

State Of West Virginia
Two-Way Digital Portable Radios
Request For Quotation
Number DSP0931

Due: April 29, 2009 at 1:30 PM



RECEIVED

2009 APR 23 P 12:01

PURCHASING DIVISION
STATE OF WV

KENWOOD

KENWOOD

Listen to the Future

April 20, 2009

Mr. John Abbott
West Virginia State Police
4124 Kanawha Turnpike
South Charleston, WV 25309

Dear Mr. Abbott,

Kenwood USA Corporation would like to thank you and your staff for the opportunity to respond to your Request for Quotation for Two-Way Portable Radios, DSP0931. Kenwood has been producing and distributing high quality two-way radio equipment worldwide since 1946. Kenwood is an ISO 9001 & JQA-1205 certified company and all of our radios are designed, engineered and produced at Kenwood's own manufacturing facilities by Kenwood employees. The radio equipment offered in this proposal is currently in use by several Federal agencies and many state and local agencies throughout the country.

With this response we have included specification sheets and service manuals for the equipment represented in our proposal. We have also included a unique price page that lists many options for the equipment that were not requested in your RFQ. We believe that by making our entire TK-5210/TK-5310 portable radio product line available through this proposal, the State and local agencies in West Virginia will have access to options for their equipment that will serve them the best and we request that this price page be accepted as part of any anticipated contract award based on this quotation.

Kenwood recognizes West Virginia Code 5A-3-37 related to preferences offered to qualified bidders. We understand the importance of acknowledging local businesses and enticing them to participate in State business. Kenwood also values the expertise and responsiveness of local businesses and understand they have a vested interest in the project.

Kenwood USA Corporation 2201 E. Dominguez St., Long Beach, CA 90810 (310) 639-9000
Mailing Address: P.O. Box 22745, Long Beach, CA 90801-5745

Kenwood USA Corporation currently works directly with eight Authorized Kenwood Sales and Service Centers, "affiliates" throughout the State of West Virginia. Each of these affiliates have been in business in West Virginia for many years and cumulatively employ well over 100 sales and support professional who are residents of West Virginia. It is Kenwood's intension to utilize these affiliate companies to support the anticipated contract award from this proposal.

We will empower our dealer affiliates to act as our agent, communicate with agencies, articulate the agencies needs and act as liaison for Kenwood in support of the contract. We will financially compensate our dealer affiliates for their involvement and continued product support to agencies on a local level. We support the idea of local communications professionals supporting local public safety communications needs supported by a capable national corporation and qualified vendor. The practice described will also contribute to the State economy by way of contributing to employee salaries across our dealer network. Based on this support model, Kenwood is applying for, and requests preference based West Virginia Code 5A-3-37 as indicated in our response.

Kenwood USA Corporation is compliant with all Terms and Conditions of the RFQ and meet all of the radio equipment specifications with the exception of the following:

- 1.7.1 and 2.7.1 The Kenwood portable radios offered have a single line of 14 alphanumeric characters and two lines of information icons such as battery status and scan information.
- 3.2.1.3 The Kenwood portable radio battery charger does not incorporate a battery conditioner.

We look forward to discussing this quotation in detail. We are eager to support the State of West Virginia and partner with our dealers to fulfill the needs of all State and local agencies. If you or your staff have any questions or comments, please do not hesitate to contact me at (800) 752-0986, X8280 or via my cellular telephone at (310) 779-1381. Again, thank you for the opportunity to provide this quotation.

Respectfully,



Barry Morris

Public Safety Sales Manager

KENWOOD USA CORPORATION

Kenwood Authorized Dealer Affiliates

A.V. Luttamus Communications, Inc.

Paul Luttamus
1344 Cove Hill Rd.
Weirton, WV 26062
304-723-5555
800-285-2197

Biser Radio Service

Ted Biser
PO Box 2 Main St.
Lorentz, WV 26229
(304) 472-4202

Electronic Communications of WV,

Tim Ford
408 Old Goff Mountain Road
Cross Lanes, WV 25313
(304) 776-4091

F & L Electronics, Inc.

Frank Scarberry
235 Fourth Ave
Huntington, WV 25701
(304) 523-6069

Ganoe Enterprises

DBA: Custom Computers & Communications

Greg Ganoe
HC 78 Box 182B
½ MI. S Ford Hill RD.
Augusta WV 26704
304-496-8818

Hughes Supply Company
Tom Hughes
300 Rural Acres Drive
Beckley, WV 25801
(304) 252-1918

Hughes Supply Company
Bob Poling
3861 Teays Valley Road
Hurricane, WV 25526
(304) 757-8643

Lab-Tronics, Inc.
Herb Rice
511 34th St
Cattlesburg, KY 41129
(606) 739-4409

Miller Communications
Randy Kinsolving
One Wireless Way
Parkersburg, WV 26101
(304) 863-8595

RT Sales
Dick Fowler
Route 5 Box 737P
Clarksburg, WV 26301
304-623-9479



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 26305-0130

**request for
 Quotation**

RFQ NUMBER
DPS0931

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
**JOHN ABBOTT
 304-558-2566**

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D
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R

Kenwood USA Corporation
 P.O. Box 22745
 2201 E. Dominguez Street
 Long Beach CA 90801-5745

A
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P
T
O

WEST VIRGINIA STATE POLICE

**4124 KANAWHA TURNPIKE
 SOUTH CHARLESTON, WV
 25309 304-746-2141**

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
04/19/2009	2% 20, Net 30 Days	Surface Delivery	Destination	Pre-Paid
BID OPENING DATE: 04/29/2009		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		725-74		
<p>ADDENDUM #01</p> <p>THIS ADDENDUM IS ISSUED TO ANSWER VENDOR QUESTIONS, PER THE ATTACHED DOCUMENTATION; AND EXTEND THE BID OPENING FROM 4/23/2009 TO 4/29/2009; 1:30 PM.</p> <p>REVISED BID OPENING: 4/29/2009; 1:30 PM</p> <p>See Price Quote Page 25, 26 of RFQ</p>						
<p>***** THIS IS THE END OF RFQ *****</p>						<p>DPS0931 ***** TOTAL: See total page 26</p>

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: Barry Morris *Barry Morris* TELEPHONE: (800) 752-0986, Ext. 8280 DATE: 04/20/09

TITLE: Public Safety Sales Manager PEIN: 95-2948901 ADDRESS CHANGES TO BE NOTED ABOVE

ADDENDUM TO DPS0931

This is in reference to a question regarding Item 1.4.1 " states that the radio shall be P25 CAI compatible and operate on the West Virginia Department of Natural Resources system." It was requested that our agency provide what technology/protocol the West Virginia Department of Natural Resources (WVDNR) is currently using.

I submit the following: Upon conferring with Mr. Dave Saffel, our agencies Chief Communications Engineer, I was informed that the WVDNR system is Motorola P-25 Common Air Interface (CAI). WVDNR has advised Mr. Saffel that the P-25 is NOT trunking compatible, thus it is a CAI.

Also to clarify 3.7.1 the WV State Police has the potential of purchasing 500 portable radios over the next 3 years depending on the availability of funding. We can order anywhere from 1 to 200 at one time. This contract will also be available for other state agencies, counties and municipalities to purchase from. We would expect the vendor to have a sample radio ready to ship the day of the bid opening. Radios are expected to be delivered 30 days upon the vendor receiving the order.



State of West Virginia
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 Charleston, WV 25305-0130

**Request for
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ADDRESS CORRESPONDENCE TO ATTENTION OF:
**JOHN ABBOTT
 304-558-2544**

VENDOR
 Kenwood USA Corporation
 P.O. Box 22745
 2201 E. Dominguez Street
 Long Beach CA 90801-5745-

SHIP TO
 WEST VIRGINIA STATE POLICE
 4124 KANAWHA TURNPIKE
 SOUTH CHARLESTON, WV
 25309 304-746-2141

DATE PRINTED 04/02/2009	TERMS OF SALE 4% 20, Net 30 Days	SHIP VIA Surface delivery	F.O.B. Destination	FREIGHT TERMS Prepaid
BID OPENING DATE: 04/23/2009		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		725-74	See Price Quote Page 25, 26	
<p>TWO-WAY RADIOS, PORTABLE</p> <p>OPEN-END CONTRACT TO PROVIDE VHF & UHF DIGITAL TWO-WAY PORTABLE RADIOS FOR THE WEST VIRGINIA STATE POLICE PER THE SPECIFICATIONS.</p> <p>QUESTIONS: QUESTIONS SHALL BE SUBMITTED IN WRITING TO: JOHN ABBOTT, SR. BUYER - EMAILS PREFERRED, AND SHOULD BE SENT TO JOHN.H.ABBOTT@WV.GOV, NO LATER THAN 4/17/2009; 2:00 PM</p> <p>EXHIBIT 3</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE ON AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE.</p> <p>UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT, THE TERMS, CONDITIONS AND PRICING SET HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.</p> <p>RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE Barry Morris	TELEPHONE (800)752-0986, X8280	DATE 04/15/09
TITLE Public Safety Sales Manager	FAX 95-2948901	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
5. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/Contract becomes void and of no effect after June 30.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.
14. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
15. **WEST VIRGINIA ALCOHOL & DRUG-FREE WORKPLACE ACT:** If this Contract constitutes a public improvement construction contract as set forth in Article 1D, Chapter 21 of the West Virginia Code ("The West Virginia Alcohol and Drug-Free Workplace Act"), then the following language shall hereby become part of this Contract: "The contractor and its subcontractors shall implement and maintain a written drug-free workplace policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act, as set forth in Article 1D, Chapter 21 of the West Virginia Code. The contractor and its subcontractors shall provide a sworn statement in writing, under the penalties of perjury, that they maintain a valid drug-free work place policy in compliance with the West Virginia and Drug-Free Workplace Act. It is understood and agreed that this Contract shall be cancelled by the awarding authority if the Contractor: 1) Fails to implement its drug-free workplace policy; 2) Fails to provide information regarding implementation of the contractor's drug-free workplace policy at the request of the public authority; or 3) Provides to the public authority false information regarding the contractor's drug-free workplace policy."

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Complete all sections of the quotation form.
4. Unfit prices shall prevail in case of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

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ADDRESS CORRESPONDENCE TO ATTENTION OF:
JOHN ABBOTT 304-558-2544

VENDOR

Kenwood USA Corporation
 P.O. Box 22745
 2201 E. Dominguez Street
 Long Beach CA 90801-5745

SHIP TO

WEST VIRGINIA STATE POLICE

 4124 KANAWHA TURNPIKE
 SOUTH CHARLESTON, WV
 25309 304-746-2141

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/02/2009	2% 20, Net 30 Days	Surface delivery	Destination	PrePaid
BID OPENING DATE: 04/23/2009		BID OPENING TIME		01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANSPORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.)</p> <p>QUANTITIES: QUANTITIES LISTED IN THE REQUISITION ARE APPROXIMATIONS ONLY, BASED ON ESTIMATES SUPPLIED BY THE STATE SPENDING UNIT. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACT SHALL COVER THE QUANTITIES ACTUALLY ORDERED FOR DELIVERY DURING THE TERM OF THE CONTRACT, WHETHER MORE OR LESS THAN THE QUANTITIES SHOWN.</p> <p>ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN STATE CONTRACT ORDER (FORM NUMBER WV-39) TO THE VENDOR FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL COPY OF THE WV-39 SHALL BE MAILED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT, A SECOND COPY MAILED TO THE PURCHASING DIVISION, AND A THIRD COPY RETAINED BY THE SPENDING UNIT.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS		
SIGNATURE Barry Morris <i>Barry Morris</i>	TELEPHONE (800)752-0986, X8280	DATE 04/15/09
TITLE Public Safety Sales Manager	FEIN 95-2948901	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
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Request for Quotation

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ADDRESS CORRESPONDENCE TO ATTENTION OF:
JOHN ABBOTT
304-558-2544

VENDOR

Kenwood USA Corporation
 P.O. Box 22745
 2201 E. Dominguez Street
 Long Beach CA-90801-5745

SHIP TO

WEST VIRGINIA STATE POLICE
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 SOUTH CHARLESTON, WV
 25309 304-746-2141

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/02/2009	2% 20, Net 30 Days	Surface delivery	Destination	PrePaid

BID OPENING DATE: **04/23/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATICALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER.</p> <p>THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED DOCUMENTS SUCH AS PRICE LISTS, ORDER FORMS, SALES AGREEMENTS OR MAINTENANCE AGREEMENTS, INCLUDING ANY ELECTRONIC MEDIUM SUCH AS CD-ROM.</p> <p>REV. 04/11/2001</p> <p>EXHIBIT 4</p> <p>LOCAL GOVERNMENT BODIES: UNLESS THE VENDOR INDICATES IN THE BID HIS REFUSAL TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO COUNTY, SCHOOL, MUNICIPAL AND OTHER LOCAL GOVERNMENT BODIES, THE BID SHALL EXTEND TO POLITICAL SUBDIVISIONS OF THE STATE OF WEST VIRGINIA. IF THE VENDOR DOES NOT WISH TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO ALL POLITICAL SUBDIVISIONS OF THE STATE, THE VENDOR MUST CLEARLY INDICATE SUCH REFUSAL IN HIS BID. SUCH REFUSAL SHALL NOT PREJUDICE THE AWARD OF THIS CONTRACT IN ANY MANNER.</p> <p>REV. 3/88</p> <p>PURCHASING CARD ACCEPTANCE: THE STATE OF WEST VIRGINIA CURRENTLY UTILIZES A VISA PURCHASING CARD PROGRAM WHICH IS ISSUED THROUGH A BANK. THE SUCCESSFUL VENDOR MUST ACCEPT THE STATE OF WEST VIRGINIA VISA PURCHASING</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE Barry Morris <i>Barry Morris</i> TITLE Public Safety Sales Manager	TELEPHONE (800)752-0986, X8280 95-2948901	DATE 04/15/09
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ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
 Department of Administration
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BID OPENING DATE: **04/23/2009** BID OPENING TIME: **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>CARD FOR PAYMENT OF ALL ORDERS PLACED BY ANY STATE AGENCY AS A CONDITION OF AWARD.</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: JOHN ABBOTT-----</p> <p>RFQ. NO.: DPS0931-----</p> <p>BID OPENING DATE: 4/23/2009-----</p> <p>BID OPENING TIME: 1:30 PM-----</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE Barry Morris <i>Barry Morris</i>	TELEPHONE (800)752-0986, X8280	DATE 04/15/09
TITLE Public Safety Sales Manager	FAX 95-2948901	ADDRESS CHANGES TO BE NOTED ABOVE

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 - 2201 E. Dominguez Street
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WEST VIRGINIA STATE POLICE

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 25309 304-746-2141

DATE PRINTED 04/02/2009	TERMS OF SALE 2% 20, Net 30 Days	SHIP VIA Surface delivery	F.O.B. Destination	FREIGHT TERMS Prepaid
BID OPENING DATE: 04/23/2009		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
----- CONTACT PERSON (PLEASE PRINT CLEARLY): ----- Barry Morris Public Safety Sales Manager Kenwood USA Corporation 2201 E. Dominguez St. P.O. Box 22745 Long Beach CA. 90801-5745 -----						
***** THIS IS THE END OF RFQ DPS0931 ***** TOTAL:						See Grand Total
						Page 26

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE Barry Morris <i>Barry Morris</i>	TELEPHONE (800)752-0986, X8280	DATE 04/15/09
TITLE Public Safety Sales Manager	FEN 95-2948901	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

VHF and UHF PORTABLE DIGITAL RADIO SPECIFICATIONS

The West Virginia State Police, hereinafter agency is soliciting competitive bids to establish an open-end contract for the purchase of digital P-25 portable/handheld radio equipment and related accessories. The awarded contract(s) shall be available for use by this agency as well as all other entities of state government, and all counties and municipalities within the State Of West Virginia.

The agency has placed the digital P-25 portable/handheld radio equipment into two different tiers according to their performance capabilities and features of each unit. The two tiers will be referred to as Tier-1 and Tier-2 hereinafter and are outlined below. It should be noted the award of this contract may result in a split award between Tiers.

	Comply?	
	Yes	No
<u>TIER-1</u>		
1. VHF Portable – P-25 Digital CAI ready – Trunking Capable with optional software		
1.1. Radio shall be programmable for operation in the 136-174 MHz band.	<u> X </u>	<u> </u>
1.2. Radio shall have a programmable output power of 2 to 5 watts.	<u> X </u>	<u> </u>
1.3. Radio duty cycle will be assumed to be 5/5/90 (5% transmit/5% receive/90% standby per TIA/EIA Specification 903).	<u> X </u>	<u> </u>
1.3.1. Battery life should be 10 hours or greater. NiMH or Lithium Ion batteries are acceptable. (Nickel Cadmium batteries are not acceptable.)	<u> X </u>	<u> </u>
1.3.2. A Rapid charge battery shall be provided, charging to full capacity in four hours or less.	<u> X </u>	<u> </u>
1.4. Digital Capabilities		
1.4.1. Radio shall be P-25 CAI compatible and operate on the West Virginia Department of Natural Resources system.	<u> X </u>	<u> </u>
1.4.2. Radio shall be capable of upgrade to P-25 Trunking capability.	<u> X </u>	<u> </u>
1.5. Unit shall be capable of receiving and transmitting on a minimum of 512 channels / 24 zones.	<u> X </u>	<u> </u>

	Comply?	
	Yes	No
1.5.1. P-25 Trunked Channelization		
1.5.1.1. Talkgroups may be entered into the radio with multiple parameters (i.e. – Talkgroup 1 may be strapped secure and another entry of Talkgroup 1 may be strapped clear).	<u>X</u>	_____
1.5.1.2. Radios in which a talkgroup may be entered and configured only one time are not acceptable.	<u>X</u>	_____
1.5.2. Conventional (Non-Trunked) Channelization		
1.5.2.1. Each channel shall be individually programmable with regard to wideband /narrowband operation.	<u>X</u>	_____
1.5.2.2. Radio shall have programmable encode and decode capability for both CTCSS tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.	<u>X</u>	_____
1.5.2.3. There shall be no limitations in the radio with regard to what channels (frequencies) may be programmed into the radio within the authorized frequency split.	<u>X</u>	_____
1.6. Scanning		
1.6.1. Radio shall be capable of using and storing user defined scan lists.	<u>X</u>	_____
1.6.2. Scan lists may also be defined in programming software.	<u>X</u>	_____
1.6.2.1. Predefined scan lists may be edited by the user utilizing buttons on the radio.	<u>X</u>	_____
1.6.2.2. Scan lists shall be able to be established at the user/keypad level.	<u>X</u>	_____
1.6.2.3. Scanning will be enabled and disabled by depressing no more than one button, one time.	<u>X</u>	_____

	Comply?	
	Yes	No
1.7. Display		
1.7.1. Radio shall have an alphanumeric display with a minimum of 2 rows of 12 characters.		X
1.7.2. Radio shall have a backlit display.	X	See Clarification in cover letter
1.7.3. Radio shall have a battery status.	X	
1.7.4. Radio shall have ID display capability.	X	
1.8. Channel/Zone selection		
1.8.1. Channel selection will be by way of rotary knob to select a minimum of 16 channels.	X	
1.8.2. Zone selection to allow access to more groups of frequencies will be via other controls or buttons.	X	
1.9. Receiver audio stage shall be capable of a minimum of 250 milliwatts of audio from the internal speaker.	X	
2. UHF Portable – P-25 Digital Trunking ready		
2.1. Radio shall be programmable for operation in the 403-470 MHz band.	X	
2.2. Radio shall have a programmable output power of 2 to 5 watts.	X	
2.3. Radio duty cycle will be assumed to be 5/5/90 (5% transmit/5% receive/90% standby per TIA/EIA Specification 903).	X	
2.3.1. Battery life should be 10 hours or greater. NiMH or Lithium Ion batteries are acceptable. (Nickel Cadmium batteries are not acceptable.)	X	
2.3.2. A Rapid charge battery shall be provided, charging to full capacity in four hours or less.	X	

	Comply?	
	Yes	No
2.4. Digital Capabilities		
2.4.1. Radio shall be P-25 Trunking capable and compatible with the WVIRP P-25 Trunked system.	<u>X</u>	_____
2.4.2. Radio shall include P-25 CAI (Common Air Interface) compatibility.	<u>X</u>	_____
2.5. Unit shall be capable of receiving and transmitting on a minimum of 512 channels / 24 zones.	<u>X</u>	_____
2.5.1. P-25 Trunked Channelization		
2.5.1.1. Talkgroups may be entered into the radio with multiple parameters (i.e. – Talkgroup 1 may be strapped secure and another entry of Talkgroup 1 may be strapped clear).	<u>X</u>	_____
2.5.1.2. Radios in which a talkgroup may be entered and configured only one time are not acceptable.	<u>X</u>	_____
2.5.2. Conventional (Non-Trunked) Channelization		
2.5.2.1. Each channel shall be individually programmable with regard to wideband /narrowband operation.	<u>X</u>	_____
2.5.2.2. Radio shall have programmable encode and decode capability for both CTCSS tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.	<u>X</u>	_____
2.5.2.3. There shall be no limitations in the radio with regard to what channels (frequencies) may be programmed into the radio within the authorized frequency split.	<u>X</u>	_____
2.6. Scanning		
2.6.1. Radio shall be capable of using and storing user defined scan lists.	<u>X</u>	_____

	Comply?	
	Yes	No
2.6.2. Scan lists may also be defined in programming software.	<u>X</u>	<u> </u>
2.6.2.1. Predefined scan lists may be edited by the user utilizing buttons on the radio.	<u>X</u>	<u> </u>
2.6.2.2. Scan lists shall be able to be established at the user/keypad level.	<u>X</u>	<u> </u>
2.6.2.3. Scanning will be enabled and disabled by depressing no more than one button, one time.	<u>X</u>	<u> </u>
2.7. Display		
2.7.1. Radio shall have an alphanumeric display with a minimum of 2 rows of 12 characters.	<u> </u>	<u>X</u> See clarification in cover letter
2.7.2. Radio shall have a backlit display.	<u>X</u>	<u> </u>
2.7.3. Radio shall have a battery status.	<u>X</u>	<u> </u>
2.7.4. Radio shall have ID display capability.	<u>X</u>	<u> </u>
2.8. Channel/Zone selection		
2.8.1. Channel selection will be by way of rotary knob to select at minimum of 16 channels.	<u>X</u>	<u> </u>
2.8.2. Zone selection to allow access more groups of frequencies will be via other controls or buttons.	<u>X</u>	<u> </u>
2.9. Receiver audio stage shall be capable of a minimum of 250 milliwatts of audio from the internal speaker.	<u>X</u>	<u> </u>
2.10. Encryption		
2.10.1. Any hardware necessary for AES encryption will be installed in the radio at time of purchase.	<u>X</u>	<u> </u>

	Comply?	
	Yes	No
2.10.2. AES encryption capability will be offered as a software option at time of purchase.	<u>X</u>	_____
2.10.3. AES encryption keys shall be able to be loaded utilizing a Motorola KVL 3000 Plus keyloader. A part number for appropriate cable shall be provided.	<u>X</u>	_____
2.10.4. Radio shall be capable of storing multiple AES encryption keys. The ability to store more than one key shall be considered to be part of AES encryption being in the radio.	<u>X</u>	_____

3. General Specifications

3.1. Remote Microphone

3.1.1. A remote microphone with coiled cord shall be provided.	<u>X</u>	_____
3.1.1.1. The microphone cable shall be capable of extending a minimum of 24 inches.	<u>X</u>	_____
3.1.1.2. The microphone shall have a spring clip to allow it to be clipped to clothing.	<u>X</u>	_____
3.1.1.3. The remote microphone shall be available for individual purchase.	<u>X</u>	_____

3.2. Charger

3.2.1. A desktop charger shall be provided to allow rapid charging from an 117V power source.	<u>X</u>	_____
3.2.1.1. This charger shall be equipped with indication of both charging and charger completion.	<u>X</u>	_____
3.2.1.2. This charger shall be capable of both a fast and trickle charge to return the battery to a fully charged condition in 4 hours or less.	<u>X</u>	_____
3.2.1.3. This unit should incorporate a built-in battery conditioner.	_____	X <u>See clarification in cover letter</u>
3.2.1.4. The charger shall be available for individual purchase.	<u>X</u>	_____

	Comply?	
	Yes	No
3.3. Portable Radio Belt Loop		
3.3.1. A black leather belt loop shall be provided with each portable purchased.	<u> X </u>	<u> </u>
3.3.2. The black leather belt loop shall be available for individual purchase, should additional belt loops be needed.	<u> X </u>	<u> </u>
3.4. Warranty		
3.4.1. All equipment shall be warranted for a minimum period of 3 years, including parts and labor, and beginning when the equipment is first placed in service.	<u> X </u>	<u> </u>
3.4.2. All features that are placed in the radio by way of programming or feature encoding will remain for the life of the radio.	<u> X </u>	<u> </u>
3.4.3. Any lost feature information (i.e. # of channels, type of radio, etc) will be replaced (provided) at no charge for the life of the radio.	<u> X </u>	<u> </u>
3.4.4. The successful vendor shall provide pre-paid shipping labels to cover all shipping charges for any item needing to be returned for repair work during the warranty period.	<u> X </u>	<u> </u>
3.5. Service Manuals (Only for WV State Police purchases)		
3.5.1. Schematics and complete service manuals will be available.	<u> X </u>	<u> </u>
3.5.2. An option shall be provided to purchase depot level services manuals in paper form.	<u> X </u>	<u> </u>
3.5.3. Electronic versions of depot level service manuals shall be provided at no cost to WV State Police upon the initial purchase under this contract.	<u> X </u>	<u> </u>
3.5.4. Any failure to comply will be grounds for disqualification of the bid, or cancellation of the contract.	<u> X </u>	<u> </u>

		Comply?	
		Yes	No
3.6. Programming Software and Equipment Firmware			
3.6.1.	An option shall be available to purchase Software, Cable and any interfaces necessary to program the radio.	<u>X</u>	<u> </u>
3.6.1.1.	Programming cables shall utilize USB interface to computers.		
	Note: Any interfaces to Parallel or Serial ports shall cause disqualification of associated radios and options.	<u>X</u>	<u> </u>
3.6.1.2.	Updates to software shall be provided at no additional charge via Internet account to allow continuous access updates.	<u>X</u>	<u> </u>
3.6.1.2.1.	Short term access is not acceptable.	<u>X</u>	<u> </u>
3.6.1.2.2.	Username, password, and website address shall be provided with bid and shall be part of the bid analysis and award.	<u>X</u>	<u> </u>
3.6.2.	Radio firmware required to keep hardware current to P-25 standards shall be provided continuously during the life of the contract.	<u>X</u>	<u> </u>
3.6.2.1.	Manufacturer shall provide internet access to this software/firmware.	<u>X</u>	<u> </u>
3.6.2.2.	Updates to software shall be provided at no additional charge via Internet account to allow continuous access updates.	<u>X</u>	<u> </u>
3.6.2.2.1.	Short term access is not acceptable.	<u>X</u>	<u> </u>
3.6.2.2.2.	Username, password, and website address shall be provided with bid and shall be part of the bid analysis and award.	<u>X</u>	<u> </u>

	Comply?	
	Yes	No
3.7. Evaluation of bid		
3.7.1. A working example of the equipment to be provided will be available for evaluation prior to award.	<u> X </u>	<u> </u>
3.7.2. Operating and repair manuals will be provided on each component delivered for evaluation.	<u> X </u>	<u> </u>
3.7.3. The documentation supplied by the accepted vendor will not be returned, and shall not be construed as being part of the manuals required in other parts of this specification.	<u> X </u>	<u> </u>
3.7.4. A working example of the equipment to be provided will be available for evaluation prior to award and for certification on the WVIRP system as required.	<u> X </u>	<u> </u>
3.7.5. Special / Promotional pricing offered by vendors for limited periods of time shall not be considered for bid award.	<u> X </u>	<u> </u>
3.8. Manufacturers modifications and dealer roles		
3.8.1. Any modifications to equipment necessary to comply with specifications will be completed at factory/corporate locations and shall not be performed at field repair shops.	<u> X </u>	<u> </u>
3.8.2. Any local dealers representing manufacturers are expected to only provide support to the manufacturer and NOT warranty or provide modifications to equipment. (Warranty work shall be performed at corporate depot type repair facilities.)	<u> X </u>	<u> </u>
3.8.3. All bidders must provide written certification from manufacturers of their qualification to represent that manufacturer as an authorized vendor. Failure to comply will be grounds for disqualification.	<u> X </u>	<u> </u>

	Comply?	
	Yes	No
4. Options for Tier-1		
4.1. Addition of P-25 Trunking for Tier-1 - Item #1	<u>X</u>	<u> </u>
4.2. AES Encryption for Tier 1 - Item #2	<u>X</u>	<u> </u>
4.3. Keyloader cable for use with Motorola KVL 3000 Plus	<u>X</u>	<u> </u>
4.4. Programming Software	<u>X</u>	<u> </u>
4.5. Programming Cable and any necessary interface	<u>X</u>	<u> </u>
4.6. Additional Desktop Charger	<u>X</u>	<u> </u>
4.7. Additional Lapel Microphone	<u>X</u>	<u> </u>
4.8. Additional Portable Radio Belt Loop	<u>X</u>	<u> </u>
4.9. Additional Battery identical to that originally provided	<u>X</u>	<u> </u>
4.10. Additional year of warranty (Total of 4 years)	<u>X</u>	<u> </u>
4.11. Additional year of warranty (Total of 5 years)	<u>X</u>	<u> </u>

	Comply?	
	Yes	No
<u>TIER-2</u>		
1. VHF Portable – P-25 Digital CAI ready – Trunking Capable with optional software		
1.1. Radio shall be programmable for operation in the 136-174 MHz band.	<u>X</u>	_____
1.2. Radio shall have a programmable output power of 2 to 4 watts.	<u>X</u>	_____
1.3. Radio duty cycle will be assumed to be 5/5/90 (5% transmit/5% receive/90% standby per TIA/EIA Specification 903).	<u>X</u>	_____
1.3.1. Battery life should be 10 hours or greater. NiMH or Lithium Ion batteries are acceptable. (Nickel Cadmium batteries are not acceptable.)	<u>X</u>	_____
1.3.2. A Rapid charge battery shall be provided, charging to full capacity in four hours or less.	<u>X</u>	_____
1.4. Digital Capabilities	<u>X</u>	_____
1.4.1. Radio shall be P-25 CAI compatible and operate on the West Virginia Department of Natural Resources system.	_____	_____
1.4.2. Radio shall be capable of upgrade to P-25 Trunking capability.	<u>X</u>	_____
1.5. Unit shall be capable of receiving and transmitting on a minimum of 512 channels / 16 zones.	<u>X</u>	_____
1.5.1. P-25 Trunked Channelization		
1.5.1.1. Talkgroups may be entered into the radio with multiple parameters (i.e. – Talkgroup 1 may be strapped secure and another entry of Talkgroup 1 may be strapped clear).	<u>X</u>	_____
1.5.1.2. Radios in which a talkgroup may be entered and configured only one time are not acceptable.	<u>X</u>	_____
1.5.2. Conventional (Non-Trunked) Channelization		

		Comply?	
		Yes	No
1.5.2.1.	Each channel shall be individually programmable with regard to wideband /narrowband operation.	<u>X</u>	_____
1.5.2.2.	Radio shall have programmable encode and decode capability for both CTCSS tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.	<u>X</u>	_____
1.5.2.3.	There shall be no limitations in the radio with regard to what channels (frequencies) may be programmed into the radio within the authorized frequency split.	<u>X</u>	_____
1.6. Scanning			
1.6.1.	Radio shall be capable of using and storing user defined scan lists.	<u>X</u>	_____
1.6.2.	Scan lists may also be defined in programming software.	<u>X</u>	_____
1.6.2.1.	Predefined scan lists may be edited by the user utilizing buttons on the radio.	<u>X</u>	_____
1.6.2.2.	Scan lists shall be able to be established at the user/keypad level.	<u>X</u>	_____
1.6.2.3.	Scanning will be enabled and disabled by depressing no more than one button, one time.	<u>X</u>	_____
1.7. Display			
1.7.1.	Radio shall have an alphanumeric display with a minimum of 2 rows of 12 characters.	_____	<u>X</u> See clarification in cover letter
1.7.2.	Radio shall have a backlit display.	<u>X</u>	_____
1.7.3.	Radio shall have a battery status.	<u>X</u>	_____
1.7.4.	Radio shall have ID display capability.	<u>X</u>	_____

	Comply?	
	Yes	No
1.8. Channel/Zone selection		
1.8.1. Channel selection will be by way of rotary knob to select at minimum of 16 channels.	<u>X</u>	_____
1.8.2. Zone selection to allow access more groups of frequencies will be via other controls or buttons.	<u>X</u>	_____
1.9. Receiver audio stage shall be capable of a minimum of 250 milliwatts of audio from the internal speaker.	<u>X</u>	_____
2. UHF Portable – P-25 Digital Trunking ready		
2.1. Radio shall be programmable for operation in the 403-470 MHz band.	<u>X</u>	_____
2.2. Radio shall have a programmable output power of 2 to 4 watts.	<u>X</u>	_____
2.3. Radio duty cycle will be assumed to be 5/5/90 (5% transmit/5% receive/90% standby per TIA/EIA Specification 903).	<u>X</u>	_____
2.3.1. Battery life should be 10 hours or greater. NiMH or Lithium Ion batteries are acceptable. (Nickel Cadmium batteries are not acceptable.)	<u>X</u>	_____
2.3.2. A Rapid charge battery shall be provided, charging to full capacity in four hours or less.	<u>X</u>	_____
2.4. Digital Capabilities		
2.4.1. Radio shall be P-25 Trunking capable and compatible with the WVIRP P-25 Trunked system.	<u>X</u>	_____
2.4.2. Radio shall include P-25 CAI (Common Air Interface) compatibility.	<u>X</u>	_____
2.5. Unit shall be capable of receiving and transmitting on a minimum of 512 channels / 16 zones.	<u>X</u>	_____

	Comply?	
	Yes	No
2.5.1. P-25 Trunked Channelization		
2.5.1.1. Talkgroups may be entered into the radio with multiple parameters (i.e. – Talkgroup 1 may be strapped secure and another entry of Talkgroup 1 may be strapped clear).	<u> X </u>	<u> </u>
2.5.1.2. Radios in which a talkgroup may be entered and configured only one time are not acceptable.	<u> X </u>	<u> </u>
2.5.2. Conventional (Non-Trunked) Channelization		
2.5.2.1. Each channel shall be individually programmable with regard to wideband /narrowband operation.	<u> X </u>	<u> </u>
2.5.2.2. Radio shall have programmable encode and decode capability for both CTCSS tones and digital coded squelch with a minimum of one pair of tones, not necessarily the same, for each programmed channel.	<u> X </u>	<u> </u>
2.5.2.3. There shall be no limitations in the radio with regard to what channels (frequencies) may be programmed into the radio within the authorized frequency split.	<u> X </u>	<u> </u>
2.6. Scanning		
2.6.1. Radio shall be capable of using and storing user defined scan lists.	<u> X </u>	<u> </u>
2.6.2. Scan lists may also be defined in programming software.	<u> X </u>	<u> </u>
2.6.2.1. Predefined scan lists may be edited by the user utilizing buttons on the radio.	<u> X </u>	<u> </u>
2.6.2.2. Scan lists shall be able to be established at the user/keypad level.	<u> X </u>	<u> </u>
2.6.2.3. Scanning will be enabled and disabled by depressing no more than one button, one time.	<u> X </u>	<u> </u>

	Comply?	
	Yes	No
2.7. Display		
2.7.1. Radio shall have an alphanumeric display with a minimum of 2 rows of 12 characters.	_____	<u>X</u> See clarification in cover letter
2.7.2. Radio shall have a backlit display.	<u>X</u>	_____
2.7.3. Radio shall have a battery status.	<u>X</u>	_____
2.7.4. Radio shall have ID display capability.	<u>X</u>	_____
2.8. Channel/Zone selection		
2.8.1. Channel selection will be by way of rotary knob to select at minimum of 16 channels.	<u>X</u>	_____
2.8.2. Zone selection to allow access more groups of frequencies will be via other controls or buttons.	<u>X</u>	_____
2.9. Receiver audio stage shall be capable of a minimum of 250 milliwatts of audio from the internal speaker.	<u>X</u>	_____
2.10. Encryption		
2.10.1. Any hardware necessary for AES encryption will be installed in the radio at time of purchase.	<u>X</u>	_____
2.10.2. AES encryption capability will be offered as a software option at time of purchase.	<u>X</u>	_____
2.10.3. AES encryption keys shall be able to be loaded utilizing a Motorola KVL 3000 Plus keyloader. A part number for appropriate cable shall be provided.	<u>X</u>	_____
2.10.4. Radio shall be capable of storing multiple AES encryption keys. The ability to store more than one key shall be considered to be part of AES encryption being in the radio.	<u>X</u>	_____
3. General Specifications		
3.1. Remote Microphone		
3.1.1. A remote microphone with coiled cord shall be provided.	<u>X</u>	_____

		Comply?	
		Yes	No
3.1.1.1.	The microphone cable shall be capable of extending a minimum of 24 inches.	<u>X</u>	_____
3.1.1.2.	The microphone shall have a spring clip to allow it to be clipped to clothing.	<u>X</u>	_____
3.1.1.3.	The remote microphone shall be available for individual purchase.	<u>X</u>	_____
3.2. Charger			
3.2.1.	A desktop charger shall be provided to allow rapid charging from an 117V power source.	<u>X</u>	_____
3.2.1.1.	This charger shall be equipped with indication of 1) charging and 2) charger completion.	<u>X</u>	_____
3.2.1.2.	This charger shall be capable of a fast and trickle charge to return the battery to a fully charged condition in 4 hours or less.	<u>X</u>	_____
3.2.1.3.	This unit should incorporate a built-in battery conditioner.	_____	<u>X</u> See clarification in cover letter
3.2.1.4.	The charger shall be available for individual purchase.	<u>X</u>	_____
3.3. Portable Radio Belt Loop			
3.3.1.	A black leather belt loop shall be provided with each portable purchased.	<u>X</u>	_____
3.3.2.	The black leather belt loop shall be available for individual purchase, should additional belt loops be needed.	<u>X</u>	_____
3.4. Warranty			
3.4.1.	All equipment shall be warranted for a minimum period of 3 years, including parts and labor, and beginning when the equipment is first placed in service.	<u>X</u>	_____
3.4.2.	All features that are placed in the radio by way of programming or feature encoding will remain for the life of the radio.	<u>X</u>	_____

	Comply?	
	Yes	No
3.4.3. Any lost feature information (i.e. # of channels, type of radio, etc) will be replaced (provided) at no charge for the life of the radio.	<u> X </u>	<u> </u>
3.4.4. The successful vendor shall provide pre-paid shipping labels to cover all shipping charges for any item needing to be returned for repair work during the warranty period.	<u> X </u>	<u> </u>
3.5. Service Manuals (Only for WV State Police purchases)		
3.5.1. Schematics and complete service manuals will be available.	<u> X </u>	<u> </u>
3.5.2. An option shall be provided to purchase depot level services manuals in paper form.	<u> X </u>	<u> </u>
3.5.3. Electronic versions depot level service manuals shall be provided at no cost to WV State Police upon initial purchase under this contract.	<u> X </u>	<u> </u>
3.5.4. Any failure to comply will be grounds for disqualification of the bid, or cancellation of the contract.	<u> X </u>	<u> </u>
3.6. Programming Software and Equipment Firmware		
3.6.1. An option shall be available to purchase Software, Cable and any interfaces necessary to program the radio.	<u> X </u>	<u> </u>
3.6.1.1. Programming cables shall utilize USB interface to computers.		
Note: Any interfaces to Parallel or Serial ports shall cause disqualification of associated radios and options.	<u> X </u>	<u> </u>
3.6.1.2. Updates to software shall be provided at no additional charge via Internet account to allow continuous access updates.	<u> X </u>	<u> </u>
3.6.1.2.1. Short term access is not acceptable.	<u> X </u>	<u> </u>
3.6.1.2.2. Username, password, and website	<u> X </u>	<u> </u>

		Comply?	
		Yes	No
	address shall be provided with bid and shall be part of the bid analysis and award.	<u> </u>	<u> </u>
3.6.2.	Radio firmware required to keep hardware current to P-25 standards shall be provided continuously during the life of the contract.	<u> X </u>	<u> </u>
3.6.2.1.	Manufacturer shall provide internet access to this software/firmware.	<u> X </u>	<u> </u>
3.6.2.2.	Updates to software shall be provided at no additional charge via Internet account to allow continuous access updates.	<u> X </u>	<u> </u>
3.6.2.2.1.	Short term access is not acceptable.	<u> X </u>	<u> </u>
3.6.2.2.2.	Username, password, and website address shall be provided with bid and shall be part of the bid analysis and award.	<u> X </u>	<u> </u>
3.7.	Evaluation of bid		
3.7.1.	A working example of the equipment to be provided will be available for evaluation prior to award.	<u> X </u>	<u> </u>
3.7.2.	Operating and repair manuals will be provided on each component delivered for evaluation.	<u> X </u>	<u> </u>
3.7.3.	The documentation supplied by the accepted vendor will not be returned, and shall not be construed as being part of the manuals required in other parts of this specification.	<u> X </u>	<u> </u>
3.7.4.	A working example of the equipment to be provided will be available for evaluation prior to award and for certification on the WVIP system as required.	<u> X </u>	<u> </u>
3.7.5.	Special / Promotional pricing offered by vendors for limited periods of time shall not be considered for bid award.	<u> X </u>	<u> </u>

	Comply?	
	Yes	No
3.8. Manufacturers modifications and dealer roles		
3.8.1. Any modifications to equipment necessary to comply with specifications will be completed at factory/corporate locations and shall not be performed at field repair shops.	<u>X</u>	_____
3.8.2. Any local dealers representing manufacturers are expected to only provide support to the manufacturer and NOT warranty or provide modifications to equipment. (Warranty work shall be performed at corporate depot type repair facilities.)	<u>X</u>	_____
3.8.3. All bidders must provide written certification from manufacturers of their qualification to represent that manufacturer as an authorized vendor. Failure to comply will be grounds for disqualification.	<u>X</u>	_____
4. Options for TIER 2		
4.1. Addition of P-25 Trunking for Tier 2 - Item #1	<u>X</u>	_____
4.2. AES Encryption for Tier 2 - Item #2	<u>X</u>	_____
4.3. Keyloader cable for use with Motorola KVL 3000 Plus	<u>X</u>	_____
4.4. Programming Software	<u>X</u>	_____
4.5. Programming Cable and any necessary interface	<u>X</u>	_____
4.6. Additional Desktop Charger	<u>X</u>	_____
4.7. Additional Lapel Microphone	<u>X</u>	_____
4.8. Additional Portable Radio Belt Loop	<u>X</u>	_____
4.9. Additional Battery identical to that originally provided	<u>X</u>	_____
4.10. Additional year of warranty (Total of 4 years)	<u>X</u>	_____
4.11. Additional year of warranty (Total of 5 years)	<u>X</u>	_____

VHF and UHF PORTABLE DIGITAL RADIO
PRICE QUOTATION

25

TIER 1

Item #1 VHF Portable – P-25 CAI \$ 1,491.91
(P-25 Trunking optional)

Make: Kenwood Model: TK-5210K2, KNB-32, KBH-8-DS,
KSC-32, KMC-41M, KRA-26

Item #2 UHF Portable – P-25 Trunked \$ 2,104.41
(P-25 CAI included)

Make: Kenwood Model: TK-5310K5, KNB-32N, KBH-8-DS
KSC-32, KMC-41M, KWD-TR20, KRA-27

Options for TIER 1

Addition of P-25 Trunking for Item #1	<u>\$612.50, KWD-TR20</u>
AES Encryption for Item #2	<u>\$ - Included</u>
Keyloader cable for use with Motorola KVL 3000 Plus	<u>\$183.75, KPG-93</u>
Programming Software	<u>\$439.60, KPG-95DK</u>
Programming Cable and any necessary interface	<u>\$125.30, KPG-36AM&KPG-53UM</u>
Additional Desktop Charger	<u>\$49.00, KSC-32</u>
Additional Lapel Microphone	<u>\$ 67.55, KMC-41M</u>
Additional Portable Radio Belt Loop	<u>\$ 18.41, KBH-8-DS</u>
Additional Battery identical to what was provided	<u>\$ 67.55, KNB-32N</u>
Additional year of warranty (Total of 4 years)	<u>\$ 75.00</u>
Additional year of warranty (Total of 5 years)	<u>\$ 125.00</u>

TOTAL BID FOR TIER-1 \$ 3,596.32

VHF and UHF PORTABLE DIGITAL RADIO
PRICE QUOTATION (Cont.)

TIER 2

Item #1 VHF Portable – P-25 CAI \$ 1,491.91
(P-25 Trunking optional)

Make: Kenwood Model: TK-5210K2, KNB-32, KBH-8-DS
KSC-32, KMC-41M, KRA-26

Item #2 UHF Portable – P-25 Trunked \$ 2,104.41
(P-25 CAI included)

Make: Kenwood Model: TK-5310K5, KNB-32N, KBH-8-DS
KSC-32, KMC-41M, KWD-TR20, KRA-27

Options for TIER 2

Addition of P-25 Trunking for Items #1	\$ <u>612.50, KWD-TR20</u>
AES Encryption for Items #2	\$ <u>Included</u>
Keyloader cable for use with Motorola KVL 3000 Plus	\$ <u>183.75, KPG-93</u>
Programming Software	\$ <u>439.60, KPG-95DK</u>
Programming Cable and any necessary interface	\$ <u>125.30, KPG-36AM&KPG-53UM</u>
Additional Desktop Charger	\$ <u>49.00, KSC-32</u>
Additional Lapel Microphone	\$ <u>67.55, KMC-41M</u>
Additional Portable Radio Belt Loop	\$ <u>18.41, KBH-8-DS</u>
Additional Battery identical to what was provided	\$ <u>67.55, KNB-32</u>
Additional year of warranty (Total of 4 years)	\$ <u>75.00</u>
Additional year of warranty (Total of 5 years)	\$ <u>125.00</u>

TOTAL BID FOR TIER-2 \$ 3,596.32

GRAND TOTAL \$ 7,192.64

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,

_____ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,

XXXXX Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,

2. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

3. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

4. Application is made for 5% resident vendor preference for the reason checked:

_____ Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,

5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

_____ Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,

6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

_____ Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Kenwood USA Corporation

Signed: Barry Morris *Barry Morris*

Date: 04/15/09

Title: Public Safety Sales Manager

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:

West Virginia Code §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor must make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code* and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the *West Virginia Code* may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.

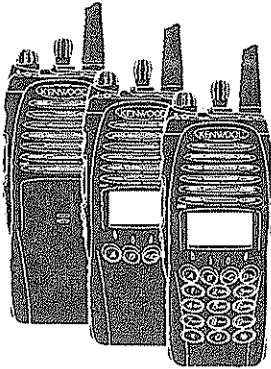
Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

Kenwood USA Corporation

Vendor's Name: _____

Authorized Signature: Barry Morris *Barry Morris* Date: 04/15/09

TK-5210 / 5310
VHF/UHF FM & P25 Digital Portable Radios



All 5X10 series portables include:

- Belt Clip (KBH-11)
- Universal Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years*

* All Accessories / options: 1 Year

Order packages to include Battery & Charger, or purchase Battery, Charger, and Antenna separately.

Basic Model
No LCD display; no front panel keys
Standard Model
16-Character Alphanumeric LCD
4 control keys
12 Keypad Model
16-Character Alphanumeric LCD
4 control keys
DTMF/Function keypad

* Approved for Classes I, II & III, Div. 1, Groups D, E, F, G and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B, C, D hazardous locations.
Note: Class I, Div 2 Group A & B Gases require use of a portable carrying case.

GENERAL FEATURES

- 5 Watt (136-174 MHz)
- 4 Watt (450-520, 380-470 MHz)
- 50 Zones / 512 Channels (K-K6)
- 16 Zones / 64 Channels (K7)
- Personality Lists
- Backlit Dot Matrix LCD
- 16 Character Alphanumeric Aliases
- 3-Digit Sub-Display
- Function / Status LCD Icons
- RSSI Indicator
- Transmit / Busy / Call Alert / Warn LED
- On/Off Volume Knob
- 16-Position Selector Knob
- 2-Position PF Lever Switch
- 3-Position PF Concentric Switch
- 4 Front Menu-Driven PF Keys
- 3 Side PF Keys
- Orange Emergency / AUX Key
- 12-Key DTMF / PF Keypad
- Enhanced Kenwood Audio
- Voice Annunciation
- VOX Ready
- Emergency Features
- Tactical Group
- Battery Level Indicator
- Transceiver Password
- Date & 12/24 Hour Time Clock
- Windows® Programming & Tuning
- Windows® Firmware Uploading
- Self-Programming & Tuning
- Cloning
- Easy Option Port
- Weather-Sealed Accessory Connector
- MIL-STD-810 C/D/E/F
- IP54/55 Water & Dust Protection
- Immersion (IP66/67) Option
- Intrinsically Safe Option*

SCAN TYPES (FM & P25)

- Single Zone/Multi-Zone Scan
- Scan Lists
- Conventional Scan
- Limited Talk Group Scan
- Priority Monitor Scan
- Dual Priority Scan

FM

- QT / DQT
- Operator Selectable Tone
- Two-Tone Decode / Encode
- DTMF Encode / Decode / Stun
- Special Alert Tone Patterns
- Encryption / ANI Board Control
- Companded Audio

FleetSync® (FM)

- FleetSync® or FleetSync® II
- PTT ID Digital ANI
- Caller ID Display
- Status Messaging
- Emergency & Stun Statuses
- Selective & Group Call
- Text Messaging
- Send/Display GPS (KMC-38GPS)
- PTT ID & Emergency GPS Reporting
- Status Message Block GPS Reporting

P25 DIGITAL

- P25 Digital Conventional
- P25 Digital Trunking Option
- IMBE™ VOCODER
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Delete
- Encryption Key Zeroize (SCM required)
- Encryption Key Retention (SCM required)
- DES Encryption Options
- AES / DES Encryption Options
- KPG-93 KVL Key Loader Interface Cable

PACKAGES		LIST	WV Price
TK-5210K2-NKP	VHF NiMH Battery Package (TK-5210K2 + KNB-32N + KSC-32 + KBH-11)	1,994.50	\$1,396.15
TK-5210K2-LKP	VHF Li-Ion Battery Package (TK-5210K2 + KNB-43L + KSC-32 + KBH-11)	2,070.00	\$1,449.00
TK-5210K7-NKP	VHF NiMH Battery Package (TK-5210K7 + KNB-32N + KSC-32 + KBH-11)	1,557.50	\$1,090.25
TK-5210K7-LKP	VHF Li-Ion Battery Package (TK-5210K7 + KNB-43L + KSC-32 + KBH-11)	1,633.00	\$1,143.10
TK-5310K2-NKP	UHF NiMH Battery Package (TK-5310K2 + KNB-32N + KSC-32 + KBH-11)	1,994.50	\$1,396.15
TK-5310K2-LKP	UHF Li-Ion Battery Package (TK-5310K2 + KNB-43L + KSC-32 + KBH-11)	2,070.00	\$1,449.00
TK-5310K7-NKP	UHF Ni-MH Battery Package (TK-5310K7 + KNB-32N + KSC-32 + KBH-11)	1,557.50	\$1,090.25
TK-5310K7-LKP	UHF Li-Ion Battery Package (TK-5310K7 + KNB-43L + KSC-32 + KBH-11)	1,633.00	\$1,143.10

RADIO		LIST	WV Price
TK-5210K	136-174MHz 5W, 512 CH, Basic Model	1,225.00	\$857.50
TK-5210K2	136-174MHz 5W, 512 CH, Standard Model	1,837.00	\$1,285.90
TK-5210K3	136-174MHz 5W, 512 CH, 12 Keypad Model	1,995.00	\$1,396.50
TK-5210K7	136-174MHz 5W, 64 CH, Standard Model	1,400.00	\$980.00
TK-5310K	450-520 MHz 4W, 512 CH, Basic Model	1,225.00	\$857.50
TK-5310K2	450-520 MHz 4W, 512 CH, Standard Model	1,837.00	\$1,285.90
TK-5310K3	450-520 MHz 4W, 512 CH, 12 Keypad Model	1,995.00	\$1,396.50
TK-5310K4	380-470 MHz 4W, 512 CH, Basic Model	1,225.00	\$857.50
TK-5310K5	380-470 MHz 4W, 512 CH, Standard Model	1,837.00	\$1,285.90
TK-5310K6	380-470 MHz 4W, 512 CH, 12 Keypad Model	1,995.00	\$1,396.50
TK-5310K7	380-470 MHz 4W, 64 CH, Standard Model	1,400.00	\$980.00

FACTORY MUTUAL (FM) APPROVED MODELS	LIST	WV Price
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Must Order L-986 & an Intrinsically Safe Battery per radio

TK-5210-ISK	136-174MHz 5W, 512 CH, Basic Model	1,225.00	\$857.50
TK-5210-ISK2	136-174MHz 5W, 512 CH, Standard Model	1,838.00	\$1,286.60
TK-5210-ISK3	136-174MHz 5W, 512 CH, 12 Keypad Model	1,995.00	\$1,396.50
TK-5210-ISK7	136-174MHz 5W, 64 CH, Standard Model	1,400.00	\$980.00
TK-5310-ISK	450-520 MHz 4W, 512 CH, Basic Model	1,225.00	\$857.50
TK-5310-ISK2	450-520 MHz 4W, 512 CH, Standard Model	1,837.00	\$1,285.90
TK-5310-ISK3	450-520 MHz 4W, 512 CH, 12 Keypad Model	1,995.00	\$1,396.50
TK-5310-ISK4	380-470 MHz 4W, 512 CH, Basic Model	1,225.00	\$857.50
TK-5310-ISK5	380-470 MHz 4W, 512 CH, Standard Model	1,837.00	\$1,285.90
TK-5310-ISK6	380-470 MHz 4W, 512 CH, 12 Keypad Model	1,995.00	\$1,396.50
TK-5310-ISK7	380-470 MHz 4W, 64 CH, Standard Model	1,400.00	\$980.00

ANTENNAS	LIST	WV Price
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KRA-26M	VHF helical antenna 146-162 MHz	14.00	\$9.80
KRA-26M2	VHF helical antenna 162-174 MHz	14.00	\$9.80
KRA-26M3	VHF helical antenna 136-150 MHz	14.00	\$9.80
KRA-27M	UHF whip antenna 440-490 MHz	14.00	\$9.80
KRA-27M2	UHF whip antenna 470-520 MHz	14.00	\$9.80
KRA-27M3	UHF whip antenna 400-450 MHz	14.00	\$9.80
KRA-22M	VHF low-profile helical antenna 148-162 MHz	13.70	\$9.59
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	13.70	\$9.59
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	13.70	\$9.59
KRA-23M	UHF low-profile helical antenna 450-490 MHz	13.70	\$9.59
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	13.70	\$9.59
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	13.70	\$9.59
KRA-16M	VHF stubby antenna 148-162 MHz	13.70	\$9.59
KRA-16M2	VHF stubby antenna 162-174 MHz	13.70	\$9.59
KRA-16M3	VHF stubby antenna 136-150 MHz	13.70	\$9.59
KRA-17M	UHF stubby antenna 450-490 MHz	13.70	\$9.59
KRA-17M2	UHF stubby antenna 470-512 MHz	13.70	\$9.59
KRA-17M3	UHF stubby antenna 403-430 MHz	13.70	\$9.59
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	34.25	\$23.98
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz	42.00	\$29.40
KRA-29	Broad Band UHF Whip Antenna 380-430 MHz	36.75	\$25.73

BATTERIES AND CHARGERS		LIST	WV Price
KNB-32N	2500 mAh, Ni-MH battery - requires KSC-32/326K charger	87.50	\$61.25
KNB-33L	2000 mAh, Li-ion battery - requires KSC-32/326K charger	105.00	\$73.50
KNB-31A	1700 mAh, Ni-Cd battery - requires KSC-32/326K charger	70.00	\$49.00
KNB-41NC	2500 mAh, Ni-MH battery - requires KSC-32/326K charger [Intrinsically Safe Option]	136.50	\$95.55
KNB-43L	3300 mAh, Li-Polymer battery - requires KSC-32/326K charger	163.00	\$114.10
KNB-49PL	4500 mAh, Primary Lithium battery Note: Non-Rechargeable (please recycle all batteries properly) 10 year Shelf Life (approx. 1% charge degradation per year when properly stored: +50 °F to +86 °F @ less than 70% humidity)	84.00	\$58.80
KBP-6	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included Note: the color of the case is orange	68.50	\$47.95
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/43L/47L/48L/50NC Note: Includes 110/220V auto-switching AC adapter with U.S.-style line cord plug; requires plug adapter for 220V Euro-style outlets (not supplied).	70.00	\$49.00
KSC-326K	Rapid rate 6-unit charger for KNB-31A/32N/33L/43L/47L/48L/50NC	630.00	\$441.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75	\$23.63
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/32 chargers (chargers not included)	191.00	\$133.70
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	119.00	\$83.30
KVC-18	Vehicular D.C. Charger for 180/5210/5310 Portables with NiCd or NiMH Battery	446.50	\$312.55

CARRYING ACCESSORIES		LIST	WV Price
KBH-11	Spring action belt clip (2.5")	14.70	\$10.29
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30	\$18.41
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00	\$15.40
KLH-133K	Heavy duty leather carrying case for TK-5210/5310 Basic Models	44.25	\$30.98
KLH-133K2	Heavy duty leather carrying case for TK-5210/5310 Standard Models	44.25	\$30.98
KLH-133K3	Heavy duty leather carrying case for TK-5210/5310 12 Keypad Models	44.25	\$30.98
KLH-134K	Cordura Nylon carrying case for TK-5210/5310 Basic Models	26.30	\$18.41
KLH-134K2	Cordura Nylon carrying case for TK-5210/5310 Standard Models	26.30	\$18.41
KLH-134K3	Cordura Nylon carrying case for TK-5210/5310 12 Keypad Models	26.30	\$18.41
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B//92/122/123/133/148)	36.75	\$25.73

MICROPHONES & AUDIO ACCESSORIES		LIST	WV Price
KMC-38GPS	GPS Speaker Microphone (FM Conventional mode only -- does not operate in P25 modes) [Intrinsically Safe Approved Accessory] Note: FM Intrinsically Safe Approved except for Group C gases	402.50	\$281.75
KMC-41M	MIL-SPEC, IP54/55 Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory]	96.50	\$67.55
KMC-42WM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory]	114.00	\$79.80
KMC-26	MIL-SPEC, Noise canceling Speaker mic w/Antenna Connector (ant. not incl.) [Intrinsically Safe Approved Accessory]	115.50	\$80.85
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics [Intrinsically Safe Approved Accessory]	52.50	\$36.75
KEP-3	30" Earphone kit w/ 2.5mm plug for KCT-30 [Intrinsically Safe Approved Accessory]	51.50	\$36.05
KEP-4	48" Earphone kit w/ 2.5mm plug for KCT-30 [Intrinsically Safe Approved Accessory]	54.75	\$38.33
KCT-30	2.5mm Audio Accessory Adapter for KEP-3/4 [Intrinsically Safe Approved Accessory]	64.00	\$44.80
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	215.00	\$150.50

MICROPHONES & AUDIO ACCESSORIES - CONT'D		LIST	WV Price
KHS-11BE	2-wire palm mic w/earphone, universal connector (Beige) [Intrinsically Safe Approved Accessory]	156.50	\$109.55
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	156.50	\$109.55
KHS-12BE	3-wire mini lapel mic w/earphone, universal connector (Beige) [Intrinsically Safe Approved Accessory]	184.00	\$128.80
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	184.00	\$128.80
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT [Intrinsically Safe Approved Accessory]	126.00	\$88.20
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	420.00	\$294.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	368.00	\$257.60

ENVIRONMENTAL SPEC. OPTIONS		LIST	WV Price
KWD-IM10	Immersion Option Kit Must Order L-987 <u>Note:</u> Initial Installation Kenwood Long Beach Tuning Dept. only. To maintain immersion certification, re-certification is required every 2 years available at Kenwood Authorized Service Centers only. Call an ASC for return procedure (\$315.00 List Price)	368.00	\$257.60

FIRMWARE OPTIONS		LIST	WV Price
KWD-TR20	Trunking Option for TK-5210/5710/5310/5810 Must order L-1055 <u>Note:</u> KPG-95DK Requires Network Level License ID to program trunked network radio parameters (see KPG-95D for purchase restrictions & requirements) Compatible with TK-5210 Version 2 (SN 80600001 or later); TK-5310 (SN 809xxxx or later); TK-5710 Version 2 (SN806xxxx); TK-5810 (SN 809xxxx or later)	875.00	\$612.50
KWD-RK20	OTAR Option for KWD-AE20K Encryption Module for P25 Conventional Only; models TK-5x10 (VER2; except K7) <u>Must order:</u> • With KWD-AE20K (SN 005xxxx or later) • L-1108 for portable installation (no charge) <u>Notes:</u> • Provides OTAR on P25 Conventional only (TIA/EIA-102.AACA compliant; not for use over trunked systems) • Compatible with Motorola KMF P25 conventional OTAR • Not compatible with Motorola-proprietary (non-TIA/P25) KMF features • Not compatible with K7 64 Ch Model • Requires KPG-95D V5.40 or later for radio programming • Option deletes self-programming, cloning and analog FleetSync® (except PTT ID/Emergency) when installed. KWD-RK20 is an U.S. DOC/BIS Export Controlled Item (ECCN 5D002A) - See IMPORTANT NOTES -	830.00	\$581.00

SOFTWARE OPTIONS		LIST	WV Price
KPG-114DE	DES Encryption Software Key Loader for KWD-DE21K/KWD-AE21K <u>Note:</u> KPG-114DE is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1) - See IMPORTANT NOTES -	368.00	\$257.60
KPG-113AE	AES/DES Encryption Software Key Loader for KWD-DE21K/KWD-AE21K <u>Note:</u> KPG-113AE is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A) - See IMPORTANT NOTES -	525.00	\$367.50

OPTION MODULES		LIST	WV Price
KWD-DE20K	DES Encryption Module for TK-5210/5710/5310/5810 [Intrinsically Safe Approved Accessory] - Order L-1559 if installation is required. KWD-DE20K requires: a Motorola KVL3000 or KVL3000 Plus key loader device. KWD-DE20K is a U.S. DOC/BIS Export Controlled Item (ECCN 5A992A) - See IMPORTANT NOTES - Other Option Board Installation: CIM-1000K-26 ANI, VGS-1 & aftermarket ANI/encryption boards cannot be installed with a KWD-DE20K or KWD-AE20K (portable option port are space limitation)	578.00	\$404.60
KWD-DE21K	DES Encryption Module for TK-5210/5710/5310/5810 Order L-1560 if installation is required Note: Requires KPG-114DE or KPG-113AE software key loader or Motorola KVL3000 Plus key loader device. KWD-DE21K is a U.S. DOC/BIS Export Controlled Item (ECCN 5A992A) - See IMPORTANT NOTES -	578.00	\$404.60
KWD-AE20K	AES FIPS140-2 & DES Encryption Module for TK-5210/5710/5310/5810 (except K7 Portable) [Intrinsically Safe Approved Accessory] - Order L-1236 if installation is required. KWD-AE20K requires: a Motorola KVL3000 Plus key loader device. KWD-AE20K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) - See IMPORTANT NOTES -	998.00	\$698.60
KWD-AE21K	AES & DES Encryption Module for TK-5210/5710/5310/5810 (except K7 Portable) Order L-1237 if installation is required. Note: Requires KPG-113AE software key loader or Motorola KVL3000 Plus key loader device. KWD-AE21K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) - See IMPORTANT NOTES -	998.00	\$698.60
KCT-48VU	External Vibration Unit [Intrinsically Safe Approved Accessory] Note: Audio accessories cannot be used when this option installed. KCT-48VU does not support the P25 digital mode calling or paging features	49.00	\$34.30
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) [Intrinsically Safe Approved Accessory]- Must be Kenwood installed for I.S. Order L-1613 for CIM-1000, K-20, K-26 & L-1614 for FleetSync®/P25 Emergency operations	22.00	\$15.40
CIM-1000K-26	GE-Star or MDC-1200 ANI Encode 26-Pin Plug-in Board [Intrinsically Safe Approved Accessory] - Must be Kenwood installed for I.S. Must order L-1022 MDC-1200 or L-1023 for G-Star operations Note: CIM-1000K-26 G-Star®/ MDC1200 Digital ANI (26-Pin Plug-in) Boards Pre-programmed & installed boards require a completed CIM-1000K-26 Information and Order Sheet" (available from Kenwood LMR Order Desk) submitted with order. a) Order the appropriate Labor Code for MDC-1200 or G-Star. b) CIM-1000K-26 boards can be ordered and shipped loose (if shipped loose, Kenwood will not program the board)	131.25	\$91.88
CIM-CABLE	Serial Program Cable Note: CIM-1000, K-20, K-26 programs via Windows Hyper terminal (Windows Ver 3.1 or later) or any ProComm version; board must be installed in a powered radio for programming. The radio programmer does NOT program the CIM-1000, K-20, K-26. CIM-CABLE is a DB-9 PC connector with 3 short lead with clips and may require a PC serial extension cable. CIM-IRP (Part No 01-30-0510) Infrared wireless standalone programmer, C-Plus line of desktop decoder displays and CIM-1000, K-20, K-26 Instruction Manuals are available directly from Cimmaron Technologies 800-487-7184 at www.cimtechcorp.com	61.25	\$42.88
VGS-1	Voice Guide and Storage Unit [Intrinsically Safe Approved Accessory]	87.50	\$61.25

SERVICE RELATED ACCESSORIES		LIST	WV Price
KPG-95DK	Windows® Programming Software for TK-5210/5310/5710/5810 Includes "Dealer Level License ID" for FM & P25 Conventional modes only. See L-989 KPG-95DK Network Level ID (Trunking System Privileges_ - Restricted Purchase Requirements. Note: A Dealer Level License ID can load network data files provided by a Network Level Licensed KPG-95DK, but cannot change trunked network parameters. KPG-95D V4.00 or later (no key loader): TK-5210/5710/5310/5810 VER1 & VER2 Radios (all Serial No.s) Note: A Kenwood Key Loader for VER2 radios is NOT currently available (see KWD-DE20/KWD-AE20) KPG-95D V3.11 or earlier (no key loader): TK-5210/5710 VER1 Radios (before SN 8060000) ONLY KPG-95DTKL VX.XX (includes key loader; discontinued): TK-5210/5710 VER1 Radios (before SN 8060000) ONLY	628.00	\$439.60
KPG-36AM	Programming interface cable	93.00	\$65.10
KCT-53UM	USB Adapter for KPG-xxAM DB9F Programming Interface Cables (DB9M - to - USB Type A connector)	86.00	\$60.20
KPG-93	TK-5210/5310/5400 KVL-3000/3000 Plus Interface Cable	262.50	\$183.75

INSTALLATION / TUNING CHARGES		LIST	WV Price
L-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	17.00	\$11.90
L-986	Configure TK-5210-IS/TK-5310-IS for Intrinsically Safe Must order an I.S. battery	100.00	\$70.00
L-987	Immersion Option Certification (Must purchase Immersion Option Kit, KWD-IM10 separately)	N/C	N/C
L-989	KPG-95DK Network Level ID (encrypted data file) Note: Enables Trunking system programming privileges; See KPG-95DK Network Level ID (Trunking System Privileges) - Restricted Purchase Requirements - L-989- KPG-95DK Network Level ID (Trunking System Privileges) The KPG-95D only ships with a "Dealer Level License ID" which permits Conventional FM and P25 Conventional radio programming privileges only. For radios with the P25 Trunking option installed, trunked/network programming privileges require a "Network Level License ID" generally reserved ONLY for the system owner or the system owners authorized operators/service centers. Purchasing the KPG-95DK Network Level License ID will require 1) Written verifiable authorization from the systems owner/operator. 2) The 3-digit hexadecimal P25 System ID from the system owner/operator. 3) Purchase of a L-989 : KPG-95D Network Level ID option. This option will include an encrypted KPG-95D "System Key Data File" containing the 16 digit Network Level License ID, 2 3 digit hexadecimal System ID code.	132.00	\$92.40
L-990	TK-5210/5310 Programming (Basic TX/RX check only with factory test freq.s or dealer/customer provided KPG-95D data file)	125.00	\$87.50
L-1022	Install & Program CIM-1000K-26 for MDC-1200 in TK-5210/5310	75.00	\$52.50
L-1023	Install & Program CIM-1000K-26 for GE-Star in TK-5210/5310	75.00	\$52.50
L-1055	Install KWD-TR20 Trunking Option in TK-5210/5310 (Must purchase KWD-TR20K separately)	N/C	N/C
L-1108	Install KWD-RK20 OTAR Option in TK-5210/5310 (Must purchase KWD-RK20 separately)	N/C	N/C
L-1236	Install KWD-AE20K in TK-5210/TK-5310 Portables (Must purchase module separately)	75.00	\$52.50
L-1237	Install KWD-AE21K in TK-5210/TK-5310 Portables (Must purchase module separately)	75.00	\$52.50
L-1559	Install KWD-DE20K in TK-5210/TK-5310 Portables (Must purchase module separately)	75.00	\$52.50
L-1560	Install KWD-DE21K in TK-5210/TK-5310 Portables (Must purchase module separately)	75.00	\$52.50

INSTALLATION / TUNING CHARGES - CONT'D		LIST	WV Price
L-1613	5210/5310 Portable KCT-57MS Installation (for CIM-1000K-26)	20.00	\$14.00
L-1614	5210/5310 Portable KCT-57MS Installation (for P25/FleetSync®)	20.00	\$14.00

-- IMPORTANT NOTES --

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See www.bis.gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

a) **Initial Destination:** Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative)

* Business/Agency Name:

* Address:

* Contact Person Name:

* Contact Phone:

b) **Ultimate Destination:** Final delivery point(s); deployment/distribution

* Business/Agency Name:

* Address:

* Contact Person Name:

* Contact Phone:

c) **Intended Use of Radios:** Law enforcement, security, operations, etc.

KWD-AE20 AES FIPS140-2 SCM , NIST Validation & Customer Shipping

A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kenwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kenwood USA Corporation employee); shipping/handling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE20K modules to erroneous destinations specified on an order.

KENWOOD

Listen to the Future

TK-5210/5310

VHF/UHF FM & Project 25 Digital Portable Radios



FleetSync[®]
BY KENWOOD

GENERAL FEATURES

- 5 Watt (136-174 MHz)
- 4 Watt (450-520, 380-470 MHz)
- 50 Zones / 512 Channels (K-K6)
- 16 Zones / 64 Channels (K7)
- Personality Lists
- Backlit Dot Matrix LCD¹
- 16 Character Alphanumeric Aliases¹
- 3-Digit Sub-Display¹
- Function / Status LCD Icons¹
- RSSI Indicator
- Transmit / Busy / Call Alert / Warn LED
- On/Off Volume Knob
- 16-Position Selector Knob
- 2-Position PF Lever Switch
- 3-Position PF Concentric Switch
- 4 Front Menu-Driven PF Keys¹
- 3 Side PF Keys
- Orange Emergency / AUX Key
- 12-Key DTMF / PF Keypad²
- Enhanced Kenwood Audio
- Voice Annunciation
- VOX Ready
- Emergency Features
- Tactical Group¹
- Battery Level Indicator¹

- Transceiver Password¹
- Date & 12/24 Hour Time Clock¹
- Windows[®] Programming & Tuning³
- Windows[®] Firmware Uploading³
- Self-Programming & Tuning¹
- Cloning¹
- Easy Option Port
- Weather-Sealed Accessory Connector
- MIL-STD-810 C/D/E/F
- IP54/55 Water & Dust Protection
- Immersion (IP66/67) Option
- Intrinsically Safe Option

SCAN TYPES (FM & P25)

- Single Zone/Multi-Zone Scan
- Scan Lists
- Conventional Scan
- Limited Talk Group Scan⁴
- Priority Monitor Scan⁴
- Dual Priority Scan

FM

- QT / DQT
- Operator Selectable Tone
- Two-Tone Decode / Encode
- DTMF Encode / Decode / Stun
- Special Alert Tone Patterns⁵
- Encryption / ANI Board Control
- Companded Audio

FleetSync[®] (FM)

- FleetSync[®] or FleetSync[®] II
- PTT ID Digital ANI
- Caller ID Display
- Status Messaging
- Emergency & Stun Statuses
- Selective & Group Call
- Text Messaging

P25 DIGITAL

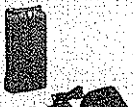
- P25 Digital Conventional
- P25 Digital Trunking Option
- IMBE™ VOCODER
- Talk Group ID Lists
- Individual ID Lists
- Caller ID Display
- Remote Monitor/Remote Check
- Radio Inhibit
- Encryption Key Delete
- Encryption Key Zeroize (SCM required)
- Encryption Key Retention (SCM required)
- DES Encryption Options
- AES / DES Encryption Options⁷
- KPG-93 KVL Key Loader Interface Cable⁸



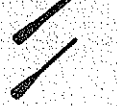
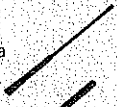
Three models available:
Basic Unit: No LCD, No front Keys
16-Character LCD, 4 Menu-driven PF Keys
16-Character LCD, 4 Menu-driven PF Keys, 12-Key DTMF/PF Keypad
(Not actual size)

Options

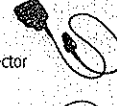
- **KNB-32N**
Ni-MH Rechargeable Battery Pack (2500 mAh)
- **KNB-41NC**
Ni-MH Battery Pack Intrinsically Safe (2500 mAh)
- **KBP-6**
Battery Case
- **KSC-32**
Tri-chemistry Rapid Charger
- **KPG-93**
Keyloader Interface Cable



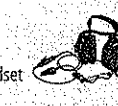
- **KRA-25**
VHF High Gain Antenna
- **KRA-26**
VHF Helical Antenna
- **KRA-27**
UHF Whip Antenna
- **KRA-28**
VHF Broad Band Antenna (140-170 MHz)
- **KRA-29**
UHF Broad Band Antenna (380-430 MHz)



- **KMC-25**
Speaker Microphone
- **KMC-26**
Speaker Microphone with Antenna Connector
- **KEP-1**
Heavy Duty Earphone
- **KHS-11**
2-Wire Palm Mic with Earphone



- **KHS-14**
Lightweight Single Muff Headset
- **KHS-15-BH**
Heavy Duty Behind-the-Head Headset
- **KHS-15-OH**
Heavy Duty Over-the-Head Headset
- **KBH-11**
Belt Clip (2.5")



All accessories and options may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories and options.

Specifications

Model	TK-5210	TK-5310
GENERAL		
Models (Type 1)		
Basic Model	TK-5210K	TK-5310K
4-key w/LCD Model	TK-5210K2/K7	TK-5310K2
Full key w/LCD Model	TK-5210K3	TK-5310K3
Models (Type 2)		
Basic Model		TK-5310K4
4-key w/LCD Model		TK-5310K5/K7
Full key w/LCD Model		TK-5310K6
Frequency Range		
Type 1	136-174 MHz	450-520 MHz
Type 2		380-470 MHz
Max. Channels per Radio		
Zones	512 / 64 (K7 model)	
	50 / 16 (K7 model)	
Max. Channels per Zone		
	250 / 64 (K7 model)	
Channel Spacing		
Analog	12.5 / 15 / 20 / 25 / 30 kHz	12.5 / 25 kHz
Digital	12.5 kHz	12.5 kHz
Operating Voltage		
	7.5 VDC ± 20 %	
Battery Life 5-5-90 (10-10-80) duty cycle		
KNB-32N, 7.5 VDC, 2500 mAh	12 hours (8 hours)	
KNB-41NC, 7.5V DC, 2500mAh	12 hours (8 hours)	
KBP-6, AA Alkaline x6 Batteries (@ 1W)	8 hours (5 hours)	
Operating Temperature Range		
	-22° F to +140° F (-30° C to +60° C)	
Frequency Stability (-22° F to +140° F)		
	± 2.0 ppm	
Antenna Impedance		
	50 Ω	
Dimensions (W x H x D) (projections not included)		
with KNB-32N	2.28 x 6.10 x 1.80 in. (58 x 155 x 45.7 mm.)	
with KNB-41NC	2.28 x 6.10 x 1.84 in. (58 x 155 x 46.7 mm.)	
with KBP-6	2.36 x 6.10 x 1.84 in. (60 x 155 x 46.7 mm.)	
Weight (Radio only)		
Basic Model	11.11 oz. (315 g)	
4-key w/LCD Model	11.64 oz. (330 g)	
Full key w/LCD Model	11.64 oz. (330 g)	

Model	TK-5210	TK-5310
GENERAL		
Weight with antenna & Belt Clip (4-Key w/LCD model)		
with KNB-32N	23.28 oz. (660 g)	
with KNB-41NC	24.00 oz. (680 g)	
FCC ID		
Type 1	ALH35733110	ALH39913110
Type 2		ALH39913120
IC Certification		
Type 1	282D-35733110	
Type 2	282D-39913120	
RECEIVER		
Sensitivity		
Digital (5 % BER)		0.25 μV
Digital (1 % BER)		0.40 μV
Analog 12 dB SINAD		0.25 μV
Selectivity		
Digital		-60 dB
Analog @ 25/30 kHz	-78 dB	-75 dB (25 KHz)
Analog @ 12.5 kHz		-67 dB
Intermodulation Distortion		
Digital		-75 dB
Analog @ 25/30 kHz	-75 dB	-75 dB (25 KHz)
Analog @ 12.5 kHz		-68 dB
Spurious & Image		
Digital	-80 dB	-75 dB
Analog	-80 dB	-75 dB
Audio Distortion		
Digital		Less than 1.5 %
Analog		Less than 2 %
Audio Output		
		500 mW / 8 Ω
TRANSMITTER		
RF Power Output		
	5 W / 1 W	4 W / 1 W
Spurious & Harmonics		
	70 dB	
FM Hum & Noise		
Analog @ 25 kHz	50 dB	48 dB
Analog @ 12.5 kHz	45 dB	42 dB
Audio Distortion		
	Less than 2 %	
Modulation		
	16K0F3E, 11K0F3E, 8K10F1E, 8K10F1D	

Applicable MIL-STD & IP

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.5/Procedure I, IV
Immersion (option)	512.1/Procedure I	512.2/Procedure I	512.3/Procedure I	512.4/Procedure I
International Protection Standard				
Dust & Water Protection	IP54/55			
Dust & Water Jet Intrusion	IP66*			
Immersion	IP67*			

Analog measurements made per TIA/EIA 603
Digital measurements made per TIA/EIA 102CAAA

Kenwood reserves the right to change specifications without prior notice or obligation.
FleetSync® is a registered trademark of Kenwood Corporation.
Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.
IMBE™ is a trademark of Digital Voice Systems Inc.
The P25 Logo is used under license and is a registered trademark of the Project 25 Technology Interest Group.

footnotes from front:
1 LCD models only.
2 LCD keypad model only.
3 KPG-95D Software: Windows® 98/NT/2000/Me/XP compatible.
4 P25 Trunking Option required.
5 Operates for 2-Tone, DTMF, FleetSync® selective calling in FM mode only.
6 KPG-93 adapts the Motorola®, KVL3000/3000 Plus Key Loader to the TK-5210/5310.
7 K7 model is not compatible with AES / DES encryption options.

*IP66/67 Optional Package

KENWOOD

Kenwood U.S.A. Corporation
Communications Sector Headquarters
3970 Johns Creek Court, Suite 100, Suwanee, GA 30024-1265
Order Administration/Distribution
P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745

Kenwood Electronics Canada Inc.
Canadian Headquarters and Distribution
6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

