

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

VHF-4808

Professional 4 Channel Wireless System



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Features

- Dual Antenna Receiver Design
- Squelch Circuitry Eliminates Background and RF Noise Bursts
- VHF Band (230.1 MHz – 267.1 MHz) Quartz Lock for Drift-free Operation
- Audio-Mute Circuitry Provides Noiseless On/Off Switching
- Individual Front Panel Volume Controls
- Outputs: 1/4" Unbalanced (2), XLR-TRS Balanced (1)
- Excellent Operating Range to 150 Ft.
- Low-Battery Indicators
- Individual Front Panel RF Indicator LED's

INCLUDES:

- RF Receiver (1)
- Handheld Microphones (3)
- Headset Transmitter (1)
- Headset Microphone (1)
- 9V Battery (1)
- AA 1.5V Batteries (6)
- RF Antennas (2)
- Mounting Brackets (2)
- Bracket Screws (6)
- 1/4" to 1/4" Cables (2)
- AC Power Cable (1)
- Metal Carrying Case (1)

Microphone Basics

Microphone Position

The VHF-4808 is ideal for close-up and stage vocals, and can be held in the hand or mounted on a mic stand. The most common applications and placement techniques are listed below. Keep in mind that microphone technique is largely a matter of personal taste—there is no one “correct” microphone position.

Proximity Effect

When the sound source is less than 1/4” from the microphone, the microphone boosts bass frequencies (by 6 to 10 dB at 100 Hz), creating a warmer and richer bass sound than when farther away. This effect, known as the proximity effect, happens only in unidirectional dynamic microphones like the VHF-4808.

Feedback

Feedback occurs when the amplified sound from any loudspeaker reenters the sound system through any open microphone and is amplified again and again. Most commonly, feedback is caused by the following conditions: placing loudspeakers too close to the microphones, having too many open active microphones, boosting tone controls indiscriminately (mainly treble) and 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 the talker to 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.
- 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 a minimal need for “de-essing”.

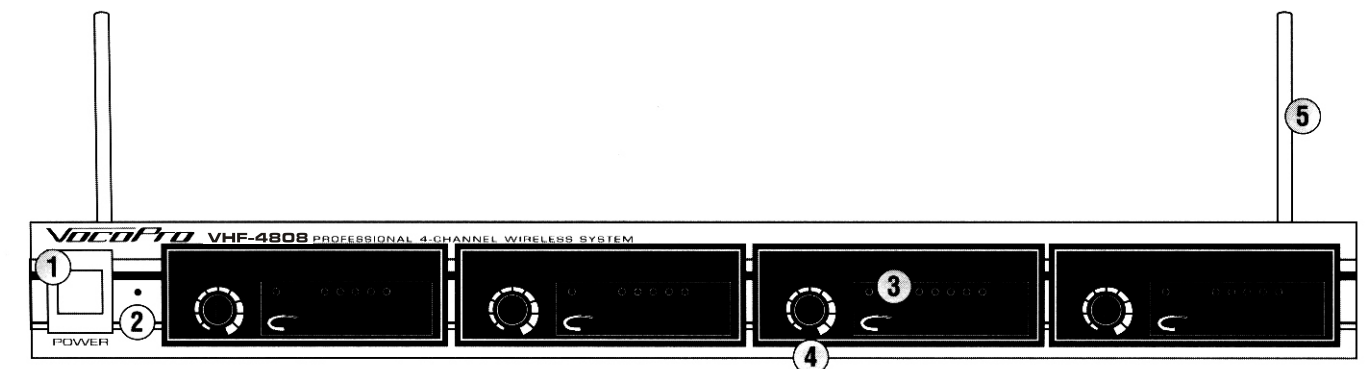
VHF-4808 & Stage Monitor / P.A. Loudspeakers

If you will be using the VHF-4808 with stage monitors and/or a P.A. system, try the following:

- Place the stage monitor directly behind the microphones.
- 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. Whenever possible, avoid performing 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 walkthrough, check the wireless system again, as close to performance time as possible.

Receiver Description and Controls



1. **POWER** button: Turns the VHF-4808 ON/OFF.
2. **POWER (LED)**: Glows BLUE when the receiver is powered ON.
3. **RF (LED)**: Lights RED when RF signals are received from the microphone channels.
4. **VOLUME** controls: Adjusts the individual VOLUME of the receiver's 4 microphone channels.
5. **TELESCOPING ANTENNAS**: Provides RF SIGNAL reception.
6. **AUDIO OUT 1 & 2**: Two 1/4" unbalanced and 1 XLR OUTPUT jacks for connection to amplifiers or mixers. For separated HEADSET output, connect both 1/4" jacks to your mixer.
7. **POWER** input: MAINS POWER jack for connection to a compatible AC outlet.
8. **SQUELCH** controls: Manual controls for controlling each microphones signal strength for best performance. Turn clockwise to increase SQUELCH application. Turn counter-clockwise to decrease SQUELCH application.

