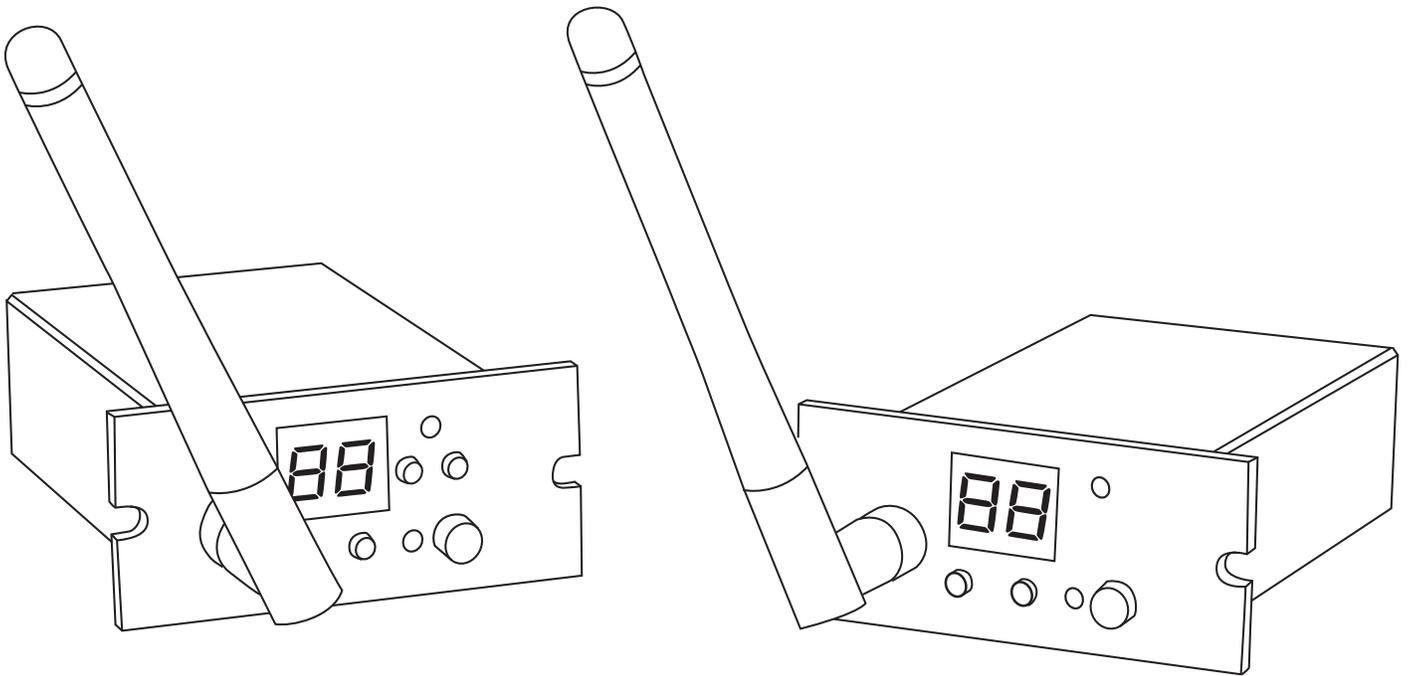


VocoPro[®]

PROFESSIONAL VOCAL SYSTEMS[™]



AIR-NET 2

2.4GHz Digital Audio Wireless Transmitter and Receiver

o w n e r ' s m a n u a l

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Safety Instructions



CAUTION RISK OF SHOCK



CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Only refer servicing to qualified service personnel.

Explanation of Graphical Symbols



The lightning flash & arrowhead symbol, within an equilateral triangle, is intended to alert you to the presence of danger.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and servicing instructions.

WARNING

To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.

- 1. Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
- 2. Retain Instructions** - The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
- 4. Follow Instructions** - All operating and use instructions should be followed.
- 5. Attachments** - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- 6. Water and Moisture** - Do not use this unit near water. For example, near a bathtub or in a wet basement and the like.
- 7. Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 7 A.** An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause an overturn.



- 8. Ventilation** - The appliance should be situated so its location does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation slots.
- 9. Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- 10. Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
- 11. Grounding or Polarization** - Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
- 12. Power-Cord Protection** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- 13. Cleaning** - Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 14. Power lines** - An outdoor antenna should be located away from power lines.
- 15. Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
- 16. Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
- 17. Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or plug has been damaged; or
 - B. Objects have fallen into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
- 18. Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Note:

To CATV system installer's (U.S.A.): This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected as close to the point of cable entry as practical.

FCC Information

1. IMPORTANT NOTICE: DO NOT MODIFY THIS

UNIT!: This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Vocopro may void your authority, granted by the FCC, to use this product.

2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable(s) supplied with this product **MUST** be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the U.S.A.

3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurances that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the owner's manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "Off" and "On", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Use power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter(s).

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300-ohm ribbon lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact your local retailer authorized to distribute Vocopro products. If you can not locate the appropriate retailer, please contact Vocopro, 1728 Curtiss Court, La Verne, CA 91750.

CAUTION

The apparatus is not disconnected from the AC power source so long as it is connected to the wall outlet, even if the apparatus itself is turned off. To fully ensure that the apparatus is indeed fully void of residual power, leave unit disconnected from the AC outlet for at least fifteen seconds.

CAUTION:

READ THIS BEFORE OPERATING YOUR UNIT

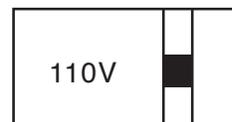
1. To ensure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
2. Install your unit in a cool, dry, clean place - away from windows, heat sources, and too much vibration, dust, moisture or cold. Avoid sources of hum (transformers, v motors). To prevent fire or electrical shock, do not expose to rain and water.
3. Do not operate the unit upside-down.
4. Never open the cabinet. If a foreign object drops into the set, contact your dealer.
5. Place the unit in a location with adequate air circulation. Do not interfere with its proper ventilation; this will cause the internal temperature to rise and may result in a failure.
6. Do not use force on switches, knobs or cords. When moving the unit, first turn the unit off. Then gently disconnect the power plug and the cords connecting to other equipment. Never pull the cord itself.
7. Do not attempt to clean the unit with chemical solvents: this might damage the finish. Use a clean, dry cloth.
8. Be sure to read the "Troubleshooting" section on common operating errors before concluding that your unit is faulty.
9. This unit consumes a fair amount of power even when the power switch is turned off. We recommend that you unplug the power cord from the wall outlet if the unit is not going to be used for a long time. This will save electricity and help prevent fire hazards. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
10. To prevent lightning damage, pull out the power cord and remove the antenna cable during an electrical storm.
11. The general digital signals may interfere with other equipment such as tuners or receivers. Move the system farther away from such equipment if interference is observed.

NOTE:

Please check the copyright laws in your country before recording from records, compact discs, radio, etc. Recording of copyrighted material may infringe copyright laws.

Voltage Selector (General Model Only)

Be sure to position the voltage selector to match the voltage of your local power lines before installing the unit.





Welcome

And thank you for purchasing the **Air-Net 2** from VocoPro, your ultimate choice in Karaoke entertainment! With years of experience in the music entertainment business, VocoPro is a leading manufacturer of Karaoke equipment, and has been providing patrons of bars, churches, schools, clubs and individual consumers the opportunity to sound like a star with full-scale club models, in-home systems and mobile units. All our products offer solid performance and sound reliability, and to reinforce our commitment to customer satisfaction, we have customer service and technical support professionals ready to assist you with your needs. We have provided some contact information for you below.

VocoPro

1728 Curtiss Court
La Verne, CA 91750
Toll Free: 800-678-5348
TEL: 909-593-8893
FAX: 909-593-8890

VocoPro Company Email Directory

Customer Service & General Information

info@vocopro.com

Tech Support

techsupport@vocopro.com

Remember Our Website

Be sure to visit the VocoPro website **www.vocopro.com** for the latest information on new products, packages and promos. And while you're there don't forget to check out our Club VocoPro for Karaoke news and events, chat rooms, club directories and even a KJ Service directory!

We look forward to hearing you sound like a PRO, with VocoPro, the singer's ultimate choice.

FOR YOUR RECORDS

Please record the model number and serial number below, for easy reference, in case of loss or theft. These numbers are located on the rear panel of the unit. Space is also provided for other relevant information

Model Number

Serial Number

Date of Purchase

Place of Purchase

Listening for a Lifetime

Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. VocoPro and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing "comfort level" adapts to a higher volume of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.
- Pay attention to the different levels in various recordings.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association's Consumer Electronics Group recommend you avoid prolonged exposure to excessive noise. This list of sound levels is included for your protection.

Some common decibel ranges:

Level	Example
30	Quiet library, Soft whispers
40	Living room, Refrigerator, Bedroom away from traffic
50	Light traffic, Normal Conversation
60	Air Conditioner at 20 ft., Sewing machine
70	Vacuum cleaner, Hair dryer, Noisy Restaurant
80	Average city traffic, Garbage disposals, Alarm clock at 2 ft.

The following noises can be dangerous under constant exposure:

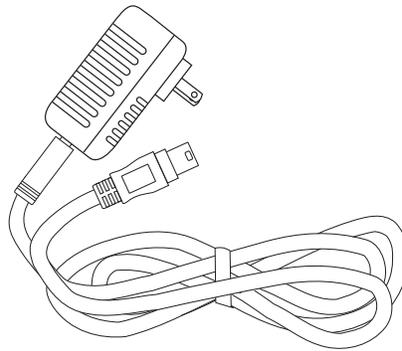
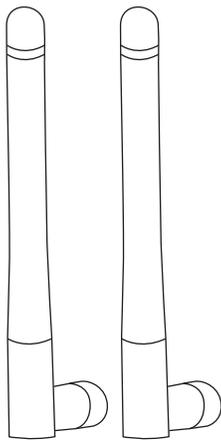
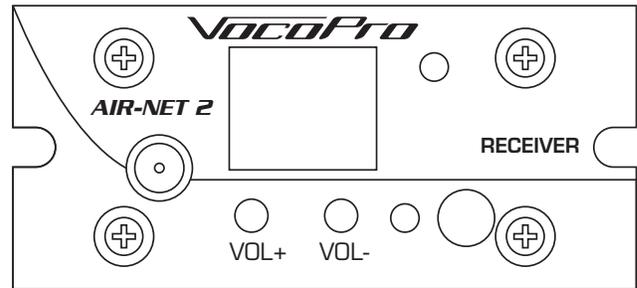
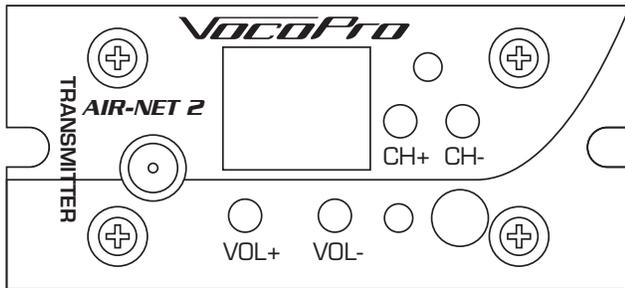
Level	Example
90	Subway, Motorcycle, Truck traffic, Lawn Mower
100	Garbage truck, Chainsaw, Pneumatics drill
120	Rock band concert in front of speakers
140	Gunshot blast, Jet plane
180	Rocket launching pad

-Information courtesy of the Deafness Research Foundation

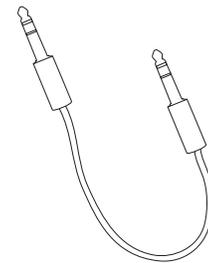
Getting Started

WHAT'S IN THE BOX

- Transmitter Module
- Receiver Module
- (2) Antennas
- (2) USB Power Supply
- (2) 3.5mm Audio Cables



(2)



(2)

SPECIFICATIONS

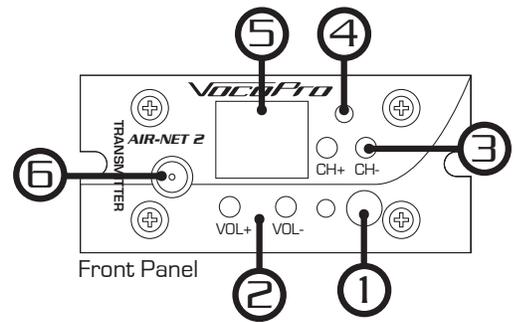
- 30 available operating channels
- Automatic frequency matching
- 100ft. maximum range
- Capable of being installed into: Pa-Pro-900, Mobile-Man, Jamcube, and Stageman
- Can also be used as a standalone unit.
- Plug and Play design; no syncing required.

Descriptions and Functions

TRANSMITTER

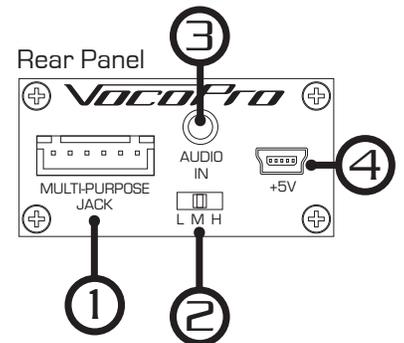
FRONT PANEL

1. Power - Turns transmitter module ON/OFF.
2. VOL +/- - Alters the volume up and down.
3. CH +/- - Cycles through the operating channel number.
4. TX Light - Indicates a signal is being transmitted to the transmitter.
5. LED Readout - Displays the current operating channel number.
6. Antenna - Connect antenna here.



REAR PANEL

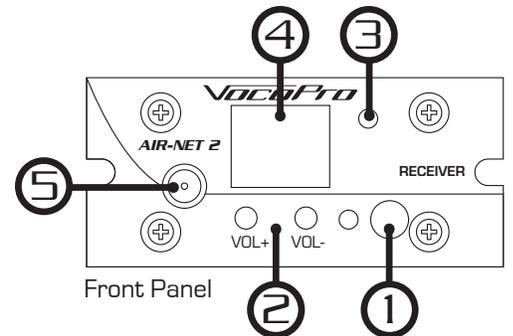
1. Multi-Purpose Jack - Used to patch transmitter into a compatible Vocopro unit.
2. TX Power Level - Sets power used in transmitting signal to receiver:
L - Low
M - Medium
H - High
3. Audio Input - Connect audio source here.
4. Power - Connect USB power cord here.



RECEIVER

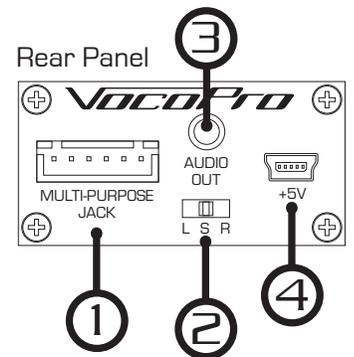
FRONT PANEL

1. Power - Turns receiver module ON/OFF.
2. Vol +/- - Alters the volume up and down.
3. RX Light - Indicates a signal is being received from the transmitter.
4. LED Readout - Displays the current operating channel number.
5. Antenna - Connect antenna here.



REAR PANEL

1. Multi-Purpose Jack - Used to patch receiver into a compatible Vocopro unit.
2. Left/Right Stereo Switch - Changes the receiver audio output from:
L - Left-mono
S - Stereo
R - Right-mono
3. Audio Output - Sends received audio signal out.
4. Power - Connect USB power cord here.



Note: There is no manual syncing required; power on both transmitter and receiver modules to establish a connection. The channel changed on the transmitter will automatically be communicated to the receiver.

Operation

There is no manual syncing required; power on both transmitter and receiver modules to establish a connection. The channel altered on the transmitter will automatically be communicated to the receiver(s).

INSTALLATION USE

TRANSMITTER

1. Identify the appropriate bay on your compatible Vocopro unit.
2. Remove metal covering plate to access receptacle bay.
3. Locate and attach the internal white connector to the transmitter module.
4. Select your signal strength output: Low, Medium, or High.
5. Firmly insert module into position and secure with the included screws.

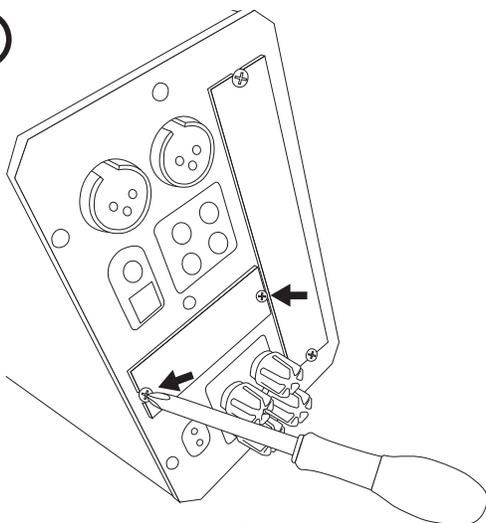
RECEIVER

1. Identify the appropriate bay on your compatible Vocopro unit.
2. Remove metal covering plate to access receptacle bay.
3. Locate and attach the internal white connector to the receiver module.
4. Select your signal strength output: Left-mono, Right-mono, or Stereo.
5. Firmly insert module into position and secure with the included screws.

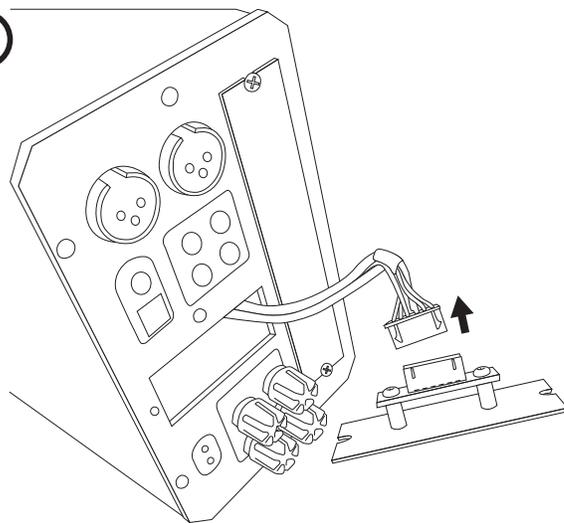
Note: Visit Vocopro.com for a complete list of compatible units.

Note: Illustration shown below is for clarity of installation only.

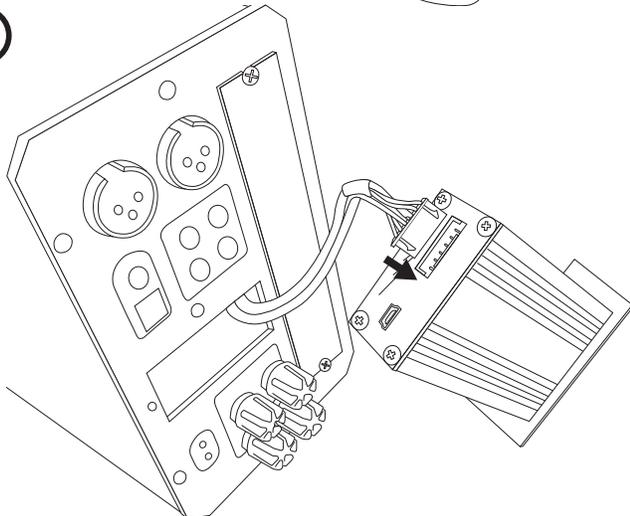
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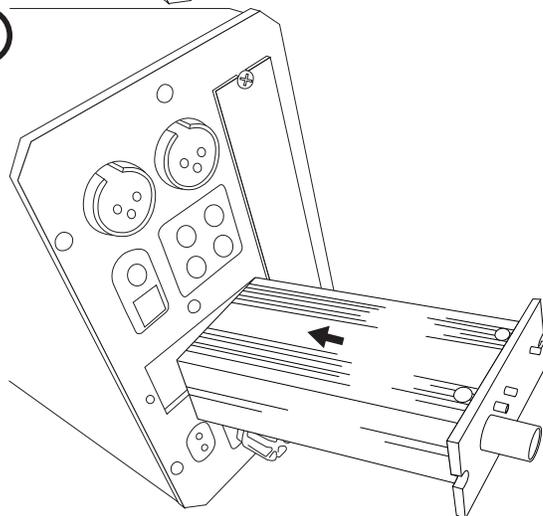
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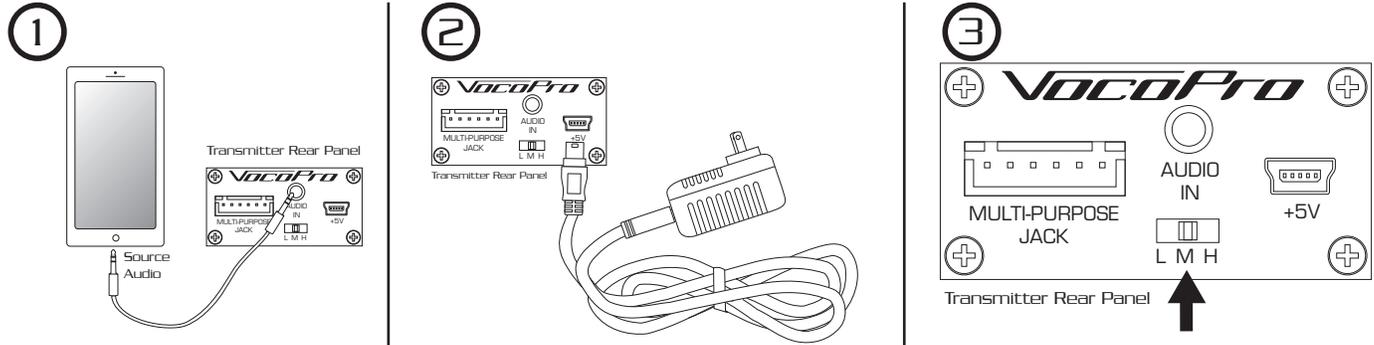


Operation

STAND ALONE USE

TRANSMITTER

1. Connect the source audio to the transmitter module via the 1/8" audio input jack.
2. Connect the Power USB cable to the transmitter module.
3. Select your desired signal strength output: Low, Medium, or High.



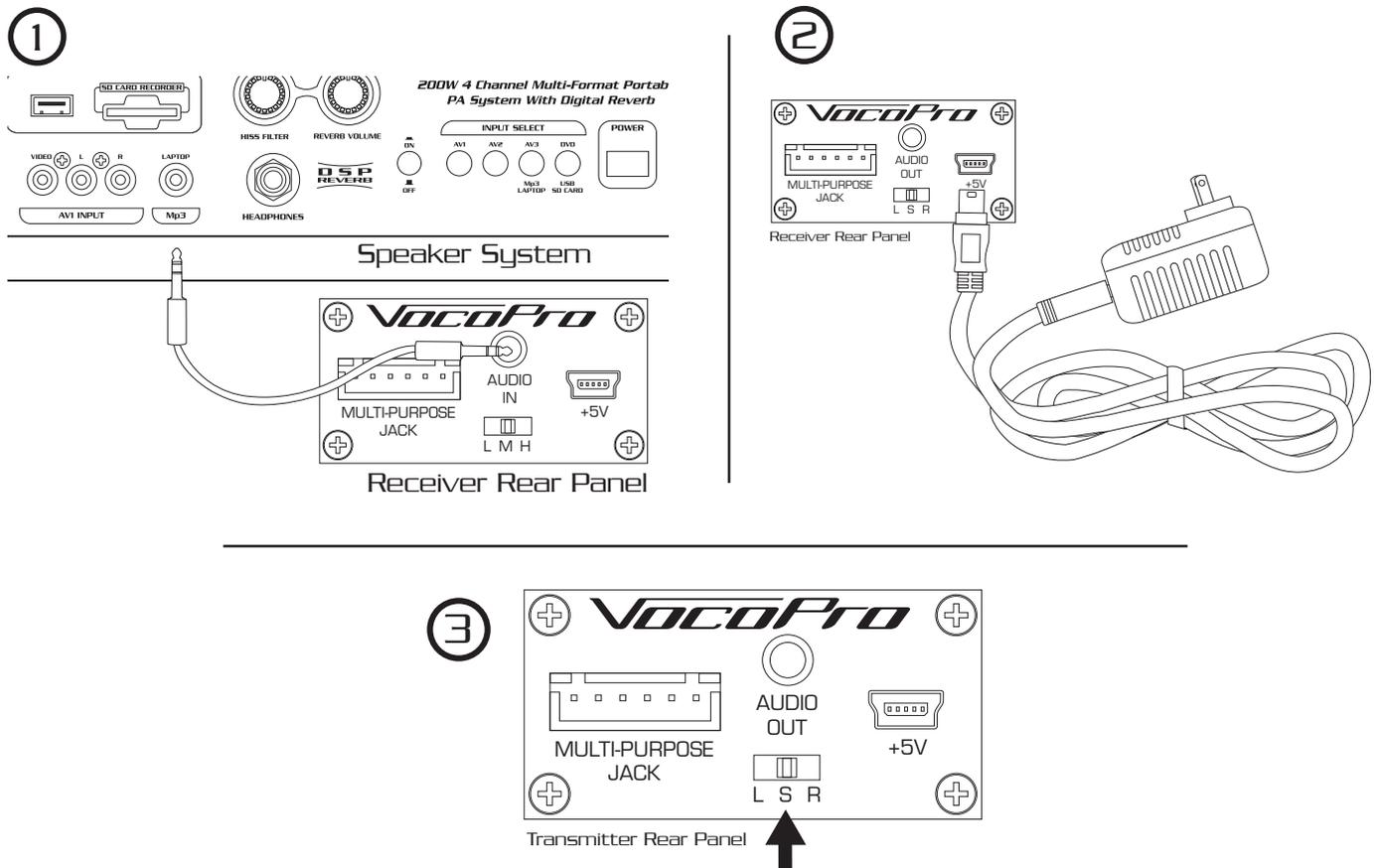
RECEIVER

1. Connect the 1/8" audio output jack to your speaker system.
2. Connect the Power USB cable to the receiver module.
3. Select your desired audio output: Left-mono, Right-mono, or Stereo.

Note: It is possible to utilize both methods of use, for example:

- Transmitter can be installed and the receiver used as a standalone module. OR
- Receiver can be installed and the transmitter used as a standalone module.

Note: Please refer to Commonly Asked Questions if no connection is established when both modules are powered on.



Commonly Asked Questions

1. The LED readout is constantly blinking. Why is that?

- The blinking LED indicates no connection. This can only occur if power was not supplied to either transmitter or receiver modules. Please ensure you have both transmitter and receiver module power cables firmly attached.
- If still blinking, please check that your power supplies are working properly.
- Confirm the receiver is within range of the transmitter, ~100ft.
- Please contact Vocopro if problem persists or gets worse.

2. How many receivers can I have connected at once?

- You may have as many receiver modules wirelessly connected to the transmitter as you like. Any frequency change performed on the transmitter will be communicated to all receivers currently linked.

3. A number of Vocopro wireless microphone systems have the same sized modules; can I install the Air-Net 2 into there?

- No. The Air-Net 2 uses a different type of connector than any of our wireless systems. Please refer to Vocopro.com for a complete list of compatible systems.

4. I'm missing some parts from my box. What do I do?

- Please contact Vocopro at 800-678-5348 regarding any missing or defective accessories.

RECEPTION

The Air-Net 2 uses the densely populated 2.4GHz frequency band. Home WiFi, cordless telephones and other consumer devices also use the 2.4GHz band, which can potentially cause audible interference through the Air-Net 2. The maximum operational range of the Air-Net 2 system is 100ft.

1. If you experience strange noises that do not sound like the audio being played, this may be indicative of frequency interference. Try the following:
 - Change the operational frequency of the transmitter to clear up the audio coming from the receiver.
 - If range permits, lower the TX power level on the transmitter. This will lower the sensitivity in which interference can occur. The higher the TX power, the higher probability of interference from other devices.
 - Move both transmitter and receiver away from sources of 2.4 GHz signals such as WiFi routers and cordless home telephones (cell phones do not apply).
2. If you experience loss of audio from the receiver, this means the connection between transmitter and receiver is lost. Try the following:
 - Keep the transmitter within range of the receiver, with respect to the TX power level. The maximum range of 100ft is achieved with the High TX power level selected.
 - Elevate both receiver and transmitter module to ensure the wireless signal has a relatively clear line-of-sight, especially at longer distances.

Please contact Vocopro at 800-678-5348 if you have any questions regarding the operation of this unit.

OTHER SPECIFICATIONS

Description	Transmitter (TX)	Receiver (RX)
Working voltage	12V DC/5V DC	12V DC/5V DC
Working Current	Max 160mA	Max 75mA
Temperature	-15 - 65° C	-15 - 65° C
Frequency	2400 - 2525 MHz	2400 - 2525 MHz
Modulation Mode	GFSK	GFSK
Baud Rate	2M bps	2M bps
Frequency Stability	± 100kHz	± 100kHz
Transmitted Power	0 - 20 dBm (adjustable)	
Receive Sensitivity		-90 dBm
Gain Ratio		1 : 1
Frequency Response		20 - 20000Hz (± 1 dB)
Delay Time		<6ms
Sampling Rate		Max 48k @ 16bit x 2
S/N		≤90db
Distortion		<1/0% ! 1kHz
Dynamic Range		90db

