

DIVISION OF FORESTRY AND WILDLIFE – MAUI BRANCH

Specification Contact:

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Delivery Points:

Line Item 1: Island of Maui
685 HALEAKALA HWY
KAHULUI, HI 96793

Line Item 2: Island of Molokai
OLOOLO ROAD
KAUNAKAKAI, HI 96748

Specifications for the remote two-way radio range enhancing unit

1. Incident Commander's Radio Interface (ICRI) Interoperability unit to include:
 - a. 5 radio port, handset, two talk group capacity, DC power cord
 - b. Radio interface cables, EF Johnson VP5/6000 series
 - c. Radio interface cables, Motorola APX series
 - d. EF Johnson 700/800 MHz VP5000 portable radios, each with the following:
 - i. Standard keypad
 - ii. P25 Phase I
 - iii. P25 Phase II
 - iv. Battery eliminator, 12v converter
 - v. 3-year warranty
 - vi. TrueVoice noise cancellation
 - vii. Immersion rated
 - viii. Antenna adapter, SMA to BNC
 - e. JobBox enclosure system with padlocks and cooling system, custom paintjob
 - f. Internal JobBox dry storage container
 - g. Solar panel system with mounting kit to JobBox lid
 - h. Midnight solar panel charge controller
 - i. Battery bank power system, deep cycle AGM with interconnection
 - j. Guyed telescoping or fixed mast/antenna support system
 - k. Antenna and cable allowance, Yagi directional and/or Omni type
 - l. Labor: Design, assemble, programming, test, training
 - m. See attached sheet for specifications of ICRI unit***

COMMUNICATIONS-APPLIED TECHNOLOGY

11250-14 Roger Bacon Drive Reston, VA 20190
voice: 800-229-3925 fax: 703- 471-4428 e-mail: info@c-at.com
CAGE Code 0EEY2, TIN 54-1215868, DUNS 08-104-0214

Specifications: ICRI and Networking Options

ICRI (Incident Commanders' Radio Interface)

Description

A small, DC-powered, audio bridge which can link five dissimilar portable or mobile radios, other RF voice communications devices, a local handset/headset, and a telephone together for

RX Audio Input

Input Impedance: Unbalanced, 80 ohms nominal.

Frequency Response: 280 Hz to 3400 kHz \pm 2dB.

Input level: -32 dBm to + 12 dBm, no adjustment required.

TX Audio Output

Output Impedance: Unbalanced, 1000 ohms nominal.

Frequency Response: 280 to 3400 Hz \pm 2dB

Output Level: -40 to -18 dBm, adjustable (preset: -25dBm).

Audio Delay: Each net, individually adjustable 0 to 500 ms (preset: 250mSec).

Cellular/Auxiliary Input

Input Type: Unbalanced

Output Type: Unbalanced.

Input Range: -50 to +10 dBm, adjustable (preset: -50dBm).

Output Range: -40 to +3 dBm, adjustable (preset: -30dBm)

Input VOX

VOX Hang Time: Adjustable 0.5 to 2 seconds (preset: 1.5 seconds).

VOX Timeout Timer: Adjustable 30 to 90 seconds (preset: 60 seconds).

VOX Attack Time: Less 2 ms, nominal, for typical speech

VOX Threshold: Adjustable -32 to -6 dBm. (preset: -30dBm) (RX)

-50 to +10 dBm, adjustable (preset: -50dBm) (AUX)

Handset

Compatibility: Mil H-350/H handset

Initiation: PTT bar.

Handset Volume Control: 70 dB range.

Option: Variety of headsets and remote P-T-T swithest

Phone

ICRI-ICRI interconnect. Join two ICRI's (regardless of model) through Auxiliary Input port to expand the number of available I/O ports.

Bridge Unit ID circuit (Option)

Digitized, agency-defined message to identify an enabled ICRI gateway. Broadcast message up to 15 seconds. Broadcast repeat periods available: 0 (disabled), 5, 10 or 15 minutes.

Broadcast automatically delay when other radio traffic present.

Broadcast maybe disbled through three-position on-off power switch.

Bridge Link

ICRI-ICRI interconnect. Join two ICRI's (regardless of model) through Auxiliary Input port to expand the number of available I/O ports.

Networking (IP Option)

VoIP Input: Protocol Type: Non-proprietary, SIP. Connects to user provided network or local computer. Includes separate power switch to lower power consumption of ICRI when not in use.

Remote Talk Group Control circuit (CC Option)

PC: All ICRI control functions including talk group selection, muting and "ALL CALL" (all connected radios moved to single talk group) controlled via pc local or networked.

No annual license fees. No cost software updates.

Humidity: Up to 95% @ 55 degrees C.

FCC Part 15: unintentional radiators (CISPR 22) compliant

Shock: Suitable for mobile and portable environments; Mil 810 compliant.

Warranty: Provide product support for 10 years after purchase and a 5 year parts/labor/transport warranty

Vibration: Suitable for mobile and vehicular environments; Mil 810E compliant

Indicators: Power "OK" LED, power "LOW" LED, channel active LEDs (7).

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ICRI Warranty

C-AT will provide a five year warranty for the ICRI unit and one year warranty for interconnect and power cables delivered to

- 1.0 C-AT warrants for a five year period that all ICRI units are free from defects in materials and workmanship. C-AT warrants the products sold conform to the specifications furnished by the customer or accepted by the customer as parts of the purchase contract. A defect is considered to be a failure in the materials or workmanship not resulting from the normal wear and tear of the equipment.
- 1.1 C-AT warrants for a one year period that all ICRI interconnect and power cables are free from defects in materials and workmanship. C-AT warrants the products sold conform to the specifications furnished by the customer or accepted by the customer as part of the purchase contract. A defect is considered to be a failure in the materials or workmanship not resulting from the normal wear and tear of the equipment.
- 2.0 C-AT's standard product warranty covers the repairs and replacement of any equipment which proves defective or fails to perform to agreed specifications.
- 2.1 C-AT corrects any defect in materials or workmanship at no cost to the purchaser at C-AT's Reston, Virginia facility.
- 3.0 The standard warranty offered by C-AT does not include repairs and replacements to the misuse or abuse of the equipment, nor repairs and replacements resulting from customer negligence.
- 4.0 C-AT will install any product enhancements or upgrades at the time of warranty repairs that can be made while maintaining full backward compatibility. Such work will only be performed with prior approval by the purchaser or his representative.
- 5.0 During the warranty period, transportation costs to and from the location where the equipment is located/or installed will be paid by C-AT. The agency will be provided with pre-paid shipping labels or C-AT's commercial carrier account number.
- 6.0 The warranty period will begin with the installation/acceptance date for each ICRI purchased.