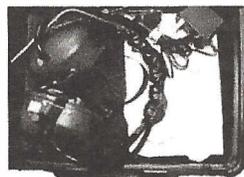


### C. STORING YOUR HEADSET

The LW26 should be stored in its plastic case by placing the headset antennas down and with the microphone up as shown in the picture below. If you store your headset incorrectly, it can cause damage to the antennas and/or the microphone.



Storing the LW26

## SPECIFICATIONS

### GENERAL

Performance specifications are nominal unless otherwise specified and are subject to change without notice.

General Frequency Range	72-76 MHz Std.
Operation mode	Simplex
Power Supply	3.6V NiMh internal rechargeable battery system/1800mah
Charger	Output 6vdc @500ma into 3.5mm jack, Input 120vac@7.5w
Weight	Approximately 19 oz.
System hum and noise	-50 dB
Microphone	Electret, 3k Ohm

### TRANSMITTER

RF Output	200mW
Spurious & Harmonics	75 dB
Modulation	16K0F3E
Frequency Stability	0.005% @ (-30 C° to +50 C°)
Voice Compressor	Attack, <1 ms; Decay, 130 ms
VOX Threshold	6 dB below full modulation
VOX Characteristics	Attack, <1 ms; Delay, 750 ms

### RECEIVER

Receiver Circuit	Dual conversion, 1st IF Frequency 10.7 MHz, 4 Pole Quartz Filter; 2nd IF 455 kHz, 4 Pole Ceramic Filter
Sensitivity	0.4 $\mu$ V for 12 dB quieting
Modulation Acceptance	15 kHz
Selectivity	30 kHz from center frequency @ -55 dB
Spurious & Image	-47 dB
Intermod Response	-70 dB
Frequency Stability	0.005% @ (-30 C° to +50 C°)

## APPROVALS AND AUTHORIZATIONS

### FEDERAL COMMUNICATIONS COMMISSION

All Headsets have been type accepted and certificated by the FCC for operation in Part 90 (Private Land Mobile Services) in the 72-76 MHz band. All transmitters, including Repeater Stations operate in the 72-76 MHz band with a power of 100 mW and modulation characteristics 16K0F3E. Type approval numbers are located on each unit. **FCC rules require licensing by the purchaser. Requests for application forms or information may be obtained from the FCC, Gettysburg, PA 17325.**



**EARMARK**<sup>®</sup>  
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# OWNER'S MANUAL

## OPERATING INSTRUCTIONS FOR THE LW-26 HEADSET

### I DESCRIPTION AND GENERAL INFORMATION

Your new Earmark LW-26 Headset provides you with hands-free FM communication capability. It has many features to assist in building your productivity and operates in simplex mode.

The LW-26 has a variable volume control. The rotary Volume Control Switch is also the main power on/off switch. There is also a continuous reading, Battery Condition Indicator Light on the back of every unit. And, with an Earmark portable radio, you always have the ability to actuate the transmitter with your voice using VOX130™.



### YOU'RE EQUIPPED WITH VOX130™!

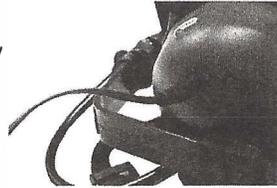
The LW-26 Radio Headset operates with VOX130 technology. VOX130 is a significant improvement in state-of-the-art *voice actuated transmitter* systems. VOX130™ provides several features which have never before been offered in portable radios. VOX130™ is self-adjusting- you never have to make a manual adjustment to go from high noise to low noise or back again. There are no instructions needed in this manual for adjusting VOX! VOX130™ is not sensitive to ordinary machine noise, no matter how loud it gets. Only your voice will cause your transmitter to activate. The louder the noise around you, the louder you must talk. That's to ensure that your voice is always much louder than the outside noise, so you'll always be easy to understand on your network. While you're using VOX130™, the noise cancelling microphone automatically suppresses the outside, environmental noise so your voice will always be sharp, clear and easy to hear.

## II SETUP

As received, your new Earmark LW-26 Headset is ready for use in a typical, industrial operating environment. Only a few items require your attention before you start operations.

### A. BATTERIES

Your Headset comes with rechargeable NiMH batteries. This power system should last 12-16 hours when fully charged. To recharge the headset, plug the power supply that came with your headset (see specs on back page) into the charging jack at the bottom of the receive side. A charge session of 7-8 hours should completely charge the batteries. The amber LED next to the charging jack will stay lit as long as the charger is attached and is functioning.



Charging the LW26

### B. COMFORTFEATURES

#### Vertical Stabilizer Strap

The Earmark LW26 is most comfortable when worn with the Vertical Stabilizer Strap. The wide strap distributes the Headset's weight over the greatest possible area and guarantees optimum comfort. Set the strap so the top of your ear just clears the inside of the earmuff. Lock it in place with the buckle. This setting will also provide good clearance for your shoulder under the muff.

#### Back Support Strap

Adjust the Back Support Strap so that it fits gently against the back of the head and prevents the Headset from falling forward when you bend over.

### C. EARMUFFS

Your Earmark Headset comes with hypo-allergenic earmuffs. These earmuffs are specially manufactured for your LW26 Headset.

### D. SQUELCH

Squelch is a receiver adjustment that determines how much RF signal is necessary before your radio receiver will open. If squelch is wide open, you will hear all the random atmospheric in the form of a loud, annoying, background hiss. If squelch is set too tight and isn't sensitive enough, you will reduce the effective range of your Earmark radios. Squelch is preset at the factory and should rarely need adjustment. If it does require readjustment, for any reason, contact Earmark, or use the following procedure. For best results, ensure no one is transmitting and adjust the squelch in the area and with the noise levels that match your normal work conditions. Turn the radio on and turn the volume all the way up. Locate the squelch adjustment on your radio (located under the receiver ear muff) and remove the vinyl "dot" to gain access to the squelch adjustment. Carefully insert a small screwdriver and turn the adjustment all the way counter clockwise (open). You should hear constant static. Slowly turn the squelch back clockwise (closed) until the noise stops. You may be required to adjust the squelch a few times to get it set just right. It is also a good idea to test the range of your headset after adjusting the squelch. It may seem like a good idea to either open the squelch all the way to maximize range or close it all the way to reduce the chance of interference, however this is not recommended. If you open the squelch all the way you make your radio vulnerable to interfering signals, on the other hand, if you close the squelch all the way you will compromise your range.

### F. MICROPHONE GAIN and VOXOPERATION

This control adjusts the sensitivity of your microphone. It is preset at the factory for nominal operating conditions and may require adjustment to satisfy your specific requirements. Once set properly, the mic gain setting should allow you to use your VOX

mode without difficulty. When using VOX, always remember to speak up, if you don't, you will lose at least the first syllable. The best method for making this adjustment is under actual operating conditions with someone else listening or wearing a second Headset yourself. The adjustment control is located inside the transmitter earcup. If you feel you are having a problem with microphone gain, please contact Earmark for detailed instructions.

## III THE LW26 MICROPHONE

### A. FLEXIBLE BOOM MICROPHONE

It's so important to talk into the front side. At Earmark, we mark our microphones so the side you talk into is **red**. You're always ok if you keep the **red** side closest to you. Noise cancelling works best when you "*close talk*" the microphone. To *close talk* means to keep the microphone's front side very close to your lips, within 1/4 inch. When you keep the microphone's front side close to your lips, you'll sound great, and your voice will seem much louder than the outside noise around you. *Close talking* also makes VOX much easier because more voice energy goes straight to the right place. The extra effort required to use a noise cancelling microphone the right way really pays off; it dramatically improves sound quality. Maintaining your microphone requires very little effort. Preventative maintenance is the key to long life. First and foremost, make certain the microphone is covered with a windscreens. Windscreens keep the metallic micro-mesh guards from getting gunked up, and they reduce the effects of air noise across the microphone. When the micro-mesh guards get blocked with dust and moisture, they block the sound energy from getting through and make it hard to talk. Guard blockage, caused by missing windscreens, is the most common reason for microphone service.

## IV CONTROLS AND OPERATION

### A. ON/OFF VOLUME SWITCH

This switch turns the Headset ON and provides a continuous volume control, from min to max. Located behind the receiver earcup, the switch is easy to find and large enough to control with a gloved hand.

### B. BATTERY CONDITION

The red light next to the Volume knob is an indicator of battery condition. As long as the LED stays lit, the battery is adequately charged. When the battery charge degrades too much, the LED will go out and you will hear a clicking noise in your headset. This means you only have a few minutes of power left and should recharge your headset.

### C. PTT SWITCH

The PTT (Push To Talk) switch is located on the bottom of the transmit side of your headset (the side with the microphone). Pressing it will override any other setting and allow you to talk.

### D. MODE CONTROL

The Mode Control is between the PTT switch and the microphone. This switch selects the two operating modes, "VOX ON" or "VOX OFF". Simplex headsets offer a selection of PTT (Push-to-Talk) or VOX. To operate in the PTT mode, switch VOX to the off position and press the button switch on the bottom of the cup. To operate in the VOX mode, switch to the "VOX ON" position and speak loudly enough to trip the VOX setting. Remember in Simplex you will not be able to hear anything said by another person on your network while the PTT switch or VOX is activated. So, remember to release the PTT switch when you have finished speaking.