

V ACCESSORIES

A. HARD HAT MOUNTS

If you need to wear a hard hat, you should equip your ValComm 900 Headset with Earmark's hard hat and hard hat brackets. Supplied as a package, the wide hard hat with ratchet suspension and the spring mount headset adapters assure the best fit and comfort. This option must be installed by an Earmark professional. It cannot be installed in the field. Contact Earmark for further information.

VI MAINTENANCE

A. REPLACEMENT PARTS

From time to time all devices need refreshing, especially soft parts such as headband pads, windscreens, and earmuffs. Replacement parts are available from Earmark directly or at our website www.earmark.com under "Order Parts". Please specify your Headset model when ordering.

B. SERVICE

Earmark has a full time service staff ready to perform maintenance on your radio. Whether in warranty or not, all radios are repaired quickly and professionally. Contact Earmark for more information or go to our website at www.earmark.com/service.

SPECIFICATIONS

GENERAL

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

General Frequency Range	902-928 MHz Std.
Operation modes	Duplex, Half Duplex (PTT), Listen Only
Power Supply	3.6V NiMh internal rechargeable battery system/1800mah
Charger	Output 6vdc @500ma into 2.1mm jack, Input 120vac@7.5w
Weight	Approximately 19 oz.
Microphone	Electret, 3k Ohm

TRANSMITTER

RF Output	10 mW
Spurious & Harmonics	67 dB
Modulation Sensitivity	3khz +- 0.5khz
S/N Ratio	45 db

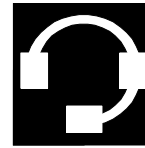
RECEIVER

Audio Distortion	2.5%
Sensitivity	110 dbm
DeModulation S/N	40 db
Selectivity	30 db
Squelch	-12 db SINAD
Co Channel Rejection	14 db

APPROVALS AND AUTHORIZATIONS

FEDERAL COMMUNICATIONS COMMISSION

This headset complies with Part 15 of the FCC rules. Operation is subject to 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.



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OWNER'S MANUAL

OPERATING INSTRUCTIONS FOR THE VALCOMM 900 HEADSETS

I DESCRIPTION AND GENERAL INFORMATION

Your new Earmark ValComm 900 Headset provides you with hands-free communication capability. It has many features to assist in building your productivity. Earmark Headsets are supplied in a variety of models. Before going any further, please check the name plate label on your Headset and determine which of the below listed models you have purchased.



MODEL

NETWORK DESCRIPTION

VC900-HD	FULL DUPLEX PAIR - VC900-HDA AND VC900-HD
VC900-HDA	FULL DUPLEX HEADSET - USE WITH VC900-HDB OR VC900-BD
VC900-HDB	FULL DUPLEX HEADSET - USE WITH VC900-HDA VC900-HL
VC900-HL	LISTEN ONLY HEADSET (NO MICROPHONE)
VC900-HH	HALF DUPLEX HEADSET - USE WITH VC-900-BD OR VC900-HG
VC900-HG	REPEATING HEADSET - USE WITH VC900-HH OR VC900-HL

All the above models have certain features in common. Each has a variable rotary volume control which is also the main power on/off switch. There is also a battery condition indicator light on the back of every unit and with an Earmark portable radio you always have the ability to actuate the microphone with a push to talk (PTT) switch.

II SETUP

As received, your new Earmark ValComm 900 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. These batteries should last approximately 16 hours when fully charged. Although the batteries are fully charged when they leave our facility they should be charged immediately when you receive it. 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 side without the microphone. A charge session of 7-8 hours will completely charge the batteries. The LED next to the charging jack will glow amber in color as long as the charger is attached and functioning. To charge the batteries faster you should turn the headset off. During normal operation the charging LED will be off.



Insert Charger Plug into Headset Jack to Charge Battery

B. EARMUFFS

Your Earmark Headset comes with hypo-allergenic foam filled earmuffs. The earmuffs are specially manufactured for your ValComm 900 Headset and are fabricated with a polyurethane skin over custom foam. Washable fabric sanitary covers are available from Earmark if desired.

C. SELECTING FREQUENCY

Your ValComm Headset provides 16 possible channels (numbers 0-9 and A to F) of operation in the unlicensed 902-928 mhz frequency band. All headsets are shipped set to channel zero (0), but can be changed easily. The selector knob is located inside the left earcup. To change channels, do the following:



1. Set the channel to the desired channel 0 to 9 or A to F.
2. Make sure all of your radios are set to the same channel

III THE ValComm 900 MICROPHONE

Earmark designs and provides only "noise cancelling" microphones with their radios. With a noise cancelling design, the front and back of the microphone respond differently to outside noise energy. It's all done to give you an advantage when you have to work and talk in high noise. The microphone's front side, the side closest to your mouth, hears your voice up to 16 times better than the microphone's back side. That's why it's so important to talk into the front side. At Earmark, our ValComm microphones are marked Talk on the side that faces your lips. You're always ok if you keep the Talk side closest to your lips.

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 compared to the outside noise. The extra effort required to use a noise cancelling microphone the right way really pays off. The sound quality of your transmission is dramatically improved.

Maintaining your microphone requires very little effort. Preventative maintenance is the key to long life. First and foremost, make certain the end is covered with a windscreen. The windscreens keeps the metallic micro-mesh guards surrounding the microphone element from getting dirty as well as reducing the effects of wind and breathing noise into the microphone. When the micro-mesh guards get blocked with dust or moisture the sound energy is greatly reduced and intelligibility is diminished. Guard blockage caused by a missing windscreen is the most common reason for microphone failure.

Microphone with windscreen



IV CONTROLS AND OPERATION

A. ON/OFF VOLUME SWITCH

This switch turns the ValComm headset on and provides continuous volume control, from minimum to maximum. Located behind the earcup, the switch is large and easy to find. The LED next to the volume control will normally glow green when the VC900 is turned on. When the battery is weak the LED will blink and you will hear a tone sequence in the ear speakers every thirty seconds.

B. Charging LED

The LED near the charging jack will glow amber when the charger is connected indicating that the battery is being charged. The VC900 is automatically turned off when the charger is connected.

C. PTT BUTTON

The push to talk (PTT) switch is located on the bottom of the microphone side of your headset below the mode switch. Pressing it will override any other setting and immediately activate the microphone. The LED near the volume control will glow amber when the PTT button is activated.

D. MODE SWITCH

Duplex and Repeating Headsets offer a selection of continuously live microphone (ON) and PTT (OFF). When the mode switch is set to the OFF position you must press the PTT button to talk. When set to the ON position the microphone is always live.

Half-Duplex Headsets do not have a mode switch. Their only mode of operation is push to talk using the PTT button.

Listen Only Headsets do not have a mode switch or a PTT switch because they have no microphone and do not transmit.



Mode Switch