



Electronic Services Inc.
 8800 State Route 34
 P.O. Box 474
 Winfield, WV 25213
 304-586-0024 Fax: 304-521-1525
 wvesi@aol.com
 WV Contractor License # WV042278

Quote #:	732
Quote Date:	5/22/2013
Page:	1
Customer #:	1383

Quoted To:
 Connie Oswald, State of West Virginia, Alcohol Beverage
 Control Commission
 900 Pennsylvania Ave
 4th Floor
 Charleston, WV 25302

Valid Through: 6/21/2013

Phone: 304-558-2157		Cust PO:	Terms:		
Reference: IRP		Ship Via:	Salesperson: Aaron		
Stock Code	Description	Quantity	Price	Extended	
KNG-P400	BK Radio - Portable, Digital, Full Keypad, UHF 5W 2048Ch, 380-470MHz	30.00	1,194.50	35,835.00	
KZA0579	BK Radio - Trunking, P25, 9600 Baud KNG-Pxxx	30.00	52.00	1,560.00	
KAA0100IS	BK Radio - Battery Pack, Li-ion, 1950mAh, Intrinsically Safe	30.00	109.50	3,285.00	
KAA0815	BK Radio - Ant, UHF, 380-470MHz, SMA KNG-400	30.00	13.50	405.00	
KAA0400	BK Radio - Belt Clip KNG-P Series	30.00	13.50	405.00	
KAA0355P	BK Radio - Charger, Vehicle, KNG-P	30.00	113.50	3,405.00	

*** 5/22/2013 10:52 am ***

05/22/13 03:28:39 PM
 West Virginia Purchasing Division

SubTotal:	44,895.00
Tax:	0.00
Shipping:	0.00
Total:	44,895.00



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

Solicitation

NUMBER
ABCA136

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
CONNIE OSWALD 304-558-2157

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

ALCOHOL BEVERAGE CONTROL
 COMMISSION
 900 PENNSYLVANIA AVE
 4TH FLOOR
 CHARLESTON, WV
 25302 304-558-2487

DATE PRINTED
04/22/2013

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
THE STATE OF WEST VIRGINIA AND ITS AGENCY THE WEST VIRGINIA ALCOHOL BEVERAGE CONTROL ADMINISTRATION REQUEST A QUOTE TO PROVIDE UHF RADIOS AND ACCESSORIES PER THE ATTACHED SPECIFICATIONS. RADIOS MUST BE KENWOOD TK-5310 OR EQUAL. BID OPENING: MAY 23, 2013 AT 1:30 PM						
0001	30	EA		725-74		
	UHF PORTABLE RADIOS					
0002	30	EA		725-74		
	UHF WHIP ANTENNA					
0003	30	EA		725-74		
	CAR CHARGERS FOR UHF RADIOS					

SIGNATURE	TELEPHONE	DATE
<i>[Signature]</i>	304 586 0024	5/22/13
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
President	55-0685473	

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



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

Solicitation

NUMBER
ABCA136

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
CONNIE OSWALD 304-558-2157

VENDOR

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SHIP TO

ALCOHOL BEVERAGE CONTROL
 COMMISSION
 900 PENNSYLVANIA AVE
 4TH FLOOR
 CHARLESTON, WV
 25302 304-558-2487

DATE PRINTED
04/22/2013

BID OPENING DATE

05/23/2013

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0004	30	EA		725-74		
	BELT LOOP AND/OR CLIP					
0005	30	EA		725-74		
	BATTERY					
	FOR UHF PORTABLE RADIOS					
	REFERENCE ATTACHED SPECIFICATIONS AND INSTRUCTIONS TO BIDDERS.					
***** THIS IS THE END OF RFQ ABCA136 ***** TOTAL:						

SIGNATURE	TELEPHONE 304 5860024	DATE 5/22/13
TITLE President	FEIN 55-0685473	ADDRESS CHANGES TO BE NOTED ABOVE

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

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. **REVIEW DOCUMENTS THOROUGHLY:** The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.
2. **MANDATORY TERMS:** The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.
3. **PREBID MEETING:** The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening.

A NON-MANDATORY PRE-BID meeting will be held at the following place and time:

A MANDATORY PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing. Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required

information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

- 4. **VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are non-binding.

Question Submission Deadline:

Submit Questions to:

Fax:

Email:

- 5. **VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including that made at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

- 6. **BID SUBMISSION:** All bids must be signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The bid delivery address is:

Department of Administration, Purchasing Division
 2019 Washington Street East
 P.O. Box 50130,
 Charleston, WV 25305-0130

The bid should contain the information listed below on the face of the envelope or the bid may not be considered:

SEALED BID

BUYER: _____
SOLICITATION NO.: _____
BID OPENING DATE: _____
BID OPENING TIME: _____
FAX NUMBER: _____

In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: [] Technical
 [] Cost

- 7. **BID OPENING:** Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when time stamped by the official Purchasing Division time clock.

Bid Opening Date and Time:

May 23, 2013 at 1:30 pm

Bid Opening Location:

Department of Administration, Purchasing Division
2019 Washington Street East
P.O. Box 50130,
Charleston, WV 25305-0130

- 8. **ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.
- 9. **BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

GENERAL TERMS AND CONDITIONS:

1. **CONTRACTUAL AGREEMENT:** Issuance of a Purchase Order signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. **DEFINITIONS:** As used in this Solicitation / Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation / Contract.
 - 2.1 "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.
 - 2.2 "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods and services requested in the Solicitation.
 - 2.3 "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.
 - 2.4 "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.
 - 2.5 "Purchase Order" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the successful bidder and Contract holder.
 - 2.6 "Solicitation" means the official solicitation published by the Purchasing Division and identified by number on the first page thereof.
 - 2.7 "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.
 - 2.8 "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. **CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: This Contract becomes effective on

and extends for a period of year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal must be submitted to the Purchasing Division Director thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract is limited to successive one (1) year periods. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

Reasonable Time Extension: At the sole discretion of the Purchasing Division Director, and with approval from the Attorney General's office (Attorney General approval is as to form only), this Contract may be extended for a reasonable time after the initial Contract term or after any renewal term as may be necessary to obtain a new contract or renew this Contract. Any reasonable time extension shall not exceed twelve (12) months. Vendor may avoid a reasonable time extension by providing the Purchasing Division Director with written notice of Vendor's desire to terminate this Contract 30 days prior to the expiration of the then current term. During any reasonable time extension period, the Vendor may terminate this Contract for any reason upon giving the Purchasing Division Director 30 days written notice. Automatic extension of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases, but Attorney General approval may be required.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within days.

One Time Purchase: The term of this Contract shall run from the issuance of the Purchase Order until all of the goods contracted for have been delivered, but in no event shall this Contract extend for more than one fiscal year.

Other: See attached.

4. **NOTICE TO PROCEED:** Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Purchase Order will be considered notice to proceed
5. **QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.
- Open End Contract:** Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. 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.
- Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.
- Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.
- One Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.
6. **PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.
7. **EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.
8. **REQUIRED DOCUMENTS:** All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.
- BID BOND:** All Vendors shall furnish a bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of . The performance bond must be issued and received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be issued and delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall have appropriate workers' compensation insurance and shall provide proof thereof upon request.

INSURANCE: The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award:

Commercial General Liability Insurance: or more.

Builders Risk Insurance: builders risk – all risk insurance in an amount equal to 100% of the amount of the Contract.

The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

[] **LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

[]

[]

[]

[]

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

9. **LITIGATION BOND:** The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.

10. **ALTERNATES:** Any model, brand, or specification listed herein establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

11. **EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or

other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. **LIQUIDATED DAMAGES:** Vendor shall pay liquidated damages in the amount

	for	

This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy.

13. **ACCEPTANCE/REJECTION:** The State may accept or reject any bid in whole, or in part. Vendor's signature on its bid signifies acceptance of the terms and conditions contained in the Solicitation and Vendor agrees to be bound by the terms of the Contract, as reflected in the Purchase Order, upon receipt.
14. **REGISTRATION:** Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee if applicable.
15. **COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.
16. **FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.
17. **PAYMENT:** Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To."
18. **UNIT PRICE:** Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.
19. **DELIVERY:** All quotations are considered freight on board destination ("F.O.B. destination") unless alternate shipping terms are clearly identified in the bid. Vendor's listing of shipping terms that contradict the shipping terms expressly required by this Solicitation may result in bid disqualification.
20. **INTEREST:** Interest attributable to late payment will only be permitted if authorized by the West Virginia Code. Presently, there is no provision in the law for interest on late payments.
21. **PREFERENCE:** Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Resident Vendor Certification form has been attached hereto to allow Vendor to apply for the preference. Vendor's

failure to submit the Resident Vendor Certification form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

22. **SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid on or after July 1, 2012, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to submission of its bid to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.
23. **TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
24. **CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-7.16.2.
25. **WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.
26. **TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
27. **APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.
28. **COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendors acknowledge that they have reviewed, understand, and will comply with all applicable law.
29. **PREVAILING WAGE:** On any contract for the construction of a public improvement, Vendor and any subcontractors utilized by Vendor shall pay a rate or rates of wages which shall not be less than the fair minimum rate or rates of wages (prevailing wage), as established by the West Virginia Division of Labor under West Virginia Code §§ 21-5A-1 et seq. and available at <http://www.sos.wv.gov/administrative-law/wagerates/Pages/default.aspx>. Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage

requirements are applicable. The required contract provisions contained in West Virginia Code of State Rules § 42-7-3 are specifically incorporated herein by reference.

30. **ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.
31. **MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary, no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). **No Change shall be implemented by the Vendor until such time as the Vendor receives an approved written change order from the Purchasing Division.**
32. **WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.
33. **SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.
34. **ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.
35. **WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.
36. **STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.
37. **BANKRUPTCY:** In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

38. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at <http://www.state.wv.us/admin/purchase/vrc/hipaa.html> and is hereby made part of the agreement provided that the Agency meets the definition of a Covered entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the Vendor. Additionally, the HIPAA Privacy, Security, Enforcement & Breach Notification Final Omnibus Rule was published on January 25, 2013. It may be viewed online at <http://www.gpo.gov/fdsys/pkg/FR-2013-01-25/pdf/2013-01073.pdf>. Any organization, that qualifies as the Agency's Business Associate, is expected to be in compliance with this Final Rule. For those Business Associates entering into contracts with a HIPAA Covered State Agency between January 25, 2013 and the release of the 2013 WV State Agency Business Associate Agreement, or September 23, 2013 (whichever is earlier), be advised that you will be required to comply with the 2013 WV State Agency Business Associate Agreement. For those Business Associates with contracts with a HIPAA Covered State Agency executed prior to January 25, 2013, be advised that upon renewal or modification, you will be required to comply with the 2013 WV State Agency Business Associate Agreement no later than September 22, 2014.
39. **CONFIDENTIALITY:** The Vendor agrees that it 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/default.html>.
40. **DISCLOSURE:** Vendor's response to the Solicitation and the resulting Contract are considered public documents and will be disclosed to the public in accordance with the laws, rules, and policies governing the West Virginia Purchasing Division. Those laws include, but are not limited to, the Freedom of Information Act found in West Virginia Code § 29B-1-1 et seq.

If a Vendor considers any part of its bid to be exempt from public disclosure, Vendor must so indicate by specifically identifying the exempt information, identifying the exemption that applies, providing a detailed justification for the exemption, segregating the exempt information from the general bid information, and submitting the exempt information as part of its bid but in a segregated and clearly identifiable format. Failure to comply with the foregoing requirements will result in public disclosure of the Vendor's bid without further notice. A Vendor's act of marking all or nearly all of its bid as exempt is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor's act of marking a bid or any part thereof as "confidential" or "proprietary" is not sufficient to avoid disclosure and WILL NOT BE HONORED. In addition, a legend or other statement indicating that all or substantially all of the bid is exempt from disclosure is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor will be required to defend any claimed exemption for nondisclosure in the event of an administrative or judicial challenge to the State's nondisclosure. Vendor must indemnify the State for any costs incurred related to any exemptions claimed by Vendor. Any questions regarding the applicability of the various public records laws should be addressed to your own legal counsel prior to bid submission.

41. **LICENSING:** In accordance with West Virginia Code of State Rules §148-1-6.1.7, Vendor 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 agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.
42. **ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Purchase Order from any agency of the State of West Virginia, the Vendor agrees to 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 Vendor.
43. **VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid for the same material, supplies, equipment or services; (2) that its bid is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this RFQ in its entirety; understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

The individual signing this bid on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

44. **PURCHASING CARD ACCEPTANCE:** The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

45. **VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting,

supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, *etc.* and the filing of all necessary documents, forms and returns pertinent to all of the foregoing. Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

46. **INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.
47. **PURCHASING AFFIDAVIT:** In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.
48. **ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by and extends to other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). This Contract shall be extended to the aforementioned Other Government Entities on the same prices, terms, and conditions as those offered and agreed to in this Contract. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.
49. **CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire any interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

50. **REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

- Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.
- Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

51. **BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision.

The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

52. **PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or

such operations, from steel made by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making process.

The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

- a. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- b. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

53. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products.

This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

REQUEST FOR QUOTATION
ABCA136 Portable Radios

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Alcohol Beverage Control Administration to establish a contract for the one time purchase of 30 UHF Portable Radios with accessories.
2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - 2.1 "Contract Item" means UHF Portable Radio.
 - 2.2 "Pricing Page" means the pages upon which Vendor should list its proposed price for the Contract Items in the manner requested. The Pricing Page is either included on the last page of this RFQ or attached hereto as Exhibit A.
 - 2.3 "RFQ" means the official request for quotation published by the Purchasing Division and identified as ABCA136.
3. **GENERAL REQUIREMENTS:**
 - 3.1 **Mandatory Contract Item Requirements:** Contract Item must meet or exceed the mandatory requirements listed below.
 - 3.1.1 **30 UHF Portable Radios**
 - 3.1.1.1 UHF Radios must be on the SIRN approved list.
 - 3.1.1.2 UHF Radios must be a P-25 digital trunked radio compatible with the SIRN system.
 - 3.1.1.3 UHF Radios must be Kenwood TK-5310 or equivalent model.
 - 3.1.1.4 UHF Radios must be a minimum of 4 watts.
 - 3.1.1.5 UHF Radios must be equipped with multiple zones and multiple channels.
 - 3.1.1.6 UHF Radios must be no larger than 7"H x 3" W x 2" D.

REQUEST FOR QUOTATION
ABCA136 Portable Radios

3.1.1.7 UHF Radios must be programmed to provide communication between all ABCA Enforcement radio regions.

3.1.1.8 UHF Radios must be programmed and shall provide communication between the ABCA radio and WV State Police dispatchers throughout the state.

3.1.1.9 UHF Radios must be programmed and shall provide communication between the ABCA radio and UHF equipped 911 metro, or other existing municipal or county law enforcement dispatch around the state.

3.1.1.10 UHF Radios must not exceed twenty-five (25) ounces in weight.

3.1.1.11 UHF Radios must have lighted or backlit screen.

3.1.1.12 UHF Radios must be capable of operating between 380 and 470 MHZ frequency.

3.1.2 Accessories for 30 UHF Portable Radios

3.1.2.1 A car charger compatible with the provided radio must be included with each of the 30 radios.

3.1.2.2 A belt loop and/or belt clip compatible with the provided radio must be included with each of the 30 radios.

3.1.2.3 A UHF whip antenna compatible with the provided radio must be included with each of the 30 radios.

3.1.2.4 A li-ion or like battery compatible with the provided radio must be included with each of the 30 radios.

REQUEST FOR QUOTATION
ABCA136 Portable Radios

3.1.3 Programming and Setup of 30 UHF Radios

3.1.3.1 Vendor must complete all required documentation for software and licensing for each radio.

3.1.3.2 Vendor must work with SIEC programmers to have the 30 radios programmed.

3.1.3.3 Vendor must program and ensure that all radios function as specified in the aforementioned sections.

3.1.3.4 Vendor must assist the WV ABCA in filing for any and obtaining any needed/required FCC approval, registration or licenses.

3.1.3.5 Vendor must provide training for up to 30 employees concerning the operation and functions of the radios.

4. CONTRACT AWARD:

4.1 Contract Award: The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.

4.2 Pricing Page: Vendor should complete the Pricing Page by cost per unit: this will include the cost of the radio, uhf whip antenna, car charger, belt loop and/or clip and battery. Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

Notwithstanding the foregoing, the Purchasing Division may correct errors as it deems appropriate. Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

5. PAYMENT:

5.1 Payment: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

REQUEST FOR QUOTATION
ABCA136 Portable Radios

6. DELIVERY AND RETURN:

- 6.1 Shipment and Delivery:** Vendor shall ship the Contract Items immediately after being awarded this Contract and receiving a purchase order. Vendor shall deliver the Contract Items within 30 working days after receiving a purchase order. Contract Items must be delivered to Agency at 900 Pennsylvania Avenue, 4th Floor, Charleston, WV 25302.
- 6.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party.
- Any Agency seeking to obtain the Contract Items from a third party under this provision must first obtain approval of the Purchasing Division.
- 6.3 Delivery Payment/Risk of Loss:** Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.
- 6.4 Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.
- 6.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

KENWOOD



TK-5210G/5310G

VHF/UHF FM & Project 25 Digital Portable Radios



LifeLock System

GENERAL FEATURES

- 5 Watt (136-174 MHz)
- 4 Watt (450-520, 380-470 MHz)
- 100 Zones / 1024 Channels
- 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 Keypad¹
- Enhanced Kenwood Audio
- Voice Annunciation
- VOX Ready
- Emergency Features
- Tactical Group
- Battery Level Indicator
- Transceiver Password

- Date & 12/24 Hour Time Clock
- Windows[®] Programming & Tuning²
- Windows[®] Firmware Uploading³
- Self-Programming & Tuning
- Cloning
- Easy Option Port
- Voice Guide & Storage (Option)
- Weather-Sealed Accessory Connector
- MIL-STD-810 C/D/E/F
- IP54/55 Water & Dust Protection
- Immersion (IP66/67/68) Option
- Intrinsically Safe Option

- DTMF Encode / Decode / Stun
- Encryption / AMI Board Control
- Companded Audio
- FleetSync[™]/III PTT ID / Caller ID Display / Emergency⁴
- MDC-1200 PTT ID / Caller ID Display / Emergency⁴

P25 DIGITAL

- P25 Digital Conventional
- P25 Digital Trunking Option
- AMBE +2[™] Enhanced 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 Cable⁵
- P25 GPS Location
- P25 OIAR Option

SCAN TYPES (FM & P25)

- Single Zone/Multi Zone Scan
- Scan Lists
- Conventional Scan
- Limited Talk Group Scan⁶
- Priority Monitor Scan¹
- Dual Priority Scan

FM

- QT / DQT
- Operator Selectable Tone
- Two-Tone Decode / Encode
- Special Alert Tone Patterns⁴



Two models available:
 16 Character LCD, 41 Keyboard PF Keys
 16 Character LCD, 41 Keyboard PF Keys, 12-Key DTMF Keypad
 (Not actual size)

Options

KNB-54N
Ni-MH Rechargeable
Battery Pack (2500 mAh)



KNB-41NC
Ni-MH Battery Pack
Intrinsically Safe (2500 mAh)

KNB-43L
Li Polymer Rechargeable
Battery Pack (3300 mAh)

KNB-49PL
Primary Lithium Non-Rechargeable
Battery (4500 mAh)

KBP-6
Battery Case



KSC-32
Tri-chordistry
Rapid Charger



KPG-93

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-26
Speaker Microphone
with Antenna Connector

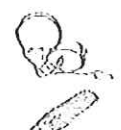
KMC-41M
MIL-STD & IP5455
Speaker Microphone

KMC-42WM
MIL-STD & IP5455/66167
Speaker Microphone

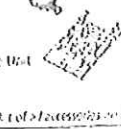
KEP-1
Heavy Duty Earpiece



KHS-11
2 Wire Palm Mic
with Earphone



KHS-14
Lightweight Single
Muff Headset



KBH-11
Belt Clip (2.5")

VGS-1
Voice Guide & Storage Unit

Specifications

Model	TK-5210G	TK-5310G
GENERAL		
Models (Type 1)	TK-5210GK2	TK-5310GK2
4 Key w/ACD Model	TK-5210GK3	TK-5310GK3
Models (Type 2)		TK-5310GK5
4 Key w/ACD Model		TK-5310GK6
Frequency Range	136-174 MHz	450-520 MHz 380-470 MHz
Type 1		
Type 2		
Max Channels per Band		1024
Zones		100
Max Channels per Zone		512
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 5.5-9.0 (10-16.0) duty cycle		
KRA-54N, 7.5 VDC, 2500mAh		12 hours (8 hours)
KRA-41NC, 7.5 VDC, 2500mAh		12 hours (8 hours)
KBP-6, AA Alkaline 36 Batteries (3.1W)		8 hours (5 hours)
Operating Temperature Range		-22°F to +140°F (-30°C to +100°C)
Frequency Stability (-22°F to +140°F)		± 7.0 ppm 5.0
Antenna Impedance		50 Ω
Dimensions (W x H x D) (projections not included)		
with KRA-54N	2.28 x 6.10 x 1.81 in (58 x 155 x 45.7 mm)	
with KRA-41NC	2.28 x 6.10 x 1.84 in (58 x 155 x 46.7 mm)	
with KBP-6	2.16 x 6.10 x 1.84 in (54 x 155 x 46.7 mm)	
Weight (head only)		
4 Key w/ACD Model	11.64 oz (330 g)	
Full Key w/ACD Model	11.64 oz (330 g)	
Weight with antenna & Belt Clip (4-Key w/ACD model)		
with KRA-32H	23.23 oz (660 g)	
with KRA-41NC	24.00 oz (680 g)	

All measurements are taken at room temperature (20°C) unless otherwise specified. All measurements are taken at 20 dBm unless otherwise specified.

Model	TK-5210G	TK-5310G
GENERAL		
FCC ID	A1137913110	A1137913110 A1137913120
IC Certification	2370-3573110	2820-39913120
RECEIVER		
Sensitivity		
Digital (5% BER)		0.25 μV
Digital (1% BER)		0.40 μV
Analog 12 dB SINAD		0.25 μV
Selectivity		
Digital	-78 dB	-60 dB
Analog @ 25/30 kHz		-75 dB (25 kHz)
Analog @ 12.5 kHz		-67 dB
Intermodulation Distortion		
Digital	-75 dB	-75 dB
Analog @ 25/30 kHz		-75 dB (25 kHz)
Analog @ 12.5 kHz		-68 dB
Spurious & Image		
Digital	-60 dB	-75 dB
Analog	-60 dB	-75 dB
Audio Distortion		
Digital		Less than 1.5%
Analog		Less than 2%
Audio Output		500 mW (16 Ω)
TRANSMITTER		
RF Power Output	5 W (1 W)	3 W (1 W)
Spurious & Harmonics		70 dB
IM Hum & Noise		
Analog @ 25 kHz	50 dB	48 dB
Analog @ 12.5 kHz	45 dB	42 dB
Audio Distortion		Less than 2%
Modulation	16K0J3E, 11K0J3E, 2L10J1E, 6K10J1E	

Applicable MIL-STD & IP

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
Low Pressure	500 Procedure I	510 Procedure I, II	501 Procedure I, II	503 Procedure I, II
High Temperature	501 Procedure I, II	501 Procedure I, II	501 Procedure I, II	502 Procedure I, II
Low Temperature	502 Procedure I	502 Procedure I, II	502 Procedure I, II	502 Procedure I, II
Temperature Shock	503 Procedure I	503 Procedure I	503 Procedure I	503 Procedure I, II
Solar Radiation	505 Procedure I	505 Procedure I	505 Procedure I	505 Procedure I, II
Rain	506 Procedure I, II	506 Procedure I, II	506 Procedure I, II	506 Procedure I, II
Humidity	507 Procedure I, II	507 Procedure I, II	507 Procedure I, II	507 A
Salt Fog	509 Procedure I	509 Procedure I	509 Procedure I	509 A
Dust	510 Procedure I	510 Procedure I	510 Procedure I	510 Procedure I, II
Vibration	514 Procedure I, II, X	514 Procedure I	514 Procedure I	514 Procedure I, IV
Shock	516 Procedure I, II, V	516 Procedure I, IV	516 Procedure I, IV	516 Procedure I
Immersion (optional)	512 Procedure I	512 Procedure I	512 Procedure I	512 Procedure I
International Protection Standard				
Dust & Water Protection	IP5455			
Dust & Water Jet Intrusion	IP66*			
Immersion	IP67/69*			

* IEC 60529 Option, IP68 3.3 feet (1m) depth for 2 hours

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

www.kenwood.ca

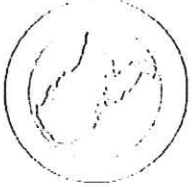


www.kenwoodusa.com



ISO 9001 Registered
Kenwood Electronics U.S.A. Inc.
3970 Johns Creek Court, Suite 100
Suwanee, GA 30024-1265

ASIS 28212 P-13 USIA

	WVSIIRN		
	Title / Subject <u>Approved Equipment List</u>	Effective Date 09/01/11	Revision Date 01/17/13
	References:		

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Approved Radios:

This is a list of all approved radios for use on the Statewide Interoperable Radio Network (SIRN).

Please note the SIRN is only FCC licensed for 40 watts on the trunking system. Any mobiles operating at more than 40 watts are in violation and may cause harm to the system.

Tier 1

Statewide operation with: 380-470 MHz frequency capability and shall be capable of AES encryption.

Mobile

1. Bendix-King KNG-400M
2. E. F. Johnson 53XX series
3. Motorola APX 7500 series
4. Motorola XTL 5000
5. Motorola XTL 2500

Portable

1. Bendix-King KNG-P400
2. E.F. Johnson 51XX series
3. Harris Unity XG-100
- ✕ 4. Kenwood TK-5310
5. Motorola APX 4000
6. Motorola APX 6000
7. Motorola APX 7000
8. Motorola XTS 2500
9. Motorola XTS 5000

Tier 2

State wide operation with: All features of Tier 1 but without encryption.

Mobile

1. Motorola XTL 1500

Portable

1. Motorola XTS 1500

Tier 3

Restricted Area of Operation – Radio has other than 380-470 MHz frequency capability but is capable of AES encryption.

Mobile

- | | |
|--------------------|-------------|
| 1. Kenwood TK-5810 | 400-470 MHz |
| 2. Kenwood TK-5820 | 400-470 MHz |

Pottable

- | | |
|--------------------|-------------|
| 1. Kenwood TK-5320 | 400-470 MHz |
| 2. MaCom P5400 | 450-512 MHz |
| 3. Tait TP9100 | 400-470 MHz |

Tier 4

Restricted Area of Operation - Radio has other than 380-470 MHz frequency capability and not capable of AES encryption.

Mobile

- | | |
|----------------|---------------------------|
| 1. MaCom M3300 | 400-470 MHz No Encryption |
|----------------|---------------------------|

Portable

- | | |
|----------------|---------------------------|
| 1. MaCom P3300 | 400-470 MHz No Encryption |
|----------------|---------------------------|

Tier 5

Special Notice of Operation - Radio requires special programming and/or utilizes a manufacturer's implementation for operational use on the SIRN System.

Mobile

- | | |
|----------------|--|
| 1. Tait TM9100 | 400-470 MHz Radio does not properly scan conventional and trunked channel simultaneously |
|----------------|--|

Portable

- | | |
|----|--|
| 1. | |
|----|--|

Approved Contracts:

This is a list of all piggy back contracts and a brief description of what is included in the contract also a link to the contract.

NOTE: State Purchasing has removed the contracts from their website, but you may request a copy of the contract from them.

Engineering services:

BPH80345 – Contract includes various engineering services.

Gateway Devices:

DPS1117 – Contract includes Tier 1, 2, 3, and 4 Gateway devices with optional hardware.

Microwave Equipment:

- BP111112 – Catalog contract of microwave radio equipment and associated platforms for T1 and DSO breakouts for the SIRN microwave backbone.
- BP111117 – Contract includes various microwave antennas lines and accessories.
- BP1180746 – Catalog contract of microwave equipment and services including Truepoint, Constellation, Intraplex, and Charger and Battery platform.

Radios/Console:

Citizen Band Radio:

- 7000911 – Contract includes Citizen Band radios with microphone and mounting brackets.

Console:

- DPS1140 – Contract includes two position console and optional equipment.

Kenwood:

- DPS01081 – Contract includes NX- 200/300 Portable, NX- 700(H)/800 (H) mobile, NXR – 700/800 base unit and optional accessories for all radios. Also includes cable, antennas, and chargers.
- DPS0931 – Contract includes Tier 2 VHF/UHF P25 Portable radios and optional accessories.
- DPS0938 – Contract includes Low band mobile radio with software and cables.

Motorola:

- DPS1107A – Contract includes Tier 1 UHF, VHF digital mobile radios with optional accessories.
- BP111051 – Contract includes Tier 1, 2, 3, 4 APX 7500 dual band mobile radios, Tier 1, 2, 3 APX 7000 dual band portable radios, XTL 2500, TRC, MC2500 Digital remote controlled base station, Tier 1 UHF, VHF MTR 2000/3000 base station, Tier 1, 2 P25 service monitors, also with optional accessories for all radios.
- 115109079A – Contract includes equipment and hardware related to GTR800.

Satellite Radios:

- DPS1114 – Contract includes a variety of fixed and portable radios wit optional accessories. Also includes Radio service (PTT, GPS tracking, etc.).

Tait:

- DPS1107B – Contract includes Tier 2 UHF, VHF digital mobile radios with optional accessories.

Uniden:

- 70109015 – Contract includes Pro 510XL, Citizen Band radio.

Vertex:

7010C006 -- Contract includes Vertex 2way portable radios with charger and battery.

Tower:


BPH10075 – Contract includes various towers and related equipment.

Exhibit "A"

Pricing Page

West Virginia Alcohol Beverage Control Administration
UHF Portable Radios & Accessories
ABCA136

Quantity	Contract item	Unit Price	Extended Price
30	UHF Portable Radio Kenwood TK-5310 or equal	\$ 1194 ⁵⁰	\$ 35835 ⁰⁰
30	UHF Whip Antenna for above radio	\$ 13 ⁵⁰	\$ 405 ⁰⁰
30	Car Charger for above radio	\$ 113 ⁵⁰	\$ 3405 ⁰⁰
30	Belt Loop and/or Clip for above radio	\$ 13 ⁵⁰	\$ 405 ⁰⁰
30	Battery for above radio	\$ 109 ⁵⁰	\$ 3285 ⁰⁰
Grand Total:			\$ 44895 ⁰⁰

Company Name	Billy McCallister Electronic Services Inc.
Signature	
Date	5/22/13
Phone	304 586 0024
Fax	1-304-521-1525
Email	WVESH@aol.com

Award will be made to the lowest qualified vendor meeting specifications.

RFQ No. ABCA136

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, 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: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Billy McCall Sr Electronic Services Inc
Authorized Signature: [Signature] Date: 5/22/13

State of WV

County of Putnam, to-wit:

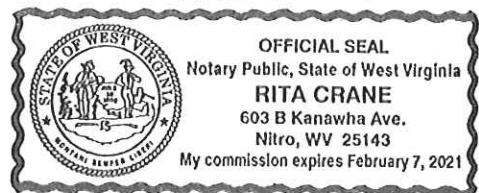
Taken, subscribed, and sworn to before me this 22 day of May, 2013

My Commission expires Feb 7, 2021

AFFIX SEAL HERE

NOTARY PUBLIC Rita Crane


Purchasing Affidavit (Revised 07/01/2012)



CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Billy McCallisto Electric Services Inc.
(Company)


(Authorized Signature)

Aaron McCallisto, Pres. & P.
(Representative Name, Title)

304 586 0024 1304 ⁵²¹ ~~586~~ 1525
(Phone Number) (Fax Number)

5/22/13
(Date)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: ABCA136

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

- | | |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Billy McCall Sr Electronic Services Inc.
Company

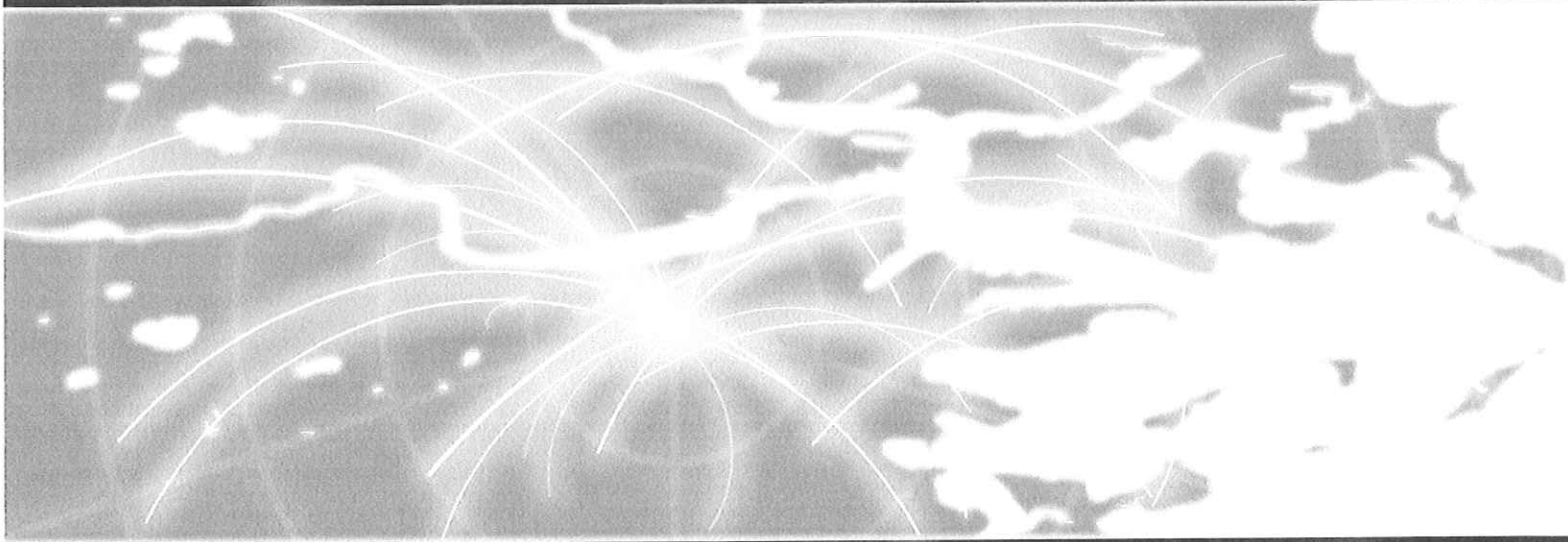
[Signature]
Authorized Signature

5/22/13
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.



A Whole New RELM of Possibilities

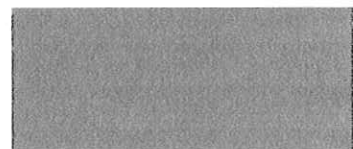




RELM Wireless Corporation

Table of Contents

Relm Wireless Corporation
7100 Technology Drive
Melbourne, FL 32904
(800) 821 – 2900





REL M Wireless Corporation

Executive Summary

REL M Wireless Corporation is please to present you with this proposal. Our extensive experience in solving business issues such as the ones discovered in our analysis allow us to have a very high degree of confidence in our ability to not only solve your issues, but also to do so quickly. We believe that demand for your industry is increasing and that we are uniquely positioned to successfully assist you in your growth.

Having fully examined your requirements, we are confident that what we are proposing will effectively address your needs. Additionally, our goal is to deliver it in a timely manner and at a cost that works for both of us.

We are grateful for this opportunity and look forward to showing you why other organizations have chosen us over a cast of others.





RELM Wireless Corporation

About Us

Company Background

RELM Wireless Corporation, a U.S. small business manufacturer headquartered in West Melbourne, FL, has been in business for more than 60 years. The company designs, manufactures, and markets wireless communications products consisting of two-way land mobile radios, repeaters, base stations, and related components and subsystems.

Our capabilities include the following:

- U.S.-based manufacturing of APCO P25 portable and mobile radios, base stations and repeaters
- Shipping and delivery of product worldwide
- Training and education included with product purchase at no additional cost
- Factory service for all RELM products
- Software/firmware upgrades at no additional cost

RELM employs both analog and digital, Conventional and Trunking technologies in its products. Its digital technology is compliant with the Project 25 standard of the Association of Public Communications Officials (APCO Project 25 or P25) for interoperability of communications among emergency responders, law enforcement and other public safety agencies. RELM has been an active supporter of the P25 standard, contributing technology and leadership resources over the 20 year history of the standard.

Products

RELM offers products under two brand names:

BK Radios products consist of high-specification land-mobile radio equipment that is used by professional radio operators, primarily in government and public safety applications. The BK Radioline has extensive features/capabilities and includes the Company's P25-compliant digital products. The Company has introduced a new line of next-generation, high performance, feature-rich KNG P25 digital radios. This new product line significantly expands the Company's addressable market, including P25 Trunking.

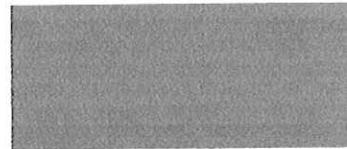
RELM-branded products provide basic, inexpensive, yet full-featured and reliable two-way communications for commercial and industrial users, such as hotels, construction firms, schools, and taxicab/limousine companies. Typical users are not radio professionals and require easy, fast, affordable communication among a defined group of users.

Operations

RELM's headquarters and manufacturing operations are located in West Melbourne, Florida. Its digital engineering and product development team is located in Lawrence, Kansas. RELM qualifies as a small business entity in accordance with the U.S. Small Business Administration (SBA). This gives government agencies added flexibility in meeting small business objectives while maintaining top-tier quality and performance. Further, as a small business, RELM is more responsive than other competitors in the LMR marketplace.

As one of the highest quality and most cost-efficient manufacturers in the LMR industry, the Company effectively leverages its internal and external resources in the production of its products. This provides greater production specialization and expertise, higher levels of quality and responsiveness, and faster delivery of product. Furthermore, RELM has designed its next-generation KNG products on a common platform, thereby improving

Relm Wireless Corporation
7100 Technology Drive
Melbourne, FL 32904
(800) 821 - 2900





RELM Wireless Corporation

Customers

RELM has compiled an outstanding record of performance and reliability with an impressive array of customers. With unsurpassed customer service and responsiveness, RELM has consistently demonstrated its ability to provide superior products that excel in demanding applications and harsh, hazardous conditions; all at a lower cost than comparable offerings from competitors.

A sampling of RELM's significant federal customers includes the following agencies:

U. S. Department of Defense – Over 8, 000 KNG radios are currently deployed in Afghanistan. The 82nd Airborne tested Motorola, EF Johnson, ICOM and RELM KNG radios during a 90 day “in theater” period. Our radio simply outperformed all others. When describing the test performance of the RELM KNG radio compared with the Motorola XTS-5000, and Army evaluator stated, “you blew them away”. **The US Army has added the KNG series radio to their Standard Equipment List (SEL) as a preferred Land Mobile Radio subscriber solution.**

U. S. Department of the Interior – National Parks Service, Bureau of Land Management, Fish & Wildlife Services, Bureau of Indian Affairs, among others; over 25,000 units in service across all Dol agencies.

U. S. Department of Agriculture – U. S. Forest Service; over 63,000 units currently in wild-fire suppression applications. This represents over 60% of the radios in service with the USDA/US Forest Service.

RELM's Operational Experience on P25 Trunked Systems:

WyoLink – State of Wyoming (VHF, Motorola)	York County, PA (UHF T-Band, Harris)
IMT- State of Montana (VHF, Motorola)	Spokane, WA (800, Harris)
ALMR- Alaska Land Mobile Radio (VHF, Motorola)	Anchorage, AK (700/800, Motorola)
WVIRP – State of West Virginia (UHF, Motorola)	Idaho State 700 MHz Radio System (Motorola)
Navy Region SE (UHF, Motorola)	US Navy's ELMR system
Mountain Home AFB, ID (UHF, Harris)	USDOJ (IWIN) (Harris and Motorola zones)

RELM's P25 DHS CAP Trunked Interoperability Testing:

Motorola ASTRO 25 System Release 7.8	TaitNet P25 / EADS COR P25 network
EFJ 3.2 – RC4	Harris P25 System

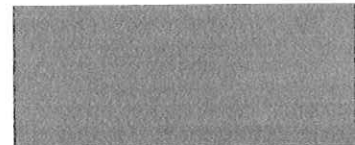




RELM Wireless Corporation

CAPABILITY FORM			
Company Name: RELM COMMUNICATIONS, INC.		Small	Yes <input checked="" type="checkbox"/> No
Address: 7100 Technology Drive, W. Melbourne, FL 32904		Small Disadvantaged	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Contact's Name: Ken Klyberg		8(a)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Telephone Number: 321-953-7947		Women Owned	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Email Address: kklyberg@relm.com		HUBZone	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Website: www.relm.com		Veteran Owned	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Fax Number: 321-676-3519		Service Disabled Veteran	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
DUNS Number: 006418933		Other: ISO9001/2 Certified, NIST Approved, FM Approved	
Cage Code: 62720		APCO P25 manufacture of American Made two way radios for	
Tax ID: 35-0827418		first responder, DOD, State & local, Public Safety	
		APCO P25 portables, mobiles, base stations & repeaters	
		Code	DESCRIPTION
<ul style="list-style-type: none"> Tactical Communications Land Mobile Radios (LMR) P25 Digital Radios/Narrowband Radios Encrypted Radios/OTAR 		<ul style="list-style-type: none"> 334220 Size Standard	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing \$ - None / 750 Employees
<ul style="list-style-type: none"> Land Mobile Radios (LMR) P25 Digital Radios/Narrowband Radios Encrypted Radios/OTAR 		<ul style="list-style-type: none"> 334290 Size Standard	Other Communications Equipment Manufacturing \$ - None / 750 Employees
<ul style="list-style-type: none"> Land Mobile Radios (LMR) P25 Digital Radios/Narrowband Radios Encrypted Radios/OTAR 		<ul style="list-style-type: none"> 335929 Size Standard	Other Communication and Energy Wire Manufacturing \$ - None / 1000 Employees
<ul style="list-style-type: none"> GS35F0133L GSA TIRNO-10-D-00004 / IRS GS-TFMG-BPA-09-0011 FEDSIM 		0%	
<ul style="list-style-type: none"> NIFC center has a cache of over 6,000 BK radios in place for incident command teams for fighting forest fires, natural disasters or national incidents. Department of Interior Digital Narrowband Radio APCO P25 Firm Fixed / current supplier 2010 		National Interagency Fire Center (NIFC) 3833 S. Development Avenue Boise, Idaho 83705-5352 Steve Jenkins or Shannon Tippitt 208-387-5512	
<ul style="list-style-type: none"> FEDSIM - USDA Forest Service Narrowband APCO P25 Radios Firm Fixed Price February 2010 purchased \$6.4 Million variety of our Two-Way Equipment / APCO P25 		USDA-USFS Michael S. DeSouto US Forest Service 333 Broadway SE Albuquerque, NM 87102 505-842-3810 Office / Email mdesouto@fs.fed.us	
<ul style="list-style-type: none"> 12/0244 Encrypted APCO P25 Digital Radios/Phase II TDMA Firm Fixed Price \$1M 		Patty Kenyon 1001 Preston, Ste. 670 Houston, Texas 77002 Voice: 713.755.7909	

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 7100 Technology Drive
 Melbourne, FL 32904
 (800) 821 - 2900





KNG Portable

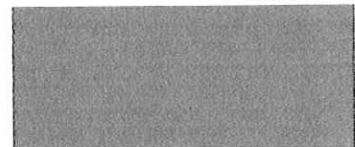
KNG Series Portable Radios

RELM/BK Radio's second generation Project 25 digital radio is offered in four frequency bands to cover the entire Federal Government and Public Safety equipment needs.

The KNG Series radio offers exceptional battery life in a lightweight form factor and is just the right size for covert applications. With industry leading RF and electrical specifications in a rugged, submersible housing, the KNG Series platform provides the performance needed for the most demanding applications making this the perfect radio for all aspects of government and law enforcement missions.

All KNG Series portables operate in Project 25 Digital Mode, Wide-Band Analog (25 KHz) Mode, Narrow-Band Analog (12.5 KHz) Mode. KNG Series portables meet FCC and NTIA Narrowband requirements. The KNG Series portables include mixed mode operation which allows reception of all communication regardless of programmed mode. Some Key Benefits of the KNG Series Portable Radios.

- **Better Battery Life.** The KNG Series radio provides over 12 hours of battery life using the standard Lithium-Ion 1950 mAH battery. With the 3600 mAH high capacity battery, the KNG radio provides up to twice the operating life of competitive radios.
- **Better Voice Quality.** The KNG Series radio uses the Third Generation Enhanced IMBE Project 25 Vocoder (AMBE+2 V1.60). The Enhanced IMBE Vocoder provides more robust performance in noisy environments. Using PC Programming software, end users can enable advanced noise reduction and/or automatic gain control for usage specific performance improvements.
- **Environmental Reliability.** Designed and tested to MIL-STD-810-F means the KNG portable radios are protected environmental conditions to be encountered in demanding use scenarios. IP-67 rated, KNG portable radios are protected against blowing rain and water immersion.
- **Output Power.** The KNG Series radios provide higher transmit power than competitive radio products. KNG Series Transmit power meets or exceeds that of competitive product offerings.
- **Robust Receiver.** The KNG Series radio provides substantially better RF receive performance over competitive offerings, resulting in improved range and less susceptibility to interference.
- **Simulcast Operation.** The KNG Series radios operate in both C4FM and CQPSK modes offering robust performance even in simulcast (including LSM) systems.





RELM Wireless Corporation

- **NIST FIPS-140-2 Encryption Certification.** The KNG Series radios employ a NIST Certified Cryptographic module. DES/AES 256 Bit
- **Multi-Key.** The KNG Series radio supports multiple encryption keys, with alpha numeric display of key name. The radio also provides DES-OFB, AES 256 bit key and Over the Air Rekey (OTAR).
- **Project 25 9600 Baud Trunking.** The KNG Series radio operates on 9600 baud P25 Compliant Trunking Systems.
- **Scan Modes.** KNG Series radios support conventional dual priority scan, Trunked priority scan, and dual mode scan which allow simultaneous Trunked and conventional channel scan.
- **Pre-Defined or Free Form Text Messaging.** KNG Series radios support P25 Conventional Subscriber to Subscriber Short Data Message
- **Custom Keypad Entry.** KNG Series radios support P25 Conventional free form text message that is entered by the user through the subscriber keypad.
- **Inhibit and Un-inhibit.** KNG Series radios support Disabling/Enabling radio over the air for P25 Conventional Subscriber to Subscriber
- **OTAR/OTAP.** KNG Series radios support Over The Air Rekey (OTAR)/Over The Air Programming (OTAP)
- **One Button Emergency.** KNG series radios support emergency calls and emergency alarms with the push of a button.

KNG Series Portables offer specifications that significantly exceed those of competitive radio offerings. Even with these industry leading specifications, KNG Series portables are among the smallest and lightest radios available today that meet the stringent performance requirements of federal agencies and first responders.





RELM Wireless Corporation

Table 3 KNG Portable Series Specifications

Specification	P-150	P-400	P-500	P-800
General				
Channels w/ Variable Zone Size	2048			
Zones (up to)	64			
Frequency Range (MHz)	136 - 174	380 - 470	440 - 520	763 - 870
Operating Voltage (V Nominal)	10			
Channel Spacing (kHz)	12.5 / 25 and 15 / 30			
Channel Increments (kHz)	1.25/3.125	1.25/3.125	1.25/3.125	1.25/3.125
Operating Temperature (°C)	-30 to +60 (-22 to +140 °F)			
Dimensions (W in x D in x H in)	2.5 x 1.8 x 5.5			
Weight w/Battery (oz)	16	16	16	16
Standby Current Draw (mA)	20	20	20	20
Receiver				
Sensitivity (dBm)	-121	-119	-121	-119
P25 Sensitivity (dBm)	-121	-119	-121	-119
Adjacent Channel Rejection (dB) Per TIA/EIA-603 2.1.6	80 (70)	78 (67)	79 (67)	72 (63)
P25 Adjacent Channel Rejection (dB)	60	60	60	60
Spurious and Images (dB)	80	80	85	75
Intermodulation Rejection (dB)	78	75	77	75
Audio Distortion at 500mW (%)	2	2	2	2
Current Draw (mA)	255	255	255	255
Transmitter				
RF Power (Watts)	6 / 5 / 1	5 / 4 / 1	5 / 4 / 1	3 / 1
Frequency Stability (ppm)	1.5	1.5	1.5	1.5
Audio Distortion (%)	3	3	3	3
FM Hum & Noise (dB)	50 (45)	50 (45)	50 (45)	50 (45)
Spurious and Harmonics (dB)	75	75	75	75
Current Draw (mA)	1500	1500	1500	1500
Emission Designators	11K0F3E, 16K0F3, 8K10F1E, 8K10F1D			

- Narrowband specifications are denoted in parenthesis.

Radio Controls

The KNG Series portable radio provides 16 front keys, to include a 4x3 DTMF keypad and 4 user programmable soft keys which support a radio menu system for advanced features. A limited keypad (Tier2) version is available without the DTMF keypad, but includes the 4 user programmable soft keys.

A 16 position rotary knob is provided for channel selection. This knob has a hard stop at channel one and 16.

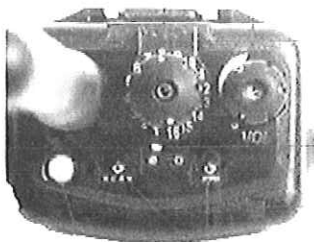
The KNG Series portable radio provides two programmable toggle switches, an emergency button, and two side buttons.





RELM Wireless Corporation

Channel Select
Volume
Knob



Encryption On/Off
Collar Switch

LED Battery Indicator

Programmable
Toggle Switches

VHF
Antenna

Emergency Button

Audio Accessory Jack

Field Programmable
Side Buttons

Loud 1.6" Diameter
Mylar Cone Speaker

Microphone

13 Character
Multi-line LCD Display

Push to Talk

Alphanumeric Keypad

Easy to Use Menu
Navigation Buttons



Radio Batteries and Charger

Relm Wireless Corporation
7100 Technology Drive
Melbourne, FL 32904
(800) 821 - 2900





RELM Wireless Corporation

Rechargeable Lithium-Ion battery packs and AA clamshells are both available.

Rated battery life exceeds 12 hours with the standard Lithium-Ion 1950 mAh battery for (5-5-90) duty cycle. Extended battery life with a Lithium-Ion 3600 mAh battery is also available.

Non-rechargeable battery packs are available using AA alkaline battery cells which provide in excess of 8 hours operation at (10-10-80) duty cycle.

RELM offers a complete line of charging accessories including single unit, 6 unit and vehicular battery chargers.

The KNG portable series radios provide protection against environmental hazards yielding the reliable performance required for mission critical communications. KNG portable radios are designed and tested to meet or exceed MIL-STD-810-F, TIA102, TIA-603 and IP-67 (submersion) specifications.

KNG Series radio battery, speaker microphone and antenna are offered in Intrinsically Safe configuration. Factory Mutual Ratings are: Intrinsically Safe (IS) Class I / II / III, Division 1, Groups D, F and G.

Radio Display and Indicators

KNG portable radios provide a backlight Liquid Crystal Display (LCD) which provides critical context for public safety environments. Radio programming software provides the radio user flexibility in configuring the information displayed on the radio display.

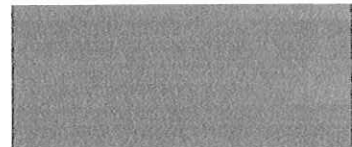
KNG portable radios provide a battery gauge on the radio display, in addition to an audible warning tone and flashing yellow LED indication of low battery conditions.

KNG portables provides a RED LED to indicate active transmit and a Green LED to indicate Active Receive. Radio display provides visual indicator to indicate if TX/RX is Analog Mode or Digital Mode.

The KNG portable radio includes a three line 14 character per line alpha-numeric display. Up to three programmable Items for display are selected from the radio programming software, or radio keypad programming feature. Included are: Channel Label, Frequency, Channel Number, Unit ID, Received Talk Group ID, Receive/Transmit Pick List selections, Zone Label, Zone number and Channel number, Zone Number, and Receive/Transmit Encryption Key.

Radio Side Connector and Accessories

Relm Wireless Corporation
7100 Technology Drive
Melbourne, FL 32904
(800) 821 – 2900





RELM Wireless Corporation

The KNG series portable provides an accessory connector that supports a speaker/microphone. The accessory connector also supports data transfers to and from the radio via a USB accessory connector.

The KNG series provides external connections for transmit and receive audio. Differential audio is available at the radio side connector. A 6 pin Hirose adapter is available as an optional accessory. The Hirose adapter provides audio connections for surveillance and other audio accessories. Audio output is specified at 500 mWatt with less than 1.5% distortion. The KNG Series radios are capable of producing higher audio power levels at a slightly higher distortion rating.

Antenna Connector

A 50 ohm SMA connection is provided for RF input/output. RELM provides a number of antenna options appropriate for the transceivers operating frequency range.



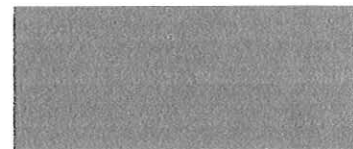


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Table 4 KNG Portable Series Military Specifications

	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F	
	Method	Proc. /Cat.	Method	Proc. /Cat.	Method	Proc. /Cat.	Method	Proc. /Cat.
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II
High temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.1	-	503.2	I/A1C3	503.3	I/A1C3	503.4	I
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-
Salt Fog	509.1	-	509.2	-	509.3	-	509.4	-
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I
Immersion	512.1	I	512.2	I	512.3	I	512.4	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24
Shock	516.2	I, II	516.3	I, IV	516.4	I/IV	516.5	I, IV

Units must also meet the following standard: IP67 – Dust tight/Immersion up to 1 m of submersion





RELM Wireless Corporation

Environmental Reliability

The KNG series radios are designed and tested to meet or exceed industry standards for environmental reliability. KNG radios meet or exceed MIL-STD-810-C,D,E & F as noted in Table 4 KNG Portable Series Military Specifications below.

KNG series radios are designed to meet the harsh environment required for critical communications.

KNG portable radios have been certified by Factory Mutual for operation in Hazardous Environments. See Table 6 Factory Mutual Approvals. A copy of the approval certificate is provided in Figure 1 Factory Mutual Certificate.

Environmental Reliability

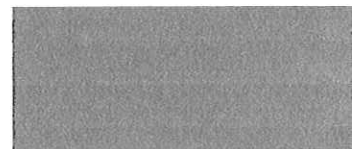
The IP Code (or International Protection Rating, sometimes also interpreted as Ingress Protection Rating) consists of the letters *IP* followed by two digits and an optional letter.

As defined in international standard IEC 60529, it classifies the degrees of protection provided against the intrusion of solid objects (including body parts like hands and fingers), dust, accidental contact, and water in electrical enclosures.

The standard aims to provide users more detailed information than vague marketing terms such as *waterproof*.

KNG Series Portables are rated IP-67

IP-XY			
X=1st Digit	Protection Against Foreign Objects	Y=2nd Digit	Protection Against Moisture
7	Not applicable		
8	Not applicable	8	Submersion protected Manufacturer Specified Limits





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Factory Mutual provides assurance that radio products are approved for operation in hazardous environments.

KNG P150 and P400 Series Radios are approved IS / I,II,III / 1 / DFG

Intrinsically Safe

Class I Division 1 A location where ignitable concentrations of flammable gases, vapors or liquids: can exist under normal operating conditions; may exist frequently because of repair or maintenance operations or because of leakage; or may exist because of equipment breakdown that simultaneously causes the equipment to become a source of ignition

Group C Ethylene

Group E Conductive metal

Class II Division 1 A location where: ignitable concentrations of combustible dust can exist in the air under normal operating conditions; ignitable concentrations of combustible dust may exist because of equipment breakdown that simultaneously causes the equipment to become a source of ignition; or electrically conductive combustible dusts may be present in hazardous quantities.

Group C Ethylene

Group E Conductive metal

Class III Division 1 A location where easily ignitable fibers or materials producing combustible flyings are handled, manufactured or used.

Group C Ethylene

Group E Conductive metal

Non-Incendive

Class I Division 2 A location: where volatile flammable liquids or flammable gases or vapors exist, but are normally confined within closed containers; where ignitable concentrations of gases, vapors or liquids are normally prevented by positive mechanical ventilation; or adjacent to a Class I, Division 1 location, where ignitable concentrations might be occasionally communicated.

Group A Acetylene

Group B Hydrogen

Group C Ethylene

Group D Propane and Methane





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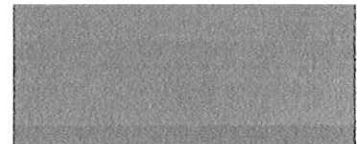
APCO P25 Digital Common Air Interface (CAI)

The Common Air Interface or CAI defines a standard (or reference point) at which communications between P25 radios can take place. The CAI is the core element of the P25 standard that assures the ability of one company's P25 digital radio to communicate with another company's P25 digital radio. Communications between P25 radios are done at a gross bit rate of 9.6 kbps and with FDMA Channel access. Several processes take place to convert information for transmission. The Common Air Interface uses an IMBE™ voice coder (Vocoder) to convert (compress) speech to a digital format for Communication. This voice information is then protected with error correction coding to provide protection over the channel. The voice information and error correction is then transmitted with additional Encryption information, unit identification, and low speed data to fully utilize the 9.6 kbps of channel capacity in the Common Air Interface.

KNG Series Standard Feature Set

Common Features (Trunked and Conventional)

- 2048 Channels or Talkgroups
- Up to 2048 Zones
- Backlight
- Password
 - Power Up
 - User
 - Administrator
 - Codeplug
- Vocoder AMBE+2
 - Noise Suppression
 - AGC
- Home Button (Zone/Channel) User Selectable
- Advanced Control Lockout
- Dual Mode Scan





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Conventional Features

- Three Line User customizable radio display
- Keypad Programming
- Backlight
- Call Alert
- Channel Scan
- Channel Scan List Edit
- Channel Select
- Cloning

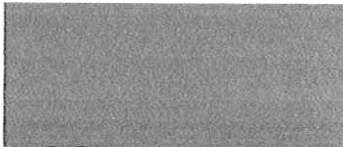
Trunking Features

- Three Line User customizable radio display
- Dual Mode Scan
- Site Trunking Notification (Tone, Display, Both or None)
- Dual Mode Scan List View
- Dual Mode Scan List Edit
- Out of Range Indication (Tone, Display, Both or None)
- 256 Tiered Location Services (GPS)
- Backlight
- Key Select
- Channel Select
- Monitor
- Contrast
- Picklist
- Control Lock
- Dual Mode Scan
- Dual Mode Scan List View
- Dual Mode Scan List Edit
- Keyset Select
- Priority Transmit CxCSS
- Priority Transmit NAC
- Priority Scan Channel Select
- Radio Info
- Rekey Request
- Radio Check
- Site Display
- Radio Info
- Site Lock
- Rekey Request
- Site Search
- Repeater Talkgroup
- Survival Mode
- Squelch Adj
- Transmit Power Level
- Transmit Clear/Secure
- Unit Call
- Version
- Zeroize Keys
- Zone Select
- Trunked System Key

Relm Wireless Corporation
 7100 Technology Drive
 Melbourne, FL 32904
 (800) 821-2900

- Software Based Key
- Hardware Based Key (ASK)
- Transmit Timeout Timers
- Emergency
 - Normal/Silent
 - Programmable retry counter
 - Tone on received emergency

- Surveillance Mode
- System Test
- Text Messaging
- Transmit Mode
- Transmit Power
- Transmit Secure
- Uninhibit
- Unit Call
- User Status
- Version
- Zeroize Keys
- Call Cancel (when supported by infrastructure)
- Zone Scan
 - Hot Microphone
 - Factual
- Zone Scan List Edit
- Zone Select Revert
- Dual Priority Scan
- Emergency Full Spectrum Control Channel Scan
 - Programmable Talk Permit Tone
 - Programmable retry counter
 - Unit Call
 - Tone on received emergency
 - Disable
 - Response Only
 - Call List Only
 - Hot Microphone
 - Alarm
 - Unlimited
 - Tactical
 - Revert
- Vote Scan Multi-Zone Operation
- Voice Mute Multi-System Roaming
 - Coverage Type
 - Wide Area
 - Single Site
- Transmit Timeout Timers
- Busy Channel Lockout
- 256 Preprogrammed User ID Call List
- Two-Tone Signaling Identifier Tables per system
- Conventional P25 Channels per system
- 1024 User IDs per system
- MDC-1000
- 1024 Talkgroups per system
- DTMF
 - 1024 Announcement Groups per system
 - 512 Sites per system
 - SNDCP Trunked Voice and Data
 - P25 Trunked Over the Air Rekeying
 - Over the Air Programming
 - 255 User editable scan lists per system
 - 16 Channels per scan list with three level priority
- Auto Scan
- Site Preference
 - None
 - Least
 - Preferred
 - Always



1—KNG-P400 Compliance to Solicitation ABCA136

KNG-P400 Compliance to Specification Requirements

Solicitation Section	Requirements	Status	Explanation
3.1.1	30 UHF Portable Radios		
3.1.1.1	UHF Radios must be on the SIRN approved list.	Comply	KNG-P400 is approved for use on SIRN as Tier 1 Radio capable of AES Encryption
3.1.1.2	UHF Radios must be a P-25 digital trunked radio compatible with the SIRN system.	Comply	KNG P400 is SIRN approved and DHS-P25CAP certified
3.1.1.3	UHF Radios must be Kenwood TK-5310 or equivalent model.	Comply	See Comparison below in Section KNG-P400 meets or exceeds specification of the Kenwood TK-5310.
3.1.1.4	UHF Radios must be a minimum of 4 watts.	Exceed	KNG-P400 transmits at 5 watts
3.1.1.5	UHF Radios must be equipped with multiple zones and multiple channels.	Comply	A total of 2048 channels can be configured in 2048 zones of up to 200 channels per zone
3.1.1.6	UHF Radios must be no larger than 7"H x 3" W x 2" D,	Comply	5.5 x 2.5 x 1.8
3.1.1.7	UHF Radios must be programmed to provide communication between all ABCA Enforcement radio regions.	Comply	RELM/BK Radio will provide programming
3.1.1.8	UHF Radios must be programmed and shall provide communication between the ABCA radio and WV State Police dispatchers throughout the state.	Comply	RELM/BK Radio will provide programming
3.1.1.9	UHF Radios must be programmed and shall provide communication between the ABCA radio and UHF equipped 911 metro, or other existing municipal or county law enforcement dispatch around the state.	Comply	RELM/BK Radio will provide programming
3.1.1.10	UHF Radios must not exceed twenty-five (25) ounces in weight.	Comply	16 Ounces with standard battery
3.1.1.11	UHF Radios must have lighted or backlit screen.	Comply	Backlight multiline display provided
3.1.1.12	UHF Radios must be capable of operating between 380 and 470 MHz frequency.	Comply	operates from 380 to 470 MHz

KNG-P400 meets or exceeds specification of the Kenwood TK-5310.

Specification	RELM/BK KNG-P400	Kenwood TK5310	KNG P400 Standing
General			
Frequency Range (MHz)	380-470	380-470	Equal
Channel Spacing (kHz)	12.5 / 25	12.5 / 25	Equal
Voice Coder	AMBE+2 Enhanced Dual Rate v1.8	AMBE+2 Enhanced Full Rate	Exceed
Operating Temperature (°C)	-30 to +60	-30 to +60	Equal
Dimensions (W in x D in x H in)	2.5 x 1.8 x 5.5	2.28 x 1.8 x 6.10	
Weight w/Battery (oz)	16	24	Exceed
Battery Capacity (mAH)	1950	2500	
Battery Life (hours)	12	12	Equal
Channels	2048	1024	Exceed
Encryption Algorithms	AES,DES-OFB	AES,DES-OFB	Exceed
OTAR	Yes	Yes	Exceed
Trunking	P25 SIRN Approved	P25 SIRN Approved	Equal
Submersibility	IP67	Option	Exceed
Intrinsically Safe	Option	Option	Equal
Receiver			
Sensitivity (dBm)	-119 / 0.25	-119 / 0.25	Equal
P25 Sensitivity 1% BER (dBm)	-117.2 / 0.307	-114.9 / 0.4	Exceed
P25 Sensitivity 5% BER (dBm)	-119 / 0.25	-119 / 0.25	Equal
Adjacent Channel Rejection (dB) 25 KHz	78	75	Exceed
Adjacent Channel Rejection (dB) 12.5 KHz	67	67	Equal
Spurious and Images (dB)	80	75	Exceed
Intermodulation Rejection (dB)	75	75	Equal
Audio Distortion at 500mW (%)	1	2	Exceed
Transmitter			
RF Power (Watts)	5	4	Exceed
Frequency Stability (ppm)	1.5	2	Exceed
Audio Distortion (%)	2	2	Equal
FM Hum & Noise (dB) 25 KHz	50	48	Exceed
FM Hum & Noise (dB) 12.5 KHz	44	42	Exceed
Spurious and Harmonics (dBc)	75	70	Exceed
Frequency Separation	Full Band	Full Band	Equal

KNG-P400 Accessories

Solicitation Section	Requirements	Status	PART NUMBER	DESCRIPTION	IMAGE
3.1.2	Accessories for 30 UHF Portable Radios				
3.1.2.1	A car charger compatible with the provided radio must be included with each of the 30 radios.	Comply	KAA035 5	Vehicle Charger	
3.1.2.2	A belt loop and/or belt clip compatible with the provided radio must be included with each of the 30 radios.	Comply	KAA0400	Belt Clip	

3.1.2.3	A UHF whip antenna compatible with the provided radio must be included with each of the 30 radios.	Comply	KAA081 5	UHF, SMA (380-470 MHz) Antenna	
3.1.2.4	A li-ion or like battery compatible with the provided radio must be included with each of the 30 radios.	Comply	KAA010 0	Li-Ion Battery 1950 mAH	

KNG-P400 Programming for Solicitation ABCA 136

Solicitation Section	Requirements	Status	Explanation
3.1.3	Programming and Setup of 30 UHF Radios		
3.1.3.1	Vendor must complete all required documentation for software and licensing for each radio.	Comply	RELM will support as required
3.1.3.2	Vendor must work with SIEC programmers to have the 30 radios programmed.	Comply	RELM will provide radio programming template as required
3.1.3.3	Vendor must program and ensure that all radios function as specified in the aforementioned sections,	Comply	RELM will provide radio programming template as required and will test and verify
3.1.3.4	Vendor must assist the WV A13CA in filing for any and obtaining any needed/required FCC approval, registration or licenses.	Comply	KNG-P400 is FCC type accepted, FCC ID K95KNGP400. RELM will provide any additional support as required.
3.1.3.5	Vendor must provide training for up to 30 employees concerning the operation and functions of the radios.	Comply	RELM will provide onsite training at a mutually agreed upon location in West Virginia for up to 30 employees.

2—RELM/BK P25 Trunked radio subscriber units and options.

RELM/BK Radio KNG Series Project 25 radios are available in all public safety and government frequency bands for land mobile radio use. KNG Series radios meet FCC and NTIA requirements for narrowband operation. Offering a rich feature set including analog conventional, P25 digital conventional, and P25 trunked. Encryption options are available for secure tactical communications.

	Frequency Range	Full Keypad Portable	Limited Keypad Portable	Mobile Radio	Base Station
VHF FCC ID	136-174 MHz	KNG-P150 K95KNGP150	KNG-P150T2 K95KNGP150	KNG-M150 K95KNGM150	KNG-B150 K95KNGM150
UHF Range 1 FCC ID	380-470 MHz	KNG-P400 K95KNGP400	KNG-P400T2 K95KNGP400	KNG-M400 K95KNGM400	KNG-B400 K95KNGM400
UHF Range 2 FCC ID	440-520 MHz	KNG-P500 K95KNGP500	KNG-P500T2 K95KNGP500	KNG-M500 K95KNGM500	KNG-B500 K95KNGM500
700/800 MHz FCC ID	763-870 MHz	KNG-P800 K95KNGP800C	KNG-P800T2 K95KNGP800C	KNG-M800 K95KNGM800	KNG-B800 K95KNGM800
Portable Radio Options					
KZA0577	DES OFB / AES Encryption Includes FIPS-140-2 Approved Hardware				
KAA/KZA0578	Project 25 Over the Air-Rekey (OTAR)				
KAA/KZA0579	Project 25 9600 Baud Trunking – 2048 Channel				
KAA/KZA0581	Multi-Cast Vote Scan Plus				
KAA/KZA0582	Over the Air Reprogramming				
KAA/KZA0593	P25 Phase II – 2 Slot TDMA Operation (Requires KZA0579)				
KAA/KZA0595	P25 Radio Authentication (Requires KZA0577)				
Mobile Radio Options					
KZA0154	Option, High Power, 110W KNG-M150 Only				
KAA0660	Remote Control Head Plug & Play KNG Mobiles				
KAA/KZA0569	P25 9600 Baud Trunking				
KZA0576	DES OFB / AES Encryption Includes FIPS-140-2 Approved Hardware				
KAA/KZA0580	P25 Over the Air Rekeying (OTAR)				

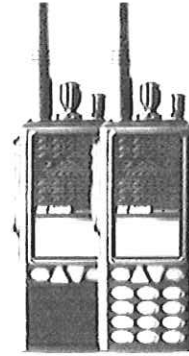
CAA/KZA0583	Multi-Cast Vote Scan Plus
CAA/KZA0589	GPS Option for KNG Mobiles
CAA/KZA0592	Over the Air Reprogramming
CAA/KZA0594	P25 Phase II – 2 Slot TDMA Operation (Requires KZA0569)
CAA/KZA0596	P25 Radio Authentication (Requires KZA0576)
CAA0261	External Speaker 20W, 4 Ohm, W/ Mounting Bracket
CAA0276	Standard Handheld Microphone KNG-M
CAA0290	Handheld Programming Microphone

3—Capabilities of RELM/BK P25 Trunked Radios

Vocoder	DVSI IMBE/AMBE+2 Enhanced Vocoder Selectable Automatic Gain Control (AGC) Selectable Background Noise Reduction	Version 1.60
Systems	Conventional or Trunked Radio Systems	16
Channels/Groups	Total number of Channels or Talk Groups	2048
Channel ID Table	Channel Plan for VHF/ UHF Trunked Systems	16 / System
Radio ID List	Preprogrammed Radio ID Alias	1024 / System
Control Channels	Channel used to transmit and receive channel assignment data or other commands	256 / System
Sites	Fixed infrastructure Aliases	512 / System
Dynamic Site Array	Internal list of sites the trunked radio is aware of	32
Encryption Keys	AES (256 bit) or DES	64
Key Sets	Groups of Keys usually used in OTAR	2
Packet Data	Ability to receive voice and data on the same channel.	Integrated Voice and Data
Receiver Mode	Ability to receive standard P25 signals (C4FM) and simulcast (LSM) modulation	C4FM/CQPSK
Phase 1/Phase 2	Project 25 Phase 1 FDMA or Phase 2 TDMA	H-CPM/H-DQPSK
Over The Air Rekey	Ability to securely update encryption Keys	P25 OTAR
Authentication	Project 25 Link Layer Authentication for registration	AES-128
Over the Air Reprogramming	P25 Packet Data System can be utilized to update subscriber radio programming	P25 Compatible
System Redundancy	Ability for subscriber radios to continue operation during system failure	Site Trunking, Failsoft and direct mode.
System Coverage	Ability to limit P25 trunking operation on a single RF site or for automatic roaming across multiple RF sites to include multiple zones or systems	Single Site or Wide Area



P25



4—KNG Series Portable Radios

RELM/BK Radio's second generation Project 25 digital radio is offered in four frequency bands to cover the entire Government and Public Safety equipment needs.

The KNG Series radio offers exceptional battery life in a lightweight form factor and is just the right size for covert applications. With industry leading RF and electrical specifications in a rugged, submersible housing, the KNG Series platform provides the performance needed for the most demanding applications making this the perfect radio for all aspects of government, public safety and first responder missions.

All KNG Series portables operate in Project 25 Digital Mode, Wide-Band Analog (25 KHz) Mode, and Narrow-Band Analog (12.5 KHz) Mode. KNG Series portables meet FCC and NTIA Narrowband requirements. The KNG Series portables include mixed mode operation which allows reception of all communication regardless of programmed mode. Some Key Benefits of the KNG Series Portable Radios.

- **Better Battery Life.** The KNG Series radio provides up to 12 hours of battery life using the standard Lithium-Ion 1950 mAh battery. With the 3600 mAh high capacity battery, the KNG radio provides up to 22 hours of operation.
- **Better Voice Quality.** The KNG Series radio uses the Third Generation Enhanced IMBE Project 25 dual rate Vocoder (AMBE+2 V1.80). The Enhanced IMBE Vocoder provides more robust performance in noisy environments. The dual rate vocoder provides P25 Phase 1 (FDMA) and P25 Phase 2 (TDMA) operation. Using PC Programming software, end users can enable advanced noise cancellation and/or automatic gain control for usage specific performance improvements. Background noise cancellation via software preserves situational awareness lost with dual microphone systems.
- **Monochromatic Display.** Monochromatic bit-mapped display provides status icons, three customizable display lines of 14 characters and soft key legends.
- **Environmental Reliability.** Designed and tested to MIL-STD-810 means the KNG portable radios are protected from environmental conditions encountered in demanding use scenarios. IP-67 rated, KNG portable radios are protected against blowing rain and water immersion.
- **DHS P25 Compliance Assessment Program Tested.** Meets requirements for all completed compliance assessment bulletins and is eligible for grant funding.
- **Output Power.** The KNG Series radios provide higher transmit power than competitive radio products. KNG Series Transmit power meets or exceeds that of competitive product offerings.
- **Robust Receiver.** The KNG Series radio provides substantially better RF receive performance over competitive offerings, resulting in improved range and less susceptibility to interference.
- **Simulcast Operation.** The KNG Series radios operate in both C4FM and CQPSK modes offering robust performance even in simulcast (including LSM) systems.
- **Conventional Signaling.** KNG-P Series radios incorporate analog MDC-1200 and digital APCO Project 25 signaling for conventional operation.
- **Scan Modes.** KNG Series radios support conventional dual priority scan, trunked priority scan, and dual mode scan which allows simultaneous trunked and conventional channel scan.
- **NIST FIPS-140-2 Certification.** The KNG Series radios employ a NIST Certified Cryptographic module.

- **Multi-Key/Multi-Algorithm Encryption.** The KNG-P Series supports multiple encryption keys, with alpha numeric display of key name. The radio also provides DES-OFB, AES 256 bit key and Over the Air Rekey (OTAR).
- **Encryption Key Fill.** KNG Series radios are compliant with the Project 25 Keyfill Device Standard (TIA-102-AACD) and are interoperable with commercially available keyfill devices.
- **Project 25 9600 Baud Trunking.** The KNG Series radio operates on 9600 baud P25 Compliant Trunking Systems, including Motorola (ASTRO Smartzone 5.X and above), Harris, Cassidian, Daniels and EFJohnson systems.
- **OTAP.** KNG Series radios support Over-the-Air Programming (OTAP) for operational efficiency.
- **Phase 2 Ready.** KNG Series platforms are Project 25 Phase 2 (TDMA) ready. Phase 2 doubles the voice capacity and meets FCC/NTIA requirements for 6.25 KHz equivalent spectrum utilization. RELM currently owns a P25 Phase II TDMA system in its development lab and expects to complete firmware development shortly after Phase II standards are finalized. Phase II updates can be ordered for future delivery.
- **Radio Authentication.** Project 25 Radio Authentication per TIA-102-AACE-A is supported for robust subscriber radio authentication on trunked radio systems.
- **GPS/Location Services.** Project 25 Location Services per TIA-102-BAJB are supported.
- **Room to Grow.** KNG Series radios utilize less than 20% of available memory and processor cycles. The KNG platform is future ready and able to expand with changing standards and mission requirements.

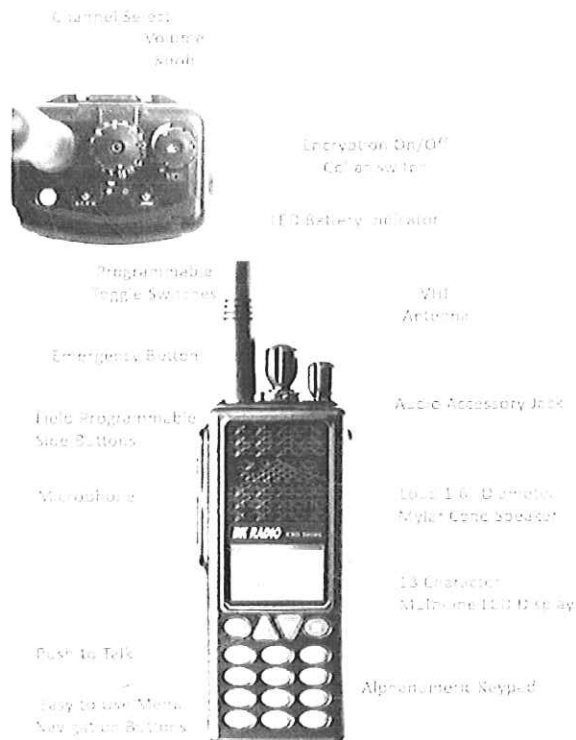
KNG Portable Radio Overview

The RELM Wireless Corporation KNG-P handheld portable radio is 5.5" (H) (excluding antenna) X 2.5" (W) X 1.8" (D) while weighing in at 16 oz. (1950 mAh battery). The size and weight of the KNG-P Series portable make it the smallest Class A specification P25 trunked radio available on the market today.

Radio Controls

The KNG Series portable radio provides 16 front keys, to include a 4x3 DTMF keypad and 4 user programmable soft keys which support a radio menu system for advanced features. A limited keypad (Tier2) version is available without the DTMF keypad, but includes the 4 user programmable soft keys.

A 16 position rotary knob is provided for channel selection. This knob has a hard stop at channel one and 16. The KNG Series portable radio provides two programmable toggle switches, an emergency button, and two side buttons.



Radio Batteries and Charger

Rechargeable Lithium-Ion battery packs and AA clamshells are both available.

Rated battery life exceeds 12 hours with the standard Lithium-Ion 1950 mAh battery for (5-5-90) duty cycle. Extended battery life with a Lithium-Ion 3600 mAh battery is also available. Non-rechargeable battery packs are available using AA alkaline battery cells which provide in excess of 8 hours operation at (10-10-80) duty cycle.

RELM offers a complete line of charging accessories including single unit, 6 unit and vehicular battery chargers. For the standard battery, KNG Single unit chargers provide approximately 90% rated capacity after 1 hour. The high capacity battery requires 3 hours. Due to the use of Li-ON technology, fully charging in one hour can have a negative impact on product life. Terminating fast charge at 90% capacity is designed to provide a balance between charge rate and cell life cycle.

The KNG portable series radios provide protection against environmental hazards yielding the reliable performance required for mission critical communications. KNG portable radios are designed and tested to meet or exceed MIL-STD-810-F, TIA102, TIA-603 and IP-67 (submersion) specifications.

KNG Series radio battery, speaker microphone and antenna are offered in Intrinsically Safe configuration. Factory Mutual Ratings are: Intrinsically Safe (IS) Class I / II / III, Division 1, Groups D, F and G.

Radio Display and Indicators

Approved Radios:

This is a list of all approved radios for use on the Statewide Interoperable Radio Network (SIRN).

Please note the SIRN is only FCC licensed for 40 watts on the trunking system. Any mobiles operating at more than 40 watts are in violation and may cause harm to the system.

Tier 1

Statewide operation with: 380-470 MHz frequency capability and shall be capable of AES encryption.

Mobile

1. Bendix-King KNG-400M
2. E. F. Johnson 55XX series
3. Motorola APX 7500 series
4. Motorola XTL 5000
5. Motorola XTL 2500

Portable

1. Bendix-King KNG-P400
2. E.F. Johnson 51XX series
3. Harris Unity XG-100
4. Kenwood TK-5310
5. Motorola APX 4000
6. Motorola APX 6000
7. Motorola APX 7000
8. Motorola XTS 2500
9. Motorola XTS 5000

6—Compliance Assessment Testing

KNG Series radios have been tested in accordance with the Department of Homeland Security P25 Compliance Assessment Program (P25CAP). P25CAP testing requirements are specified in the P25 Compliance Assessment Bulletins (CABs). The current CABs address conventional performance, trunked performance and trunked interoperability. KNG Series radios have been independently tested and passed all tests identified in the CABs. KNG series radios meet the interoperability and performance requirements identified and are eligible for purchase using federal grant funding.

KNG Series Radios have been tested in accordance with the Department of Homeland Security's Compliance Assessment Program (CAP) for trunked interoperability. Testing was conducted at DHS recognized laboratories and RELM/BK KNG Series radios have successfully passed this testing on five different manufacturers' infrastructure systems. This satisfies the P25CAP Governing Boards 'rule of three' for trunked interoperability. DHS-CAP Trunked Interoperability has been validated on five trunked system vendors equipment: Motorola, Harris, Daniels, EFJohnson and Tait/EADS.

