

VX-820 SERIES

VHF/UHF Portable Radios



- Power output: 5 W
- Wide Band
 - VHF: 134 - 174 MHz
 - UHF: 400 - 470 MHz and 450 - 520 MHz
- VX-820 series with LCD version:
 - Maximum 512 channels / 32 Groups
- VX-820 series without LCD version:
 - Maximum 16 channels / 1 group
- 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 (Requires FVP-25 for 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: flashing pattern and color can be selected by being called with the 2-tone/5-tone.
- 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
- Speed Dial (16-key version only)
- ARTS (Auto Range Transponder System)
- Encryption (Optional FVP-25/36 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-829

512 ch/32 groups with 16 key and LCD



VX-824

512 ch/32 groups with 4 key and LCD



VX-821

16 ch/1 group without LCD



IP54

IP55

IP57

VX-820 SERIES VHF/UHF Portable Radios

Specifications

	VX-820 (VHF)	VX-820 (UHF)
General Specifications		
Frequency Range	134-174 MHz	450-520 MHz 400-470 MHz
Number of Channels	512 (VX-829 / 824) / 16 (VX-821)	
Number of Groups	32 (VX-829 / 824) / 1 (VX-821)	
Channel Spacing	12.5 / 20 / 25 kHz	
PLL Steps	5 / 6.25 kHz	
Power Supply Voltage	7.4 VDC	
Current Consumption		
STBY (w/save)	75 (30) mA	75 (30) mA
RX	200 mA	200 mA
TX	1.7A	1.9A
Battery Life (5 : 5 : 90 Duty)	7 h (w/FNB-V86LI) 12.5 h (w/ FNB-V87LI)	7 h (w/FNB-V86LI) 11.5 h (w/ FNB-V87LI)
Ambient Temperature Range	-30° C to + 60° C	
Frequency Stability	±2.5 ppm	
Dimensions (WHD)	57.5 x 96.5 x 37.5 mm	
Weight (approx)	310 g w/Ant, Battery (FNB-V86LI) and Belt clip	

Receiver Specifications

Sensitivity (12 dB SINAD) EIA	0.25 / 0.32 µV
Adjacent Channel Selectivity	75 / 70 dB
Intermodulation	75 / 70 dB
Spurious and Image Rejection	75 dB
Hum and Noise	48/42 dB
Audio Output	700 mW, THD < 5%

Transmitter Specifications
















Power Output	5 / 2.5 / 1 / 0.25 W
Modulation	±2.5 kHz @ 12.5k ±4 kHz @ 20k ±5 kHz @ 25k
Spurious Emissions	-70 dBc
FM Hum & Noise	45 / 40 dB
Audio Distortion (@1 kHz)	< 3 %

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

Applicable MIL-STD (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	 FVP-25 Encryption/DTMF Pager Unit
 FVP-35 Encryption Unit (Rolling Code Voice Scrambler)	 VT60F/VT60FS Encryption Unit (FS: w/Encryption) VX-Trunk Unit
 DVS-5 Voice Storage Unit	 VME-100 ANI Encoder Unit
 VMDE-200 ANI Encoder/Decoder Unit	 VAC-920 Desktop Rapid Charger PA-39B/C/U* AC Adapter
 FNB-V86LI 7.4 V 1150 mAh Li-Ion Battery	 FNB-V87LI 7.4 V 2000 mAh Li-Ion Battery
 FBA-34 Alkaline Battery Case (6XAA)	* B for 120 VAC C for 230 VAC U for 230 VAC-UK plug

ISO9001:2000

PERRY JOHNSON
REGISTERED, INC.
YAESU MUSEN CO., LTD
ISO9001:2000 certification

ISO14001:1996

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FVP-36 Encryption 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-820 Leather Case
CE59 PC programmer
Various accessories listed may not be available in some countries.

 **Vertex Standard**

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