



EFJohnson's Viking™ Solution 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™ FIRE

7/800 MHz | VHF | UHF

The Viking FIRE portable offers smarter visual and audio features that make fire responder communications effortless while ensuring situational awareness through patented FIRESafe™ software features.



Designed and engineered specifically for firefighters with patented safety and awareness enhancing FIRESafe software, the Viking FIRE features high visibility housing and blade knobs for ease of operation with fire gloves.

EASY TO OPERATE

- Top display that maximizes viewing while in holster or pouch
- Voice announcement provides audio feedback for handsfree easy operation
- Standard high visibility housing
- Backlit keypad and displays for visibility in all lighting conditions
- Equipped with visual indicators including battery level and signal strength to check status at a glance
- Blade knobs for easier operation with fire gloves

RUGGED & RELIABLE

- Meets MIL Standard 810 G specs
- Immersion rated (IP67) Standard (*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 capable of 2.5W audio (*1W rated*) for loud and clear sound across various noise environments
- Industry's best noise cancelling; does not require directional adjustment or software changes for different noise environments
- State of the art AMBE+2 version 1.6 vocoder compliant to TIA's latest standards

PATENTED FIRESAFE™ SOFTWARE

- Customized feature set for Fire Commander & Responders
- Evacuation Alert Tones
- Visual & Audible Range Indicators (tones & LED)
- Out of Range Alert Tones
- P25 Auto Switch (analog/P25 automatic mode change)
- Com Check (out of range communication check)
- Set & Forget (single button lock function)

ADVANCED FEATURES

- Available in VP600 (single band) or VP900 (multi-band)
- Up to 2048 channels
- Industry-standard encryption capabilities such as AES and DES-OFB (*Single key DES-OFB included*)
- Over-the-Air programming (OTAP) option enables you to program radios in the field (*Works with any P25 data compliant network*)
- Over-the-Air rekeying (OTAR) functionality
- FM Certification available in 2013

MULTI-PROTOCOL/MULTI-MODE CAPABILITY

- Supports P25 CAI (Common Air Interface, Phase I & II)
- Trunked and conventional system protocols
- Compatible with Motorola® System v 7.x, Motorola Astro® and SMARTNET® II/SmartZone®
- MDC-1200 and GE-Star signaling
- Channel by channel selection (as opposed to zone selection of different protocol/system talkgroups or channels)

ACCESSORY SUITE

- Complete line of accessories including speaker mics, cases, batteries, antennas, and chargers
- Programming with ARMADA™ Fleet Management Software



MADE IN U.S.A.

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TYPICAL PERFORMANCE SPECIFICATIONS

Viking FIRE 7/800 MHz | VHF | UHF

| GENERAL | 700/800 | VHF | UHF |
|-----------------------------------|---|---------------------------|---------------------------|
| Frequency Range | 762-806 MHz 806-870 MHz | 136-174 MHz | 380-470 MHz |
| Channel Spacing | 12.5 kHz, 25 kHz ¹ | | |
| Max Freq. Separation | Full Bandsplit | | |
| FCC Type Acceptance Certification | ATH2425770 | ATH2425710 | ATH2425720 |
| Canada Type Certification | IC:933B-2425770 | IC:933B-2425710 | IC:933B-24275720 |
| FCC Emissions Designators | 16K0F3E, 14K0F3E, 11K0F3E, 8K10F1D, 8K10F1E | 11K0F3E, 8K10F1D, 8K10F1E | 11K0F3E, 8K10F1D, 8K10F1E |
| Input Voltage | 7.4V | | |
| Dimensions (w/o antenna) HxWxD | 7.5" x 2.62" x 1.75" | | |
| Weight (w/o standard battery) | 12.2 oz | | |
| Case | Polycarbonate-high visibility black casing is optional | | |
| 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 5 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 | 45 dB ¹ | | |
| FM Hum and Noise 12.5 kHz Channels | 39 dB | | |
| Audio Distortion | 3% | | |

| Receiver | 700/800 | VHF | UHF |
|--------------------------------------|--------------------|-----|-----|
| Audio Power Output | 1 W rated | | |
| Frequency Stability (-30°C to +60°C) | 1.5 ppm | | |
| Analog Mode Sensitivity: 12 dB SINAD | -119 dBm | | |
| Digital Mode Sensitivity: 5% BER | -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 | 40 dB ¹ | | |
| FM Hum and Noise 12.5 kHz Channels | 34 dB | | |
| Audio Distortion | 3% | | |

| Battery | Dimensions (HxWxD) | Weight | Approx. Life (5/5/90) |
|---|--------------------|--------|-----------------------|
| High Capacity Lithium Ion (3780 mA hours nominal) | 6.5" x 2.3" x .78" | 8.1 oz | 10 hours |

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

Specifications are measured per TIA 102.CAAA-C, TIA 102.CAAB-C and per TIA 603-D.
All EFJohnson radios are made in the U.S.A.

All specifications are subject to change without notice.
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1440 Corporate Drive, Irving, TX 75038-2401 • www.efjohnson.com
Phone: 972.819.0700 • Toll Free: 1.800.328.3911 • Fax: 972.819.2307

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 |
| 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 |

Factory Mutual Approvals



| | | |
|----------------------|---|---|
| FM 3640 (Pending) | | |
| Class I/ Class II | Division 1 An area where there is or could be an explosive atmosphere most of the time in normal conditions. | C. Ethylene D. Propane and Methane E. Conductive metal F. Carbonaceous material coal, coke dust G. Grain dust and flour |
| Class III | Division 1 Location in which easily ignitable fibers or materials producing combustible flyings are handled, manufactured, or used. | Ignitable fibers or flyings |
| Non-Incendive | | |
| Class I | Division 2 An area where an explosive atmosphere exists only as a result of a fault. | A. Acetylene B. Hydrogen C. Ethylene D. Propane and Methane |

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