



# AMERI-KING CORP.

406 MHZ ELT EMERGENCY LOCATOR TRANSMITTER  
(406 / 243.0 / 121.5) MHZ,  
P/N AK- 451-0/1/2/3/4/5/12/14/15/16/20/21 \* SERIES



## 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. It transmits triple (406 Satellite /243 Military /121.5 Civilian) MHz frequencies. The accuracy for the ground search area is 1-3 kilometers.

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.

The AK-451 is OEM Production TC supply to Cessna Aircraft Company, Wichita, Kansas.

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.

Made in U.S.A.

### 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 MnO2, 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.
- Coding Programming Worldwide, all available ELT Protocols, i.e. Short Messages (Serial / Aviation / 24 Bit Address) User 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)
- DIRECT RETROFIT to AK450, ACK/Pointer/Narco/Artex/Kannad

# SPECIFICATIONS FOR MODEL AK-451-(\*) SERIES

**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):

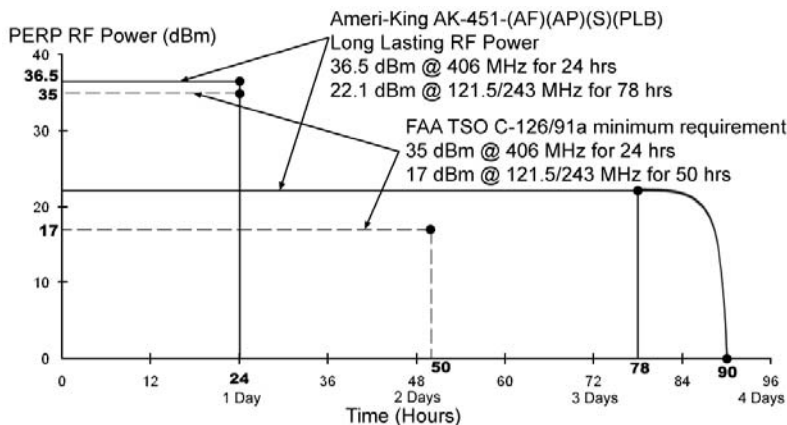
**Operating frequencies:** 406.028 +/- 0.001 MHz  
243.0/ 121.5 MHz +/- 0.0025%

### 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]XXSZXXX(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  
(User/National)

**User Protocol (Short):** Aviation; 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>, or  
LiSO<sub>2</sub>; 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)/Whip/Portable:**

ELT ,406/243/121.5MHz, Dual Ants

**AK-451-(AF)(AP)/Rod/Portable:**

ELT,406/243/121.5MHz, Dual Ants

**AK-451-(AF)(AP)/Blade/Portable:**

ELT,406/243/121.5MHz, Dual Ants

**AK-451-(AP):** ELT Auto Portable, 406/243/121.5 MHz

**AK-451-(AF)(AP)/Heli/Whi/Por:**

ELT ,406/243/121.5MHz, **Helicopters**

**AK-451-(AF)(AP) /450000-1:** ELT w Optional Multi Axes  
(6 Axes) G switch for **helicopters**, 406/243/121.5MHz,  
Dual Antennas

**AK-451-(AF)(AP) /GPS/450000-1:**

ELT w/ GPS & Optional Multi Axes (6 Axes) G switch,  
for **helicopters**, 406/243/121.5MHz, Dual Ants.

**IK-451-( ):** Installation Adapter Kit for

ACK/Pointer/Narco/Artex/Kannad

**451017-1B:** Antenna, Whip type, Gen Aviation, 300knots,  
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, LiMnO<sub>2</sub>, 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



**AMERIKING 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)</b> (AK-451-0)	ELT Transmitter only	none
	<b>AK-451-(AF)(AP)/ Whi/Por</b> (AK-451-2)	ELT Set <b>for General Aviation</b> , U.S.A. Registration	Whip Antenna P/N 451017-1B  and  Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP) /Whi/ Por/ Canada</b> (AK-451-20)	ELT Set <b>for General Aviation</b> , Canadian Registration	
	<b>AK-451-(AF)(AP) /Whi/Por/WW</b> (AK-451-21-Country)	ELT Set <b>for General Aviation</b> . Worldwide, Europe/ Australia/ Asia/Africa Registration.	
	<b>AK-451-(AF)(AP) /Rod3/Por</b> (AK-451-3)	ELT Set <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) /Rod4/Por</b> (AK-451-4)	ELT Set <b>for Business Jet Aircraft</b>	Rod4 Antenna P/N 451017-2A and Portable Antenna P/N 451017-4S
<b>AK-451-(AF)(AP) /Bla/Por</b> (AK-451-5)	ELT Set <b>for Transport Aircraft</b>	Blade Antenna P/N 451017-3A and Portable Antenna P/N 451017-4S	
	<b>AK-451-(AF)(AP) /Heli/Whi/Por</b> (AK-451-15)	ELT Set <b>for Helicopter</b>	Whip Antenna P/N 451017-1B and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP) /Heli/Rod3/Por</b> (AK-451-14)	ELT Set <b>for Helicopter</b>	Rod3 Antenna P/N 451017-2A-1 and Portable Antenna P/N 451017-4S
	<b>AK-451-(AF)(AP)/Heli /w 450000-1/Whi/Por</b> (AK-451-12)	ELT Set <b>for Helicopter</b> , w 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) /Heli/w 450000-1/Rod3/Por</b> (AK-451-16)	ELT Set <b>for Helicopter</b> , w Optional Multi Axes (6 Axes) G switch	Rod3 Antenna P/N 451017-2A-1 and Portable Antenna P/N 451017-4S