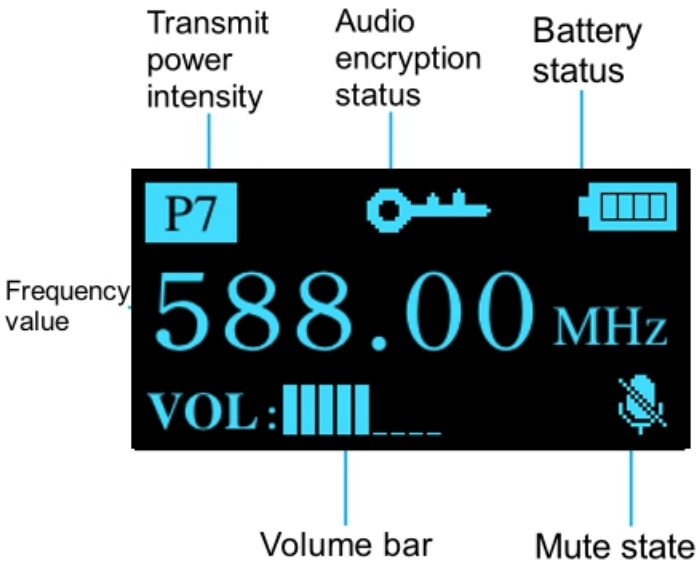


Figure 4-1-2.2 Bodypack transmitter main page function identification

4.3.Transmit power intensity

The transmit power intensity needs to be adjusted on the receiver. After adjustment, the bodypack transmitter needs to be re-infrared-bound for the operation to take effect. When "P7" is displayed in the upper left corner of the bodypack transmitter homepage, it indicates the highest transmit power state; the transmit power decreases from P7 to P1, and the gear adjustment range is P7-P1.

4.4.Audio encryption

The current audio encryption can be turned on or off. When turned on, the bodypack transmitter and receiver can only communicate one-to-one (the receiver can only receive the last bound bodypack transmitter and will not receive other transmitters with the same frequency). After each adjustment, it is necessary to re-bind to take effect. When the "Audio" logo is displayed above the bodypack transmitter homepage, it means that audio encryption is turned on.

4.5.Battery power

The battery icon on the upper right corner of the bodypack transmitter indicates the current battery power status. When the battery is too low, the battery icon will start flashing 15 minutes before shutdown.

4.6.Frequency

The middle value on the bodypack transmitter homepage indicates the current frequency. The

frequency value needs to be adjusted on the receiver. After adjustment, the bodypack transmitter needs to be re-binded by infrared for the operation to take effect.

4.7.Mute sign

The "  " sign in the lower right corner of the bodypack transmitter homepage is the mute sign. When this sign is displayed, the bodypack transmitter will enter the mute state. You can also manually short-press the touch key to enter the mute state.

5.Product Specifications

System indicators	
Frequency range	500MHz-608MHz
Modulation	pi/4-DQPSK
Frequency response	20Hz~20KHz (±3dB)
Signal-to-Noise Ratio	≥90dB(XLR)
THD+N	＜0.1%
Working distance	Sight distance 80m
Transmitter specifications	
Display	OLED display
Output power	≥10dBm
Working current	≤200mA
Battery	2×1.2V(AA)、2×1.5V(AA)、2×3.7V(AA)
Battery life	>10H
Dimensions (L×W×H)	87.33×67.61×27.72mm
Weight	160g (Including Battery)

6.Precautions for Use

1. Your hand should be in the middle of the microphone. Do not hold the microphone head, which will disrupt the frequency response, nor hold the end of the microphone, which will affect the signal transmission.

2. Do not use two transmitters side by side to prevent interference between the microphones and affect signal transmission and reception.

3. The microphone cannot be pointed directly at the speaker, which will cause positive feedback oscillation commonly known as "howling".

4. The distance between the wireless microphone receiver and the transmitter should be kept at more than 5 meters to minimize intermodulation interference.

5. The receiving range is related to many factors and varies greatly. If there is no large metal part blocking the transmission direction, better transmission effect can be obtained.

6. When the battery icon flashes during the use of the transmitter, it means that the battery is low and needs to be replaced.

7. If the transmitter is not used for a long time, please remove the battery from the base to prevent battery leakage and damage to the microphone.

7.Troubleshooting common microphone debugging problems

1. How to solve the problem when the signal of wireless microphone is poor?

(1) Handheld microphone power level: adjust to level 7 for transmission power. Low power level will affect the distance reception.

(2) Receiving host antenna: when the antenna is blocked, or falls down and is not erected, the antenna is close to metal objects or wires, which affects the reception effect;

(3) Receiving host placement: The receiving host should be placed at the top of the cabinet equipment, and the receiving host should be away from interference sources such as laptops and jukeboxes.

2. How to avoid interference as much as possible in complex environments?

(1) The controller has an automatic frequency scanning function. In complex environments, it is recommended to use the frequency given by the automatic frequency scanning function first;

(2) If the above operations cannot adjust to a clean and non-interfering channel, find the device with interference source and stay away from it: such as video matrix, video transmission box, network equipment, movie player, computer, jukebox, etc.

8.Management requirements for micropower radio transmitting equipment

Micropower radio transmitting equipment shall comply with the following regulations:

1.Comply with the specific terms and usage scenarios of the "Micropower Short-Distance Radio Transmitting Equipment Catalog and Technical Requirements", and usage methods such as control, adjustment and switching;

2.No unauthorized changes of use scenes, expansion of transmission frequency range, increase of transmission power (including additional installation of radio frequency power amplifiers), no unauthorized external antenna or change to other transmission antennas;

3.Shall not cause harmful interference to other lawful radio stations or propose any protection from harmful interference;

4.Shall be subject to interference from equipment for industrial, scientific and medical (ISM) applications radiating radio frequency energy or from other lawful radio stations.

5.If it causes harmful interference to other lawful radio stations, discontinue use immediately and take measures to eliminate the interference before further use;

6.For the use of micropower equipment in aircraft and in electromagnetic environmental protection areas such as airports, radio observatories, meteorological radar stations, satellite earth stations (including measurement and control, ranging, receiving and navigation stations), which are designated in accordance with laws, regulations and standards, the regulations of electromagnetic environmental protection and the competent authorities of the relevant industries shall be complied with;

7.It is prohibited to use any kinds of model remote controllers in an area with a radius of 5,000 meters around the center point of the airport runway;

8.Environmental conditions of temperature and voltage when micropower devices are used.

Dialog Aero Wireless Microphone System

ISED Statement
English:This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). 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.
The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).
French: Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada. L'exploitation est soumise aux deux conditions suivantes :
(1)Cet appareil ne doit pas provoquer d'interférences.
(2)Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.
l'appareil numérique du ciem conforme canadien peut - 3 (b) / nmb - 3 (b).
This device meets the exemption from the routine evaluation limits in section 6.3 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian information on RF exposure and compliance. cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 6.3 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.
This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.
Cet équipement est conforme aux limites d'exposition aux rayonnements du Canada établies pour un environnement non contrôlé.
The device has been evaluated to meet general RF exposure requirement. This
equipment should be installed and operated with minimum distance 0mm between
the radiator & your body.
L'appareil a été évalué pour répondre aux exigences générales d'exposition aux RF.
Cet équipement doit être installé et utilisé avec une distance minimale de 0 mm entre
le radiateur et votre corps.
This radio transmitter has been approved by Industry Canada to operate with the antenna
types listed with the maximum permissible gain indicated. Antenna types not included in this
list, having again greater than the maximum gain indicated for that type, are strictly prohibited
for use with this device.
Le présent émetteur radio a étéapprouvé par Industrie Canada pour fonctionner avec les
types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types
d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué,
sont strictement interdits pour l'exploitation de l'émetteur.
FCC Caution:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception,
which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different
from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.
The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.
This radio transmitter [1970A-DALGAEROBP] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types(Spring Antenna) listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain(0.72dBi) indicated for any type listed are strictly prohibited for use with this device.

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