



# AMERI-KING CORP.

406 MHZ ELT EMERGENCY LOCATOR TRANSMITTER  
(406 / 243.0 / 121.5) MHz,  
Part No. AK-451-RK1-C



## WORLD'S LEADING PRODUCER OF ELT AND MULTI AXES ELT DESCRIPTION FEATURES

The Ameri-King AK-451-RK1-C is an ELT Retrofit Kit, USA FAA TSO'd approved, Transport Canada approved, European EASA ETSO'd approved, Brazil Anatel approved, 406 MHz ELT Emergency Locator Transmitter, Types (AF) Automatic Fixed, (AP) Automatic Portable. It transmits distress signals on triple (406 Satellite /243 Military /121.5 Civilian) MHz frequencies.

Having triple frequencies insures your distress message reaches both NOAA Satellite Operation and US Air Force AFSR Ground Operation, Search and Rescue Team, with 100% fully confidence, due to transmitting on both 243.0 MHz Military and 121.5 MHz Civilian bands, for immediate ground search dispatch.

The choice is clear, when it come to Safety, Fast, Accuracy, Reliability, Price and Product Support, Ameri-King's AK-451-RK1-C is your best choice.

Retrofit Applicable to Diamond's DA20, DA40 XLS, DA40 CS, DA42, and DA50

Direct Retrofit to 121.5 MHz ELTs manufactured by Ameri-King AK-450, ACK Tech / Pointer / Narco / Artex / Kannad.

- Triple Frequencies 406/121.5/243 MHz ELT.
- **Dual Antenna:** Whip Type (300 Knots) and Portable Hand Use, or Rod3 Type (350 Knots) and Portable Hand Use.
- Lithium 4 D-cells **up to 78 hours @-20 deg C, @ End of 5 yrs useful life time.**
- Simple Installation. All accessories include Wiring Adapter, Pre-fabricated Wiring Harness Assy, Remote Control Panel, Audible Warn Buzzer, Coaxial Cable Assy, and Universal Mounting Tray
- Coding Programming Worldwide, all available ELT Protocols, i.e. Short Messages (Beacon Serial No., Operator Designator, 24-bit address, and Aviation Tail User)
- Self Diagnosis built-in. OXCO tech for perfect grad temp stability
- PERP: 5W (406.028 MHz) 50 mw (243.0/121.5) MHz
- RTCA Env Categories: F1XBA[204/183][204/183]XR [204/183]XXSZXXX(AC)204/183](BC)XXXX(C/204)

**Made in U.S.A.**



# SPECIFICATIONS FOR PART NO. AK-451-RK1-C

**APPROVALS:** FAA TSO C126/C91a, Transport Canada;  
European EASA ETSO 2C126/91a, Brazil Anatel,  
and Cospas Sarsat ELT Emergency Locator  
Transmitter, Types(AF)(AP)

## PHYSICAL CHARACTERISTICS:

### \*Size and Weight:

Main unit: (4.27"Wx2.95"Hx5.64"L) 1lb 14 oz  
Remote unit: (2.17"Wx1.20"Hx1.18"L) 1.0 oz  
Whip antenna: (15" L) 0.25 lb  
Portable antenna: (17"L) 4 oz  
Rod3 antenna: (13.47") 0.4 lb  
Coax Cable Assy: (6 ft) 5 oz  
Aural Monitor: (0.7"Dia x 1"D) 0.3 oz  
Mounting tray: (4.51"W x 0.75"H x 5.87"L) 4.0 oz

### \*Case and color:

High impact, fire resistant, waterproof, high temperature ABS plastic, safety international orange color.

## GENERAL SPECIFICATIONS (STANDARD CONDITIONS):

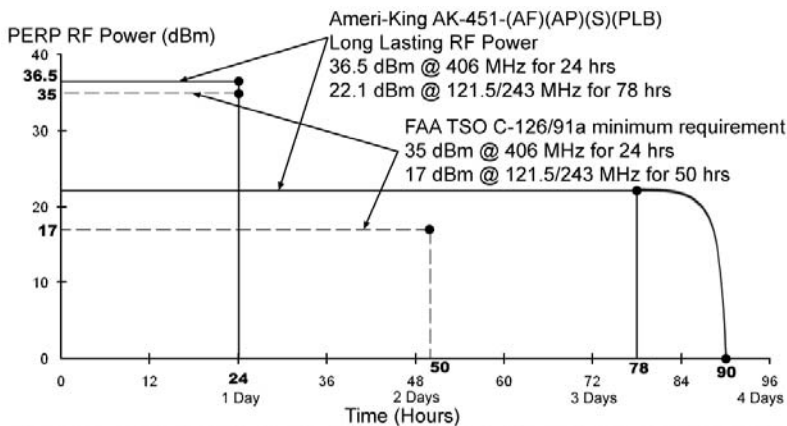
**Operating frequencies:** 406.028 +/- 0.001 MHz  
243.0/ 121.5 MHz +/- 0.0025%

### Transmitter Power Output:

5 W +/- 2 db @ 406 MHz, for 24 Hrs  
22 +/-2 dBm @ 243 and 121.5 MHz, for 78 Hrs

**Self Test:** built-in with Failure detection flashing code number for Diagnostic Maintenance check: RF Output Power & Frequencies, Battery Low Voltage, ELT shuts down, etc.

## OPERATING LIFE, 78 HRS @ -20 deg C @ End of 5 years Battery Life (TYP):



**TYPICAL LIFE TEST @ -20 DEGREES C @ END OF 5-YEAR BATTERY LIFE**

## ENVIRONMENTAL TEST SPECIFICATIONS:

- \* RTCA DO – 204A / 183 / 227
- \* RTCA DO – 160E ENV.CAT FIXBA[204/183][204/183]XR[204/183]XSSZXXX(AC)204/183](BC)XXXX(C/204)
- \* **TEMP. AND ALTITUDE:** Category F1  
Low / High Temperature: -20 / +55 deg C (Operating)  
-55 / +85 deg C (Storage)  
Altitude: 55,000 feet
- \* **AUTOMATIC CRASH ACTIVATION:**  
Velocity change of 2.3 +/- 0.3G (4.5 +/- 0.5 fps)
- \* **CRASHWORTHINESS:** 100G, 23 ms, 6 directions

## INSTALLATION LOCATION:

Tail or Cockpit/ Cabin installation with dual or single Antennas

## PROGRAMMING CODING PROTOCOLS:

Worldwide, all available ELT Protocols in Short Messages (Standard Location/National Location /User Location)

**User Protocol (Short):** Aviation Tail No.; ELT with Serial No.; ELT with A/C Operator Designator & Serial No.; ELT with A/C 24 Bit Address.

**National Protocol (Short)**

## ACCESORIES SUPPLIED:

Lithium Batteries Package, **Ultra Long 78 Hrs**, LiMnO<sub>2</sub>; Portable Antenna, aircraft Fixed Whip Antenna, Coax Cable Assembly, Remote Control Panel, Wiring Adapter, Wiring Interconnect Assembly, Audible Monitor, Mounting Tray, Velcro holder, Hex Key Tool. All of the accessories are provided and may be ordered extra separately.

## WARRANTY:

Two (2) years. Optional extended four (4) years. Lifetime warranty includes no charge for the electronic components. After the warranty has expired, customers shall pay only the labor repair cost.

## HOW TO ORDER:

**Part No. AK-451-RK1-C or AK-451-RK1-C-Canada or AK-451-RK1-C-Country**, includes the following items:

- AK-451-C: ELT Main Unit, 406/121.5/243 MHz
- 451017-1B-C: Whip Antenna, 406/121.5 MHz
- 451017-4S-C: Portable antenna, 406/121.5/243 MHz
- 451 0171-60-C: Coaxial Cable, RG142, 6 ft
- 450 004-C: Remote Unit Assy
- 450 0041-4-C: Pre-fab Wiring Harness Assy
- 450 014-C: Holder
- 451 018-C: Audio Buzzer, w/ 2 ft wiring
- 451 00181-C: T-Adapter Connector
- 451 014-C: Velcro holder
- SC-451-C: Soft case
- IK-451-1-C & IK-451-2-C: Wiring adapter kit
- 450 013-C & 450 013-1-C: Mounting Tray and Adapter tray

**Part No. AK-451-RK1A-C** includes all items as Part No. AK-451-RK1-C with Rod3 Antenna in place of Whip Antenna



**AMERI-KING CORPORATION**  
**TOMORROW'S TECHNOLOGY ... TODAY!!**

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