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**IMPORTANT: TESTING SHOULD NOT BE  
DONE WITH NIGHT VISION GOGGLES ON.  
DO TEST BEFORE START-UP.**

**EBC 302HM EMERGENCY LOCATOR TRANSMITTER (P, AP)**

CONSISTING OF:

1 302HM	Emergency Locator Transmitter
1 BB 9M	Mounting Bracket

**INSTALLATION INSTRUCTIONS**

1. The ELT must be installed by a certified airframe mechanic. This installation must be entered in the aircraft log book.
2. The unit can be installed in any convenient location in the aircraft.<sup>1</sup>
3. The antenna should be at least one inch from any metal window post or other metal object.
4. The mounting bracket supplied with the ELT must be securely attached to the aircraft.<sup>2</sup>
5. Remove the shipping wire (wire next to test lamp with tag attached), temporarily place the switch in the "OFF-TEST" position and allow the switch to return to the "ARM" position. This will ensure that the ELT was not activated during the removal of the shipping wire.

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<sup>1</sup> Due to the extreme compatibility of the 302HM series with the SARSAT satellite system the unit puts out a useful signal from virtually any place it is mounted in the helicopter. While the absolute best results are obtained when the unit is mounted in the cockpit area, eminently satisfactory results have been obtained from the most unexpected mounting locations. EBC ELTs have been picked up by the satellites when radiating from car trunks, junk yards and sealed UPS trucks.

<sup>2</sup> The bracket must be secured to a central portion of the helicopter so that if a force of 100 pounds is applied to the ELT it will not move more than 1/4 of 1 inch. Greater movement would suggest that the beacon mounting is not firm enough and establishes a possible false alarm situation in conditions of severe vibration or turbulence. In many cases various military organizations have come up with suggested mounting areas that have been thoroughly researched and found to be preferred locations for specific aircraft. These mounting instructions are available from ATCOM in Huntsville, Alabama. They should be consulted as a supplement to the instructions included with the unit.

6. The shorting plug attached to the lanyard can be inserted into the terminals next to the test lamp only to deactivate the automatic feature, as would be the case if it were necessary to remove or ship the unit (i.e., if the helicopter were swapped for one without an ELT during maintenance). **MAKE SURE THAT THE SHORTING PLUG IS REMOVED BEFORE FLIGHT**, otherwise the unit will not be ready for automatic operation. THIS STEP SHOULD BE INSERTED INTO THE START-UP CHECKLIST BEFORE FLIGHT.

7. The mounting bracket supplied with all EBC emergency locator transmitters meets the airworthiness requirements of FAR PART 23.561, or FAR PART 25.561 as appropriate.

8. Since Emergency Beacon Corporation has no direct control of the actual installation it is incumbent on the installer to mount the ELT such that all the requirements of FAR 91.52 and FAR PART 23 of FAR PART 25 are met.

**\*\*\*\* DO NOT INSTALL THE MOUNTING BRACKET TO THIN, \*\*\*\*  
\*\*\*\*\* UNSUPPORTED SKIN OR UPHOLSTERY MEMBERS \*\*\*\*\***

### **TEST INSTRUCTIONS**

The EBC “H” series of ELTs differ from other ELTs in that they contain an additional “G” switch oriented 90° to the vertical axis to sense activation forces in the vertical direction. The basic 302 series has an internal omni-directional “G” switch which senses activation in the complete 360° azimuth plane and has no response in the vertical direction. The “H” series was designed to additionally sense the vertical acceleration components found in a helicopter environment and so be responsive to activation forces from any direction.

**DO NOT ACTIVATE TRANSMITTER UNTIL YOU THOROUGHLY UNDERSTAND HOW TO DEACTIVATE TRANSMITTER.** THE transmitter is deactivated by momentarily placing switch in the spring-loaded “OFF-TEST” position and allowing the switch to return to the “ARM position”. Normal power output may be tested by holding the switch in the “OFF-TEST” position for a short period (not more than five seconds), and observing that the amber light flickers dimly. Replace batteries when amber test lamp no longer lights. The emergency signal (PEOW-PEOW) may be monitored on the aircraft transceiver on 121.5 MHz.

**TO MANUALLY ACTIVATE THIS ELT**, move the switch to the “ON” position.

**TO TEST THE AUTOMATIC ACTIVATION FEATURE** of the “H” series it is necessary to perform two activations to insure that both “G” switches are able to turn on the ELT. Tune the aircraft receiver to 121.5 MHz. First test - With the switch on the “ARM” position, hold the ELT with the antenna pointed vertically towards the sky and with your arm fully extended horizontally, then swing the ELT around your body (like a

forehand tennis swing) as fast as possible. This may take some practice since it takes a great deal of force to simulate a crash. Proper activation will be indicated when the PEOW-PEOW signal is heard through the aircraft receiver. Deactivate the ELT after the test by momentarily placing the switch into the "OFF-TEST" position and allowing the switch to return to the "ARM" position. The second test - With the ELT reset from the previous activation hold the unit at arm's length with the antenna pointed towards the horizon. Swing the ELT around your body (like a forehand tennis swing) as fast as possible. This should be done in the same manner as the previous test except that the antenna is now horizontal instead of vertical. Proper activation will again be indicated when the PEOW-PEOW signal is heard through the aircraft receiver. Deactivate the ELT after each test by momentarily placing the switch into the "OFF-TEST" position and allowing the switch to return to the "ARM" position. MAKE SURE THE ELT IS TURNED OFF PROPERLY.

**IMPORTANT:** Testing should NOT be done with night-vision goggles on. DO TEST BEFORE START-UP!

### **OPERATING LIMITATIONS**

The FAA requires that the batteries in an emergency locator transmitter must be replaced before the replacement date marked on the ELT. If the beacon has been stored in a location where the ambient temperature is normally above 80° Fahrenheit, the battery should be replaced six months sooner. The battery should not be stored in an environment where the ambient temperature is above 110° Fahrenheit. The battery should also be replaced when the beacon has been in use more than one cumulative hour.

An EBC ELT is for use when operating under FAR PART 91, 121 and 135.

### **BATTERY REPLACEMENT**

**CAUTION:** ONLY USE FACTORY-APPROVED REPLACEMENT BATTERIES, MODEL GS-21 (ALKALINE). THEY CAN BE OBTAINED FROM:  
EMERGENCY BEACON CORPORATION,  
15 RIVER STREET,  
NEW ROCHELLE, NEW YORK 10801,  
TEL: 914/235-9400 OR 914/576-2700 OR 800-382-0079.  
THE NATIONAL STOCK NUMBER IS 6135-01-162-0943

1. **CAUTION:** If the battery is not connected exactly as stated, the ELT will be permanently damaged.
2. Remove the screws holding cover and remove the cover.
3. Remove the wire connectors by unscrewing them counterclockwise.

4. Replace batteries, placing the new ones with label facing up.
5. Connect the red wires on the batteries together; now, connect the red wire on the beacon to the red wires on batteries.
6. Connect black wires on the batteries together; now, connect the black wire on the beacon to the black wire on batteries.
7. Be sure not to let black wires touch red wires during this process, as you may short out batteries.
8. Screw the wire connectors on by turning clockwise.
9. Install cover and screws.
10. Install label “Replace Battery Before \_\_\_\_\_” on the side of the ELT.

## **EBC-302HM DATA SHEET (P,AP)**

Operating life, Room Temp.	Greater than 48 hours
Operating Frequencies	121.500 MHz +/- .005% and 243.000 MHz +/- .005%
Modulation Percentage	100%
Sweep Range	1330 Hz to 340 Hz
Sweep Rate	3 Hz
Modulation Duty Cycle	43%
Transmitter Duty Cycle	100%
Peak Effective Radiated Power	Greater than 75 mW on both frequencies
Automatic Activation	5-7 G's for 12-15 mS
Low Temperature Performance -20°C.	Meets room temp. specs. after exposure
High Temperature Performance +55°C.	Meets room temp. specs. after exposure
Altitude Performance 50,000 ft.	Meets room temp. specs. after exposure
Decompression 8,200 ft. to 40,000 ft.	Meets room temp. specs. after exposure
High Pressure Performance -15,000 ft.	Meets room temp. specs. after exposure
Humidity Performance 48 hours	Meets room temp. specs. after exposure
Shock Performance @1000 G's, 6 axis	Meets room temp. specs. after exposure
Vibration Test 10 G's	Meets room temp. specs. after exposure
Temperature Variation Test	Frequencies within +.005% after exposure
Immersion Test 17 hours salt water	Meets room temp. specs. after exposure
Waterproofness 20 min. drip	Meets room temp. specs. after exposure

### **PHYSICAL FEATURES**

Size	2.5"W x 2"D x 6.5"H
Weight	2.1 lbs. with battery packs installed
Battery	Uses two GS-21 Alkaline Battery Packs
Case	Aluminum
Finish	Yellow Baked Enamel
Antenna	Flexible non-telescoping antenna extends 19" above transmitter body

### **SPECIAL FEATURES**

True 360° spherical 6 axis G-switch system  
Intended for installation in cockpit or cabin area  
Recessed 3-position toggle switch  
2-year parts and labor warranty  
Comes complete with mounting bracket, battery packs

**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.**

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The EMERGENCY BEACON CORPORATION instrument you 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. Should repairs become necessary, write or call EMERGENCY BEACON CORPORATION describing symptoms of faulty operation. Instructions will be sent to you for obtaining service, if factory judges necessary, authorization for shipment will be given to you. Do not ship without first obtaining this authorization. Pack well and insure when shipping. Repairs will be made without charge for materials and labor within two years from date of warranty registration. Transportation charges both ways are to be borne by the customer. Beyond this warranty period fair charges will be made for service by skilled personnel using factory approved/new parts. This warranty is void if:

- 1- ELT is damaged in transit.
- 2- ELT is abused in any way.
- 3- Repair is attempted by persons not authorized by EBC.
- 4- Unapproved battery is installed.

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\_\_\_\_\_  
(CUT HERE AND RETURN TO FACTORY)

**TWO YEAR WARRANTY REGISTRATION**

Model No: \_\_\_\_\_ Serial No: \_\_\_\_\_

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

How did you hear of this product? \_\_\_\_\_

What persuaded you to purchase it? \_\_\_\_\_

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

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

My name: \_\_\_\_\_

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

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

Return this portion to: EMERGENCY BEACON CORPORATION  
15 RIVER ST.  
NEW ROCHELLE, NY 10801 USA

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