Industrial Division
Communications Division
Consulting, Project Engineering

Appalachian Search & Rescue Conference, Inc.
P.O. Box 440
Newcomb Station
Charlottesville, Virginia 22901

Mr. G.L. Harrison:

Thank you for the opportunity to bid on the King radio equipment, as listed on your "Communication Equipment Bid" dated January 7, 1986. Price quotation for the twenty or more King Model LPH5142C 14 channel portable includes flex antenna, universal speaker/microphone connector, TOT, Battery saver, Code guard, multiple Code Guard, scan, priority scan, scan delay ad internal keyboard/ LCD.

Recommended Options:

LAA 0811 6” Antenna with BNC connector $ 10.00
L2A 0812 BNC Conversion kit (installed) 25.00
LAA 0105 Spare nickel - cadmium rechargeable battery 65.00
LAA 0106 Spare alkaline disposable battery 19.80
LAA 0510 Desk Charger (one hour dual rate) 60.00
LAB 0356 One hour dual rate vehicle charger 195.00
LAA 0940 Fourteen hour vehicular charger 90.00
LAA 0300 Speaker mic with coil cord 55.00
LAB 0456 Deluxe leather carrying case (fits large battery) 45.00
LAA 0411 Full cover for carrying case 8.00
LPH 5142C 14 channel portable radio 890.00

All prices less 20% discount.

R.W. Rinehart
Rinehart Electronics

cc: John Kuhl
George Knust
KING RADIO CORPORATION • MOBILE COMMUNICATIONS DIVISION

P.O. Box 3347, 2920 Haskell Avenue, Lawrence, Kansas 66046-0347
Telephone (913) 842-0402

PORTABLE RADIOS

<table>
<thead>
<tr>
<th>FREQUENCY RANGE</th>
<th>POWER</th>
<th>CHANNELS</th>
<th>BATTERY INCLUDED</th>
<th>5 kHz CHANNEL PROGRAMMABLE</th>
<th>5 kHz CHANNEL FACTORY PROGRAMMED</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHF 148-174 MHz</td>
<td>2 watt</td>
<td>2</td>
<td>Std. Ni-Cd</td>
<td>LPH2020 A $485</td>
<td>LPH2022 N $510</td>
</tr>
<tr>
<td></td>
<td>2 watt</td>
<td>2</td>
<td>Lrg. Ni-Cd</td>
<td>LPH2020 C $550</td>
<td>LPH2023 P $660</td>
</tr>
<tr>
<td></td>
<td>5 watt</td>
<td>2</td>
<td>Std. Ni-Cd</td>
<td>LPH5020 A $955</td>
<td>LPH5023 A $695</td>
</tr>
<tr>
<td></td>
<td>5 watt</td>
<td>2</td>
<td>Lrg. Ni-Cd</td>
<td>LPH5020 C $660</td>
<td>LPH5023 P $760</td>
</tr>
<tr>
<td></td>
<td>5 watt</td>
<td>14</td>
<td>Std. Ni-Cd</td>
<td>LPH5141 A $745</td>
<td>LPH5142 C $890</td>
</tr>
</tbody>
</table>

*NO BATTERY SUPPLIED*

BATTERIES AND CHARGERS

- LAA0100: Spare nickel-cadmium rechargeable battery — standard capacity $40.00
- LAA0105: Spare nickel-cadmium rechargeable battery — large capacity $65.00
- LAA0106: Spare alkaline disposable battery — large capacity $19.80
- LAA0310: One hour dual rate desk top charger — 120/240 VAC wired for 120 VAC $60.00
- LAA0311: 240 V Conversion kit for LAA0310 $2.40
- LAA0320: One hour dual rate desk top charger — 120/240 VAC wired for 240 VAC $68.00
- LAA0330: Fourteen hour desk top trickle charger — 120 VAC $25.00
- LAA0340: Five unit multiple charger — dual rate, 120/240 VAC wired for 120 VAC $350.00
- LAA0341: 240 V Conversion kit for LAA0340 $2.40
- LAA0350: Five unit multiple charger — dual rate, 120/240 VAC wired for 240 VAC $380.00
- LAA0351: 240 V Conversion kit for LAA0350 $2.40
- LAA0360: Fourteen hour vehicular charger $195.00

ANTENNAS

- LAA0810: VHF flexible, 6" antenna 148-174 MHz with standard thread-in connector $10.00
- LAA0811: VHF flexible, 6" antenna 148-174 MHz with BNC connector $10.00
- LAA0812: BNC Conversion kit $10.00
- LZA0812: BNC Conversion kit installed (deletes thread-in antenna, adds BNC antenna) $25.00

SPEAKER MICROPHONE/EARPHONE

- LAA0200: Speaker mic with coil cord $55.00
- LAA0201: Earphone $12.00

CARRYING ACCESSORIES

- LAB0410: Deluxe leather carrying case with belt loop and swivel — fits standard capacity battery $40.00
- LAB0415: Deluxe leather carrying case with belt loop and swivel — fits large capacity battery $45.00
- LAB0420: Shoulder strap for carrying case $8.00
- LAB0430: Belt clip $8.00
- LAB0440: Belt Loop swivel and clip kit — mounts directly to radio $15.00
- LAB0441: Spare Belt Loop $10.00

PROGRAMMING/SIGNALLING/SERVICE ACCESSORIES

- LAA0001: Service manual LPH series $15.00
- LAA0701: Programming plug and programming manual $15.00
- LAA0700: Cloning cable and programming manual $35.00
- LAA0705: RS232 Interface $18.00
- LAA6600: Portable Tool Kit: Ant. & Spanner wrench, Cables: Accy. RF, Audio, Battery eliminator $20.00
- LZA0510: DTMF Encoder, Installed $98.00
LAB 0356
The LAB 0356 Vehicular Charger gives King portable radios mobile performance while offering one hour recharge and dead battery operation. An external speaker with five watts of audio output is included for use in high noise environments. The mobile mic included with the system permits full operation of the radio while it is secured in the charging base. The improved performance of a mobile antenna can be achieved through a PL259 connector on the charging base rear panel. Any King LPH/LPU series portable drops into the charger and is secured by spring loaded rollers which retain the unit during vehicle motion. All connections including RF, are securely made through one press-in side connector. A rugged two-piece mounting bracket allows easy mounting to the dash or hump. The charger is reverse polarity protected. The LAB 0356 includes: 
- 1 charging base with mounting bracket, 12 VDC power cord, 1 external speaker with mounting bracket and 1 mobile microphone with hang-up clip.
- Input: 13.5–17 VDC.
- Minimum Charging Input Voltage: 12.5 VDC.
- Minimum Radio Operation Input: 8.5 VDC.
- Power Cord: 2 Wire (red/black), Red with in-line fuse, Length 10 feet, 2 Pin Molex Connector.
- Charge Base Connectors: External Antenna—PL259, DC Input—2 Pin Molex, Mic Output—6 Pin Mini Modular, Audio Output—2.5 mm Sub-miniature Jack.
- Size: 8.5 x 3.75 x 3.5 inches.
- Weight: 3 lb. 2 oz.
- External Speaker
- Input: 5 Watts.
- Impedance: 4 Ohms.
- Cord: 2 Wire, Length 8.5 feet, 2.5 mm Subminiature Plug.
- Size: 5.0 x 5.0 x 2.5 inches.
- Weight: 20 oz.
- Microphone
- Cord: Coil Cord: Urethane jacket maximum 15" retracted, minimum 90" extended, 6 Pin Mini Modular Connector with boot.
- Size: 2.25 x 2.9 x 1.2 inches.
- Weight: 6 oz.

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- Size: 5.0 x 5.0 x 2.5 inches.
- Weight: 20 oz.
- Microphone
- Cord: Coil Cord: Urethane jacket maximum 15" retracted, minimum 90" extended, 6 Pin Mini Modular Connector with boot.
- Size: 2.25 x 2.9 x 1.2 inches.
- Weight: 6 oz.
The LAA 0300 is a compact desk top charger that will recharge King nickel cadmium battery packs (LAA 0100 and LAA 0105) in 14 hours or less. Its compact size makes it ideal to slip into a briefcase or tool kit for travel. The charger will accept a battery pack attached to the radio or alone. The LAA 0300 consists of a charger housing connected to a wall transformer by a two conductor cable. An LED indicator confirms proper contact with the battery pack.

Input: 121 VAC ± 10%, 60 Hz.
Size: Charger: 3.35 x 3.40 x 2.35 inches.
Transformer: 1.50 x 1.60 x 2.15 inches.
Weight: 1 lb.
Power Cord: Two conductor from transformer to charging base, 78“ length.

LAA 0310 or LAA 0320 will recharge King nickel cadmium battery packs (LAA 0100, LAA 0105) to 90% of the battery capacity in an hour or less. Once the charging function is complete, the unit will automatically switch to a trickle rate to maintain the charge without damaging the battery pack. The charger will accept a battery pack attached to the radio or alone. Red and green LED indicators confirm proper contact with the battery and show the charge rate.

Input: LAA 0310—121 VAC ± 10%, 50/60 Hz.
LAA 0320—242 VAC ± 10%, 50/60 Hz.
Size: 7.0 x 3.75 x 3.5 inches.
Weight: 3 lbs. 2 oz.
Power Cord: Grounded, 3 Conductor Cable, 78" length.

The LAA 0360 and LAA 0370 are five unit chargers capable of simultaneously charging five King nickel cadmium batteries to 90% capacity in an hour or less. Once the charging function is complete, each receptacle can independently switch to a trickle rate maintaining the charge without damaging the battery pack. Red and green LED’s at each receptacle confirm proper contact with the battery pack and indicate charge rate. The charger will accept batteries attached to the radio or alone. The rugged frame will desk or wall mount and will fit in a 19" rack mount configuration.

Input: LAA 0360—121 VAC ± 10%, 50/60 Hz.
LAA 0370—242 VAC ± 10%, 50/60 Hz.
Size: 18.5 x 7.25 x 5.5 inches.
Weight: 15 lbs. 8 oz.
Power Cord: Grounded, 3 Conductor Cable, 78" length.

The LAA 0311 is a conversion kit used to convert the LAA 0310 from 121 VAC to 242 VAC input. Proper labels and voltage tags are included.

The LAA 0361 is a conversion kit used to convert the LAA 0360 from 121 VAC to 242 VAC input. Proper labels and voltage tags are included.
**SPECIFICATIONS**

**SPEAKER MICROPHONE**

**PROGRAMMING PRODUCTS**

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**LAA 0200**

The LAA 0200 is a speaker microphone designed to allow use of the portable radio while it remains attached to the belt. The compact lightweight mic is attached by a clip to: collar, lapel, pocket or strap. The clip swivels 360° allowing the mic to be secured at various angles. A hi/lo switch varies the audio output of the speaker. The coil cord reaches 72" extended and mates with any King LPH/LPU series radio via a plug-in side connector with security screw.

- **Size:** 2.9 x 2.0 x 1.0 inches.
- **Weight:** 6 oz.
- **Coil Cord:** Maximum 12" retracted, minimum 72" extended, four conductors and shield urethane jacket.
- **Speaker:** Input: 500 mW, 300 to 3000 Hz. Impedance: 8 Ohms.
- **Mic:** Impedance: 3000 Ohms.
- **Sensitivity:** -63dB ± 3dB 300 to 3000 Hz.
- **Frequency Response:** -0dB + 3dB 300 to 3000 Hz.
- **Connector:** RF jack, audio jack, 6 pin data I/O. Includes thread-in security screw.
- **Switch:** Hi/low audio SPST.

**LAA 0700**

The LAA 0700 is a cloning cable used to transfer the programming information in one King radio to another King radio. The cable allows cloning from portable to portable, portable to mobile, mobile to portable or mobile to mobile if the radios are in the same band. Any King radio with a keyboard that is capable of programming can be used to clone any other King radios. Radios without internal programming capability cannot clone other radios but can accept programming information. 14 channel radios can clone 2 channel radios, but only the information for channel 1 and 2 will be downloaded.

- **Plug Size:** 1 x 1.9 x 1.2 inches.
- **Coil Cord:** Urethane jacket maximum 12" retracted, minimum 72" extended.

**LAA 0705**

The LAA 0705 is an RS232 interface allowing a computer to store programming information and clone King radios. This is ideal for dealers and large system users who need to keep files of programming information that is easily accessible to put new radios in service or to change the programming in a system. The LAA 0705 includes an RS232 interface plug and King LPH/LPU side connector plug connected by a coil cord. Also included is a list of the appropriate RS232 codes required to access the radio memory.

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King Radio Corporation, Mobile Communications Division, P.O. Box 3347, Lawrence, Kansas 66046-0347, (913) 842-0402.

LM 1023
**LAB 0431**  
**LAB 0436**

The LAB 0431 and LAB 0436 are deluxe leather carrying cases made from high grade top shoulder leather. A unique holster clip traps the battery pack in the bottom of the case yielding maximum access to the radio top controls. Both cases come with a detachable swivel belt loop that allows easy removal of the radio and case from the belt. When attached, the radio and case swivels for comfort. The belt loop will accept up to $2\frac{3}{4}''$ wide belts. The LAB 0431 is used for radios with standard sized battery packs (LAA 0400). The LAB 0436 is used for radios with large battery packs (LAA 0105, LAA 0106). Both cases include "D" rings for shoulder strap attachment.

**LAA 0411**

The LAA 0411 is a leather full cover that can be attached to the LAB 0431 and LAB 0436 leather carry cases.

**LAA 0413**

The LAA 0413 is a leather shoulder strap that can be attached to "D" rings found on the LAB 0431 and LAB 0436 leather carry cases. The shoulder strap is adjustable from 35 to 60 inches.

**LAA 0414** (Not Pictured)

The LAA 0414 is a spare leather belt loop that mates with the swivel stud found on LAB 0431 and LAB 0436 leather cases.

**LAA 0400**

The LAA 0400 belt clip fastens directly to the rear heat sink or mounting surface of LPH/LPU series portable radios with two screws. The stainless steel clip accepts up to $2\frac{3}{4}''$ belts and features a reverse bend keeping the radio secured on a belt. The LAA 0400 includes: 1 belt clip, 2 mounting screws. Size: 1.9 x 3.2 x 0.3 inches.

**LAB 0406**

The LAB 0406 is a detachable swivel belt loop. A swivel stud mounts to the rear heat sink or mounting surface of LPH/LPU series radios with two machine screws. This swivel stud fits into a clip on the leather belt loop allowing the radio to be easily detached from the belt by a $180^\circ$ rotation. When attached, the radio swivels for maximum comfort. The belt loop accepts up to $2\frac{3}{4}''$ wide belts. The LAB 0406 includes: 1 swivel stud, 2 mounting screws and 1 belt loop with clip.