

VX-920/970 Series

VHF/UHF Portable Radios

SPECIFICATION SHEET

Dependable Communications For Long-Term Reliability

The VX-920/970 Series is ready to respond when you are with state-of-the-art engineering and a wide array of features, providing great value in its class.

Withstands Harsh Environments

Rain, snow, fire suppression spray and dust are no problem for these radios manufactured to strict IP ratings. The VX-920 series meets international waterproofing standard IP57 where water does not harm the radio when submersed to a depth of 3 feet for up to 30 minutes. For more demanding environments, the VX-970 series meets the industry best IP68 waterproofing standard and is able to perform after submersion in water to a depth of 6 feet for 3 hours.

Intrinsically Safe

The VX-920/970 Series comes in intrinsically safe options that meet the SGS requirements of ANSI/UL913 6th Edition for Class I, Division I, Groups A-D, Class II, Groups E-G; and Class III for use in hazardous locations.

Never Miss An Important Call

Includes DTMF paging and unmatched flexibility in scanning features that are designed to optimize operation in a wide variety of environments. In addition to basic scan, you also get Priority, Dual Watch, Follow-me, Follow-me Dual Watch and Talk Around scanning with a programmable home channel function built-in.

When Safety Counts – Never Be Alone

When help is needed, the VX-920/970 Series has Emergency notification that will switch to a designated channel and send an emergency alert. The radios also include Remote Listen which turns the radio transmit on remotely if needed to check out what is happening near the radio.

Loud Audio For Noisy Environments

With 700 mW audio output, be assured of hearing critical information you need.

Dual-Band Receive For Enhanced Communications

With the Sub-Receiver option, get dual-band receive for greater flexibility and multi-agency interoperability when full situational awareness at all times is a must. Single VHF or UHF transmit with dual-band receive makes Public Safety operations less stressful and more productive.



The Vertex Standard Difference

Our number one goal is achieving superior customer satisfaction by delivering products and services that exceed your expectations. Vertex Standard radios are built to last and are backed by an industry-leading 3 year warranty – another great reason to choose Vertex Standard. Ask your Dealer for more details.



Additional Features

- 512 Channel capacity (VX-929/924/979/974)
- 48 Channel capacity (VX-921/971)
- Wide band coverage
- Ten programmable keys (VX-929/979)
- Eight programmable keys (VX-924/974)
- Four programmable keys (VX-921/971)
- Programmable 3-position toggle key
- Direct channel recall
- 12-Character LCD (VX-929/924/979/974)
- RX/TX Battery power save
- DTMFANI
- DTMF paging
- Stun / kill / revive (5-tone)
- Lone Worker
- 2-Tone encode and multiple 2-tone decode
- 5-Tone signaling
- Auto-Range Transpond System (ARTS™)
- Compander
- Whisper
- Minimum volume control
- Clear voice and audio pitch control
- 7-Color LED call alert indicator
- User selectable tone (VX-929/924/979/974)
- Radio-to-radio cloning

Accessories

- MH-50D7A: Public Safety speaker mic w/toggle
- MH-66A7A: Submersible noise cancelling speaker mic
- MH-66B7A: Submersible speaker mic w/PF key & toggle
- VH-121: 3-Wire mini lapel microphone surveillance kit
- VH-131: 2-Wire earpiece, palm mic. with PTT
- VH-111: Over-the-head dual-muff headset
- FNB-V92LI: 3000 mAh Li-Ion battery
- FNB-V92LIIS: 3000 mAh Intrinsically safe Li-Ion battery
- FNB-V87LI: 2000 mAh Li-Ion battery
- FNB-V86LI: 1150 mAh Li-Ion battery
- FBA-34: Alkaline battery case (holds 6 AA batteries)
- VAC-920: Desktop rapid charger
- VAC-6920: 6-Unit rapid charger
- VCM-2: Vehicular charger kit
- LCC-920S: Leather case w/swivel belt clip

Option Boards

- FVP-25: Voice Inversion Encryption & DTMF Paging
- FVP-35: Rolling Code Encryption
- FVP-36: Voice Inversion Encryption
- DVS-5: Digital voice storage
- VME-100: MDC-1200® / GE-STAR® ANI Encode
- VMDE-200: MDC-1200® / GE-STAR® ANI Enc./Dec.
- SRX-3D/H: Dual-band Rx module (adds UHF Rx)
- SRX-4: Dual-band Rx module (adds VHF Rx)

Specifications are subject to change without notice or obligation.

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VX-920/970 Series Specifications

	VHF	UHF
General Specification		
Frequency Range	134 – 174 MHz	400 – 470 MHz; 450 – 512 MHz
Number of Channels and Groups	512 and 32 Groups (VX-929/924/979/974) 48 and 3 Groups (VX-921/971)	
Power Supply Voltage	7.4V DC ± 20%	
Channel Spacing	12.5 / 20 / 25 kHz	
PLL Steps	1.25 / 2.5 / 5 / 6.25 kHz	5 / 6.25 kHz
Battery Life (5-5-90 duty)	3000 mAh FNB-92LI 23 hrs (18 hrs w/o saver)	
2000 mAh FNB-V87LI	16 hrs (12.5 hrs w/o saver)	
21.5 hours (16.5 hrs w/o saver)	15 hrs (11.5 hrs w/o saver)	
IP Rating	IP 57 / IP 68 (VX-920/970 series)	
Operating Temperature Range	-22° F to +140° F (-30° C to +60° C)	
Frequency Stability	±2.5 ppm	
RF Input-Output Impedance	50 Ohms	
Dimension (H x W x D)	5.3 x 2.3 x 1.5 inches (133 x 57.5 x 37.5 mm) (w/FNB-V86LI)	
Weight (Approx.)	13.0 oz (370 g) (w/FNB-V86LI, ANT and Belt Clip)	
Receiver Specification: measured by TIA/EIA-603		
Sensitivity 12dB SINAD	0.25 / 0.32 µV	
Adjacent Channel Selectivity	75 / 70 dB	
Intermodulation	75 / 70 dB	
Spurious and Image Rejection	80 dB	75 dB
Audio Output	700 mW @ 16 Ohms 5% THD	
Transmitter Specification: measured by TIA/EIA-603		
Output Power	5 / 2.5 / 1 / 0.25 W	
Modulation	16K0F3E, 11K0F3E	
Conducted Spurious Emissions	70 dB	
FM Hum & Noise	45 / 40 dB	
Audio Distortion	< 3 % @ 1kHz	

Applicable MIL-STD

Standard	MIL 810C Methods/ Procedures	MIL 810D Methods/ Procedures	MIL 810E Methods/ Procedures	
Low Pressure	500.1	500.2	500.3	500.4
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II
Low Temperature	502.1/Procedure I, II	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
Temperature Shock	-	503.2 / Procedure I	503.3 / Procedure I	503.4/Procedure I
Solar Radiation	505.1/Procedure I	505.2/Procedure II Cat. A I	505.3/Procedure II Cat. A I	505.4/Procedure I, II Cat. A I
Rain	506.1/Procedure I	506.2/Procedure I	506.3/Procedure I, II	506.4/Procedure I
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	-
Salt Fog	509.1	509.2	509.3	509.4
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III
Immersion (VX-970 series)	512.1/Procedure I	512.2/Procedure I	512.3/Procedure I	512.4/Procedure I
Vibration	514.2/ Procedure VIII, X	514.3/Procedure I Cat. 10	514.4/Procedure I Cat. 10	514.5/Procedure I Cat. 20, 24
Shock	516.2/Procedure I	516.3/Procedure I	516.4/Procedure I	516.5/Procedure I