



# AMERI-KING CORP.

406 MHZ ELT EMERGENCY LOCATOR TRANSMITTER  
WITH GPS/NAV POSITION,  
(406 / 243.0 / 121.5) MHZ,  
P/N AK-451- 6/7/8/9/13/17/18/19 \* SERIES



**PORTABLE HAND USE**

Garmin GNC 300XL TSO  
BendixKing KLN 90B

**GENERAL AVIATION**

Garmin GPS 400W  
BendixKing KLN 94

**BUSINESS JET AIRCRAFT**

Garmin GPS 500W  
BendixKing KLN 900

**TRANSPORT AIRCRAFT**

Garmin GNS 530W

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

### DESCRIPTION

The Ameri-King AK-451-(\*) Series is a 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 aircraft GPS/NAV position data, immediately and accurately, on triple (406 Satellite /243 Military /121.5 Civilian) MHz frequencies.

The supreme advantage feature is the aircraft GPS/NAV Latitude / Longitude exact position shall be transmitted, within 1 minute, on the very first burst, without waiting for a Polar Orbiting Satellite (could be up to 4 hours). Enhance the accuracy significantly, for the ground search area, from 1-3 kilometers (non GPS/ NAV Position) to 22 meters typical (with GPS/NAV Position).

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, narrowing the searching time to almost nothing.

The choice is clear when it comes to Safety, Fast, Accuracy, Reliability, Price and Product Support, Ameri-King's AK-451-(\*) Series is your best choice.

### FEATURES

- Triple Frequencies 406/121.5/243 MHz ELT.
- Applicable to all Aircraft types: Transport Aircraft; Business Jet Aircraft; General Aviation, Helicopters.
- **Dual Antenna:** Blade Type (1.0 Mach) or Rod Type (350 Knots) or Whip Type (300 Knots) and Portable Hand Use.
- Ultra Long Lasting, **up to 78 hours @ -20 deg C, @ End of 5 yrs useful life time.** Lithium Battery Package, Li MnO<sub>2</sub>, 4 D-Size Cells.
- Reliable sealed G Switch, for dependable safety.
- Optional Multi Axes (6 Axes) G Switch for Helicopters
- Simple Installation. All accessories include Pre-fabricated Wiring Harness Assy, Remote Control Panel, Audible Warn Buzzer, Coaxial Cable Assy, and Universal Mounting Tray.
- Interface with aircraft GPS/NAV, via RS-232 Aviation Protocol: Garmin Int'l Inc., Honeywell Bendix King Inc., Trimble Nav Inc.; Arnav Inc., Il Morrow Inc.
- Coding Programming Worldwide, all available ELT Protocols, i.e. Long Messages (Location Protocol; User Location Protocol; National Protocol)
- Self Test 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)
- OEM Production Supply to Cessna Aircraft Company Inc., Wichita. Kansas
- DIRECT RETROFIT to AK450, ACK/Pointer/Narco/Artex/Kannad

Made in U.S.A.

# SPECIFICATIONS FOR MODEL AK-451

**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) 11b 14 oz  
Remote unit: (2.17"Wx1.20"Hx1.18"L) 1.0 oz  
Blade/ Rod3/ Whip antenna: (9"/ 13.47"/ 15" L) 1.4/ 0.4/ 0.25 Lbs  
Portable antenna: (17"L) 4 oz  
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):

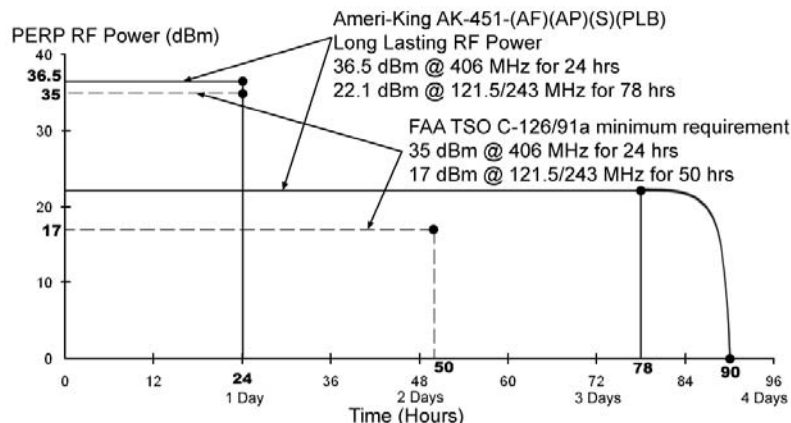
**Operating frequencies:** 406.028 +/- 0.001 MHz  
243.0/ 121.5 MHz +/- 0.0025%

### 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 F1XBA[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 Long Messages (Standard Location/National Location /User Location)

**Location Protocol (Long):** Standard Location ELT ELT with A/C 24 Bit Address; ELT with A/C Operator Designator; ELT with Serial No.; National Location.

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

## GPS/NAV POSITION INTERFACES:

Interface with Ext. a/c GPS/NAV, via RS-232 Aviation Protocols:

Garmin Int'l Inc 500/400/300/200/100 Series  
Honeywell Bendix King KLN 900/90B/94/89B/88 etc  
Trimble Nav Inc. NAV1000/2000, TNL2100/3100 etc  
Arnav Inc. R50/50i, STAR 5000, FMS5000, MFD etc  
II Morrow Inc. Flybuddy, 2001 NMS, etc.

## ACCESORIES SUPPLIED:

Lithium Batteries Package, **Ultra Long 78 Hrs**, LiMnO2; Portable Antenna, aircraft Fixed Antenna, Coax Cable Assembly, Remote Control Panel, 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:

- AK-451-(AF)(AP)/GPS/Whip/Portable:** ELT, 406/243/121.5 MHz with GPS/NAV Position, Dual Antennas, Whip/Portable
- AK-451-(AF)(AP)/GPS/Rod/Portable:** ELT, 406/243/121.5 MHz with GPS/NAV Position, Dual Antennas, Rod/Portable
- AK-451-(AF)(AP)/GPS/Blade/Portable:** ELT, 406/243/121.5 MHz with GPS/NAV Position, Dual Antennas, Blade/Portable
- AK-451-(AP):** ELT Auto Portable, 406/243/121.5 MHz
- AK-451-(AF)(AP)/GPS/Heli/Whi/Por:** ELT, 406/243/121.5MHz, **Helicopters**
- AK-451-(AF)(AP) /GPS/450000-1:** ELT w GPS & Optional Multi Axes (6 Axes) G switch, for **helicopters**, 406/243/121.5MHz, Dual Antennas
- IK-451-( ): Installation Adapter Kit for ACK/Pointer/Narco/Artex/Kannad**
- 451017-1B:** Antenna, Whip type, Gen Aviation,250knots, 406/121.5MHz
- 451017-2A-1:** Antenna, Rod type, Business Jet aircraft, 350 knots, 406/243/121.5 MHz
- 451017-3A:** Antenna, Blade type, Transport aircraft, 1.0 Mach, 406/243/121.5 MHz
- 451017-4S:** Antenna, Portable Hand Use
- 4500010-1:** Battery Package, Lithium, LiMnO2, 90 Hrs lasting.
- TS-451:** ELT Test Set and ELT Coding Equipment for AK-451
- TS-451-ID:** ELT Coding Reader Equipment for AK-451



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

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\*\*\* Each Ameri-King ELT Set comes with dual Antennas, a FREE Soft Case (P/N SC-451) and a FREE Accessory Set including Remote Switch Unit, Pre-Fabricated 25' Wiring Harness Assembly, Audio Buzzer, T-Splitter, and 6' Coaxial Cable Assembly.

All AK-451 ELTs are Triple Frequencies (406.028 / 121.5 / 243.0 MHz),  
FAA TSO C-126/91a and EASA TSO 2C-126/91a Approved



	Ameri-King P/N	Description	Antennas Included
	<b>AK-451-(AF)(AP)w GPS/Whi/Por</b> (AK-451-6)	ELT Set, with GPS/NAV Position, <b>for General Aviation</b>	Whip Antenna P/N 451017-1B and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP)w GPS/Rod3/Por</b> (AK-451-7)	ELT Set, with GPS/NAV Position, <b>for Business Jet Aircraft</b>	Rod3 Antenna P/N 451017-2A-1 and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP)w GPS/Rod4/Por</b> (AK-451-8)	ELT Set, with GPS/NAV Position, <b>for Business Jet Aircraft</b>	Rod4 Antenna P/N 451017-2A and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP)w GPS/Blade/Por</b> (AK-451-9)	ELT Set, with GPS/NAV Position, <b>for Transport Aircraft</b>	Blade Antenna P/N 451017-3A and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP)w GPS/Heli/Whip/Por</b> (AK-451-17)	ELT Set, <b>for Helicopter</b> , with GPS/NAV Position.	Whip Antenna P/N 451017-1B and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP)w GPS/Heli/Rod3/Por</b> (AK-451-18)	ELT Set, <b>for Helicopter</b> , with GPS/NAV Position.	Rod3 Antenna P/N 451017-2A-1 and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP)w GPS/Heli/450000-1/Whi/Por</b> (AK-451-19)	ELT Set <b>for Helicopter</b> w GPS & Optional Multi Axes (6 Axes) G switch	Whip Antenna P/N 451017-1B and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP)w GPS/Heli/450000-1/Rod3/Por</b> (AK-451-13)	ELT Set <b>for Helicopter</b> , w GPS & Optional Multi Axes (6 Axes) G switch	Rod3 Antenna P/N 451017-2A-1 and Portable Antenna P/N 451017-4S