VX-450 SERIES

BUILT TO LAST

GOODBYE CROSSTALK

BROADEN YOUR REACH

COME IN LOUD AND CLEAR

KEEP YOUR TEAM SAFE

POWER THROUGH THE SHIFT

PORTABLE ANALOGUE RADIOS

For robust, dedicated push-to-talk communication, look to the VX-450 Series.

Choose from three analogue portable radios: the VX-451 (without display) and the VX-454/VX-459 (with display). Water submersible and with a rugged construction, it's built for use in harsh conditions. With enhanced interoperability, the VX-450 series offers comprehensive signalling options including: MDC1200®, DTMF, deeper and richer 2-tone options, as well as 5-tone capabilities. Available with a range of flexible energy solutions and accessories, you'll have all you need to provide your team with the perfect communication solution.

GENERAL FEATURES

- Channel Capacity:
  - 32 Channels/ 1 Group (VX-451)
  - 512 Channels/ 32 Groups (VX-454, VX-459)
- Programmable Buttons:
  - 3 Programmable Buttons (VX-451)
  - 7 Programmable Buttons (VX-454)
  - 9 Programmable Buttons (VX-459)
- Display:
  - No Display (VX-451)
  - 8-Character Alphanumeric Display (VX-454/459)
- Safety Features:
  - Lone Worker Alert
  - Emergency Alert
- Solid Build for Extreme Environments (IP57)
- Voice Inversion Encryption
- Manual On/Off Encryption Activation
- Large Group Communication Made Easy to Manage
- RX/TX Battery Power Save
- Compander
- Clear Voice
- Whisper
- Minimum Volume Control
- Manual Squelch Adjustment
- Busy Channel Lock Out (BCLO)
- Busy Tone Lock Out (BTLO)
- Time Out Timer (TOT)
- Programmable LED Colour Alert
- Scan Features:
  - Priority
  - Dual Watch
  - Follow-Me
  - Talk Around
- Radio-to-Radio Cloning

SIGNALLING FEATURES

- CTCS/DCS Encode/Decode
- MDC-1200® Encode/Decode
- 2-Tone, 5-Tone Encode/Decode
- DTMF ANI
- DTMF Paging
- DTMF Speed Dial
- Stun/Kill/Revive (5-Tone)

MOTOROLA SOLUTIONS

GENERAL SPECIFICATIONS		
	VHF	UHF
Frequency Range	134 - 174 MHz	400 - 470 MHz
Number of Channels and Groups	512/32 Groups (VX-459, VX-454) 32/2 Groups (VX-451)	
Power Supply Voltage	7.4 V DC (Nominal)	
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) 2300 mAh FNB-V134LI-UNI 1380 mAh FNB-V133LI-UNI	18.5 hours (W/Saver)/16 Hours 11 hours (W/Saver)/10 Hours	18 hours (W/Saver)/15.5 Hours 11 hours (W/Saver)/10 Hours
IP Rating	IP57	
Operating Temperature Range	-30ºC to +60ºC (-22ºF to +140ºF)	
Frequency Stability	±2.5 ppm	
RF Input-Output Impedance	SMA 50 Ohm	
Dimension (H x W x D) VX-451 Model	109 x 58 x 43 mm (4.3 x 2.3 x 1.7 Inches) FNB-V134LI-UNI 109 x 58 x 35 mm (4.3 x 2.3 x 1.4 Inches) FNB-V133LI-UNI	
Weight (Approx.) with Antenna, Belt Clip VX-451; VX-454/459	330 g; 356 g (11.6 oz; 12.6 oz) FNB-V134LI-UNI 281 g; 307 g (9.9 oz; 10.8 oz) FNB-V133LI-UNI	
RECEIVER SPECIFICATIONS		measured by EN 300 086
Sensitivity 20dB SINAD	-2 dB µV Typical	
Adjacent Channel Selectivity	70 dB/65 dB	
Hum and Noise	45 dB/40 dB	
Intermodulation	70 dB/65 dB	
Spurious and Image Rejection	70 dB	
Audio Output	700 mW (Internal @ 16 Ohms, 5% THD) 500 mW (External @ 4 Ohms, 5% THD)	
TRANSMITTER SPECIFICATIONS		measured by EN 300 086
Output Power	5/2.5/1/0.25 Watt (Selectable by Channel)	
Modulation	16K0F3E / 14K0F3E / 11K0F3E	
Maximum Deviation	± 5.0 kHz / ±4 kHz / ± 2.5 kHz	
Conducted Spurious Emissions	70 dB Below Carrier	
FM Hum and Noise	45 dB/40 dB	
Audio Distortion	< 3 % @1 kHz	

APPLICABLE MIL-STD

	Methods/Procedures				
Standard	MIL 810C	MIL 810D	MIL 810E	MIL 810F	MIL 810G
Low Pressure	500.1 proc 1	500.2 proc 1/2	500.3 proc 1/2	500.4 proc 1/2	500.5 proc 1/2
High Temperature	501.1 proc 1/2	501.2 proc 1/2	501.3 proc 1/2	501.4 proc 1/2	501.5 proc 1/2
Low Temperature	502.1 proc 1	502.2 proc 1/2	502.3 proc 1/2	502.4 proc 1/2	502.5 proc 1/2
Temperature Shock	503.1 proc 1	503.2 proc 1	503.3 proc 1	503.4 proc 1	-
Solar Radiation	505.1 proc 1	505.2 proc 2/Cat A1	505.3 proc 2/Cat A1	505.4 proc 1/2/Cat A1	-
Rain	506.1 proc 1/2	506.2 proc 1/2	506.3 proc 1/2	506.4 proc 1/3	506.5 proc 1/3
Humidity	507.1 proc 1/2	507.2 proc 2/3	507.3 proc 2/3	507.4 proc 3	507.5 proc 1/3
Salt Fog	509.1 proc 1	509.2 proc 1	509.3 proc 1	509.4 proc 1	509.5 proc 1
Dust	510.1 proc 1	510.2 proc 1	510.3 proc 1	510.4 proc 1/3	510.5 proc 1
Vibration	514.2 proc 8/10	514.3 Cat 10	514.4 Cat 10	514.5 Cat 20/24	514.6 Cat 20/24
Shock	516.2 proc 1/3/5	516.3 proc 1/4	516.4 proc 1/4	516.5 proc 1/4	516.6 proc 1/4

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Availability is subject to individual country law and regulations. All specifications shown are typical unless otherwise stated and are subject to change without notice.

ACCESSORIES

Antennas

- ATU-16B: 400-420 MHz 157 mm (6.8")
- ATU-16BS: 400-430 MHz 87 mm (3.43")
- ATU-16C: 420-450 MHz 151 mm (5.94")
- ATU-16D: 450-470 MHz 138 mm (5.43")
- ATU-16DS: 450-490 MHz 87 mm (3.43")
- ATV-16A: 136-150 MHz 137 mm (5.35")
- ATV-16B: 150-163 MHz 137 mm (5.39")
- ATV-16C: 162-174 MHz 137 mm (5.39")
- ATV-16XL: Untuned 192 mm (7.55") VHF

Battery

- FNB-V133LI-UNI: 1380 mAh Li-Ion Battery
- FNB-V134LI-UNI: 2300 mAh Li-Ion Battery
- FNB-V136-UNI: 1200 mAh Ni-MH

Carry Solutions

- LCC-133LN: Belt Loop Case (FNB-V133LI-UNI) No Display
- LCC-134LN: Belt Loop Case (FNB-V134LI-UNI) No Display
- LCC-133SN: Swivel Belt Clip Case (FNB-V133LI-UNI) No Display
- LCC-134SN: Swivel Belt Clip Case (FNB-V134LI-UNI) No Display
- LCC-133LD: Belt Loop Case (FNB-V133LI-UNI) Display
- LCC-134LD: Belt Loop Case (FNB-V134LI-UNI) Display
- LCC-133SD: Swivel Belt Clip Case (FNB-V133LI-UNI) Display
- LCC-134SD: Swivel Belt Clip Case (FNB-V134LI-UNI) Display
- CLIP-20: Belt Clip

Chargers

- PA-55C: AC Power Adapter for CD-58 (EU Plug)
- PA-55U: AC Power Adapter for CD-58 (UK Plug)
- CD-58: Single Unit Charger
- VAC-6058: Multi Unit Charger for UNI Batteries
- VCM-5: Vehicle Charger Mounting Adapter

Audio Accessories

- MH-100: 3.5 mm Earpiece for RSM Audio Jack
- MH-101A4B: 1 Wire Surveillance Kit
- MH-102A4B: 2 Wire Surveillance Kit
- VH-150A: Lightweight Behind-the-Head VOX Headset, IS
- VH-150B: Lightweight Over-the-Head VOX Headset, IS
- MH-360S: Compact Speaker Microphone
- MH-37A4B: Earpiece Microphone
- MH-450S: Speaker Microphone
- MH-45B4B: Noise Cancelling Speaker Microphone

Option Boards

- DVS-9: Man Down Alert with Digital Voice Storage

VX-451 VX-454 VX-459

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RESELLER