

EMERGENCY BEACON CORPORATION  
15 RIVER ST  
NEW ROCHELLE, NEW YORK 10801  
PHONE: (914) 235-9400 FAX (914)576-7075  
emergencybeacon@verizon.net

OPERATING MANUAL

MODEL EBC-102

PORTABLE PERSONNEL RESCUE BEACON

The EBC-102 is a portable, personnel Rescue Beacon used in life jackets, flight suits, survival kits, flight kits, rafts and the like. This manually operated beacon supplements the FAA required automatically activated Emergency Locator Transmitter carried in an aircraft.

The EBC-102 is FCC Type Accepted under Part 87 and meets the 25KHz requirements. It transmits simultaneously on the frequencies of 121.5 and 243.0MHz.

OPERATING INSTRUCTIONS

1. Remove red safety cap.
2. Extend the antenna.
3. Move switch toward the antenna.
4. Place the beacon in an upright position in a place as clear and as high as possible.
5. At temperatures below freezing keep the beacon inside a jacket (or other suitable insulated article such as a blanket) with the antenna extended outside for longest operating life.

NOTE: The test light only lights during testing. If, during testing, it is noted that the light does not flicker, a new battery should be installed. About 12 hours of useful life remain after the light goes out.

OPERATING LIMITATIONS

Emergency Beacon Corporation recommends that the battery in this ELT be replaced every two years or after one cumulative hour of use. If the unit/battery has been stored in an area where the ambient temperature is above 80 degrees Fahrenheit we recommend replacing the battery every 18 months.

## TEST PROCEDURE

The test circuit in an EBC-102 tests the entire electronic system and radiated signal, not just the battery. After the light goes out about 12 hours of useful life remain. After that time the battery should be replaced. If there is no light response after replacing the battery the unit should be returned to the factory for servicing.

FCC and FAA regulations state that beacon's can only be tested within the first five (5) minutes of any hour and that the test must be limited to three (3) sweeps of the signal.

1. Use this procedure only to test the beacon – not to send a signal.
2. Keep the test short, not more than five (5) seconds or three (3) sweeps of the signal.
3. Extend the antenna fully and remove the safety cap.
4. Move the switch toward the lamp.
5. The lamp should flicker dimly.
6. Turn the beacon off.
7. Replace the safety cap and collapse the antenna.

## BATTERY REPLACEMENT

**WARNING: USE ONLY BATTERIES MANUFACTURED OR APPROVED BY EMERGENCY BEACON CORPORATION. THE USE OF BATTERIES NOT APPROVED BY EBC MAY DAMAGE THE TRANSMITTER AND WILL VOID ALL WARRANTIES.**

1. CAUTION: If battery is not connected exactly as stated, the beacon will be permanently damaged.
2. Remove screws holding cover.
3. Remove cover.
4. Remove wire connectors by unscrewing them counter – clockwise.
5. Remove old battery pack.

**DO NOT ALLOW THE RED AND BLACK WIRES TO TOUCH EACH OTHER OR THE BEACON CASE AS THIS WILL SHORT OUT THE BATTERY PACK**

6. First connect red wire on beacon to red wire on new battery by twisting the stripped ends together and screwing on the wire connector. (Always connect red wires first).
7. Connect black wire on beacon to black wire on new battery in the same manner.
8. Place new battery pack in the beacon. (Putting the label side up makes checking the battery replace date easy should the external replace label be lost.)
9. Reinstall cover.
10. Reinstall screws.
11. Install label "Replace Battery Before" on back of the case.

Note: It is important to use the wire connectors to cover the exposed ends of the leads. They assist in maintaining a waterproof system and can prevent 'shorts' when the unit is opened.

### REPAIRS

The EBC-102 is not field repairable because the circuit board, switch, etc., are totally encapsulated. The only authorized repair facility is the EBC factory (FAA Repair Station # EYCR588X). Should repairs become necessary, send the beacon to the factory. A note telling us about the problem or other pertinent information would aid in troubleshooting. Emergency Beacon Corporation will evaluate the unit and contact the owner with an estimate. There is a nominal fee for this inspection.

EBC-102 DATA SHEET

Operating Life, Room Temperature.....	72 hours at 50° F
Operating Frequency.....	121.5MHz +/- .005% and 243.0MHz +/- .005%
Modulation Percentage.....	100%
Sweep Range.....	1600Hz to 300Hz
Sweep Rate.....	2 –4 times per second
Modulation Duty Cycle.....	45%
Transmitter Duty Cycle.....	100%
Peak Effective Radiated Power.....	Greater than 75mW on both frequencies after 48 hours
Low Temperature Performance – 20°F.....	Meets room temp. specs. after exposure
High Temperature Performance - 160°F.....	Meets room temp. specs. after exposure
Altitude Performance @ 50,000 ft.....	Meets room temp. specs. after exposure
Decompression 8,200 ft. – 40,000 ft.....	Meets room temp. specs. after exposure
High Pressure Performance @ 15,000 ft.....	Meets room temp. specs. after exposure
Humidity Performance 48 hrs.....	Meets room temp. specs. after exposure
Shock Performance, 50 G's in 6 axes.....	Withstands 1000 G's
Vibration test 10 G's.....	Meets room temp. specs. after exposure
Temperature Variation Test, -40°C to +55°C.....	Frequencies within +/- .005% after exposure
Immersion Test, 20 hrs complete submersion in salt water..	Meets room temp. specs. after exposure
Waterproofness, 20 min. drip.....	Meets room temp. specs. after exposure
Range – Satellite.....	1200+ miles
Range – Search Aircraft.....	Line of sight
Size.....	2.5” W x 1.25” D x 3.75” H
Weight.....	12 oz. (with battery installed)
Case.....	Aluminum
Finish.....	Yellow Baked Enamel
Antenna.....	Stainless Steel Telescoping

TWO YEAR WARRANTY

FOR YOUR RECORDS:

Type of Equipment: \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Date Purchased: \_\_\_\_\_ Dealer: \_\_\_\_\_

PLEASE NOTE: ALL WARRANTIES ARE NULL AND VOID IF NON-FACTORY APPROVED BATTERIES ARE EVER USED IN YOUR ELT.

The EMERGENCY BEACON CORPORATION instrument you have purchased is conservatively designed and was carefully inspected before shipment. Properly operated in accordance with the instructions furnished, it will provide you with trouble-free service.

If you have a problem with the transmitter, contact EMERGENCY BEACON CORPORATION. If indicated, you will be instructed to send your unit to the factory. There will be no charge for labor or materials for repairs made within two years of date of purchase.

This warranty is void if the transmitter is:

- 1. Damaged in transit
- 2. Abused in handling
- 3. Repaired by unqualified persons
- 4. Unapproved battery pack (s) is installed

SHIPPING INSTRUCTIONS:

- 1. Disconnect and tape the battery leads before shipping. Ship with the battery enclosed in the unit.
- 2. Enclose a note describing the problem. Be sure to give your name, address and phone number.
- 3. Pack well and insure

Shipping costs to and from the factory are to be paid by the customer.

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PHONE: (914) 235-9400 FAX: (914) 576-7075 REV. #2 - 2/2005

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TWO YEAR WARRANTY REGISTRATION

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Date Purchased: \_\_\_\_\_

How Did You Hear of This Product? \_\_\_\_\_

What Persuaded You To Buy It? \_\_\_\_\_

Comments on Performance: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dealer: \_\_\_\_\_

City: \_\_\_\_\_

Customer Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Return This Portion To: EMERGENCY BEACON CORPORATION  
15 RIVER STREET  
NEW ROCHELLE, NEW YORK 10801

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