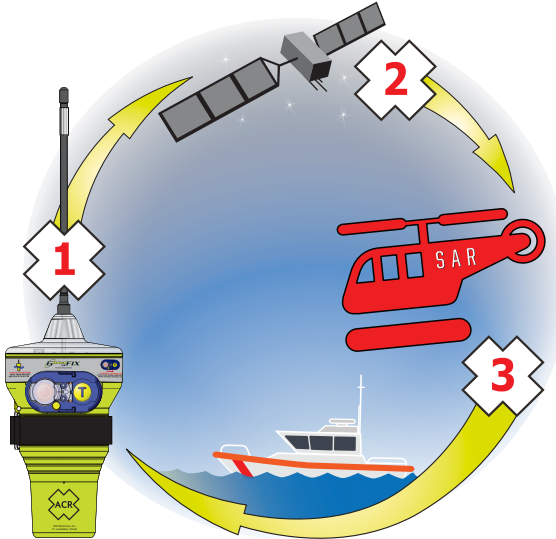


# HOW AN EPIRB WORKS - COSPAS/SARSAT



When a 406 MHz beacon is activated, the digital distress message is transmitted to Cospas-Sarsat satellites, which in turn, relay this message to reach the SAR Authorities. The distress message contains important information about the beacon and its owner. Additional information about the beacon is accessed by SAR from the beacon registration database. At the same time the 406 MHz signal is activated, a 121.5 MHz signal is turned on. The 121.5 MHz signal is used by SAR to home in on the beacon, as they approach it.

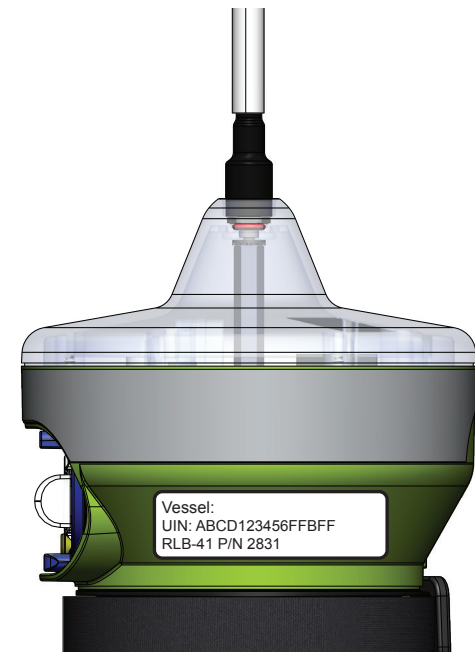
**Registration is Mandatory**  
 This EPIRB must be promptly registered with the appropriate National Authority.

# REGISTERING YOUR BEACON - MANDATORY

All 406 MHz beacons transmit a Unique Identifier Number (UIN) when activated. This UIN is programmed into the beacon based on the country in which the beacon is registered, thus authorities are able to determine which country's database will have your registration information. SAR forces will have information as to who you are as the owner of the beacon, the name and type of vessel that you have, your home-port, and who to contact that might know of your current situation - but only if your beacon has been properly registered. Valuable Search and Rescue resources are wasted every year responding to false alarms, and registering your beacon helps to resolve false alarms quickly.

Registration is Mandatory  
 This EPIRB must be promptly registered with the appropriate National Authority.

1. Select Your Country
2. Follow the online link to complete your registration online (Preferred Method) or Download the registration form and Mail or Fax to your national authority.



**Global FIX V4**  
 406 MHz GPS EPIRB

**Quick Start Guide**

Product Number: 2830- Category I  
 2831- Category II

Y1-03-0302 Rev. A

THE SCIENCE **ACR** OF SURVIVAL

# ACTIVATION - EMERGENCY USE ONLY

Category I beacons are designed to be automatically deployed and activated in the event of a vessel sinking. The beacon may also be manually taken out of the category I bracket and activated manually or immersed in water to activate automatically. Category II beacons are designed to be manually deployed from the category II bracket and then activated manually or placed in the water to activate automatically. Category I and II beacons can also be manually activated while still in their brackets. Manual activation occurs by doing the following:

**1. MANUAL ACTIVATION**  
 SLIDE CLEAR COVER FROM LEFT TO RIGHT TO BREAK WITNESS SEAL

**2. PRESS "ON" BUTTON FOR 2 SECONDS TO ACTIVATE (TO DEACTIVATE, PRESS AND HOLD "ON" BUTTON FOR 3 SECONDS)**

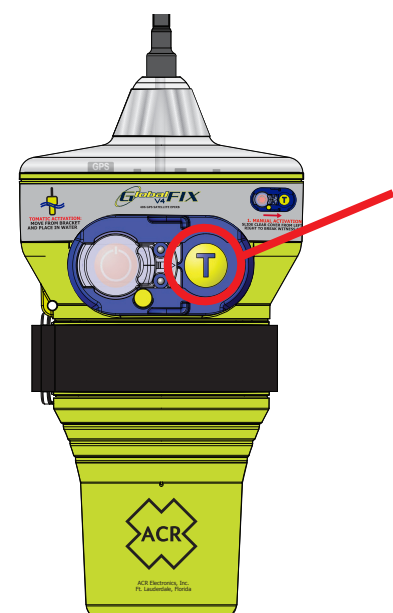
**Activation LED and Strobe Sequence**

- ON - Transmitting 406 MHz WITH GPS (Green star, White star)
- ON - Transmitting 406 MHz Only (Red star, White star)

# BEACON SELF-TEST

The beacon may be self-tested as is warranted, once a month or up to a recommended maximum of 120 times in the ten (10) year life of the battery. ACR recommends that a self-test be performed on a monthly basis. The self-test can be done inside or outside a building or vessel.

A self-test is initiated by pressing the self-test button for one (1) second, until a brief green LED flashes, and then releasing the button. You will then see three (3) additional green LED flashes (representing separate successful individual tests performed as part of the self-test) followed by a long green LED flash and a long beep indicating a successful test. If any of the individual tests fail during the self-test, there will be a red flash and beep associated with each failed test and there will then be four beeps, a long red LED flash, and a strobe at the end of the self-test. Self-test will discontinue at that point and the beacon must be sent in for repair.



**Self-Test LED and Strobe Sequence**

Pass	Green star	Green star	Green star	Green star	Green star	White star	Green checkmark
Fail	Green star	Red star	Red star	Red star	Red star	White star	Red X

If any of these LED's are Red, the self test has failed and will stop, seek service.

# EXTENDED GPS TEST

To do the extended GPS test, the beacon must be outside with a clear view to the sky. The test is initiated by pressing the self-test button for 6 seconds. There will be an initial brief green LED flash, followed shortly by three (3) short green LED flashes and three (3) beeps to indicate that the extended GPS test has started; the Self-test button should then be released. During the extended GPS test, the red LED will blink to indicate that the beacon is searching for a good GPS fix. Upon completion of the test, a long green LED and beep will indicate that the extended GPS test was successful. If the beacon is unsuccessful after two (2) minutes in acquiring a good GPS fix, there will be a long red LED flash and four (4) beeps.

The beacon may be tested for GPS functionality once every six weeks, up to a maximum of 84 times during the life of the battery. When trying to initiate a GPS test after the maximum number of GPS tests has been reached, there will be a brief green LED flash followed shortly by three brief red LED flashes and three beeps indicating that it is no longer possible to run the GPS test.

**Extended GPS Test LED Sequence**

Pass	Green star	Green star	Green star	Green star	Red star	Red star	Red star	Red star	Green star	Green checkmark
Fail	Green star	Green star	Green star	Green star	Red star	Red star	Red star	Red star	Red star	Red X

Number of GPS self-tests exceeded. (Beacon turns off.)

**WARNING:** This transmitter is authorized for use only during situations of grave and imminent danger. Deliberate misuse may incur a severe penalty.

## EPIRB SERVICE & MAINTENANCE

### Routine Beacon Maintenance:

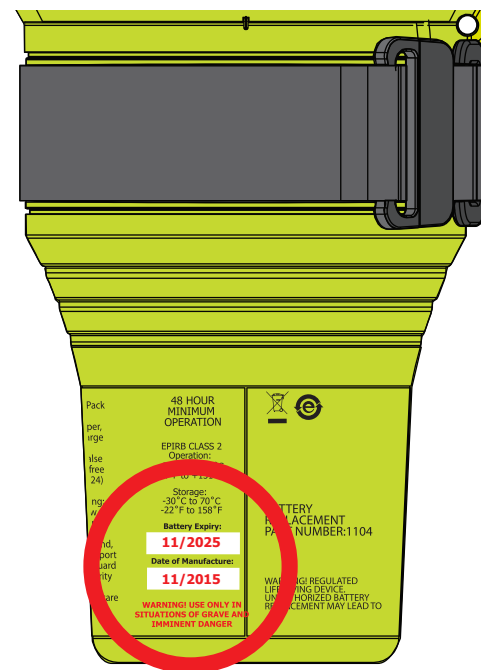
Every 90 days perform a visual inspection of the mounting bracket and beacon for deterioration and/or residue build-up including:

- Check antenna for tightness
- Clean the beacon and mounting bracket with a damp cloth
- Check EPIRB case and bracket for any damage
- Review battery expiration date



## BATTERY REPLACEMENT

This EPIRB is fitted with a user replaceable battery. The battery for this EPIRB can be procured at any ACR dealer. Battery replacement is due after activation or by expiry date on the beacon, whichever comes first.



## GlobalFIX V4 PRODUCT SPECIFICATIONS

GENERAL/ ENVIRONMENTAL	
Beacon size (without antenna)	8.13 H X 4.28 W in. (20.65 X 10.87 cm)
Beacon weight	27 oz. (764 g)
Beacon material	High impact UV resistant polymer
Color	ACR-Treuse™ (high visibility yellow)
Waterproof	Tested to 5 min @10 m (33 ft)
Buoyant	Yes
Activation	Category I & II- Water or Manual Activation
Deployment	Cat. I- Hydrostatic release (auto or manual) / Cat. II- Manual Release
BATTERY	
Operational life	48 hours minimum @-4°F (-20°C)(Class 2)
Battery type and replacement interval	LiMnO <sub>2</sub> 10 years from date of manufacture, or after use in an emergency. Not to exceed battery expiry.
Operating temperatures	-4° F to 131° F (-20° C to +55° C) (Class 2)
Storage temperatures	-22° F to 158° F (-30° C to +70° C) (Class 2)
406 MHz TRANSMITTER	
Frequency	406.040 MHz
Power output	5 W +/- 2dB
Digital message format	Standard location protocol (for the USA). If the vessel is registered to a country other than the USA, the beacon must be re-programmed at an Authorized Battery Replacement center to that countries' coding requirements.
Modulation Type	Phase (16K0G1D)
121.5 MHz TRANSMITTER	
Frequency	121.5 MHz
Power output	50 mW +/- 3 dB
LED STROBE	
Light color	White
Output power	1 cd (effective candela)
Flash rate	20-30/ min
Range	360° visibility
GENERAL	
Approvals	FCC COSPAS-SARSAT USCG MED EC Type Examination (Module B) Meets: GMDSS, RTCM, IEC and IMO standards

## CATEGORY I BRACKET (For P/N 2830)

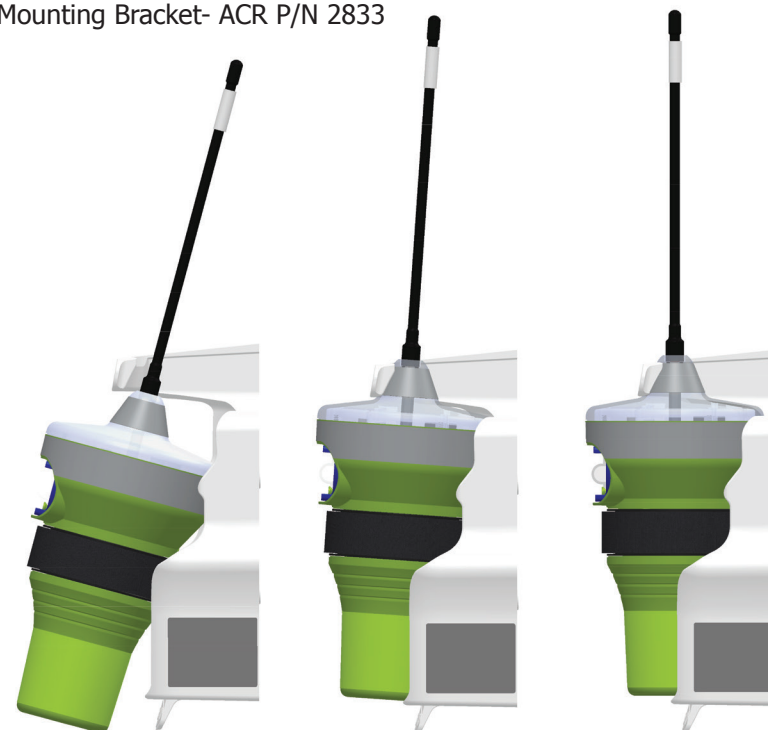
Category I Mounting Bracket- ACR P/N 2832  
Category I HydroFix™ universal hydrostatic release (HRU) kit- ACR P/N 9490.1



To mount the EPIRB in the category I bracket, insert the top cap first at a slight angle and then press the bottom casing until the EPIRB clicks and is firmly supported. The EPIRB can only be mounted inside the bracket with the ON/Test buttons facing out.

## CATEGORY II BRACKET (For P/N 2831)

Category II Mounting Bracket- ACR P/N 2833



To mount the EPIRB in the category II bracket, insert the top cap first at a slight angle and then press the bottom casing until the EPIRB clicks and is firmly supported. The EPIRB can only be mounted inside the bracket with the ON/Test buttons facing out.

## EPIRB Frequently Asked Questions

### How do I register?

Your beacon must be **programmed and registered** to the Country's Authority to which the vessel is registered/ flagged.

### Why do I register?

As owner of this beacon, it is mandatory that you register it with the EPIRB National Authority of your country. In the event of activation, as long as your beacon has been properly registered, search and rescue teams will know who you are, and contacts provided may be able to supply information about your specific travel plans. In the absence of this information, it may take longer for a search and rescue operation to begin.

### How accurate is my beacon?

The GPS coordinates that are transmitted by your beacon enable search and rescue authorities to locate the beacon's position to an accuracy of 110 yards (100 m).

### When should I activate my EPIRB?

Activate during situations of grave and imminent danger when all other means of self-rescue have been exhausted.

### What do I do if I have a false alarm?

Any false alarm must be reported to the nearest search and rescue authorities. Report to them the EPIRB 15-digit Unique Identifier Number (UIN) printed on the beacon, time & date, and the location, duration and cause of activation. The primary contact point in the United States for the notification of False Alerts is the U.S.

### Where should and shouldn't I mount my beacon?

The manual release (category 2) bracket must be mounted in a protected location that is easily accessible should it be necessary to abandon ship. The bracket should be mounted on a vertical surface with the antenna pointed towards the sky. Do not mount the beacon near a compass (minimum distance 1.4 meters). The automatic release (category 1) bracket must be mounted free from obstruction, to allow the beacon to automatically float free from the vessel in case of sinking. The bracket should be mounted on a **vertical** surface with the antenna pointing skyward or a **horizontal** surface with the beacon face up.

Learn more about marine safety we have.