BK TECHNOLOGIES

BKR 9000 Multi-Band P25 Portable Radio Specifications

bktechnologies.com

BKR 9000 Multi-Band P25 Portable Radio

- ✔ **5-Year Standard Warranty**
- ✔ **Single, Dual, Multiband Operation (VHF, UHF, 700/800 MHz)**
- ✔ **P25 Conventional and Trunking (Phase 1 & 2)**
- ✔ **IP64 Compliant, MIL SPEC 810 C, D, E, F, G**
- ✔ **IP68 Optional**
- ✔ **Wi-Fi, GPS/GNSS, Bluetooth**
- ✔ **FIPS 140-2 level 3 Validated AES Encryption (with OTAR) Capable**
- ✔ **USB & Field Programmable (Up To 5,000 Channels)**
- ✔ **Multi-Mic Adaptive Noise Suppression with AGC and Auto-Microphone Detection Algorithms**

The BKR 9000 multi-band portable radio offers exceptional performance in a lightweight form, incorporating industry-leading RF and electrical specifications in a rugged, submersible housing.

BKR 9000 P25 Portable Radio

Color Display	Front display - 240 by 320 QVGA full color display Top display - 128 by 80 high resolution 1.2” black on white FSTN monochrome LCD. Durable *Gorilla Glass®* protection
Keypad	Back-lit with 4 customizable embedded soft-keys
Channel Capacity Memory	5000
Buttons and Switches	Oversized PTT, on/off volume control, orange emergency button, 16 position rotary switch, 4 position concentric zone switch, 3 programmable side buttons, programmable 2 position collar switch

Benefits & Certifications

Key Benefits

Exceptional Barrery Life Utilizing Industry-Leading Fuel Gauge Technology
Exceeds *12 hour talk time (*5/5/90 duty cycle)

Industry-Leading RF Performance
Transmit and receive signaling with crystal clear, loud sound quality across all bands

Multi-Key/Multi-Algorithm Encryption
The BKR 9000 supports ADP, AES, DES, DES-XL, DES-OFB encryption and is compatible with Motorola's ADP

Ergonomic Sure Grip
Textured housing surrounds *BK Hero Armor*℠

OTAR P25 Over-The-Air Rekey
Allows the encryption key to be changed wirelessly on P25 conventional and P25 trunking systems

Internal Bluetooth Hardware
BK Technologies Bluetooth is an optional feature for wireless accessory connectivity

Certifications

Federal Communications Commission
Industry Canada
ID: K5BKR9000-2
ID: 2116A-BKR9000-2

FCC Emission Designators
LMR: 8K10F1D, 8K10F1E, 8K10F1W, 11K0F3E, 16K0F3E BLUETOOTH: 808KF1D, 1M02F1D, 1M16F1D, 1M17F1D Wi-Fi: 14M8G1D, 18M9D1D, 19M1D1D, 19M7D1D,20M1D1D, 36M5D1D

Specifications

Receiver Typical Performance Specifications

	700	800	VHF	UHF
Frequency Range	762-776 MHz*	851-869 MHz*	136-174 MHz	380-520 MHz
Channel Spacing	25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	25/12.5 kHz
Audio Output Power (rated)	3 Watts	3 Watts	3 Watts	3 Watts
Frequency Stability (-30C to +60C)	0.5 ppm	0.5 ppm	0.5 ppm	0.5 ppm
Analog Sensitivity (12db SINAD)	-121.5 dBm (0.188 uV)	-121.5 dBm (0.188 uV)	-124.5 dBm (0.133 uV)	-121.5 (0.188 uV)
Digital Sensitivity (5% BER)	-121.5 dBm (0.188 uV)	-121.5 dBm (0.188 uV)	-124.5 dBm (0.133 uV)	-121.5dBm (0.188 uV)
Selectivity (25/12.5 kHz)	76/72dB	77/73 dB	83/77 dB	81/77 dB
Intermodulation Rejection	78 dB	77 dB	85 dB	81 dB
Spurious Rejection	>100 dB	>100 dB	> 98 dB	> 98 dB
FM Hum & Noise (25/12.5 kHz)	- 57 dB/-54 dB	- 57 dB/-53 dB	-59 dB/-55 dB	-59 dB/-55 dB
Receiver Audio Distortion	1.20%	1.20%	1.20%	1.20%

Transmitter Typical Performance Specifications

	700	800	VHF	UHF Range 1	UHF Range 1
Frequency Range	768-776 MHz* 798-806 MHz*	806-824 MHz* 851-869 MHz*	136-174 MHz	380-470 MHz	450-520 MHz
Channel Spacing	25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	25/12.5 kHz
RF Output Power LP/HP	1, 3 Watts	1, 3 Watts	1, 6 Watts	1, 5 Watts	1, 5 Watts
Frequency Stability (-30 to +60 C)	0.5 ppm	0.5 ppm	0.5 ppm	0.5 ppm	0.5 ppm
Modulation Limiting	5 / 2.5 kHz	5 / 2.5 kHz	5 / 2.5 kHz	5 / 2.5 kHz	5 / 2.5 kHz
Emissions (Conducted Radiated)	-78 dBc	-78 dBc	-78 dBc	-78 dBc	-78 dBc
Audio Response	+1, -3dB	+1, -3dB	+1, -3dB	+1, -3dB	+1, -3dB
FM Hum and Noise (25/12.5 kHz)	-54/-47 dB	-54/-52 dB	-74/-66 dB	-63/-57 dB	-48/-45 dB
Audio Distortion	0.10%	0.10%	0.10%	0.10%	0.10%

*includes Canadian bands

BKR 9000 Portable Military Standards 810 C, D, E, F & G

	MIL-STD 810C		MIL-STD 810D	
	Method	Proc. / Cat.	Method	Proc. / Cat.
Low Pressure	500.1	I	500.2	II
High Temperature	501.1	I,II	501.2	I/A1, II/A1
Low Temperature	502.1	I	502.2	I/C3, II/C1
Temperature Shock	503.1	I	503.2	I/A1, C3
Solar Radiation	505.1	II	505.2	I
Rain	506.1	I,II	506.2	I, II
Humidity	507.1	II	507.2	II
Salt Fog	509.1	I	509.2	I
Blowing Dust	510.1	I	510.2	I
Explosive Atmosphere				
Blowing Sand	1 Proc	1 Proc	510.2	II
Submersion	512.1	I	512.2	I
Vibration	514.2	VIII/F CURVE-W	514.3	I/10, II/3
Shock	516.2	I, III, V	516.3	I,V,VI
Shock (Drop)	516.2	II	516.3	IV

	MIL-STD 810E		MIL-STD 810F		MIL-STD 810F	
	Method	Proc. / Cat.	Method	Proc. / Cat.	Method	Proc. / Cat.
Low Pressure	500.3	II	500.4	II	500.5	II
High Temperature	501.3	I/A1, II/A1	501.4	I/HOT, II/HOT	501.5	I/A1, II/A1
Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.5	I/C3, II/C1
Temperature Shock	503.3	I/A1, C3	503.4	I/A1, C3	503.5	I/C
Solar Radiation	505.3	I	505.4	I	505.5	I/A1
Rain	506.3	I, II	506.4	I, II	506.5	I, III
Humidity	507.3	II	507.4	1 PROC	507.5	II/AGGRAVATED
Salt Fog	509.3	I	509.4	1 PROC	509.5	1 PROC
Blowing Dust	510.3	I	510.4	I	510.5	I
Explosive Atmosphere			511.4	I	511.5	I
Blowing Sand	510.3	II	510.4	II	510.5	II
Submersion	512.3	I	512.4	I	512.5	I
Vibration	514.4	I/10, II/3	514.5	I/24	514.6	I/24
Shock	516.4	I,V,VI	516.5	I,V,VI	516.6	I,V,VI
Shock (Drop)	516.4	IV	516.5	IV	516.6	IV

Specifications

GPS/GNSS

Constellations	GPS + Galileo + GLONASS + SBAS
Cold Start	< 35 seconds*
Hot Start	< 1 second*
Tracking Sensitivity	-166 dBm
Accuracy	< 2.5 meters*

*Measured Conductively, > 6 SVs, -130dBm, CEP 95%

Wireless Connectivity

Bluetooth	Dual-mode Bluetooth 5.1 (BR/EDR and BLE) Secure Connection Compliant (128-bit encryption). Up to 7 BR/EDR active devices and 10 simultaneous BLE connections are supported.
Wi-Fi	802.11 a/b/g/n. Networking Security (WPA2, WPA, WEP), FIPS 140-2 Level 1. Supports pre-provisioning with multiple SSIDs.

Encryption

Supported Algorithms	ADP, AES, DES, DES-XL, DES-OFB	*ADP, DES-XL are registered trademarks of Motorola Solutions, Inc.*
Encryption Keys	Programmable for 128 CKR and 16 PID	
Frame Re-sync Interval	P25 CAI 360 msec.	
Keyloading	Keyloader and P25 OTAR	
Synchronizations	XL counter addressing and OFB output feedback	*XL is a registered trademark of Motorola Solutions, Inc.*
Vector Generator	NIST approved random number generator	
Type	Digital and Securenet	*Securenet is a registered trademark of Motorola Solutions, Inc.*
Key Storage	FIPS140-2 Level 4 tamper protected non-volatile memory	
Key Erasures	User command, tamper, P25 OTAR	
Standards	FIPS140-2 Level 3, FIPS197	

Dimensions
(including the 4900mAh Standard Battery)

	Metric (mm.)	Imperial (in.)
Length	165	6.5
Width: Push to Talk Button	62.5	2.5
Depth: Push to Talk Button	39.6	1.6
Width top	76	3
Depth top	53.7	2.1
Depth bottom of battery	43	1.7
Weight	603.8 g	21.3 oz
Weight (without battery)	409.8 g	14.5 oz

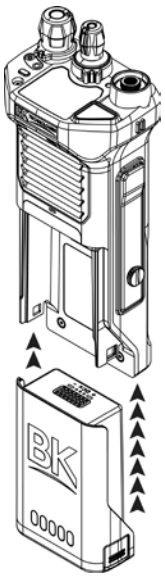
Batteries

	Std or Opt	Dimension (HxWxD)	Weight	Capacity
Li-Ion Smart 4900 mAh	std	3.4” x 2.4” x 1.0”	6.8 oz	4900 mAh
AA Clamshell	opt	6.2” x 2.4” x 2.3” (est.)	18.3 oz (est.)	12 AA Batteries

Battery

Installing the Battery

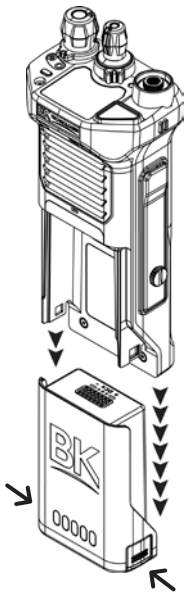
1. Turn the volume knob to the off position.
2. Align the battery with the radio as shown.
3. Push the battery upwards into the radio until 'release' tabs "click" into place.



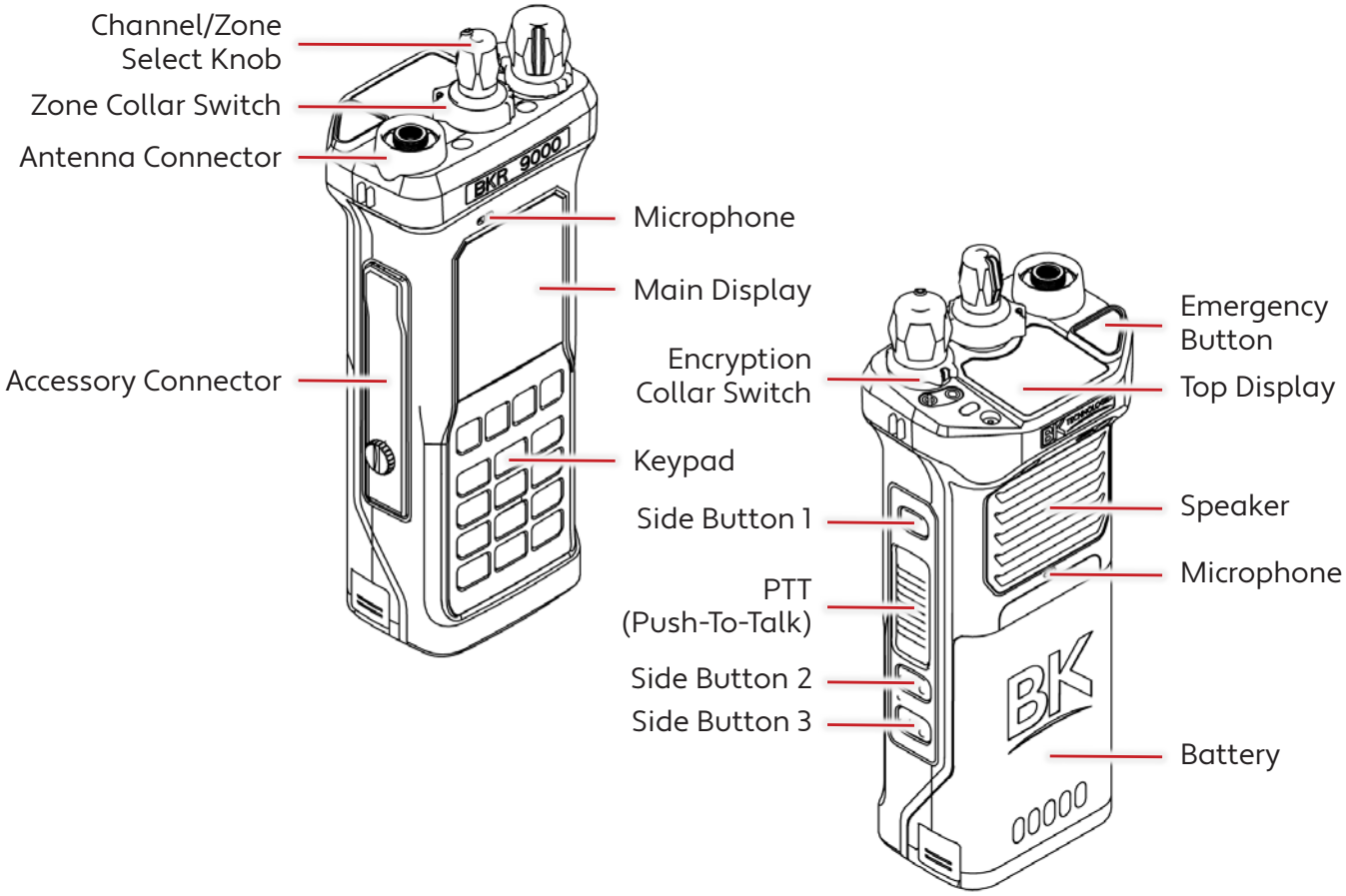
Removing the Battery

1. Push in the 'release' tabs on each side of the battery
2. Pull the battery downwards away from the radio.

NOTE: All information programmed into the radio is maintained even when the battery pack is removed.



Radio Controls



For more information visit BKTechnologies.com

BK TECHNOLOGIES

800-821-2900
orders@bktechnologies.com
7100 Technology Drive
West Melbourne, FL 32904

bktechnologies.com