PHENYX PRO®

PTC-4

Wireless Conference Microphone System

USER MANUAL

IMPORTANT SAFETY INSTRUCTIONS

1. Read and follow these instructions carefully.
2. Only use attachments, accessories, and spare parts specified by the manufacturer.
3. Avoid exposing the product and its connections to liquids and electrically conductive objects that are not essential for its operation.
4. Do not operate near any heat sources, such as open flames, radiators, or other apparatus that produce heat.
5. Keep the power cord safe by preventing it from being walked on or pinched, especially at the plugs.
6. Do not use the apparatus during lightning storms, and unplug it when unused for a long period of time.
7. Any modifications not approved by the manufacturer for the product could result in personal injury or product failure.
8. Operate this product within its proper operating temperature range.

Caution: This symbol indicates the unit might have a risk of electric shock.

Caution: This symbol is used to alert you to potential personal injury hazards. Obey all safety messages with this symbol to avoid possible injury or death.

Caution: This symbol indicates possible risk of electric shock within the unit.

Caution: This symbol means the product must not be discarded as household waste, and should be delivered to an appropriate collection facility for recycling. Proper disposal and recycling helps protect natural resources, human health and environment. For more information on disposal and recycling of this product, contact your local municipality, disposal service, or shop where you bought this product.

IMPORTANT PRODUCT INFORMATION

Licensing: A ministerial license may be required to operate this equipment in certain areas. Consult your national authority for possible requirements. Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment. Licensing of PHENYX PRO wireless microphone equipment is the user's responsibility, and licensability depends on the user's classification and application, and on the selected frequency. PHENYX PRO strongly urges the user to contact the appropriate telecommunications authority concerning proper licensing, and before choosing and ordering frequencies.

FCC Information

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.

*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 does not 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

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

IC Statement

This device contains license-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, and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.
The term "IC" before the certification/registration number only signifies that the Industry Canada technical specifications were met. This product meets the aplicable Industry Canada technical specifications.

Cet appareil contient des émetteurs/récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body
Cet équipement est conforme aux limites d' exposition aux rayonnements ISED établies pour un environnement non contrôlé.
Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps

Industry Canada ICES-003 Compliance Label: CAN ICES-3 (B)/NMB-3(B)

EU Directives

CE This product meets the Essential Requirement of all relevant European directives and is eligible for CE marking.

Meets essential requirements of the following European Directives:
WEEE Directive 2019/19/EU
RoHS Directive EU 2015/863
Note: Please follow your regional recycling scheme for batteries and electronic waste

Authorized European Representative

UK REP

UK CROSSBORDER LIMITED
7 Bell Yard London WC2A 2JR, UK
United Kingdom
Email: uk-crossborder@outlook.com

EU REP

OASIS SERVICE SP. Z O.O.
ul. Mlynarska 42 lok.115
01-171 Warszawa
Email: oasisservicepl@outlook.com

Thank you for purchasing the Phenyx Pro PTC-4. For the best results and utmost satisfaction with your new unit, please read this manual carefully to ensure proper operation, and keep it for future reference. For more information, please visit our store: www.phenyxpro.com

Table of Contents

System Description

System overview

The Phenyx Pro PTC-4 UHF Wireless Conference Microphone System is a high-performance solution designed for professional settings such as corporate meetings, churches, classrooms, lecture halls, and public speaking. With 4x50 tunable frequencies and an Auto Scan function, the system automatically detects and selects the optimal frequency for smooth, interference-free operation, delivering reliable performance up to 328 ft/100 m. It supports the simultaneous operation of up to 3 units, accommodating up to 12 microphones without frequency conflicts. Other key features include effortless IR synchronization, a secure lock function, custom EQ tuning for natural voice, and foam covers to reduce unwanted noise. With a replaceable battery and 8–10 hours of battery life, you can easily swap batteries to ensure uninterrupted use for your next important event.

System features

- Operates with 4×50 selectable frequencies, delivering stable, low-latency audio and up to 328 ft (100 m) of reliable transmission.
- Uses hassle-free IR synchronization to pair the receiver and conference microphones quickly, minimizing dropouts and maximizing feedback rejection.
- The auto-scan feature scans the RF environment with precision, quickly identifying the optimal frequency for smooth, interference-free performance.
- Up to 3 systems can operate concurrently, accommodating 12 conference microphones without frequency conflicts.
- The secure lock function prevents accidental changes to settings, ensuring stable and uninterrupted operation throughout use.
- The mute function on the transmitter allows users to temporarily disable the microphone, avoiding any unintended sound during pauses or transitions.
- Custom EQ tuning optimizes sound for meeting environments, enhancing voice clarity and reducing listener fatigue during extended sessions.
- Foam covers reduce wind and plosive noises, ensuring clear audio in outdoor or dynamic settings.
- Provides 8-10 hours of operation with two replaceable AA batteries, allowing you to easily swap batteries during extended events, so you never have to worry about running out of power.
- Built with a premium metal design, the UHF receiver offers durability and an enhanced user experience.
- Ideal for corporate meetings, churches, classrooms, lecture halls, public speaking, and more.

Box components

1 x Receiver	1 x 6.35mm to 3.5mm Adapter
4 x Gooseneck Conference Microphones	8 x AA Batteries
4 x Foam Covers	2 x Antennas
1 x Power Adapter	4 x Rubber Feet
1 x 6.35mm Audio Cable	1 x User Manual

Operation Guidance

Single system setup

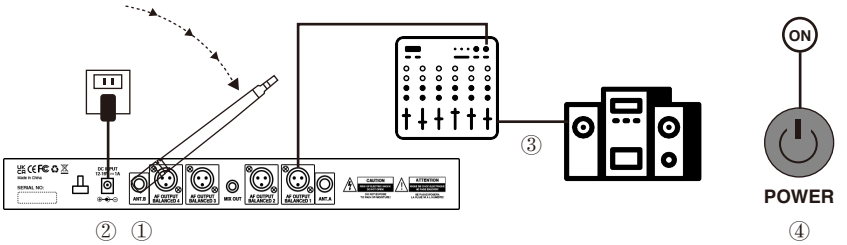
Step 1: Connect and power up the receiver

① Connect antennas to the receiver via ANT jacks.

② Connect the power supply to the receiver via the power jack.

③ Connect the audio output to an amplifier/speaker or mixer via 1/4” mixed output jack or XLR audio output jack.

④ Long press (2s) the power button on the receiver's front panel to turn on the receiver.



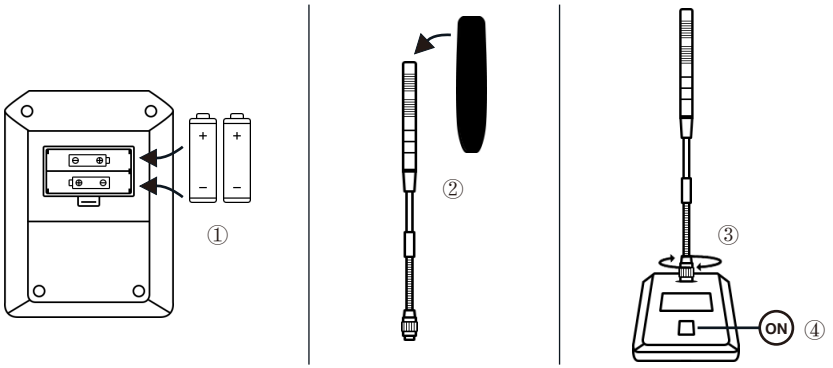
Step 2: Turn on transmitter

① Install fresh batteries with the correct polarity on the transmitter.

② Attach the foam windscreen to the microphone head.

③ Connect the microphone to the transmitter and secure it by tightening the collar to prevent detachment and ensure stability.

④ Short press power buttons to turn on transmitters.



Step 3: Frequency Selection

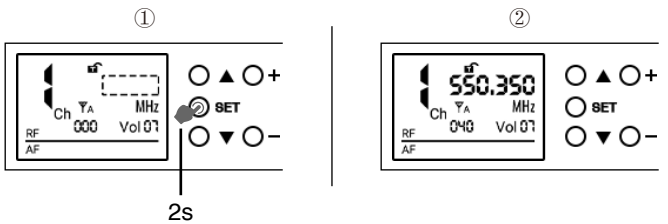
Manual Frequency Selection:

Short press (tap) the "▲" up and "▼" down buttons to select the desired frequency, then press SET to confirm.

AutoScan Frequency Selection:

① Long press (2s) the SET button of the receiver to initiate the auto-scan function, which searches for the best frequency in the RF environment.

② Wait until the new frequency appears on the screen.



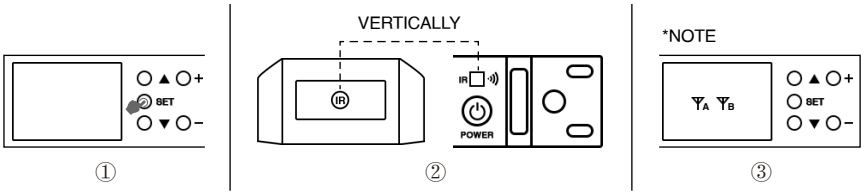
Step 4: Pair up the receiver and transmitter

① One short press of the SET button again to initiate the IR synchronization.

② Vertically aim the IR window of a transmitter to that of the receiver.

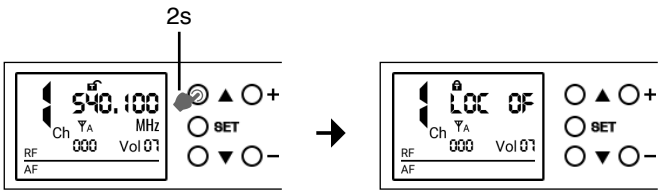
③ After the successful synchronization, the receiver alternates between showing the signal indicators " $\mathbb{Y}_A$ " and " $\mathbb{Y}_B$ " on the LCD screen. And the receiver and the transmitter show the same channel number on the screen for the designated channel.

***NOTE:** The alternating signal indicators " $\mathbb{Y}_A$ " and " $\mathbb{Y}_B$ " indicate that the pairing is successful and the receiver is switching between the antennas to ensure optimal signal reception.



Optional step: Initiate the lock function

Long press the "▲" up button of the receiver for two seconds to lock your settings and to avoid accidental touch.



"LOC ON" for locking in,
and "LOC OF" for locking off

Multiple system setup

You are suggested to use no more than 12 transmitters simultaneously (band and RF environment depend).

***NOTE:** For efficient multiple system setup, set up each system one-at-a-time and initiate the auto-scan function to intelligently find optimal frequencies to operate. Leave a receiver and tuned transmitters powered on so that other receivers can detect that those channels have been occupied. Turn on any other equipment that could cause interference during the performance which can be detected by the receiver's auto scan function to avoid multiset interference in the following steps.

Before you begin the system setup, turn all receivers ON and all transmitters OFF.

① Initiate the auto-scan function for a channel of a receiver.

② Turn on the first transmitter and pair it up with the receiver.

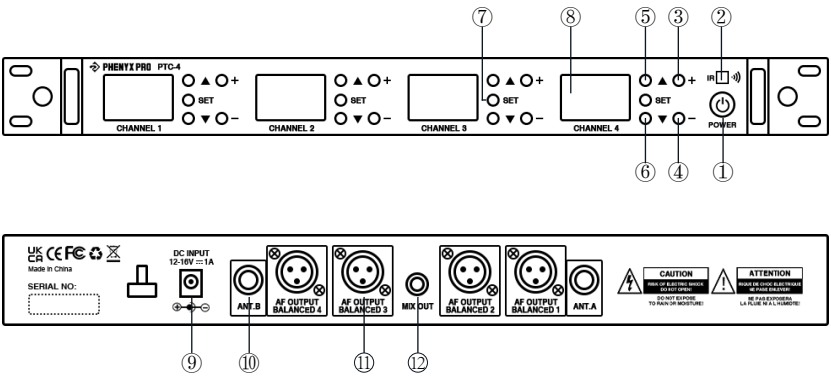
③ Repeat the above two steps until set up all channels.

④ Leave transmitters on and continue with additional systems according to the above three steps.

⑤ Once all systems are set up, make sound check on all transmitters.

Functions of Parts

Receiver



① **Power button:** Powers on/off the unit. It lights up when the unit is turned on.

② **IR window:** For infrared synchronization setup.

③ **"+" button:** Press this button to increase the volume.

④ **"-" button:** Press this button to decrease the volume.

⑤ **Up button:** Short press (tap) this button for frequency increment. Long press for 2 seconds to initiate the lock function.

⑥ **Down button:** Short press (tap) this button for frequency decrement.

⑦ **SET button:** Short press (tap) this button for infrared synchronization setup. Long press for 2 seconds to initiate the auto-scan function.

⑧ **LCD screen:** Displays the receiver status.

⑨ **DC power jack**

⑩ **Antennas:** For connecting detachable antennas and picking up signals from transmitters.

⑪ **XLR audio output jacks:** The XLR audio output jacks accept a balanced XLR connector. Each channel has its corresponding XLR output jack.

⑫ **1/4" mixed output jack:** The 1/4" (6.35mm) output jack accepts an unbalanced TS connector.

Receiver LCD Screen

① **Channel number**

② **Channel group**

③ **RF signal strength indicator (RF):** Shows the strength of the received RF signal.

④ **AF signal strength indicator (AF):** Indicates the strength of the received audio signal.

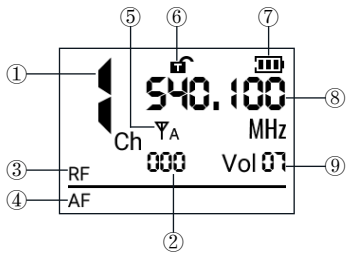
⑤ **Antenna indicator (A/B):** Indicates which antenna (A or B) is actively receiving the signal.

⑥ **Lock indicator:** Displays whether the system is locked or unlocked.

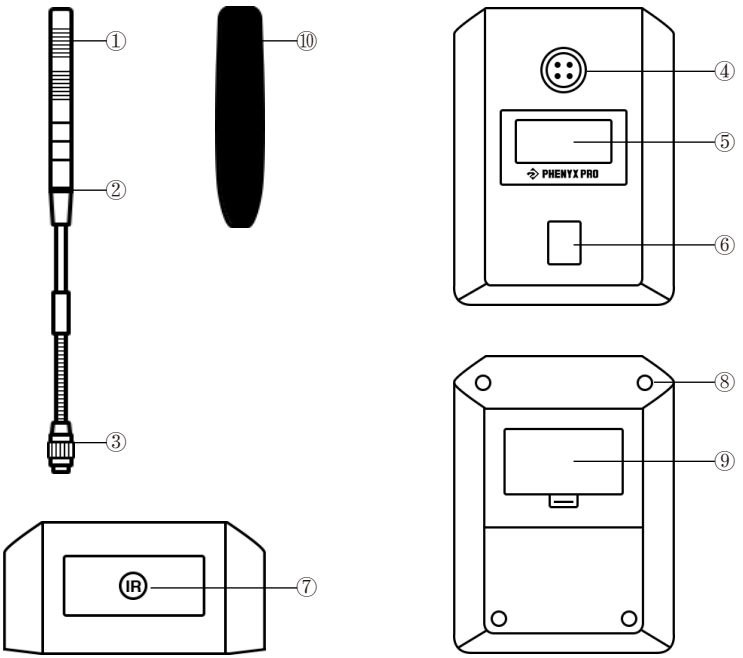
⑦ **Battery indicator:** Displays the battery status of the connected transmitter, allowing you to monitor its remaining power.

⑧ **Frequency number**

⑨ **Volume indicator (Vol):** Displays the current volume level.



Transmitter



① **Microphone head:** Captures high-quality audio input for the system.

② **Indicator light:** A status light that indicates the current operation mode. It lights green during normal operation and switches to red when the microphone is muted.

③ **Microphone connector:** Connects the microphone securely to the base unit via the 4-pin XLR port.

④ **4-pin XLR input port:** Provides a secure connection for the gooseneck microphone to the base unit.

⑤ **LCD screen:** Displays the transmitter status.

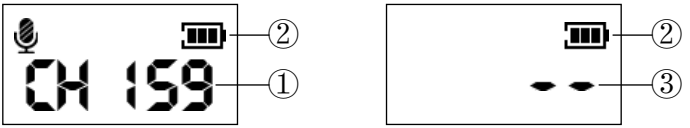
⑥ **Power button:** Short press (tap) to turn on/mute the microphone; long press to turn off.

⑦ **IR window:** For infrared synchronization setup.

⑧ **Rubber feet:** Anti-slip design to provide stability and prevent movement during use.

⑨ **Battery compartment**

⑩ **Foam windscreen:** Reduces wind noise and plosive sounds, ensuring clear audio capture.



Transmitter LCD Screen

① **Channel group number**

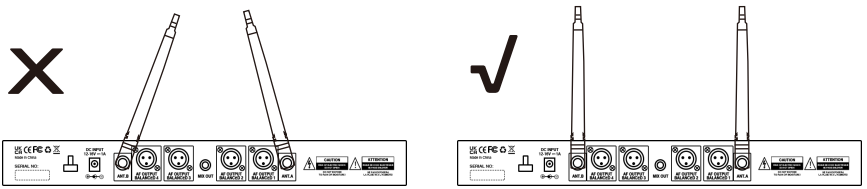
② **Battery indicator:** To indicate the real-time battery status.

③ **Mute state:** Indicates the transmitter is mute.

Wireless Tips

If you encounter wireless interference or dropouts, try the following suggestions:

- Replace the transmitter batteries.
- Choose a different frequency.
- Avoid approaching the receiver and transmitters with metal or other dense materials.
- Place the receiver as high as possible on the equipment rack.
- Remove any devices causing possible signal interference, such as cellphones, computers, media players, two-way radios, and digital signal processors.
- Keep transmitters more than 6 feet (two meters) apart.
- Mark trouble spots during soundcheck and inform performers to avoid those areas.
- Place antennas away from each other.



Troubleshooting

ISSUE	INDICATOR STATUS	CORRESPONDING SOLUTION
No sound or faint sound	Receiver LCD screen off	• Make sure the DC adapter is securely plugged into an electrical outlet. • Make sure the receiver is powered on.
	Receiver LCD screen on	• Make sure the transmitter is successfully paired up with the receiver. You can see "Υ_A" or "Υ_B" alternating on the receiver screen. • Make sure the transmitter successfully transmits audio signals. You can see "Υ_A" or "Υ_B" flashes on the receiver screen. Otherwise, replace batteries for the transmitter. If it does not work, replace the transmitter. Adjust volume controls of the receiver and speaker to proper levels.
Low battery	The battery indicator shows low battery status	• Replace fresh batteries for the transmitter.
A howling noise (also "feedback") from the speaker		• Do not point the microphone directly to the speaker. And increase their distance.

Specifications

Specifications

• Overall System

Frequency Range	UHF 540 MHz-590 MHz
Modulation Mode	Wideband FM
Adjustable Range	50 MHz
Number of Channels	200
Channel Spacing	250 KHz
Frequency Stability	±0.005%
Dynamic Range	>105 dB
Maximum Frequency Deviation	±45 KHz
Audio Response	40 Hz-18 KHz (±3 dB)
Overall Signal-to-Noise Ratio	>105 dB
Total Harmonic Distortion	≤0.2%
Operating Temperature	-25 °C to +40 °C

• Receiver

Reception Mode	Double Conversion Superheterodyne
Input Power	5 W
Intermediate Frequency	First IF: 110 MHz, Second IF: 10.7 MHz
Wireless Interface	BNC/50 Ω
Sensitivity	12 dBμV (80 dBS/N)
Sensitivity Adjustment Range	10 dBμV-32 dBμV
Spurious Suppression	≥95 dB
Maximum Output Level	+10 dBV

• Transmitter

Output Power	10 mW
Spurious Suppression	-60 dB
Power Supply	Two AA batteries
Operating Time	Approximately 8-10 hours

• Frequency List

A Channel	540.10 MHz - 554.80 MHz	Each channel has 50 frequencies with 0.3 MHz increment.
B Channel	555.10 MHz - 569.80 MHz	
C Channel	570.10 MHz - 584.80 MHz	
D Channel	585.10 MHz - 599.80 MHz	

Technical Support & Warranty Information

Our warranty to you:
Phenyx Technology ("Phenyx") warrants Phenyx products against evident defects in material and workmanship for a period of one year from the date of original purchase for use.This warranty is valid exclusively in the US and applies only to the original owner. If you discover a defect covered by this warranty, Phenyx will repair or replace the product at our sole discretion using new or refurbished components. Performance of repairs or replacements under this warranty is subject to registration of your product at www.phenyxpro.com

Product failures not covered by this warranty:
This warranty covers defects in manufacturing that arise from the correct use of the device. It is limited to defects in materials or workmanship and does not cover electrical or mechanical damage resulting from abuse, misuse, unauthorized modification, lack of reasonable care, extreme heat, cold, damage due to natural forces,or corrosive environments. This warranty does not cover the normal wear and tear on covers, housing, connectors, and accessories.

Limits of liability:
If your Phenyx product fails or does not perform as warranted, your sole recourse shall be to replace or repair it as described above. Phenyx will not be liable to you or anyone else for any damages that result from the failure of this product. These damages include, but are not limited to, the following: lost profits, lost savings, lost data, damage to other equipment, and incidental or consequential damages arising from the use of or inability to use this product. IN NO EVENT PHENYX SHALL BE LIABLE FOR MORE THAN THE AMOUNT OF YOUR PURCHASE PRICE, NOT TO EXCEED THE CURRENT LIST PRICE OF THE PRODUCT.

How to obtain service under this warranty:
If you are receiving a system that is defective or you have any questions regarding operation or warranty cover, please contact us at support@phenyxpro.com with any questions or concerns and a Phenyx Pro representative will contact you to provide assistance. You can also reach out to us through Facebook page: www.-facebook.com/phenyxusa/ or our official website: www.phenyxpro.com.

PHENYX PRO®

www.phenyxpro.com

Made in China
Manufacturer: Guangzhou VILAN Technology CO., LTD.
Address: No.101 Wanggangdexing Road, Baiyun District, Guangzhou, China
After-sales Service E-mail: support@phenyxpro.com ; info@phenyxpro.com