

VX-920 SERIES

VHF/UHF Portable Radios



- Power Output: 5 W
- Wide Band
 - VHF: 134 - 174 MHz
 - UHF: 400 - 470 MHz and 450 - 512 MHz
- VX-920 series with LCD version:
 - Maximum 512 channels / 32 Groups
- VX-920 series without LCD version:
 - Maximum 48 channels / 3 Groups
- Large LCD (Dot Matrix / 12 Characters + 7 Segments / 3 Characters)
- Wide / Narrow (12.5 / 20 / 25 kHz programmable per channel)
- CTCSS/DCS Encode / Decode
- DTMF ANI / DTMF Paging
- Built-in 5-Tone Signaling
- 2-Tone Encode and Multiple-2 Tone Decode
- User Selectable Tone
- Submersible External Microphone MH-65B7A (optional)
- Scan: Channel Scan, Priority Scan, Dual Watch, Follow-me Scan, Follow-me/DW and TA Scan
- Compander (Wide and Narrow Band)
- Loud 700 mW Audio Output
- AF Minimum Volume
- 7-Color LED: Flash pattern and color can be set or 2-tone or 5-Tone Incoming Call Alert.
- Lone Worker
- RX / TX Battery Save
- Programmable Home Channel function
- Direct Channel Recall (#1-#4)
- Programmable Function Keys
- BCLO / BTLO and TOT
- Remote Radio Stun / Kill / Revive (5-Tone)
- User Set Mode
- Clear Voice
- Audio Pitch Control
- Speed Dial (16-key version only)
- ARTS (Auto Range Transponder System)
- Encryption (Optional FVP-36 or FVP-35 required)
- Voice Storage (Optional DVS-5 required)
- ANI Encoder (MDC-1200®, GE-Star® and DTMF: Optional VME-100 required)
- ANI Encoder / Decoder (MDC-1200®, GE-Star® and DTMF (Encode): Optional VMDE-200 required)
- VX-Trunk (Optional VT60F or VT60FS required)
- PC Programmable

VX-929

512 ch/32 groups with
16 Keys and LCD

VX-924

512 ch/32 groups with
4 Keys and LCD

VX-921

48 ch/3 groups
without LCD

IP54

IP55

IP57



Vertex Standard
We make a difference

Specifications	VX-920 (VHF)	VX-920 (UHF)
General Specifications		
Frequency Range	134-174 MHz	450-512 MHz 400-470 MHz
Number of Channels	512 (VX-929 / 924) / 48 (VX-921)	
Number of Groups	32 (VX-929 / 924) / 3 (VX-921)	
Channel Spacing	12.5 / 20 / 25 kHz	
PLL Steps	1.25 / 2.5 / 5 / 6.25 kHz	5 / 6.25 kHz
Power Supply Voltage	7.4 VDC \pm 20 %	
Current Consumption		
STBY (w/save)	75 (30) mA	75 (30) mA
RX	200 mA	200 mA
TX	1.7A	1.9A
Battery Life (w/Battery save) (RX 5 : TX 5 : STBY 90 Duty)	12.5 h (16 h) w/ FNB-V87LI 7 h (9.5 h) w/FNB-V86LI	11.5 h (15 h) w/ FNB-V87LI 7 h (9 h) w/FNB-V86LI
Temperature Range	-22° F to + 140° F (-30° C to +60° C)	
Frequency Stability	\pm 2.5 ppm	
Dimensions (W x H x D)	2.3" x 5.3" x 1.5" (57.5 x 133 x 37.5 mm)	
Weight (approx.)	13.0 oz (370 g) w/Ant, Battery (FNB-V86LI) and Belt clip	



Receiver Specifications	
Sensitivity (12 dB SINAD) EIA	0.25 / 0.32 uV
Adjacent Channel Selectivity	75 / 70 dB
Intermodulation	75 / 70 dB
Spurious and Image Rejection	80 dB
Hum and Noise	48 / 42 dB
Audio Output	700 mW @ 16 Ohms, 5 % THD

Transmitter Specifications	
Power Output	5 / 2.5 / 1 / 0.25 W
Modulation	16K0F3E 11K0F3E
Spurious Emissions	-36 dBm \leq 1 GHz -30 dBm $>$ 1 GHz
FM Hum & Noise	45 / 40 dB
Audio Distortion (@1 kHz)	Less than < 3 %

Measurements per EIA standards unless noted above. Specifications subject to change without notice or obligation.

Applicable MIL-STD & IP (Pending)				
Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
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	502.2/Procedure I, II	502.3/Procedure I, II	502.4/3/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4/Procedure I
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4/Procedure I
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III
Vibration	514.2/Procedure VIII, X	514.3/Procedure I Cat. 10	514.4/Procedure I Cat. 10	514.4/Procedure I Cat. 10
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.4/Procedure I, IV
International Protection Standard	IP54	IP55	IP57	

Accessories & Options

 MH-50D7A Speaker/Microphone	 MH-65B7A Submersible External Microphone
 VH-111 Over the Head, Heavy Duty Headset	 VH-121 3-Wire Earpiece, Mic, Palm PTT Switch
 VH-131 2-Wire Earpiece, Palm Mic/PTT Combo	 VT60F/VT60FS (FS: w/Encryption) VX-Trunk Unit
 FVP-35 Encryption Unit (Rolling Code Voice Scrambler)	 DVS-5 Voice Storage Unit
 VMDE-200 ANI Encoder/Decoder Unit	 VME-100 ANI Encoder Unit
 SRX-3 Multi Band Receiver Unit (450-512 MHz)	 SRX-4 Multi Band Receiver Unit (134-174 MHz)
 VAC-920 Desktop Rapid Charger PA-39B (230 V:PA-39C*) AC Adapter, 120 V US plug	 FNB-V86LI 7.4 V 1150 mAh Li-Ion Light-Duty Battery
 FBA-34 Alkaline Battery Case (6XAA)	 FNB-V87LI 7.4 V 2000 mAh Li-Ion Battery

* B for 120 VAC
C for 230 VAC

FVP-36	Encryption Unit
MDC1200	Digital ANI Encode Unit
FIF-10	USB Programming Interface
CT-108	PC Programming Cable (for FIF-10)
CT-109	PC Programming Kit (CT-29 + CT-115)
CT-115	PC Programming Cable (for VPL-1)
CT-116	Radio to Radio Programming Cable
LCC-920	Leather Case
CE59	PC Programmer

Various accessories listed may not be available in some countries.



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