

## VP900

VHF · 700/800 MHz

P25 Phase 1 & 2 · Viking16

The Viking® VP900 is a dual-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.

### Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- Mixed protocol zones (each channel in a zone can be from a different system)
- 2048 channels
- Public safety ergonomics with large glove friendly knobs
- Top flip display changes text orientation for viewing while in holster
- Backlight on top display changes for event indication (ex. emergency turns display orange)
- Multiple visual indicators including battery health & signal strength
- 1 Watt audio output for high noise environments
- Voice annunciation & custom announcement creation
- Fully ruggedized - IP67 & MIL-STD-810 C/D/E/F/G
- Dual Shield design (internal metal housing & an external polycarbonate casing for exceptional durability)
- Available in three keypad options (none, limited, full)
- Integrated GPS<sup>1</sup>
- MDC-1200 & GE-Star signaling
- P25 Authentication
- Instant Recording Replay (IRR)
- Encryption
  - ARC4™ software encryption; compatible with Motorola ADP™
  - DES-OFB
  - AES-256 (FIPS 140-2) Single and Multi-Key
  - Over-the-Air-Rekeying (OTAR)
  - VK5000 or Motorola KVL3000/KVL4000 Keyloaders

<sup>1</sup>Refer to the Viking VPx00 operating manual for detailed requirements & conditions for proper GPS operation.



### Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2
- Motorola Astro® 25 - P25 Phase 1 & Phase 2
- Harris VIDA® - P25 Phase 1 & Phase 2
- Airbus (formerly Cassidian) VESTA™ Radio - P25 Phase 1 & Phase 2

### Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at [www.efjohnson.com/products/accessories](http://www.efjohnson.com/products/accessories).

We combine P25 design expertise with recognized quality & reliability along with advanced technology to make KENWOOD Viking radios simple to use & maintain.



#### Perpetual Software Licensing

Adds greater value to your radios by extending the life of the software into your next hardware platform — you own the software option forever, and your licenses are simple to manage with our cloud-based tool — Vault™.



#### Armada® Fleet Management

Update radios in a group rather than one at a time. One template programs both portables & mobiles. Supports either direct computer connection or Over-the-Air Programming (OTAP). Elite battery management enables wireless tracking of battery fleet.



#### TrueVoice™ Noise Cancellation

Software-based noise cancellation automatically filters out noise source frequencies and eliminates the need for extra configuration. Works in analog or digital mode and with any accessory.

# Viking VP900 Portable Specifications



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, 8K10F7E	11K0F3E, 8K10F1D, 8K10F1E, 8K10F7E
Input Voltage	7.4 V	
Dimensions (w/o antenna) HxWxD	7.5" x 2.62" x 1.75" (19.1 cm x 6.7 cm x 4.4 cm)	
Weight (w/o standard battery)	12.4 oz (351.5 g)	
Case	Polycarbonate - black or high visibility (additional fee)	
Temperature Range	-22°F to +140°F (-30°C to +60°C)	
Vocoder/Noise Cancellation	AMBE+2 version 1.6   TrueVoice™ 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 [-22°F to +140°F (-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 dB	70 dB
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 [-22°F to +140°F (-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 VHF.

Battery	Dimensions (HxWxD)	Weight	Capacity
Lithium Ion	6.5" x 2.3" x .78" (16.5 cm x 5.8 cm x 2.0 cm)	8.1 oz (229.6 g)	4500 mAh

Specifications are measured per TIA-102.CAAA-E, TIA102.CAAB-D and per TIA-603-E.

All specifications are subject to change without notice. Please check the website for the latest version. V.02.15.19 © Copyright 2019 EF Johnson Technologies, Inc. (E.F. Johnson Company is operating entity)

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	
Hazardous Location Certification		
Certification Lab	FM Approvals (FM)	
Standard Applied	FM3611	
Classification Rating	Class I, Division 2, Groups A, B, C, D	
Accessories		
Approved Battery	5875700373 (identified by lack of release button & presence of key slot on bottom of battery)	
Approved Speaker Microphones	5893211B18, 5893211B24, 5893211B30, 5893211G18, 5893211G24, 5893211G30 (KENWOOD Viking Premium Speaker Mic w/options for black or high visibility & three cord lengths)	

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