



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

**V**  
**E**  
**N**  
**D**  
**O**  
**R**

\*709043812      304-949-4160  
 COMMUNICATION SERVICE INC  
 12403 MACCORKLE AVE  
 CHARLESTON WV 25315

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**P**  
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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
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	\$3520.48 each	\$105,614.40
				Harris XG-100 Unity Radio UHF PORTABLE RADIOS		
0002	30	EA		725-74	\$ 68.20 each	2,046.00
				UHF WHIP ANTENNA		
0003	30	EA		725-74	\$ 143.22 each	4,296.60
				CAR CHARGERS FOR UHF RADIOS		

05/23/13 08:49:25 AM  
 West Virginia Purchasing Division

SIGNATURE <i>Lonna Hartm</i>	TELEPHONE 304-949-4160	DATE 5/23/13
TITLE Office Manager	FEIN 55-0547641	ADDRESS CHANGES TO BE NOTED ABOVE

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	*709043812      304-949-4160
	COMMUNICATION SERVICE INC
	12403 MACCORKLE AVE
	CHARLESTON WV 25315

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/swivel	\$ 30.69 each	\$ 920.70
				Belt Clip	17.83 each	534.90
0005	30	EA		725-74		
				Li-On	126.17 each	3,785.10
				FOR UHF PORTABLE RADIOS		
				REFERENCE ATTACHED SPECIFICATIONS AND INSTRUCTIONS TO BIDDERS.		
				***** THIS IS THE END OF RFQ      ABCA136 ***** TOTAL:		
					with Belt loop/swivel	\$116,662.80
					with belt clip	\$116,277.00

SIGNATURE		TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	

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

## Exhibit "A"

Pricing Page

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

	Quantity	Contract item	Unit Price	Extended Price
Harris XG-100	30	UHF Portable Radio Kenwood TK-5310 or equal	\$ 3520.48	\$ 105,614.40
	30	UHF Whip Antenna for above radio	\$ 68.20	\$ 2,046.00
	30	Car Charger for above radio	\$ 143.22	\$ 4,296.60
Belt loop Belt Clip	30	Belt Loop and/or Clip for above radio	\$ 30.69 17.83	\$ 920.70 534.90
	30	Battery for above radio	\$ 126.17	\$ 3,785.10
	<b>Grand Total:</b>	w/belt loop/swivel w/belt clip		\$116,662.80 116,277.00

Company Name	Communication Service, Inc.
Signature	<i>Hanna Hartman</i>
Date	<i>5/23/13</i>
Phone	304-949-4160
Fax	304-949-4164
Email	

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

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

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

- 1. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, X Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. Application is made for 2.5% resident vendor preference for the reason checked: X Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4. Application is made for 5% resident vendor preference for the reason checked: X Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
7. Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules. Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

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

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

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

Bidder: Communication Service, Inc. Signed: [Signature]
Date: 5/23/13 Title: office mgr

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: Communication Service, Inc.  
Authorized Signature: *L. Donna Shavtin* Date: 5/23/13

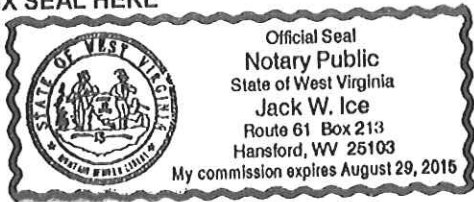
State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 23 day of MAY, 2013

My Commission expires AUGUST 29, 2015

**AFFIX SEAL HERE**



**NOTARY PUBLIC**

*J. W. Ice*  
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.

Communication Service, Inc.

\_\_\_\_\_  
(Company)

*Alma Shavitt*  
\_\_\_\_\_  
(Authorized Signature)

*Office mgr*  
\_\_\_\_\_  
(Representative Name, Title)

304-949-4160

\_\_\_\_\_  
(Phone Number)

304-949-4164

\_\_\_\_\_  
(Fax Number)

\_\_\_\_\_  
(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.

Communication Service, Inc.

\_\_\_\_\_  
Company

*Monica Martin*

\_\_\_\_\_  
Authorized Signature

5/23/13

\_\_\_\_\_  
Date

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



The Unity XG-100P is the only portable radio that provides

- Full-Spectrum multiband frequency coverage
- Harris' proprietary noise suppression capability
- Built-in GPS and Bluetooth® wireless technology
- Next-generation user interface

The Unity XG-100P Full-Spectrum Multiband Radio's user-centric design delivers unprecedented interoperability, ease of use, and advanced capabilities in a radio that users can depend on for years to come.

#### **Unprecedented Interoperability**

The XG-100P covers all portable land mobile radio frequency bands in a *single* radio:

- VHF band (136-174 MHz)
- UHF bands (380-520 MHz) –
- 700/800 MHz bands (762-870 MHz)

The XG-100P is a truly interoperable solution, capable of supporting:

- APCO P25 Trunking
- P25 Conventional
- Analog FM Wideband and Narrowband Modes
- MDC-1200 Analog ID
- Conventional Voted Scanning

The XG-100P can scan continuously across all bands and encryption types. Additionally the radio can scan Conventional and P25 Conventional channels while on a P25 Trunked system. The Unity XG-100P puts unprecedented connectivity in the hands of its user.

#### **Operation in High-Noise Environments**

The XG-100P features Harris' proprietary noise suppression capability to provide clear and crisp voice quality in high-noise environments for use in any mode, including both analog and digital communications. The radio is designed with dual microphones and advanced signal processing technology for built-in noise suppression. Additionally, the

radio supports accessories such as remote speaker microphones for use with this capability.

#### **GPS-Enabled Situational Awareness**

The XG-100P incorporates a Global Positioning System (GPS), enabling user position to be sent securely over the air for personnel position tracking and rapid response for emergencies. This positional information can also be received by other Unity radios and displayed directly on screen for tactical situational awareness of all radio users.

#### **Next-Generation User Interface**

The user-centric design of the XG-100P offers significant capability and flexibility beyond push-to-talk:

- Large, full-color display features next-generation graphical user interface (GUI)
- Intuitive use of the radio's features, including GPS, customized scanning, and front panel programming
- Ergonomic design with easy-to-use buttons for hand-held operation
- Large knobs and a configurable top display provide instantaneous radio control when operating in a holster

#### **Bluetooth Wireless Technology**

Wireless audio and data accessories for the XG-100P are supported by built-in Bluetooth technology. Additionally, the wireless data interface can be used to connect a computer for programming and configuring radios, with no cable connections required. For security purposes, all connections are initiated and managed from the radio interface and can be secured using AES encryption. Additionally, the Bluetooth transceiver can be disabled, if desired.

#### **Extended Channel Capacity**

The XG-100P is designed to maximize interoperability by providing the channel capacity necessary to operate on many systems across all frequency bands:

- Able to store 1,250 channels and 512 system profiles per mission plan
- Able to store up to 10 mission plans for a total of 12,500 channels
- Can be completely reconfigured from the front panel by loading different mission plans for different situations

#### **Software-Defined Radio Architecture**

Harris has a long history of fielding mission-critical software-defined radios that support evolving customer requirements through software-only upgrades. The XG-100P builds upon this experience and expertise, featuring a true software-defined radio architecture that allows flexibility for future growth, including a software-only upgrade to the APCO P25 Phase 2 standards when available.

The XG-100P also meets the applicable standards of the Department of Homeland Security's P25 Compliance Assessment Program (CAP).

#### **Future-Proof Investment**

Every XG-100P is built to exceed the MIL-STD-810G military standards for ruggedness and immersion. With a 3-year standard radio warranty, the XG-100P Full-Spectrum Multiband Radio is a future-proof investment.



Technical specifications represent typical performance and are subject to change without notice.  
Product sales are subject to applicable U.S. export control laws.

### General Specifications

#### Dimensions (H x W x D):

(Without Knobs and Antenna)

With battery:

6.50 x 2.43 x 1.83 in. ✓  
(167.6 x 61.7 x 46.5 mm)

#### Approximate Weight (with Battery):

22.5 oz (638g) ✓

#### Input Voltage:

7.5 VDC (nominal)

#### Immersion:

1 meter for 30 minutes in accordance with MIL-STD-810F

#### Battery Life (at 5% Tx, 5% Rx, and 90% standby):

Li-Polymer: >12 hours (3600 mAh)

#### Operating Temperature Range:

-4 to +140°F (-20 to +60°C)

#### Relative Humidity:

Per MIL-STD-810F

#### Altitude:

Operational: 15,000 ft (4,572 m)  
In Transit: 40,000 ft (12,192 m)

#### Front Display:

176 pixels x 200 pixels, 2.2 in. transfective LCD, 16-bit color with white LED backlight

#### Top Display:

128 pixels x 32 pixels, 0.91 in. Organic Light-Emitting Diode (OLED)

#### Keypad:

Backlight, 2 soft keys, 5-way navigation key, 4x3 keypad, home button

#### Buttons/Switches:

Large PTT button, on/off knob, volume knob, red emergency button, 16-position top-mounted rotary knob, 2-position concentric switch, 3-position toggle switch, 3 programmable side buttons

#### TX/RX Indicator:

Multi-color LED

#### Channel Capacity:

12,500 (1,250 per mission plan)

### Options and Accessories

Speaker microphones, programming software and cables, surveillance accessories, antennas, cases, straps, belt loops and swivel mounts, and desk chargers

### Intrinsically Safe Options

Intrinsically Safe for Class I, II, III Division 1, Groups D, F, and G hazardous (classified) locations and suitable for Class I, Division 2, Groups A, B, C and D hazardous (classified) locations.



### Transmitter

Typical Performance	Full-Spectrum Multiband
Frequency Range (MHz):	136-174 (VHF), 380-520 (UHF), 762-870 (700/800)
Rated RF Power Trunked (W):	VHF: 1-6, UHF: 1-5, 700/800: 0.5-3
Rated RF Power Talkaround (W):	VHF: 1-6, UHF: 1-5, 700/800: 0.5-3
Frequency Stability (-30 to +60°C) (ppm):	+0.5
Modulation Limiting (kHz):	2.5, 4, 5 (FM)
Audio Response (dB):	+1/-3
Spurious and Harmonics (dBc):	-70, FCC Part 90
FM Hum and Noise @ 25 kHz (dB):	VHF: -51, UHF: -54, 700/800: -50
FM Hum and Noise @ 12.5 kHz (dB):	VHF: -45, UHF: -47, 700/800: -44
Audio Distortion (%):	<1.25
P25 Modulation Fidelity (%):	<1.00
P25 Adjacent Channel Power (dBc):	>67
Emission Designators:	16K0F3E, 11K0F3E, 8K4F1E, 8K4F1D, 12K00G1E, 12K00G1D, 14K0F3E

### Receiver

Typical Performance	Full-Spectrum Multiband
Frequency Range (MHz):	136-174 (VHF), 380-520 (UHF), 762-870 (700/800)
Channel Spacing (kHz):	12.5, 25
Sensitivity (12 dB SINAD) (dBm):	VHF: -121.1, UHF: -123.0, 700/800: -121.4
P25 Reference Sensitivity (5% BER) (dBm):	VHF: -121.0, UHF: -122.9, 700/800: -121.4
Adjacent Channel Rejection @ 25 kHz (dB):	VHF: 77.8, UHF: 73.7, 700/800: 72.7
P25 Adjacent Channel Rejection @ 12.5 kHz (dB):	VHF: 66.2, UHF: 62.2, 700/800: 62.0
Intermodulation (dB):	VHF: 74.3, UHF: 78.8, 700/800: 78.5
Spurious and Image Rejection (dB):	VHF: 70, UHF: 75, 700/800: 70
FM Hum and Noise @ 25 kHz (dB):	VHF: -54.8, UHF: -49.1, 700/800: -48.2
FM Hum and Noise @ 12.5 kHz (dB):	VHF: -53.8, UHF: -43.7, 700/800: -42.8
Rated/Max. Audio Output (mW):	500/1200
Audio Distortion:	1.1% @ rated power

### Environmental Specifications

Standard	Parameter	Methods & Procedures
MIL-STD-810G*	Low Pressure	500.5/1,2
	High Temperature	501.5/1,2
	Low Temperature	502.5/1,2
	Temperature Shock	503.5/1
	Solar Radiation	505.5/1
	Blowing Rain	506.5/1
	Humidity	507.5/2
	Salt Fog	509.5/1
	Blowing Dust & Sand	510.5/1,2
	Immersion	512.5/1
	Vibration (Minimum Integrity)	514.6/1, Category 24
	Vibration (Basic Transportation)	514.6/1, Category 4
	Shock (Functional/Basic)	516.6/1
	Shock (Transit Drop)	516.6/4
	Shock (Bench Handling)	516.6/6

\*Also meets equivalent superseded MIL-STD-810D, -E, and -F.

### Digital Operation

APCO P25	
Vocoding Method:	AMBE+2™ Enhanced Full Rate & Enhanced Half Rate
Data Rate (kbps):	9.6
Modulation:	C4FM
Encryption algorithms:	AES, DES-OFB, DES-CFB
Encryption keys:	128 keys (64 AES, 64 DES)
Encryption keying:	Harris Keyloader, P25 Conventional and Trunked OTAR, KVL-3000+

### Regulatory Data

Frequency Range (MHz)	RF Output (W)	Frequency Stability (ppm)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules	NTIA Certification Number
136-174	6	0.5	AQZ-XG-100P00	80, 90	122D-XG100P00	RSS-119	JF-129952
380-520	5	0.5	AQZ-XG-100P00	90	122D-XG100P00	RSS-119	JF-129952
763-775, 793-805	2.5	0.5	AQZ-XG-100P00	90	122D-XG100P00	RSS-119	NA
806-824, 851-869	3	0.5	AQZ-XG-100P00	90	122D-XG100P00	RSS-119	NA



Public Safety and Professional Communications | www.pspc.harris.com  
221 Jefferson Ridge Parkway | Lynchburg, VA USA 24501 | 1-800-368-3277 (+1-434-455-6403)

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## VC4000 Charger Unity® XG-100P

# VERSATILE CHARGING FOR MAXIMUM EFFICIENCY

The VC4000 Charger

- > Is a rapid charger
- > Is compatible with Lithium Polymer and Lithium Ion battery packs
- > Can be mounted in a vehicle or used as a desk charger



**HARRIS®**  
assuredcommunications®

### STANDARD FEATURES

The VC4000 is a rapid charger with the capability to charge Lithium Polymer and Lithium Ion batteries in 4 hours or less. The charger supports the Unity XG-100P portable and is independent from frequency or system operation. The VC4000 includes the following features:

- > Colored LEDs: Provide charging status.
- > Positive Latch: Ensures that the radio or battery pack is securely in place while it is in the charger.
- > Versatile Mounting Options: Enables the charger to easily fit different vehicle mounting requirements.
- > Automatic Restart: Constantly monitors the battery while it is in the charger and will start charging the battery as soon as it falls below 90% of capacity.
- > Optimal Charging without Overcharging: Provides microprocessor-controlled charging for long battery life and maximum battery performance.
- > Protective Circuitry: Prevents damage to battery resulting from charging batteries that are not within the required temperature or voltage range.
- > Charging Efficiency: Communicates with the battery's internal fuel gauge for optimal charging efficiency.
- > Repeater Control: Has an enable/disable circuit for use with a vehicular repeater. The vehicular repeater is enabled when the radio is removed from the charger.
- > Ignition Sense (Dipswitch configurable): Unit is turned off when the ignition is turned off, preventing vehicle battery drain.

### VERSATILE DESIGN

The versatile design of the VC4000 provides the flexibility to meet different users' needs. The unit can charge the battery with or without the radio attached and can also accommodate a radio with the speaker mic and/or belt clip still attached.

The charger may be hard wired for permanent installation or powered using the optional DC cigarette lighter adapter for temporary in-vehicle installation. The VC4000 may also be used for desktop charging with the optional AC adapter.

## GENERAL SPECIFICATIONS

### Applications:

Charges Lithium Polymer and Lithium Ion batteries for the Unity XG-100P

### Source Voltage:

11 to 16 VCC

### Dimensions (D x W x H):

#### With Bracket:

3.125 x 5.125 x 5.437 in.  
(7.94 x 13.02 x 13.81 cm)

#### Without Bracket:

3.125 x 4.312 x 4.375 in.  
(7.94 x 10.95 x 11.11 cm)

### Weight:

#### With Bracket:

13.0 oz (368g)

#### Without Bracket:

10.2 oz (289g)

### Construction:

Polycarbonate and ABS blend

### Color:

Black

### Charge Current:

1.5A

### Mounting:

Cables, hardware, U-shaped bracket for mounting above or beneath dash, fuse, connector terminals for repeater control, and ignition sense

### Temperature Limits:

Operating: -22 to +140°F  
(-30 to +60°C)

Charging: +32 to +122°F  
(+0 to +50°C)

### Options:

#### Power Supply Kit:

Includes AC Adapter and Cigarette Lighter Adapter

### RoHS Compliant

# HARRIS®

Public Safety and Professional Communications  
221 Jefferson Ridge Parkway  
Lynchburg, VA 24501 USA

1-800-368-3277 (+1-434-455-6403)

www.pspc.harris.com

## COMPACT AND RUGGED DESIGN

### ENVIRONMENTAL SPECIFICATIONS

STANDARD	PARAMETER	METHODS & PROCEDURES
MIL-STD-801G	Vibration	514.6 PI, CAT 4 & 24
	Shock	516.6 PI, IV, V, & VI
	Solar Radiation	505.5 PI
	Low Temperature	502.5 PI & II
	High Temperature	501.5 PI & II
	Temperature Shock	503.4
	Humidity	507.5 PI & II
	Low Pressure	500.5 PI

### OPTION NUMBER

VC4000 for Unity XG-100P: XPCH4J

### REGULATORY SPECIFICATIONS

FCC Certification: Meets FCC Part 15

Industry Canada: ICES-003

Automotive Directive: 72/245/EEC – 95/54/EC

Ⓜ 10R-037621

Australian C-Tick Mark



Technical specifications are subject to change without notice. Products sales are subject to applicable U.S. export control laws.

## WARRANTY

- A. Harris Corporation, a Delaware Corporation, through its RF Communications Division (hereinafter "Seller") warrants to the original purchaser for use (hereinafter "Buyer") that Equipment manufactured by or for the Seller shall be free from defects in material and workmanship, and shall conform to its published specifications. With respect to all non-Seller Equipment, Seller gives no warranty, and only the warranty, if any, given by the manufacturer shall apply. Rechargeable batteries are excluded from this warranty but are warranted under a separate Rechargeable Battery Warranty (ECR-7048).
- B. Seller's obligations set forth in Paragraph C below shall apply only to failures to meet the above warranties occurring within the following periods of time from date of sale to the Buyer and are conditioned on Buyer's giving written notice to Seller within thirty (30) days of such occurrence:
1. for fuses and non-rechargeable batteries, operable on arrival only.
  2. for parts and accessories (except as noted in B.1 and B.5), ninety (90) days.
  3. for mobile and portable radios ("Subscriber Units"), twenty-four (24) months.
  4. for Unity<sup>®</sup> model Subscriber Units, thirty-six (36) months.
  5. for Six-Bay battery Chargers (12082-0314-xx and CH-104570-xxx), one (1) year.
  6. for all other equipment of Seller's manufacture, one (1) year.
- C. If any Equipment fails to meet the foregoing warranties, Seller shall correct the failure at its option (i) by repairing any defective or damaged part or parts thereof, (ii) by making available at Seller's factory any necessary repaired or replacement parts, or (iii) by replacing the failed Equipment with equivalent new or refurbished Equipment. Any repaired or replacement part furnished hereunder shall be warranted for the remainder of the warranty period of the Equipment in which it is installed. Where such failure cannot be corrected by Seller's reasonable efforts, the parties will negotiate an equitable adjustment in price. Labor to perform warranty service will be provided at no charge during the warranty period only for the Equipment covered under Paragraph B.3, B.4 and B.5. To be eligible for no-charge labor, service must be performed at Seller's factory, by an Authorized Service Center (ASC) or other Servicer approved for these purposes either at its place of business during normal business hours, for mobile or personal equipment, or at the Buyer's location, for fixed location equipment. Service on fixed location equipment more than thirty (30) miles (48 km) from the Service Center or other approved Servicer's place of business will include a charge for transportation.
- D. Seller's obligations under Paragraph C shall not apply to any Equipment, or part thereof, which (i) has been modified or otherwise altered other than pursuant to Seller's written instructions or written approval or, (ii) is normally consumed in operation or, (iii) has a normal life inherently shorter than the warranty periods specified in Paragraph B, or (iv) is not properly stored, installed, used, maintained or repaired, or, (v) has been subjected to any other kind of misuse or detrimental exposure, or has been involved in an accident.
- E. The preceding paragraphs set forth the exclusive remedies for claims based upon defects in or nonconformity of the Equipment, whether the claim is in contract, warranty, tort (including negligence), strict liability or otherwise, and however instituted. Upon the expiration of the warranty period, all such liability shall terminate. The foregoing warranties are exclusive and in lieu of all other warranties, whether oral, written, expressed, implied or statutory. NO IMPLIED OR STATUTORY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT SHALL THE SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT OR EXEMPLARY DAMAGES.

This warranty applies only within the United States.

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ECR-7047U