



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® VP400

7/800 MHz | VHF | UHF

With a top display and best in the industry audio, the VP400 portable is a high performance, P25 radio. Viking radios offer smarter visual and audio features that make first responder communications effortless.



Designed for outstanding mission critical performance, ruggedness, and reliability, the Viking VP400 is the latest offering of the next generation Viking platform. The Viking VP400 is a P25 Phase 1 and 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.

SINGLE-PROTOCOL/DIGITAL-MODE CAPABILITY

Choose operation in either:

- Motorola SMARTNET® II/SmartZone® protocol
----- OR -----
- P25 Phase 1 trunked/conventional & P25 Phase 2 trunked
- Compatible with Motorola® System v 7.x, Motorola Astro® and SMARTNET® II/SmartZone®
- FM analog included, supports MDC-1200 & GE-Star signaling

EASY TO OPERATE

- The VP400 is available in three different model variants: no keypad, limited keypad or full keypad versions
- The VP400 offers the top display on all three models, to maximize 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
- Industry's best noise cancellation; does not require directional adjustment or software changes for different noise environments
- AMBE+2 version 1.6 vocoder using TIA's latest standards

P25 COMPLIANT

- Supports P25 CAI (Common Air Interface, Phase 1 & Phase 2)
- Conventional and trunking system protocols

ADVANCED FEATURES

- P25 Radio Authentication
- Programmable soft keys, menu and DTMF keys
- Up to 1024 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

ACCESSORY SUITE

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



TYPICAL PERFORMANCE SPECIFICATIONS

Viking VP400 7/800 MHz | VHF | UHF

GENERAL	700/800	VHF	UHF	
Frequency Range	762-806 MHz 806-870 MHz	136-174 MHz	380-470 MHz	470-512 MHz
Channel Spacing	12.5 kHz, 25 kHz ¹			
Max Freq. Separation	Full Bandsplit			
FCC Type Acceptance Certification	ATH2425770	ATH2425710	ATH2425720	ATH2425740 (P)
Canada Type Certification	IC:933B-2425770	IC:933B-2425710	IC:933B-24275720	IC:933B-2425740 (P)
FCC Emissions Designators	16K0F3E, 14K0F3E, 11K0F3E, 8K10F1D, 8K10F1E, 8K10F7E	11K0F3E, 8K10F1D, 8K10F1E, 8K10F7E	11K0F3E, 8K10F1D, 8K10F1E, 8K10F7E	16K0F3E, 11K0F3E, 8K10F1D, 8K10F1E, 8K10F7E
Input Voltage	7.4V			
Dimensions (w/o antenna) HxWxD	7.5" x 2.62" x 1.75"			
Weight (w/o standard battery)	12.6 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	UHF
RF Power Output	2.5/3 W	5 W	4 W
Frequency Stability (-30°C to +60°C)	1.5 ppm		
Modulation Limiting 25 kHz Channels	5 kHz ¹		
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	50 dB	56 dB ¹	47 dB
FM Hum and Noise 12.5 kHz Channels	44 dB	50 dB	47 dB
Audio Distortion	1%		

Receiver	700/800	VHF	UHF
Audio Power Output	1 W rated 2.5 W Max		
Frequency Stability (-30°C to +60°C)	1.5 ppm		
Analog Mode Sensitivity: 12 dB SINAD	-120 dBm	-122 dBm	-119 dBm
Digital Mode Sensitivity: 5% BER	-120 dBm	-122 dBm	-119 dBm
Selectivity: 25 kHz Channels	75 dB ¹		
Selectivity: 12.5 kHz Channels	60 dB		
Intermodulation	75 dB		
Spurious & Image Rejection	80 dB		
FM Hum and Noise 25 kHz Channels	50 dB ¹		
FM Hum and Noise 12.5 kHz Channels	44 dB		
Audio Distortion	1.5%		

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
Low Pressure	M	P
	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