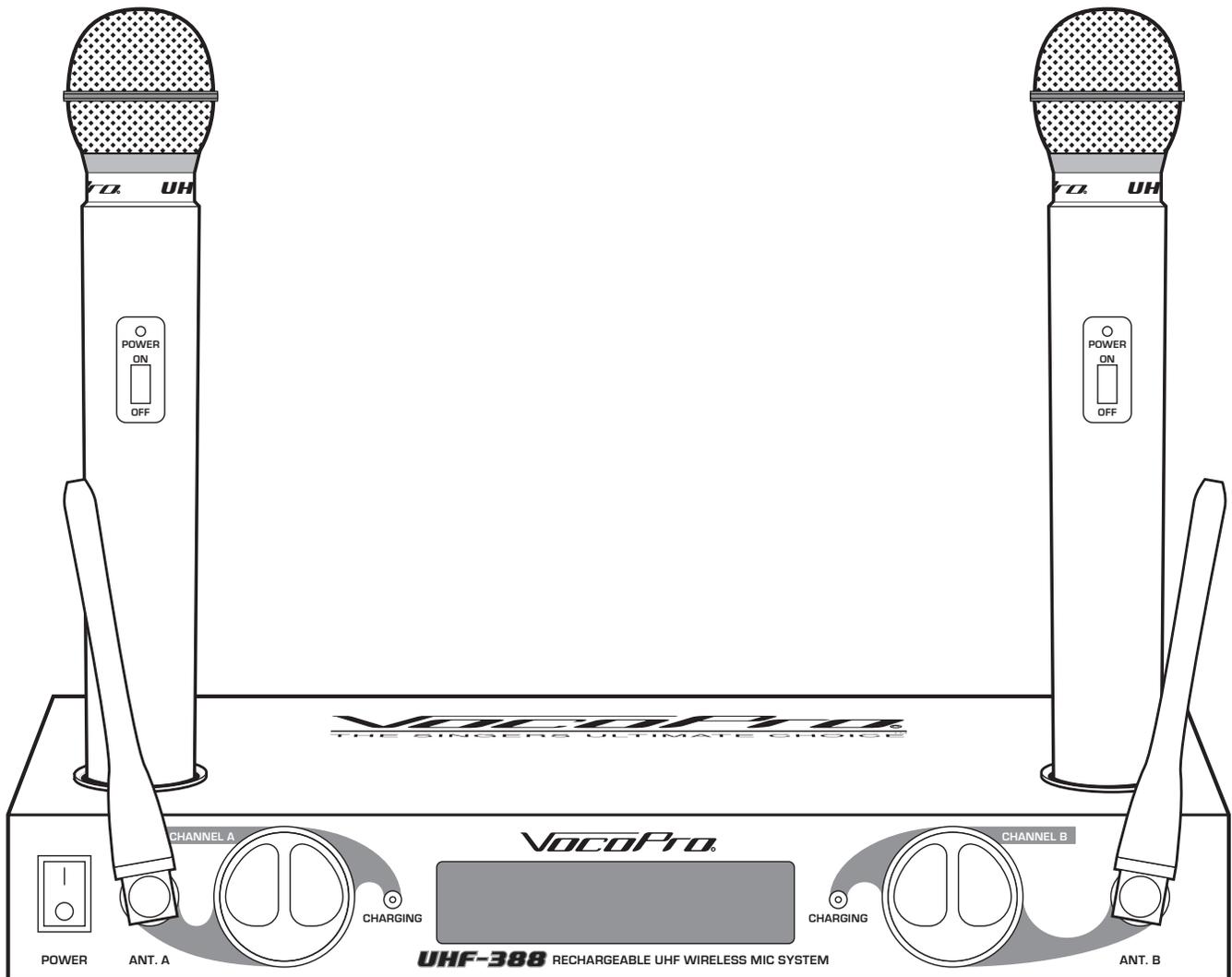




# VocoPro®

THE SINGERS ULTIMATE CHOICE™



# **UHF-388**

Dual UHF Wireless Microphone System  
with On-Board Mic Chargers

## **OWNER'S MANUAL**



Welcome.



And Thank you for purchasing the **UHF-388** 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 further strengthen 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

**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](http://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 Service directory!

We look forward to hearing you sound like a PRO, with VocoPro, your ultimate choice in Karaoke entertainment.

**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** .....

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**VocoPro**

ULTIMATE CHOICE OF KARAOKE ENTERTAINMENT

# 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 installers (U.S.A.): This reminder is provided to call the CATV system installers 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.

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## FCC INFORMATION (U.S.A.)

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**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: 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.

### 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 insure that the apparatus is indeed fully void of residual power, leave unit disconnected from the AC outlet for at least fifteen seconds.

### 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.

# Listening For A Lifetime

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

## **The following noises can be dangerous under constant exposure:**

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

# Specifications and Features

## Features

- UHF band operation for less interference and cleaner vocals.
- Dual mic channels with individual volume controls.
- Bright LED display for monitoring RF signal levels.
- Built-in noise mute circuitry to eliminate "pops" when turning mics on & off.
- Dual on-board microphone chargers.
- Angle adjustable antennas ensure better signal reception.
- Front panel LED charge indicators for each microphone charger.
- Sturdy metal casing for on-the-road protection.
- Mounting brackets included for rack-case integration.
- Outputs: Individual Balanced XLR outputs and single 1/4" mixed output.

## Specifications

### Receiver:

Frequency Stability	±0.005%
S/N Ratio	>100dB
RF Sensitivity	107dBm (12dB S/N AD)
Image Rejection	>60dB
T.H.D. (1 KHz)	>60dB
Display	VFD
Controls	Power ON/OFF, Volume controls
Audio Output Level	12dB
AF Output Impedance	2.2Ω Unbalanced
Operation Voltage	14-18V DC, 800mA
Output Connector	2 balanced XLR, 1 unbalanced 1/4"

### Transmitter (Microphone):

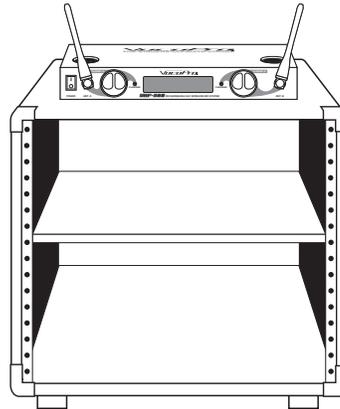
Carrier Frequency Range	600-900MHz
RF Output	10mW
Stability	±0.005%
Frequency Deviation	±48KHz
S/N Ratio	>102dB
LED Display	Power ON/OFF, Low Battery indicator
Controls	Power ON/OFF
Audio Frequency Range	50Hz-16KHz
Battery	Rechargeable AA 1.2V x 2

# Getting Started

Caution: Before connecting the power supply, make sure that the power switch on the receiver is switched OFF. Note: For additional protection, it is recommended that you plug in the power supply to a surge protector/Power strip.

## Setting Up the UHF-388

Set up the UHF-388's receiver in a spot where there are no barriers above the antennas or between the receiver and the microphones. Make sure you have enough space above the receiver to charge the microphones. NOTE: Do not place the UHF-388 in a space where there is something above the antennas such as a rackspace or an entertainment center.



## Connecting the Antennas

1. Line up the slots on the antenna's BNC connector (Fig. B) with the pegs on the receiver's BNC inputs (Fig. C) and push in.
2. Twist the antenna's BNC connector "clockwise" until it locks in to place.
3. Repeat steps 1 and 2 for the second antenna.

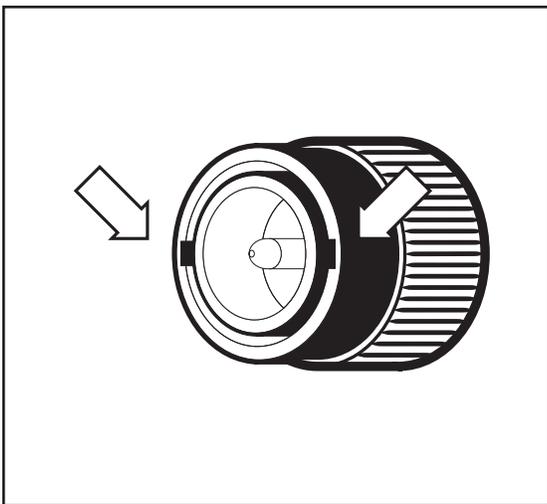


Fig. B - Close-up of Antenna BNC

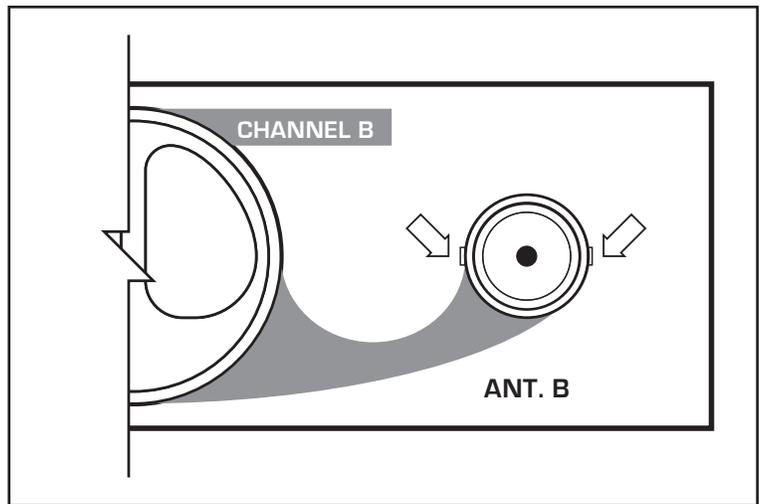


Fig. C - Close-up of BNC Input on Face of UHF 388

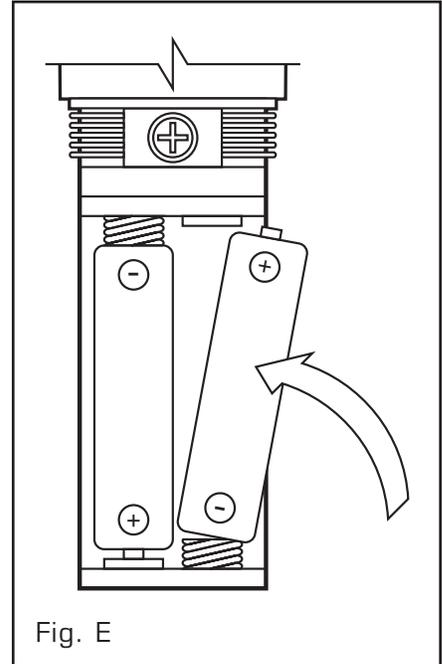
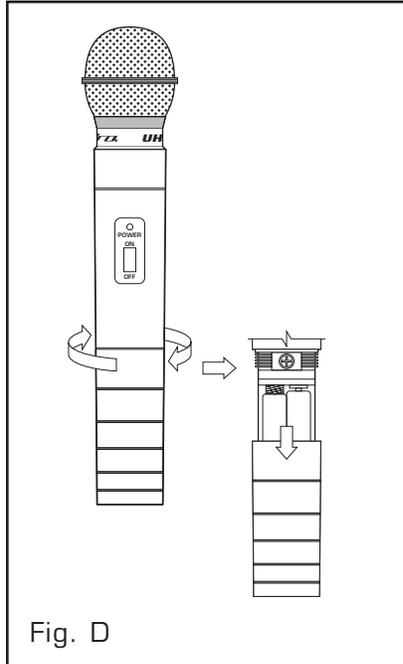
# Getting Started

## Installing New Batteries

NOTE: The UHF-388 requires 2 AA rechargeable batteries.

To install:

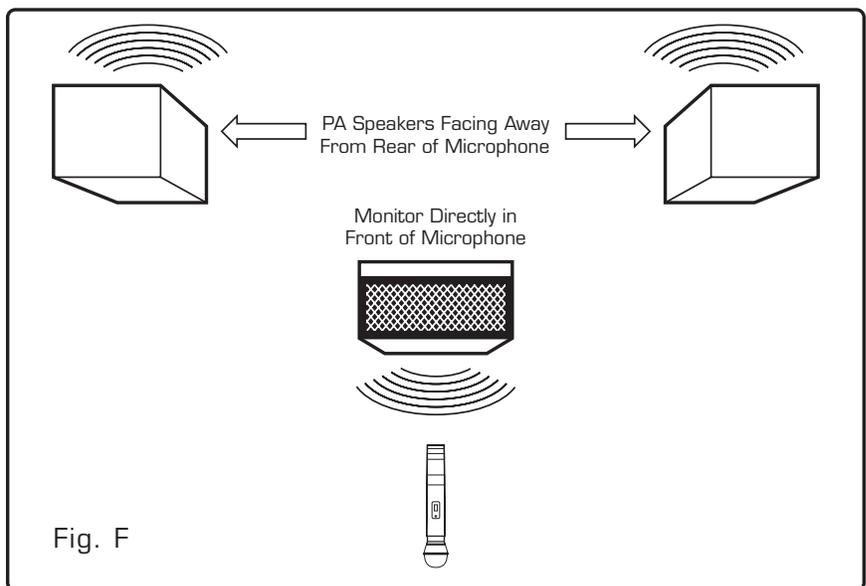
- Twist off the battery compartment cover completely until the battery slots are exposed (Fig. D).
- Insert both batteries and make sure that their polarities are facing the proper direction (Fig. E).
- Reattach the battery compartment cover twisting until it is secure again.



## Setting Up with Stage Monitors/P.A. System

If you will be using the UHF-388 with stage monitors and/or a P.A. system, try the following:

- Place the stage monitor directly in front of the microphone.
- Locate the P.A. loudspeakers so that they point away from the rear of the microphone. (With the speakers located in these positions, the possibility of feedback is greatly reduced).
- Always check the stage setup before a performance to ensure optimum placement of microphone and monitors.



**IMPORTANT:** Every wireless microphone installation is a unique situation, and can present a variety of problems. Never attempt a live performance without first conducting a “walkthrough” test of the system in the performing area. If major changes (additional wireless systems or intercoms, relocation of scenery, etc.) have been made since the last walk-through test, check the wireless system again, as close to performance time as possible.

# Getting Connected

The UHF-388 gives you two options for outputting vocals

1. Each channel independently using the BALANCED A and B XLR outputs
2. Both channels together using the MIXED 1/4" output

There are a number of ways to integrate the UHF-388 into your audio system:

## Connecting to a Mixer

Connect each mic channel to separate channels on the mixer using the BALANCED XLR outputs (Fig. G) or output both channels to a single input using the MIXED 1/4" output (Fig. H).

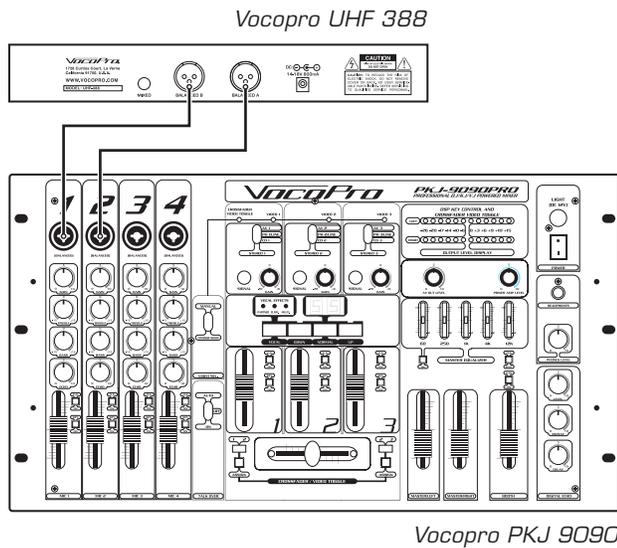


Fig. G

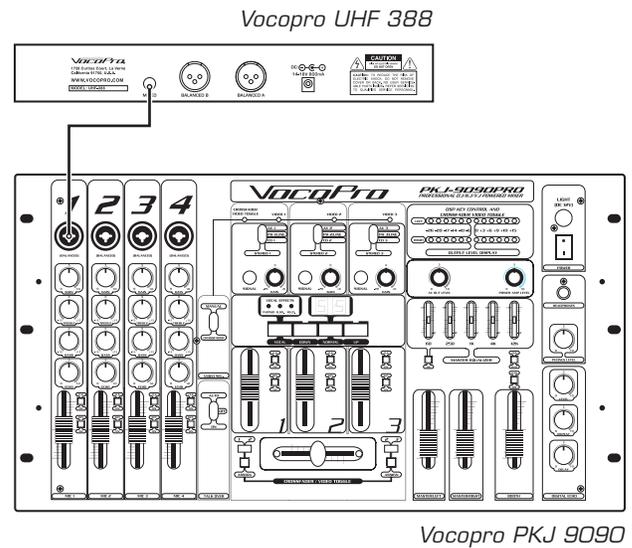


Fig. H

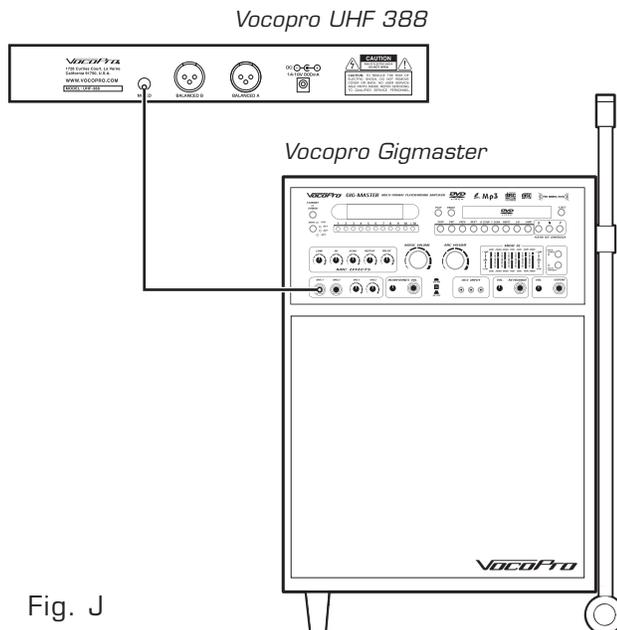


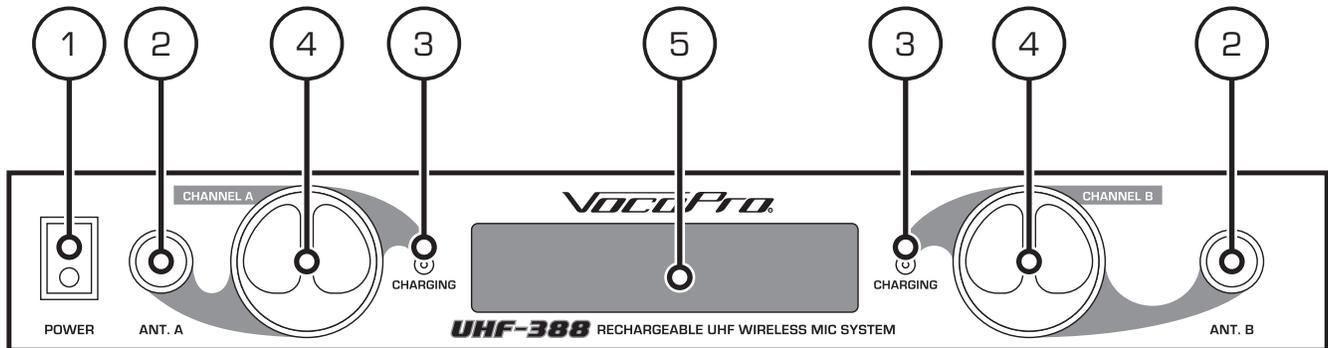
Fig. J

## Connecting to an All-In-One System

Using a 1/4" cable, connect the MIXED output to a 1/4" mic input on your all-in-one system (Fig. J)

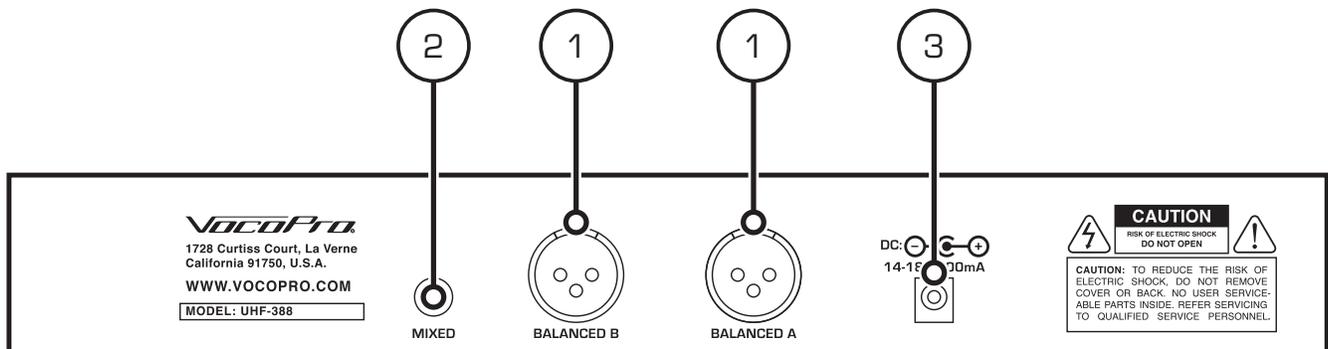
# Controls and Functions

## FRONT PANEL



1. **POWER switch** - Turns the Power on and off.
2. **ANTENNA connectors** - Connect the antennas here.
3. **CHARGING indicators** - Indicate the charge level of the microphones. Each LED lights when charging and flashes when charged.
4. **VOLUME controls** - Controls the volume for each mic channel. Turn clockwise to raise volume and counter-clockwise to lower the volume.
5. **DISPLAY screen** - Displays the signal level of each mic channel.

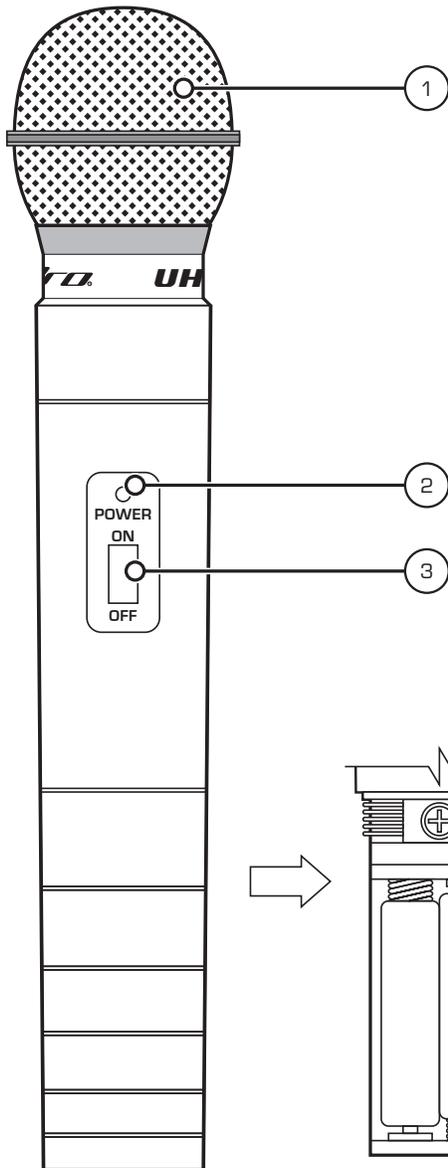
## REAR PANEL



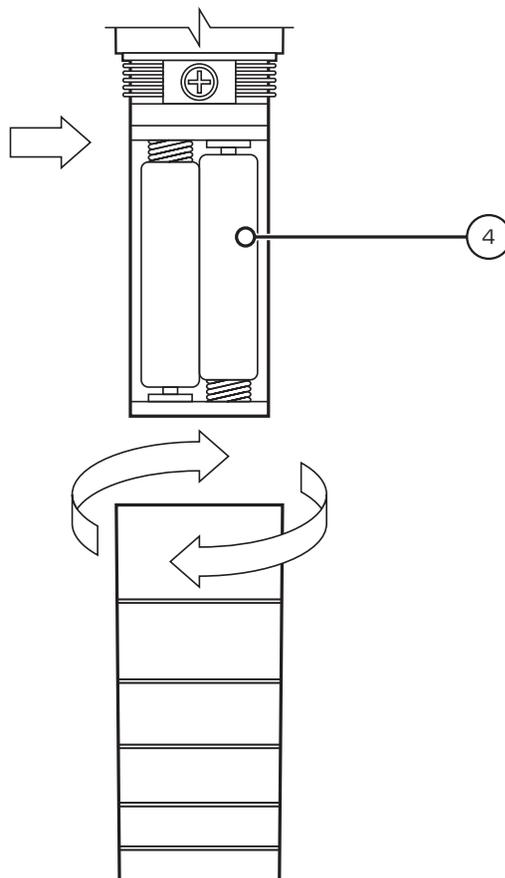
1. **BALANCED A and B outputs** - Outputs each mic channel independently using a balanced XLR microphone cable.
2. **MIXED output** - Outputs both mic channels together using a 1/4" microphone cable.
3. **AC POWER connection** - Main power jack for connection to an AC electrical outlet or power strip/surge protector.

## Controls and Functions (Cont.)

### MICROPHONE



1. **GRILL** - Protects the microphone cartridge and helps reduce "breathy" and wind noise pick-up.
2. **POWER LED** - Indicates if the mic is on or off. The light is on if the mic's power is on. The light will be off when the mic is turned off or when the battery is dead.
3. **POWER switch** - Used to turn the microphone power ON and OFF. The mic power is ON when the switch is in the ON position and the power is OFF when the switch is in the OFF position.
4. **BATTERY COMPARTMENT** - Removable lid hides and protects the microphone batteries.



# Microphone Basics

## Microphone Position

The UHF-388 is ideal for close-up vocals and can be held in the hand or mounted on a mic stand. Keep in mind that microphone technique is largely a matter of personal taste, and there is no one “correct” microphone position.

## Feedback

Feedback occurs when the amplified sound from any loudspeaker reenters the sound system through any open microphone and is repeatedly amplified.

**Most commonly, feedback is caused by the following conditions:**

- Placing loudspeakers too close to microphones,
- Having too many open active microphones
- Boosting tone controls indiscriminately (mainly treble)
- Performing in areas with high ratios of room surfaces that have hard and reflective surfaces such as glass, marble and wood.

**What to do if feedback occurs before the sound system is loud enough?**

- Request that the talker speak louder into the microphone.
- Reduce the distance from the talker to the microphone. Each time this distance is halved, the sound system output will increase by 6dB.
- Reduce the number of open microphones.
- Move the loudspeaker farther away from the microphone. Each time this distance is doubled, the sound system output can be increased by 6dB.
- Move the loudspeaker closer to the listener.
- Use an equalizer/feedback reducer to cut the frequency bands in which the feedback occurs.

## Microphone Placement & Tone Quality

### Lead & Backup Vocals

Lips should be less than 3” from or even touching the windscreen on an axis to the microphone. Doing this creates a robust sound, emphasizes bass and provides maximum isolation from other sources.

### Speech

When giving a speech or simply speaking, place the microphone 4” to 10” away from the mouth, just above nose height for a natural sound with reduced bass. You can also place the microphone 8” to 16” away from the mouth, slightly off to one side, for a more “distant” sound with highly reduced bass and minimal “s” sounds.

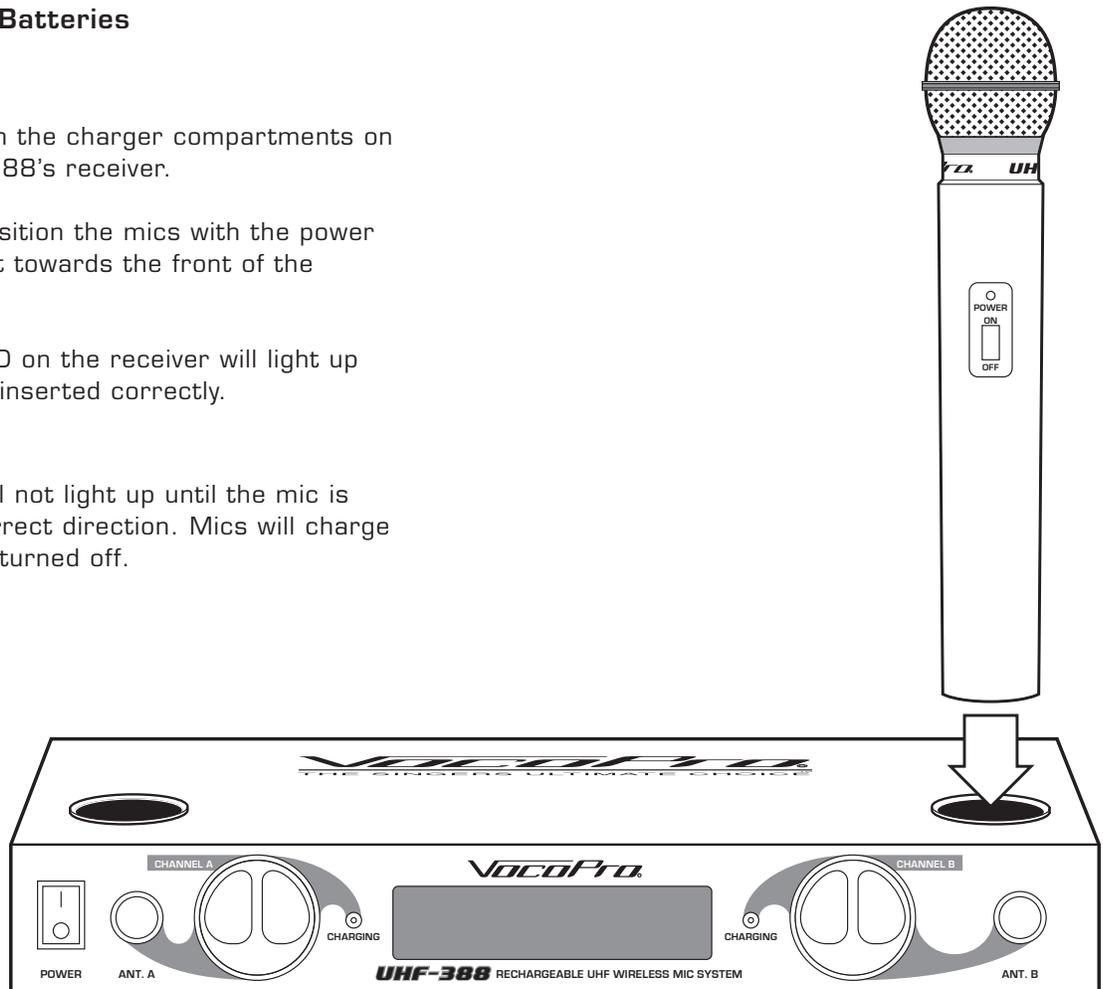
# Operations

## Recharging the Batteries

To recharge:

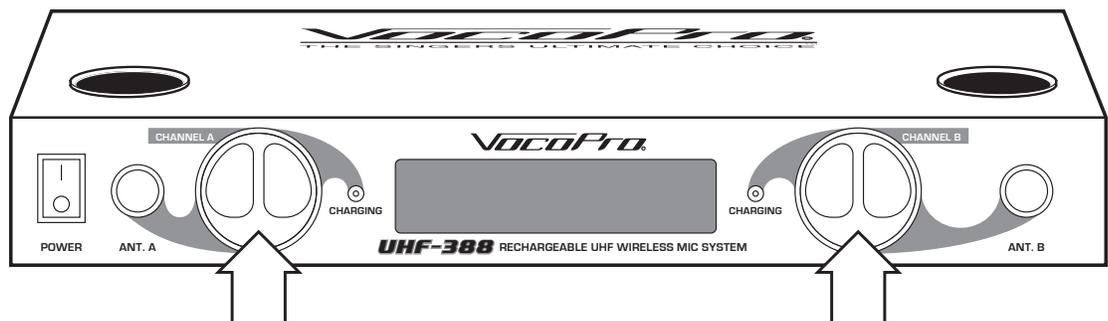
- Place the mics in the charger compartments on top of the UHF-388's receiver.
- Make sure to position the mics with the power switch facing out towards the front of the receiver.
- The charging LED on the receiver will light up when the mic is inserted correctly.

NOTE: The LED will not light up until the mic is inserted in the correct direction. Mics will charge even if receiver is turned off.



## Balancing the Volume

Use the mic volume controls on the front to adjust the balance of the two mic channels. Turn the controls clockwise to raise the volume and counter-clockwise to lower the volume.



# Troubleshooting

## PROBLEM

## POSSIBLE SOLUTION(S)

### No Sound Output

- Make sure the microphone and receiver power switches are set to the ON position.
- Check microphone batteries to ensure that they are providing sufficient power. Let battery charge or replace if necessary.
- Check receiver's AC power connection.
- Make sure antennas are firmly connected and angled to optimal positions.
- If necessary, reduce the distance between the microphones and receiver.
- Turn up the receiver's VOLUME level controls.
- Check for proper connection between receiver and external amplifier/mixer.
- Talk into the microphone and observe the receiver's signal LED's on the display screen. If they glow, the problem is elsewhere in the sound system.

### Received Signal is Noisy or Contains Extraneous Sounds with the Microphone(s) ON

- Check microphone(s) batteries and recharge or replace if the charge is low.
- Remove local sources of UHF interference, such as lighting equipment.
- Signal may be too weak. If so, reposition antennas. If possible, move them closer to the transmitter.

### There is Noise Coming from the Receiver with the Microphones Turned OFF

- Remove local sources of UHF interference, such as lighting equipment.
- Reposition the receiver or antennas.

### Momentary Loss of Sound as Microphone(s) are Moved Throughout the Operating Range

- Reposition the receiver, perform a "walkthrough", and observe the signal strengths. If audio dropouts persist, mark these "dead spots" in the operating area and avoid them during the performance.

### Battery Running Low Even After Recharging

- Replace rechargeable batteries (rechargeable batteries have a life of 500 hours of charging and recharging).



**VocoPro**<sup>®</sup>

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**WWW.VOCO PRO.COM**