



# PTU-71/7000/6000 Series

AUTO-SCAN UHF

Dual / Quad / Eight-Channel Wireless 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 applicable 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)**

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## EU Directives

 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



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*Thank you for purchasing the Phenyx Pro PTU-71/7000/6000 Series.  
For the best results and the utmost satisfaction for 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](http://www.phenyxpro.com)*

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# System Description

## System overview

The PTU-71/7000/6000 Series was born with the mission that everyone can enjoy superior sound quality and professional features without overpaying. Adjustable UHF frequency design provides more flexibility when facing outside interference. The state-of-the-art AutoScan circuitry scans the entire RF environment precisely to quickly locate the best available frequency and deliver promising wireless performance. Guarantee fewer cutoffs and dropouts for your important moments in live shows, weddings, church, DJs, conference meetings, public speaking, etc.

## System features

- Adjustable UHF frequency groups for multiset operation. The PTU-71 features 2x100 adjustable frequencies, while the PTU-7000 features 4x40 and the PTU-6000 features 8x40.
- The IR synchronization enables you to pair up and operate painlessly.
- The auto-scan function serves as the automatic frequency management by precisely scanning the entire RF environment and locating the best available frequency for interference-free and dropout-free use.
- The advanced circuitry provides up to 328ft/100m long-range and rock-firm coverage.
- Dynamic cartridge with a cardioid polar pattern flawlessly captures and smoothly transmits your sound noise-freely.
- It escalates your voice to the next level and reproduces the lush, warm, natural, and flawless sound.
- Two types of transmitters and various accessories provides easy customization.

## System components

Your system comes with a combination of the following components.

### Receiver

PWR-71	Dual-channel Wireless Receiver
PWR-7000	Quad-channel Wireless Receiver
PWR-6000	Eight-channel Wireless Receiver

### Transmitters

PWH-7	Handheld Transmitter
PWB-7	Bodypack Transmitter

### Accessories

PHM-01-BLK	Black Headset Mic
PHM-01-BGE	Beige Headset Mic
PLM-01-BLK	Black Lapel Mic
PLM-01-BGE	Beige Lapel Mic
ANTB-500	Antennas for 500 UHF Band
PTA-01	Power Adapter
PTA-02	1/4" Audio Cable
	AA Batteries
	Anti-rolling Rings
	6.35MM to 3.5MM Adapter
	User's Manual

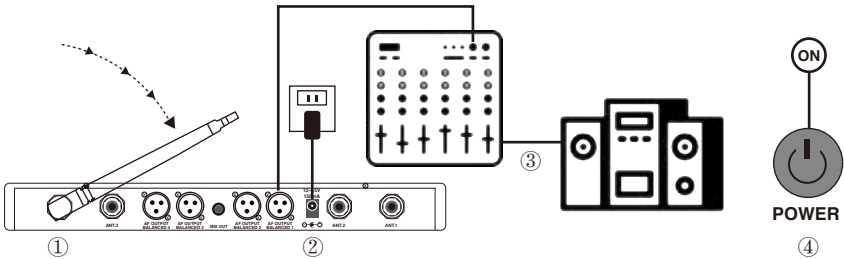
**\*Caution:** Risk of explosion if battery replaced by an incorrect type. Dispose of used batteries according to the instructions.

# Operation Guidance

## Single system setup

### Step 1: Connect and power up the receiver

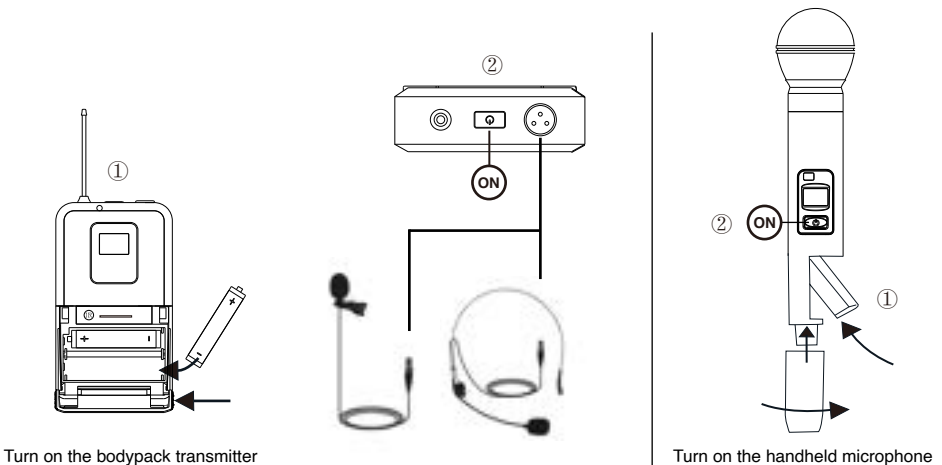
- ① Connect antennas to the receiver via ANT jacks.
- ② Connect the power supply to the receiver via the power jack.
- ③ Connect the audio output to an amplifier/speaker or mixer via 1/4" mixed output jack or XLR audio output jack.
- ④ Long press (2s) the power button on the receiver's front panel to turn on the receiver.



### Step 2: Turn on transmitters

- ① Install fresh batteries with the correct polarity.
- ② Long press power buttons to turn on transmitters.

**\*NOTE:** The LCD screens of handheld and bodypack transmitters turn dim in standby mode.  
The LED light on top of the bodypack transmitter remains green to indicate it is turned on.



### Step 3: Manual frequency selection

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

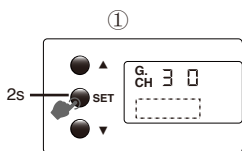
**\*NOTE:** For PWR-6000, press the "▲" up and "▼" down buttons to select the desired channel first. The selected channel will flash, and please press SET to confirm. Then follow the step above.

### Step 3: AutoScan frequency selection

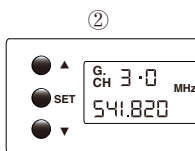
- ① Long press (2s) the SET button of the receiver to initiate the auto-scan function, which searches for the best frequency in the RF environment.
- ② Wait until the new frequency appears on the screen.

**\*NOTE:** For PWR-6000, press the "▲" up and "▼" down buttons to select the desired channel first. The selected channel will flash, and please press SET to confirm. Then follow the steps above.

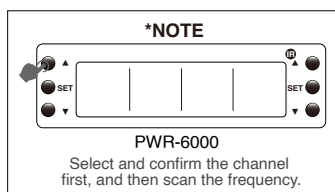
### AutoScan frequency selection



The receiver is scanning the best frequency.



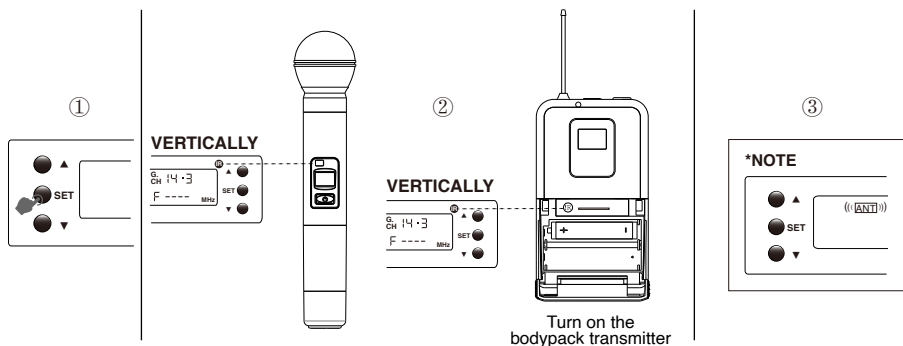
The best frequency is found.



### Step 4: Pair up the receiver and transmitters

- 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 shows the "ANT" indicator on the LCD screen. And the receiver and the transmitter shows the same channel number on the screen for the designated channel.

**\*NOTE:** The signal indicator "ANT" indicates the frequency is successfully synchronized. The audio indicator "((ANT))" flashes to indicate the frequency is receiving audio signals.

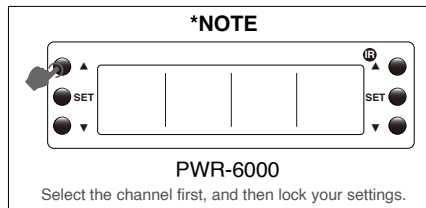


### Optional step: Initiate the lock function

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

**\*NOTE:** For PWR-6000, press the "▲" up and "▼" down buttons to select the desired channel first.

The selected channel will flash, and please press SET to confirm. Then follow the step above.



## Multiple system setup

You are suggested to use no more than 16 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.

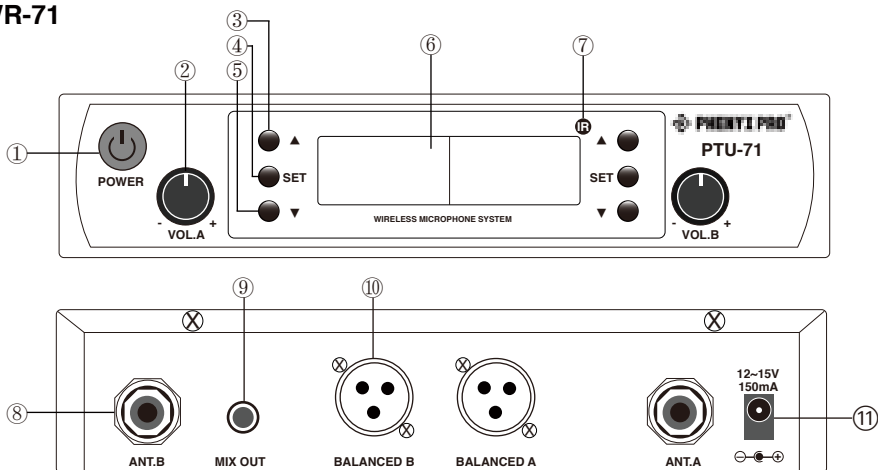
Before you begin the system setup, turn all receivers ON and all transmitters OFF.

- 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.

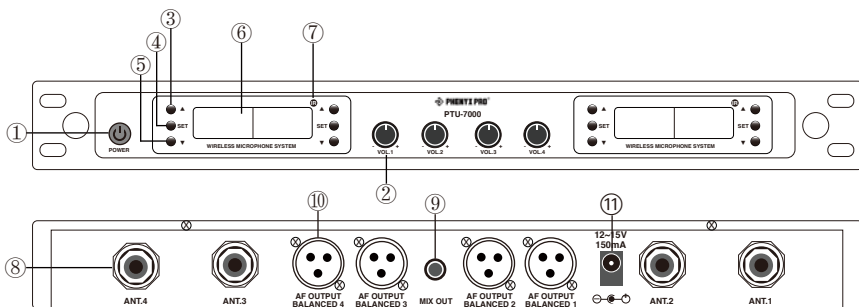
# Functions of Parts

## Receiver

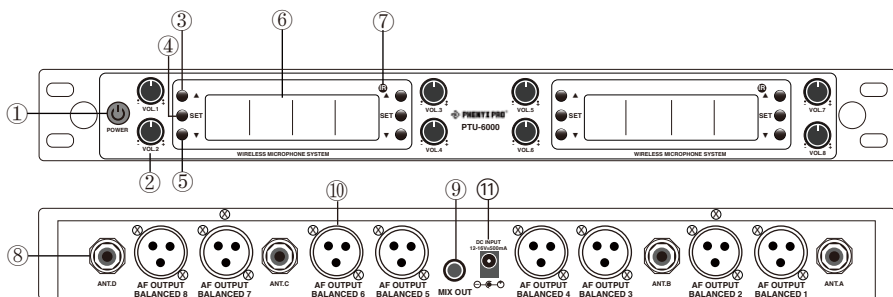
### PWR-71



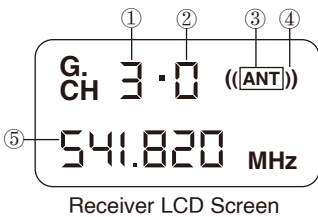
### PWR-7000



### PWR-6000



- ① **Power button:** Powers on/off the unit. It lights green when the unit is on.
- ② **Volume control knobs:** Twist these knobs clockwise/counterclockwise to increase/decrease the volume.
  - \*NOTE: Please check the corresponding name of each knob before adjusting the volume for the desired channel properly.
- ③ **Up button:** Short press (tap) this button for frequency increment. Long press for 2 seconds to initiate the lock function.
  - \*NOTE: For PWR-6000, short press (tap) this button also for channel selection.
- ④ **SET button:** Short press (tap) this button for infrared synchronization setup. Long press for 2 seconds to initiate the auto-scan function.
- ⑤ **Down button:** Short press (tap) this button for frequency decrement.
  - \*NOTE: For PWR-6000, short press (tap) this button also for channel selection.
- ⑥ **LCD screen:** Displays the receiver status.
- ⑦ **IR window:** For infrared synchronization setup.
- ⑧ **Antennas:** For connecting detachable antennas and picking up signals from transmitters.
  - \*NOTE: The PWR-71 has two antennas, while the PWR-7000 and PWR-6000, respectively, have four.
- ⑨ **1/4" mixed output jack:** The 1/4" (6.35mm) output jack accepts an unbalanced TS connector.
- ⑩ **XLR audio output jack:** The XLR audio output jacks accept a balanced XLR connector. Each channel has its corresponding XLR output jack.
- ⑪ **DC power jack**

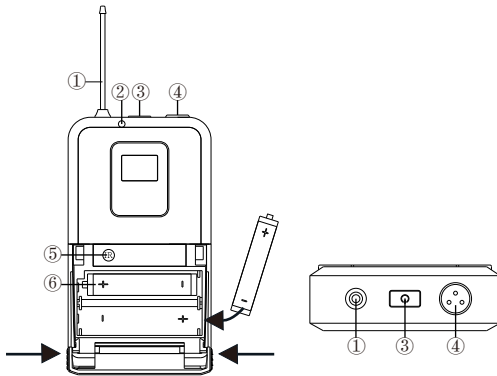


- ① **Group number**
- ② **Channel number**
- ③ **RF signal indicator:** It appears when the transmitter is successfully paired up with the receiver. When it disappears, the channel receives no signal.
- ④ **Audio signal indicator:** Indicates audio signal level. "ANT" indicates no audio signal. "(((ANT)))" indicates the highest audio signal level.
- ⑤ **Frequency number**

## Transmitters

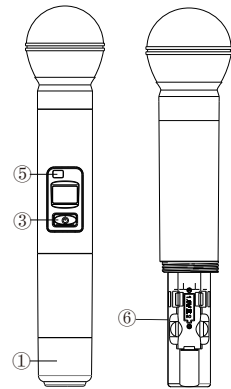
### Bodypack transmitter

PWB-7



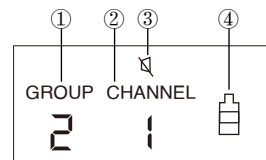
### Handheld transmitter

PWH-7



- ① **Antenna:** For signal transmission.
- ② **Battery LED light:** It maintains green to indicate sufficient battery and red to show low battery.
- ③ **ON/MUTE/OFF power button:** Long press the power button for 2 seconds to turn the transmitter on/off. Short press (tap) to mute the transmitter.
- ④ **3-pin XLR jack:** Connect to a 3-pin mini XLR connector headset or lapel mic.
- ⑤ **IR window:** For infrared synchronization setup.
- ⑥ **Battery compartment:** Install batteries with the correct polarity.

- ① **Group number**
- ② **Channel number**
- ③ **Mute indicator:** The mute icon appears on the screen to indicate the transmitter is muted.
- ④ **Battery indicator:** To indicate the real-time battery status.

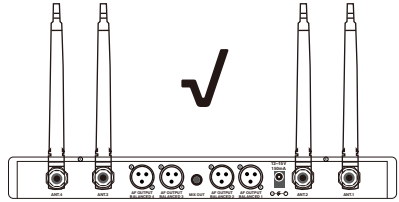
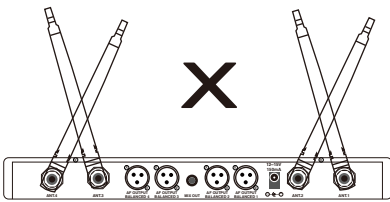


Transmitter LCD Screen

# 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	<ul style="list-style-type: none"> <li>• Make sure the DC adapter is securely plugged into an electrical outlet.</li> <li>• Make sure the receiver is powered on.</li> </ul>
	Receiver LCD screen on	<ul style="list-style-type: none"> <li>• Make sure the transmitter is successfully paired up with the receiver. You can see "[ANT]" on the receiver screen.</li> <li>• Make sure the transmitter successfully transmits audio signals. You can see "([ANT])" 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.</li> </ul>
Low battery	The battery indicator shows low battery status	<ul style="list-style-type: none"> <li>• Replace fresh batteries for the transmitter.</li> </ul>
A howling noise (also "feedback") from the speaker		<ul style="list-style-type: none"> <li>• Do not point the microphone directly to the speaker. And increase their distance.</li> </ul>

# Specification

## Specification

### • Overall System

Carrier Frequency Range (Depends on local regulations)	UHF 530-580 MHz
Frequency Stability	0.003%
Dynamic Range	>105 dB
Frequency Response	50 Hz-18 kHz
Audio Output Level	1/4 interface: 0-500 mV; XLR interface: 0-500 mV
Working Distance	100 m/328 ft
XLR Interface	0-500 mV
Operating Temperature	-10°C ~ +50°C

• Receiver

Output Impedance	XLR connector: 2000
RF Sensitivity	-105 dBm
Image Rejection	>110 dB
Spurious Rejection	>90 dB
Power	5 W
Power Requirement	DC 12-15 V, Current: 300 mA, External power adaptor
Dimension	210 mm x 160 mm x 45 mm (H x W x D)
Weight	775 g (27.3 oz)

• Handheld & Bodypack Transmitter

Modulation Mode	FM
Maximum Deviation	75 kHz
Handheld Dimension	249 mm x 51 mm (9.8 x 2 in)
Handheld Weight	306 g (10.8 oz) (without batteries)
Power Requirement	2 AA alkaline batteries (for each transmitter)
Battery Life	At least 8 hours with original batteries included

• Frequency List

PWR-71	Channel 1: 536.57 - 561.32 MHz	Each channel has 100 frequencies with 0.25 MHz increment.
	Channel 2: 562.37 - 587.12 MHz	
PWR-7000	Channel 1: 538.3 - 550 MHz	Each channel has 40 frequencies with 0.3 MHz increment.
	Channel 2: 554.8 - 566.5 MHz	
	Channel 3: 571.3 - 583 MHz	
	Channel 4: 587.8 - 597.4 MHz	
PWR-6000	Channel 1: 520.15 - 529.9 MHz	Each channel has 40 frequencies with 0.25 MHz increment.
	Channel 2: 530.3 - 540.05 MHz	
	Channel 3: 540.9 - 550.65 MHz	
	Channel 4: 551.2 - 560.95 MHz	
	Channel 5: 561.5 - 571.25 MHz	
	Channel 6: 571.8 - 581.55 MHz	
	Channel 7: 582.3 - 592.05 MHz	
	Channel 8: 592.5 - 602.25 MHz	

**\*NOTE:** Remember to confirm the frequency licensing from the appropriate telecommunications authority concerning proper licensing before ordering and operating the frequencies.

# 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](http://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](mailto: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/](http://www.facebook.com/phenyxusa/) or our official website: [www.phenyxpro.com](http://www.phenyxpro.com).



[www.phenyxpro.com](http://www.phenyxpro.com)

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