



EFJohnson's Viking® portfolio offers products catering to mission critical communication systems. Viking P25 subscribers offer a broad set of capabilities to fully meet the communication needs of our customer networks with interoperability, reliability, and maximum flexibility.

# Viking® VP900 Multi-Band

7/800 MHz | VHF

The VP900 is the industry's smallest multi-band radio providing interoperability regardless of system type or frequency.



EFJohnson's Viking VP900 Multi-Band radio establishes a new benchmark with best in class ruggedness, reliability, and superior audio. The Viking VP900 is a multi-band, multi-protocol, P25 Phase 2 radio equipped with industry leading audio, display, and advanced feature capabilities that meet the needs of police, fire, EMS, and other mission critical users.

## MULTI-PROTOCOL/MULTI-MODE CAPABILITY

- P25 Phase 1 & Phase 2
- Compatible with Motorola® System v 7.x, Motorola Astro® and SMARTNET® II/SmartZone®
- MDC-1200 and GE-Star signaling
- Mixed Protocol Zones (each channel in a zone can be from a different system)

## EASY TO OPERATE

- The VP900 is available in three different model variants: no keypad, limited keypad or full keypad versions
- The VP900 offers the top display on all three models, maximizes viewing while in holster
- Backlit displays with controllable settings to increase visibility in all lighting conditions
- Backlit keypad
- Equipped with multiple visual indicators including battery level and signal strength to check status at a glance
- Ergonomic knobs for easier operation with gloves

## RUGGED & RELIABLE

- Meets MIL Standard 810 G specs
- Immersion rated (IP67) (waterproof in 1 meter of water up to 30 minutes)
- Dual Shield design (internal metal housing and an external polycarbonate casing for exceptional durability)

## SUPERIOR AUDIO QUALITY

- High performance speaker provides 1W nominal audio for loud and clear sound across various noise environments
- Frequency based noise cancellation and audio enhancement; does not require directional adjustment or software changes for different noise environments

## P25 COMPLIANT

- Supports P25 CAI (Common Air Interface, Phase 1 & Phase 2)
- Trunked and conventional system protocols
- Over-the-Air rekeying (OTAR)

## ADVANCED FEATURES

- P25 Radio Authentication
- Programmable soft keys, menu and DTMF keys
- Up to 2048 channels
- Text messaging
- Customizable voice announcement
- Conventional vote scan is standard
- Over-the-Air programming (OTAP) option enables you to program radios in the field
- Armada® programming software provides simple fleet management of radios with features including profile templates and sorting/filtering by function or agency
- Elite battery management enables wireless tracking of battery fleet
- Enhanced radio security using software and hardware system keys
- Industry-standard encryption capabilities such as AES or DES-OFB
- ARC4™ software encryption; compatible with ADP™
- Speaker microphone disconnect alarm enhances safety
- Integrated GPS

## ACCESSORY SUITE

- Complete line of accessories including speaker mics, cases, batteries, antennas, and chargers



# TYPICAL PERFORMANCE SPECIFICATIONS

# Viking VP900 Multi-Band 7/800 MHz | VHF

GENERAL	700/800	VHF
Frequency Range	763-805 MHz 806-869 MHz	136-174 MHz
Channel Spacing	12.5 kHz, 25 kHz <sup>1</sup>	
Max Frequency Separation	Full Bandsplit	
FCC Type Acceptance Certification	ATH2425780	
Canada Type Certification	IC:933B-2425780	
FCC Emissions Designators	16K0F3E, 14K0F3E, 11K0F3E, 8K10F1D, 8K10F1E	11K0F3E, 8K10F1D, 8K10F1E
Input Voltage	7.4 V	
Dimensions (w/o antenna) HxWxD	7.5" x 2.62" x 1.75"	
Weight (w/o standard battery)	12.4 oz	
Case	Polycarbonate - black or high visibility	
Temperature Range	-30°C to +60°C	
Vocoder/Noise Cancellation	AMBE+2 version 1.6   AMBE+2 noise cancellation and audio enhancement	
Programmable Front Display	Backlit LCD   Status Bar (time, date, signal strength, battery level), icon or text display options Up to 4 rows of 12 character lines	
Programmable Top Display	Backlit LCD   Status Bar (time, date, signal strength, battery level) or text display options Up to 2 rows of 12 character lines	

Transmitter	700/800	VHF
RF Power Output	2.5/3 W	5 W
Frequency Stability (-30°C to +60°C)	1.5 ppm	
Modulation Limiting 25 kHz Channels	5 kHz <sup>1</sup>	
Modulation Limiting 12.5 kHz Channels	2.5 kHz	
Emissions (Conducted/Radiated)	75 dBc	
Audio Response	+1, -3 dB	
FM Hum and Noise 25 kHz Channels	49 dB <sup>1</sup>	
FM Hum and Noise 12.5 kHz Channels	43 dB	
Audio Distortion	1.5%	

Receiver	700/800	VHF
Audio Power Output	1 W rated	
Frequency Stability (-30°C to +60°C)	1.5 ppm	
Analog Mode Sensitivity: 12 dB SINAD	-121 dBm	-122 dBm
Digital Mode Sensitivity: 5% BER	-121 dBm	-122 dBm
Selectivity: 25 kHz Channels	75 dB <sup>1</sup>	
Selectivity: 12.5 kHz Channels	60 dB	
Intermodulation	75 dB	
Spurious & Image Rejection	80 dB	
FM Hum and Noise 25 kHz Channels	50 dB <sup>1</sup>	
FM Hum and Noise 12.5 kHz Channels	44 dB	
Audio Distortion	1%	

Note 1: 25 kHz mode is not available in US FCC frequencies in 700 MHz, UHF or VHF.

Battery	Dimensions (HxWxD)	Weight	Capacity
High Capacity Lithium Ion	6.5" x 2.3" x .78"	8.1 oz	3780 mAh

Specifications are measured per TIA 102.CAAA-C, TIA 102.CAAB-C and per TIA 603-D.

## Environmental Specifications



Environment	Mil Spec	810G
	M	P
Low Pressure	500.5	II
High Temp.	501.5	II
Low Temp.	502.5	II
Temp. Shock	503.5	I-D
Solar Radiation	505.5	I
Rain/Blown Rain	506.5	I
Humidity	507.5	I
Salt Fog	509.5	NA
Dust and Sand	510.5	I
Vibration	514.6	I
Shock	516.6	VI, V
Immersion	512.5	I

M=Method, P=Procedure  
Also meets equivalent superseded C, D, E, and F standards.  
Immersion meets IEC 529 IP67

## Encryption Options



Supported Encryption	AES, DES-OFB, ARC4
Encryption Key/Radio	126 Common Key Reference (CKR), 126 Physical Identifier (PID), Compatible w/ Motorola Key Variable Loader
Encryption Frame Re-sync Interval	P25 CAI 360 MSEC
Encryption Keying	External Key Loader, OTAR
Mode	OFB-Output Feedback
Encryption Type	Digital
Key Erasure	Keyboard Command
Standards	FIPS 46-3, FIPS 81, FIPS 140-2, FIPS 197