

P25 Mission Critical

Viking VP6000

VHF · UHF · 700/800 MHz
P25 Phase 1 & 2 · Viking16

The KENWOOD Viking 6000 series portable is specifically designed for today's public safety agencies with advanced features and ergonomics to meet the first responder's mission critical operational needs.



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)

1024 channels (2048 option)

Public safety ergonomics: flare grip for control, large glove friendly knobs, large emergency button

1 Watt audio output for high noise environments

Voice annunciation & custom announcement creation

Fully ruggedized - IP67/68 & MIL-STD-810 C/D/E/F/G

Full key models (w/ numeric keypad)

Built-in GPS receiver/antenna for enhanced awareness¹

MDC-1200 & GE-Star signaling

P25 Authentication

Bluetooth®

Man Down

Instant Recording Replay (IRR)

Voice Recording

Encryption

- ARC4™ software encryption; compatible w/Motorola ADP™
- P25/TIA defined: AES-256
- DES-OFB
- Over-the-Air-Rekeying (OTAR)

¹Refer to the Viking VP6000 operating manual for detailed requirements & conditions for proper GPS operation.

User Selectable Color Themes

Multi-line text

Top flip display changes text orientation for viewing while in holster

Multiple visual indicators including battery health & signal strength

Backlight changes for event identification

Day & night user selectable display options (8 themes available)



Day - High Contrast



Night - High Contrast

Compatible with Multiple P25 Systems

ATLAS® P25 Phase 1 and Phase 2 System

Motorola Astro® 25 - P25 Phase 1 & Phase 2

Harris VIDA® - P 25 Phase 1 & Phase 2

Airbus (formerly Cassidian) VESTA™ Radia - P25 Phase 1 & Phase 2

Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at 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.

VP6230/6330/6430 Portable Specifications

General		VP6230	VP6330	VP6430
Frequency Range		136-174 MHz (FCC ID K44431400)	Type 1: 450-520 MHz (FCC ID K44431500) Type 2: 380-470 MHz (FCC ID K44431501)	RX: 763-776, 851-870 MHz TX: 763-776, 793-806, 806-825, 851-870 MHz (FCC ID ALH442000)
Max. Channels Per Radio		1024 (2048 option)		
Number of Zones		255		
Max. Channels Per Zone		255		
Channel Spacing	Analog	12.5/15/20/25*/30* kHz	12.5/25* kHz	12.5/25 kHz
	Digital	12.5 kHz	12.5 kHz	12.5 kHz
Power Supply		7.5 V DC ±20%		
Operating Temperature		-22 °F to +140 °F (-30 °C to +60 °C)		
Frequency Stability		±1.5 ppm	±1.5 ppm	±1.5 ppm
Case		Polycarbonate - black or high visibility (additional fee)		
Dimensions W(Top/Bot- tom) x H x D Projections not included	KNB-L2 (2,600 mAh)	2.76/2.28 x 5.90 x 1.73 in. (70.0/58.0 x 149.8 x 44.0 mm)		
	KNB-L3 (3,400 mAh)	2.76/2.28 x 5.90 x 1.94 in. (70.0/58.0 x 149.8 x 49.4 mm)		
Weight with Battery	KNB-L2 (2,600 mAh)	171 oz (484.5 g)		
	KNB-L3 (3,400 mAh)	18.6 oz (527.5 g)		
Receiver		VP6230	VP6330	VP6430
Sensitivity	P25 Digital (5% BER)	-119 dBm		
	Analog (12 dB SINAD)	-119 dBm		
Selectivity	P25 Digital	60 dB		
	Analog @ 12.5 kHz	65 dB		
	Analog @ 25 kHz	73 dB		
Intermodulation		73 dB		75 dB
Spurious Rejection		80 dB	75 dB	
Audio Distortion		2.5%		
Audio Output Power		500 mW/8 Ω (3% Distortion)/1,000 mW/8 Ω (5% Distortion)		
Transmitter		VP6230	VP6330	VP6430
RF Output Power		1W/6W	1W/5W	1W/3W
Spurious Emission		70 dB		
FM Hum & Noise	Analog @ 12.5 kHz	40 dB		
	Analog @ 25 kHz	45 dB		
Audio Distortion		2%		
Emission Designator		16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W		16K0F3E, 14K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W

MIL Standard	810G
Low Pressure	500.5/ I, II
High Temperature	501.5/ I, II
Low Temperature	502.5/ I, II
Temp. Shock	503.5/ I
Solar Radiation	505.5/ I
Rain	506.5/ I, III
Humidity	507.5/ II
Salt Fog	509.5
Dust	510.5/ I
Vibration	514.6/ I
Immersion	512.5/ I
Shock	516.6/ I, IV

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 Standard	
Certification Lab	CSA Group
Standard Applied	ANSI/TIA 4950-A-2014, UL913 5th Edition & ANSI/ISA-12.12.01-2011
Classification Rating	Intrinsically Safe: Classes I, II, III, Division 1, Groups D, E, F, G Non-incendive: Class I, Division 2, Groups A, B, C, D

Accessories	
Approved Battery	KNB-LS7 (USA), KNB-LS6 (Canada)
Approved Speaker Microphones	KMC-54WDM

International Protection Standard	
Dust & Water	IP54, IP55
Immersion	IP67**, IP68***

* 25 and 30 kHz are not included in the models sold in the USA or US territories.

** IP67/IP68 - Must have the Speaker Mic UDC connector or UDC protector connected.

*** IP68 = 1m/2H

Specifications shown are typical and subject to change without notice Please check the website for the latest version.

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P25 Mission Critical

Viking VM6000

VHF · UHF (High & Low) · 700/800 MHz

P25 Phase 1 & 2 · Viking16

Uncompromised quality and performance with public safety ergonomics, the KENWOOD Viking® is the industry's only mobile platform providing TrueVoice™ noise cancellation.



Features

- Mixed protocol operation (P25 Phase 1 & 2 Trunking, P25 Conventional, Viking16, FM Analog)
- 1024 channels (2048 option)
- Mixed protocol zones
- P25 Authentication (Link Layer Authentication)
- P25 IP packet data
- P25 GPS data (built in GPS)
- MDC-1200 & GE-Star signaling
- Analog & P25 Conventional vote scan
- Remote mount only (Viking Control Head)
- Dual Viking Control Heads (option)
- External speaker
- Fixed control station
- WiFi
- Bluetooth
- Instant Recording Replay (IRR)
- Voice Recording
- 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

Refer to the Viking VM6000 operating manual for detailed requirements & conditions for proper GPS operation.

Accessories

Complete line of accessories including microphones, speakers & antennas. Download the accessory catalog at www.efjohnson.com/products/accessories.

Viking Control Head

Public safety knobs & ergonomics

High contrast transmissive color display for direct sunlight & night time viewing; not compromised by polarized sunglasses

Resolution of 480 x 128 pixels

Viewing angle of 120°

User selectable themes (8 themes available)

Day & night display options

An optional KCH-21RV Handheld Control Head (HHCH) can be used with the VM6000 radio



Day - High Contrast



Night - High Contrast

Compatible With P25 Systems

- ATLAS® P25 Phase 1 and Phase 2 System
- 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

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 your radios in a group rather than one at a time. One template programs both portables & mobiles. Supports direct computer connection, Over-the-Air Programming (OTAP), or Over-the-Internet Programming (OTIP).



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.

VM6730/6830/6930 Mobile Specifications

General		VM6730	VM6830	VM6930
Frequency Range		136-174 MHz	Type 1: 450-520 MHz Type 2: 380-470 MHz	RX: 762-776, 851-870 MHz TX: 762-776, 792-806, 806-825, 851-870 MHz
Max. Channels Per Radio		1024 (2048 option)		
Number of Zones		255		
Max. Channels Per Zone		255		
Channel Spacing	Analog	12.5/15/20/25*/30* kHz	12.5/25* kHz	12.5/25 kHz
	Digital	12.5 kHz	12.5 kHz	12.5 kHz
Power Supply		13.6 V DC ±15 %		
Current Drain	Standby	1.2 A		
	RX	3.0 A		
	TX	14 A		
Operating Temperature		-22 °F to +140 °F (-30 °C to +60 °C)		
Frequency Stability		±1.5 ppm		
Dimensions (W x H x D) RF Deck + KRK-16B (not including VCH)		6.73 x 1.89 x 7.24 in. (171 x 48 x 184 mm)	6.73 x 1.89 x 8.03 in. (171 x 48 x 204 mm)	
Weight - RF Deck + KRK-16B (not including VCH)		3.44 lbs (1.56 kg)	3.88 lbs (1.76 kg)	
Receiver		VM6730	VM6830	VM6930
Sensitivity	P25 Digital (5% BER)	-119 dBm (0.25 µV)		
	Analog (12 dB SINAD)	-119 dBm (0.25 µV)		
Selectivity	P25 Digital	60 dB		
	Analog @ 12.5 kHz	60 dB		
	Analog @ 25 kHz	75 dB		75 dB
Intermodulation		80 dB		
Spurious Rejection		85 dB		87 dB
Audio Distortion		2%		
Audio Output Power		RF Deck: 4 W/4 Ω Viking Control Head: 15W		
Transmitter		VM6730	VM6830	VM6930
RF Output Power		5W/50W	5W/45W – (Type 1: 450-485 MHz) 5W/40W – (Type 1: 485-520 MHz) 5W/40W – (Type 2: 380-470 MHz)	2W/30W (700 MHz) 2W/35W (800 MHz)
Spurious Emission		-73 dB	-75 dB	-80 dB
FM Hum & Noise	Analog @ 12.5 kHz	45 dB		
	Analog @ 25 kHz	50 dB		
Audio Distortion		2%		
Emission Designator		VM6730/6830: 16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W VM6930: 16K0F3E, 14K0F3E, 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W		

Mil Standard	810C	810D	810E	810F	810G
Low Pressure	500/ I	500.2/ I, II	500.3/ I, II	500.4/ I, II	500.5/ I, II
High Temperature	501/ I, II	501.2/ I, II	501.3/ I, II	501.4/ I, II	501.5/ I, II
Low Temperature	502/ I	502.2/ I, II	502.3/ I, II	502.4/ I, II	502.5/ I, II
Temp. Shock	503/ I	503.2/ I	503.3/ I	503.4/ I, II	503.5/ I
Solar Radiation	505/ I	505.2/ I	505.3/ I	505.4/ I	505.5/ I
Rain	506/ I, II	506.2/ I, II	506.3/ I, II	506.4/ I, III	506.5/ I, III

Mil Standard	810C	810D	810E	810F	810G
Humidity	507/ I, II	507.2/ II, III	507.3/ II, III	507.4	507.5/ II
Salt Fog	509/ I	509.2/ I	509.3/ I	509.4	509.5
Dust	510/ I	510.2/ I	510.3/ I	510.4/ I, III	510.5/ I
Vibration	514.2/ VIII, X	514.3/ I	514.4/ I	514.5/ I	514.6/ I
Shock	516.2/ I, V	516.3/ I, V	516.4/ I, V	516.5/ I, V	516.6/ I, V

International Protection Standard

Dust & Water IP54, IP56¹

¹IP54: RF Deck of the mobile radio; IP56: Remote Control Head for the mobile radio.

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

*25/30 kHz in VHF/UHF Bands are not included in the models sold in the USA or US territories. Analog measurements made per TIA 603 and specifications shown are typical. Digital measurements made per TIA 102CAA and specifications shown are typical. VM6730/6830/6930 Mobile SPECIFICATIONS All specifications are subject to change without notice. Please check the website for the latest version. V12.2018 © Copyright 2018 EF Johnson Technologies, Inc. (E.F. Johnson Company is operating entity)

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