



THE SCIENCE OF SURVIVAL

# ACR ResQLink+™

406 MHz GPS Personal Locator Beacon



PLB



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[www.ACRARTEX.com](http://www.ACRARTEX.com)





# ACR ResQLink+™

## 406 MHz GPS Buoyant Personal Locator Beacon



At 5.4 oz, the ResQLink+™ weighs less than a couple of PowerBars®. And topping at just 4.5 inches, it's smaller than the cell phone in your pocket. Small and mighty, the ResQLink+™ is a full-powered, GPS-enabled rescue beacon designed for boaters, pilots and water-borne sportsmen.

With three levels of integrated signal technology —GPS positioning, a powerful 406 MHz signal, and 121.5 MHz homing capability — the ResQLink+™ quickly and accurately relays your position to a worldwide network of search and rescue satellites. A built-in strobe light provides visibility during night rescues. PLBs have been proven tried and true in some of the world's most remote locations and

treacherous conditions. Just ask the 400 or so pilots, boaters and back country explorers who were saved by a PLB during a rigorous test program in Alaska. Based in large part on the test results, the federal government approved use of PLBs in the United States in 2003.

Even in extreme conditions and situations, the ResQLink+™ activates easily. Just deploy the antenna and press the ON button. With its powerful 66 channel GPS, the ResQLink+™ guides rescuers to within 100 meters or less of your position. And, in the continental U.S., search and rescue personnel are typically alerted of your position in as little as five minutes with a GPS-enabled PLB such as the ResQLink+™.

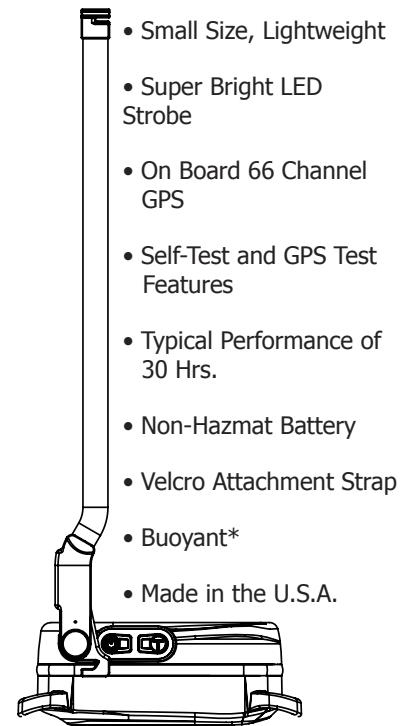
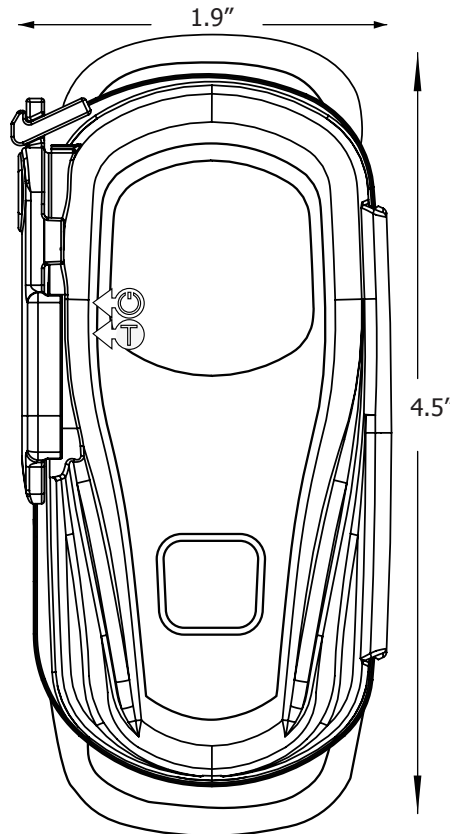
Two built-in tests allow you to routinely verify that the ResQLink+™ is functioning and ready for use— with the push of a button, you can easily test internal electronics and GPS functionality.

### Free Registration Required

It is mandatory that you register your PLB. It is fast, easy and free [www.beaconregistration.noaa.gov](http://www.beaconregistration.noaa.gov). When activated, the unique identification code in your PLB is linked to the registration database. This way authorities can retrieve valuable information about you and your trip.

## SPECIFICATIONS

Product Number	2881
Model Number	PLB-375 (ResQLink+)
Size	1.6 x 1.9 x 4.5" (4.1 x 4.8 x 11.4 cm)
Weight	5.4 oz (153 g)
Battery	Non-hazmat lithium batteries
Class	Class 2 Operation @ -4°F (-20°C)
Battery, Replacement Interval	Replacement due six (6) years from date of manufacture or five (5) years after beacon is placed into service, whichever is first, or after emergency use
Operational Life	Exceeds 24 Hours @ -4°F (-20°C)
Storage	-22°F to +158°F (-30°C to +70°C)
Material	Engineered polycarbonate blend
Color	ACR-treuse™ (high visibility yellow)
Activation	Manual
Operation	2 steps: deploy antenna, press ON button. Give clear view of sky
Waterproof	16.40 ft (5 m) @ 1hr, 33 ft (10 m) @ 10 min. Factory tested @70°F, exceeds RTCM waterproof requirements
Buoyant	Yes*
Approvals	Cospas-Sarsat, FCC, Canada, R&TTE, AMSA
Limited Warranty	5 years
Lead Free	Yes



- Small Size, Lightweight
- Super Bright LED Strobe
- On Board 66 Channel GPS
- Self-Test and GPS Test Features
- Typical Performance of 30 Hrs.
- Non-Hazmat Battery
- Velcro Attachment Strap
- Buoyant\*
- Made in the U.S.A.

Advanced Satellite Confirmation Testing with



Optional subscription service

For further information please contact:

**ACR Electronics, Inc.**

5757 Ravenswood Road  
Fort Lauderdale, FL 33312

Tel: (954) 981.3333

Fax: (954) 983.5078

Email: [sales@acrartex.com](mailto:sales@acrartex.com)

The ResQLink+ is a satellite signaling device of last resort, for use when all other means of self rescue have been exhausted, where the situation is grave and imminent and the loss of life, limb, eyesight, or valuable property will occur without assistance.

\*The ResQLink+ is a buoyant PLB but is not intended for operation in water. Intended operational environments include on ground and above ground including held in hand. In all cases, the beacon must be facing skyward with the antenna perpendicular.

THE SCIENCE OF SURVIVAL



ACR Electronics, Inc.  
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Fort Lauderdale, FL 33312

www.acrelectronics.com

# THE SCIENCE OF SURVIVAL



# ResQLink™

## 406 MHz Personal Locator Beacons

PRODUCT SUPPORT MANUAL

Model: PLB-375 / Product No.: 2880 (ResQLink), 2881 (ResQLink +)

Y1-03-0251 Rev. E












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This manual supports all configurations of PLB-375 beacons. In addition to the part numbers listed on the cover page, other configurations of these products may be available, thus you may have purchased a product configuration with a different version of the part number (for example, 2880.63). As long as the first four digits are the same as one of the part numbers on the cover, this manual is applicable. If you have questions regarding the contents of the manual or something not covered in the manual, please contact our Technical Service Department at ACR Electronics Inc. +1 (954)-862-2110.

## PLEASE READ ALL WARNINGS, CAUTIONS AND NOTES CAREFULLY

-  **CAUTION:** Before proceeding to test or use your new ACR Electronics' product, please read this Product Support Manual in its entirety.
-  **WARNING:** The PLB must be promptly registered with the appropriate National Authority. Failure to register the PLB could delay a Search and Rescue (SAR) response and may be unlawful.
-  **WARNING:** This transmitter is authorized for use only during situations of grave and imminent danger. Deliberate misuse may incur a severe penalty.
-  **CAUTION:** False alerts endanger lives and cause expensive disruption to Search and Rescue services, deliberate misuse of the PLB could result in penalty and fine.
-  **CAUTION:** Contains lithium batteries. Do not incinerate, puncture, deform, short-circuit or recharge.
-  **CAUTION:** Do not dismantle the PLB, contains no user-serviceable parts.
-  **CAUTION:** Remove from pouch prior to operation
-  **Disposal:** Remove the Lithium battery. Dispose of the used battery in accordance with local waste disposal regulations.
-  **Air Travel:** Product contains small lithium metal batteries that comply with IATA SP 188-PI 970 Air Cargo. Always check with air carrier concerns for any additional restrictions.

# 1. Registration

## REGISTERING YOUR BEACON

### Why is registration important?

As the owner of this 406 MHz beacon, it is a requirement that you register it with the National Authority of your country. Please note that in many countries all 406 MHz beacons are required to have their registration updated every two years by the owner. Please check the requirements for your country of registration.

### HOW REGISTRATION WORKS:

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. Search and Rescue (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 (if applicable), your address, 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 alerts, and registering your beacon helps to resolve this quickly.



USER:  
UIN: ABCD123456FFBF  
PLB-375 P/N 2880 U.S.A.(366)



Save Time! Register your beacon online at: [www.beaconregistration.noaa.gov](http://www.beaconregistration.noaa.gov)

## Official 406 MHz PLB Registration Form

Mail or Fax to: NOAA/SARSAT, NSOP, E/SP3; 4231 Suttland Road; Suttland, MD 20746. Fax 301-817-4565

**PLB Information**

Beacon ID (Unique Identifier Number)  
**ABCD123456FFBF**  
(15 digit character ID provided by PLB manufacturer)

PLB Manufacturer **ACR Electronics** Model No. **RESQLINK PLB-375**

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**PLB Registration**

New PLB Registration  Replacement of PLB Decal  
 Renewal of PLB Registration  Check here if this PLB is a replacement for a previously registered PLB.  
 Change of PLB Information or Ownership Please enter the old PLB unique ID number \_\_\_\_\_

---

**Owner/Operator Information**

Name **Sample, John, A** Telephone \_\_\_\_\_  
(Last, First, Middle Initial)

Mailing Address **5757 Ravenswood Rd** (954) 981-3333  Home  Work  Cellular  Fax  Other  
Area Code

City **Fort Lauderdale** State/Province **FL** (954) 989-5087  Home  Work  Cellular  Fax  Other  
Area Code

ZIP (Postal) Code **33312** Country **USA**  Home  Work  Cellular  Fax  Other  
Area Code

E-mail \_\_\_\_\_

---

**General Use Data**

**Usage**  
 Commercial  Non-commercial  Government Military  Government Non-military

**Specific Usage**  
 Hiking  Hunting  Fishing  Other \_\_\_\_\_

**Type**  
 Land Vehicle  Boat  Aircraft  None  Other \_\_\_\_\_

**Additional Data**  
**Land Vehicle: Jeep Wrangle White, License Plate Florida # ABC123**  
**Boat: 21' Center Console, Boat Name: S.S. EPIRB**  
**Next Schedule Fishing Trip is Feb. 3-5, 2011. 4 Persons on board. Leaving Ft. Lauderdale Heading to Bimini. 1 Person on board with Heart Problems.**

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**Emergency Contact Information** (Please indicate someone other than the owner)

Name of Primary 24-Hour Emergency Contact: **Jane Sample** Telephone: (555) 123-4567  Home  Work  Cellular  Fax  Other  
Area Code

Name of Alternate 24-Hour Emergency Contact: **Tom Sample** Telephone: (555) 234-5678  Home  Work  Cellular  Fax  Other  
Area Code

(954) 981-3333  Home  Work  Cellular  Fax  Other  
Area Code

(555) 235-6789  Home  Work  Cellular  Fax  Other  
Area Code

( ) \_\_\_\_\_  Home  Work  Cellular  Fax  Other  
Area Code

(555) 456-7891  Home  Work  Cellular  Fax  Other  
Area Code

(555) 567-8910  Home  Work  Cellular  Fax  Other  
Area Code

---

Signature **John Sample** Date **01/14/2011**

If you have any questions about this form or with PLB registration in general, please call 1-888-212-SAVE (7283) or 301-817-4515.  
 For information on the U.S. Search & Rescue Satellite-Aided Tracking system, please visit: [www.sarsat.noaa.gov](http://www.sarsat.noaa.gov)

OMB (0648-0295) Expires: 31 JAN 2008  
 A1-20-1036 Rev. F

# 1. Registration

**What country should I register in?** The beacon must be registered in the country of the owner's residence. If the beacon is not programmed to that country's code and protocol, and the residence is outside of the USA, the beacon needs to be reprogrammed.

Additionally, the beacon must be reprogrammed if you, as the owner, move out of the country where the beacon is registered. To verify the country for which a beacon is programmed, see the label with the UIN (Unique Identification Number) on the back of the unit.

**For a complete list of all countries with online registration links visit [www.acrelectronics.com/support/registrations/](http://www.acrelectronics.com/support/registrations/)**

**Please check to make sure that your PLB is registered correctly**

## **How do I register?**

Registration in the United States - The national authority that accepts registrations in the United States is the National Oceanic and Atmospheric Administration (NOAA).

All registration forms will be entered in the 406 MHz beacon registration database within 48 hours of receipt. **The information you provide on the registration form is used for rescue purposes only.**

A confirmation letter, a copy of the actual registration and a proof-of-registration decal will be mailed to you within two weeks. When you receive these documents, please check the information carefully, and then affix the decal to your beacon in the area marked "BEACON DECAL HERE."

It is very important that the proof of registration decal matches the UIN on the beacon. If you do not receive confirmation back from NOAA within two weeks, call toll free (888) 212-7283 for assistance.



The fastest and easiest way to register is online at [www.beaconregistration.noaa.gov/](http://www.beaconregistration.noaa.gov/)

Or Mail To:



**SARSAT Beacon Registration NOAA  
NSOF, E/SP053  
4231 Suitland Road  
Suitland, MD 20746**



Or Fax To:

Faxing a registration is also acceptable. Fax the registration form to 301-817-4565

## User Tip

Name of Vessel: \_\_\_\_\_  
UIN: A4CC3FFA44FFBFF  
Serial No.: 15650 Date: 0305

COSPAS-SARSAT  
PROOF OF REGISTRATION  
EXP. DATE: 04/17/2009  
**A4CC3FFA44FFBFF**  
VSL: NOAA Sample  
(no data provided)

# 1. Registration

## Registration in Other Countries

In countries other than the United States and Canada, 406 MHz beacons are registered with that country's national authority at the time of purchase. The sales agent may have assisted you in filling out the forms and sending them to the country's national authority.

To verify that the unit is properly programmed for your country, view the UIN label on the back of the unit. In the event that the beacon is not programmed for your country, the sales agent (if properly equipped) can reprogram the unit for the correct country.



International customers should visit <http://www.acrelectronics.com/support/registrations/> to find the proper location to register your beacon.

## Registration in Canada

Canadian residents can register online at:



The fastest and easiest way to register is online at: <http://canadianbeaconregistry.forces.gc.ca/>

Or Mail To:



**Canadian Beacon Registry  
CFB Trenton, PO Box 1000 Stn Forces,  
Astra, Ontario K0K 3W0**

Or Fax To:



Faxing a registration is also acceptable. Fax the registration form to 877-406-3298

## 2. Anatomy Of A Rescue

### HOW THE BEACON WORKS

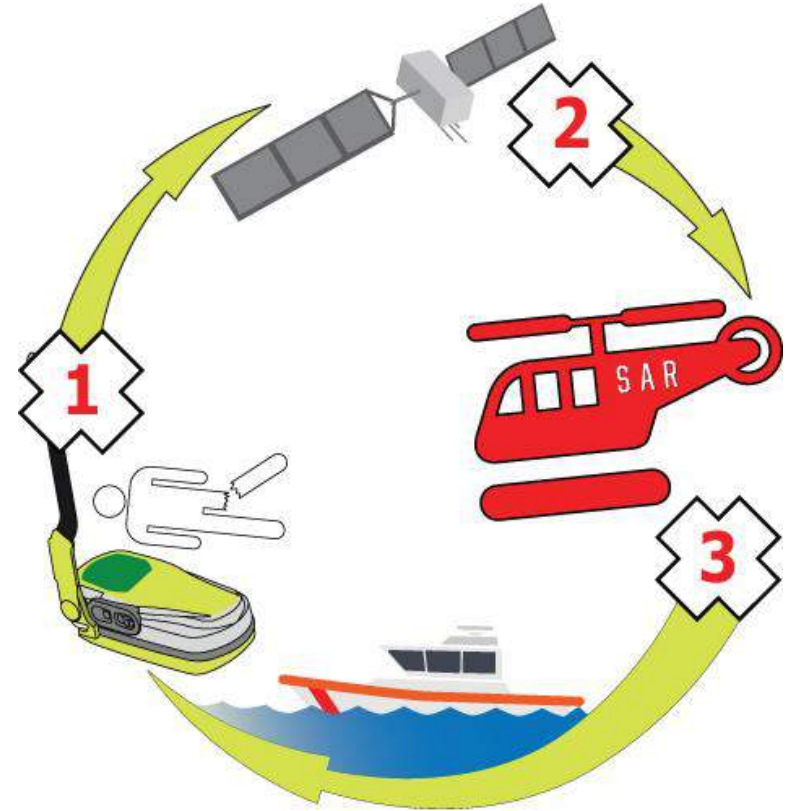
#### How your beacon summons help

406 MHz beacons are a type of portable emergency equipment that transmits a distress signal to search and rescue (SAR) organizations. The purpose of these beacons is to aid SAR teams in tracking and locating ships or individuals in jeopardy as rapidly as possible.

The 406 MHz frequency is a worldwide dedicated emergency frequency that is detected by a network of satellites called the Cospas-Sarsat system. This satellite system was established by, and continues to be supported by, its primary benefactors - the USA, Russia, Canada and France. The Cospas-Sarsat system has saved over 30,500 lives - and counting - since its inception. To learn more about the system visit [www.cospas-sarsat.org](http://www.cospas-sarsat.org).

When a 406 MHz beacon is activated, the digital distress message is sent to Cospas-Sarsat satellites and, in turn, the distress message is relayed to SAR forces. The distress message contains the beacon UIN and on some models the GPS location of the beacon. Additional information about the beacon is accessed by SAR forces 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 forces to home in on the beacon as they approach it.

The 406 MHz signal is detected by multiple satellites and from that information the location of the beacon can be calculated. This data alone is sufficient for SAR to find persons or ships in distress in a reasonable timeframe. However, as a further enhancement, some beacons have a GPS engine onboard. This feature allows the beacon to acquire current location coordinates from an internal GPS receiver. The purpose of this feature is to send an even more precise location of the beacon to the satellites, i.e., latitude and longitude data. This helps SAR to reach the location even faster.




Learn more about the Cospas-Sarsat satellite system: [www.cospas-sarsat.org](http://www.cospas-sarsat.org)

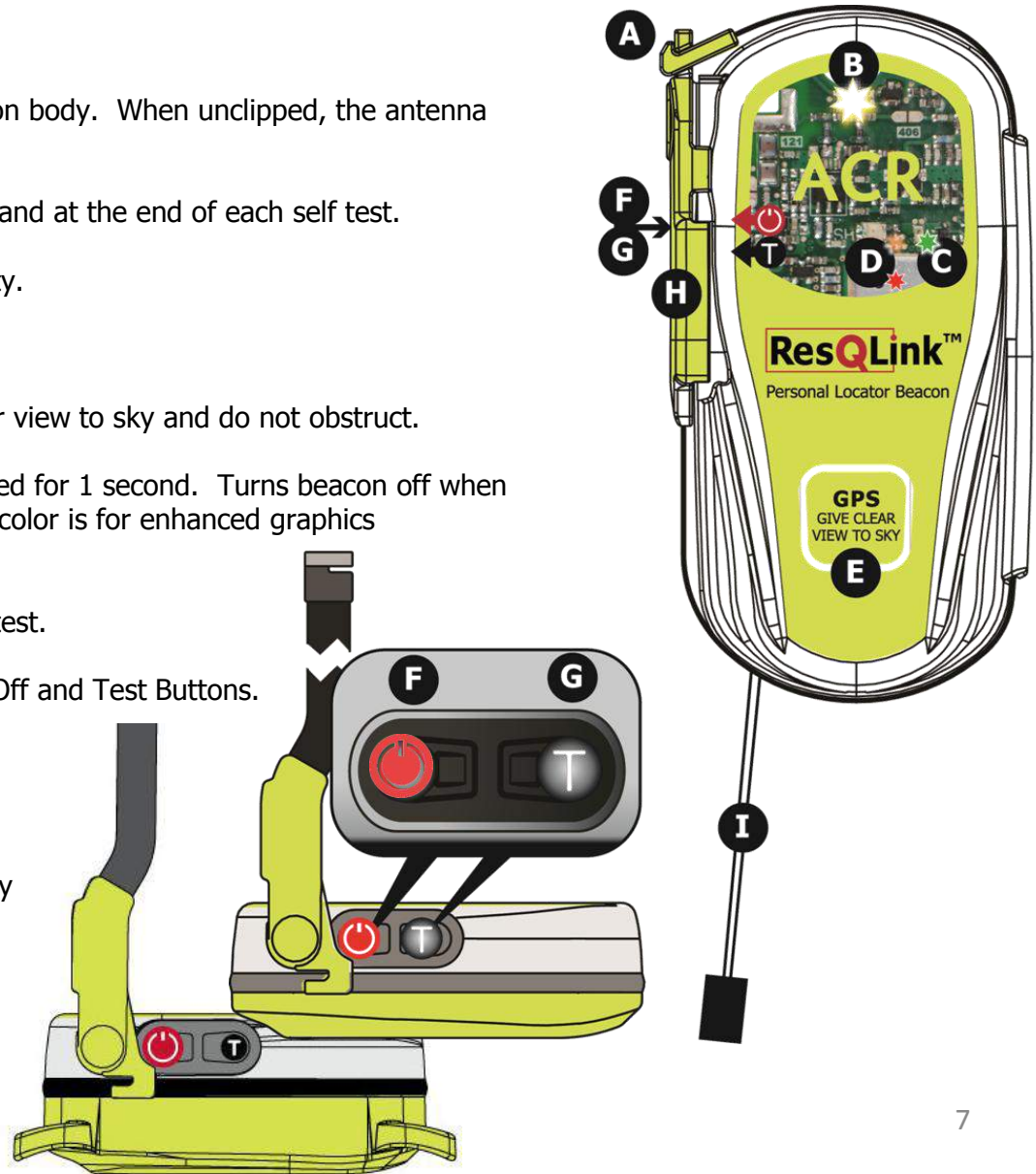


# 3. Anatomy Of Your Beacon

## Anatomy of your beacon

- A. **Antenna Latch** – Latch unlocks antenna from beacon body. When unclipped, the antenna can be deployed to uncover On/Off and test buttons.
- B. **Strobe Light** – Activates when beacon is turned on and at the end of each self test.
- C. **Green LED Light** – Visual indicator of beacon activity.
- D. **Red LED Light** – Visual indicator of beacon activity.
- E. **GPS Receiver** – Location of GPS Receiver, give clear view to sky and do not obstruct.
- F. **ON/OFF Button** – Activates the beacon when pressed for 1 second. Turns beacon off when pressed for 3 second. (button is embossed only, red color is for enhanced graphics presentation)
- G. **TEST Button** – Self Test Beacon to do full function test.
- H. **Antenna** – Wraps around product and protects On/Off and Test Buttons.
- I. **Lanyard** – Secures beacon to prevent loss.

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



# 4. Activating Your Beacon

## Overview

Personal Locator Beacons are designed to be manually activated. They are only to be activated when all other means of self-rescue have been exhausted. When properly registered as required, the activation of the beacon tells Search and Rescue who you are, where you are, and that you are facing a life threatening situation.

## How To Activate Your Beacon

To activate your beacon in a distress situation, follow these steps:

1. Unclip the antenna latch from the case and move antenna into the upright position
2. Depress the ON/OFF button for 1 full second. (button is embossed only, red color is for enhanced graphics presentation)

### When Activated (**First Minute**):

To let you know the beacon has been activated, you will see the strobe light flash once every second while the RED light will flash once every 3 seconds.

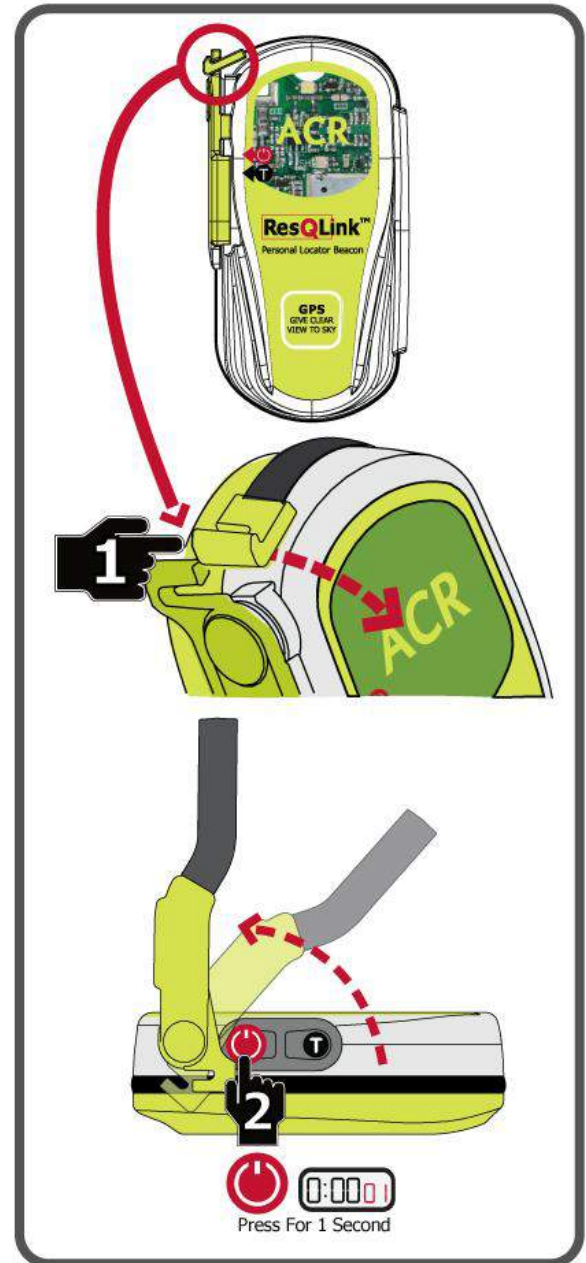
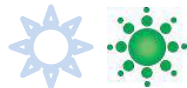


### After the First Minute:

While transmitting your distress signal, the RED light and Strobe light each will flash once every 3 seconds, alerting you that your beacon is active.



When the Red light is replaced by the GREEN light, this indicates that your beacon has successfully downloaded your GPS coordinates and is transmitting them along with your 406 MHz Distress Signal.



## 4. Activating Your Beacon

### Activation with GPS

When your unit is activated, the GPS receiver will turn on, search to find your LAT/LON and incorporate it into your 406 MHz signal. As soon as the GPS receiver acquires valid positioning data, the red flashing light will be replaced by a green flashing light once every 3 seconds.

The same GPS data will be sent with each 406 MHz signal for the next 30 minutes. At that time the internal GPS will start up again, search to find your LAT/LON and incorporate it into your next 406 MHz signal. If for any reason the internal GPS cannot update your LAT/LON, your last position will be used for the next four hours. At that time the green LED will stop blinking and the red LED will flash once every 3 seconds until new GPS data is obtained.

### GPS receiver orientation

When activated, it is critical that you do not cover the beacon with any body part, water, clothing, etc. The GPS receiver is located under the bottom portion of the case where it is outline with the text "GPS, Give Clear View To Sky."

To ensure optimum performance of the GPS receiver, the beacon needs to have an unobstructed view of the sky. Avoid submerging the GPS receiver in water if possible. Water will shield and inhibit the GPS receiver and may cause difficulties obtaining your GPS coordinates. Avoid leaning over the beacon to view blinking LED as you may shield the GPS reception.

**GPS  
GIVE CLEAR  
VIEW TO SKY**

**Red Flashing Light =  
Sending 406 MHz  
Signal Only**

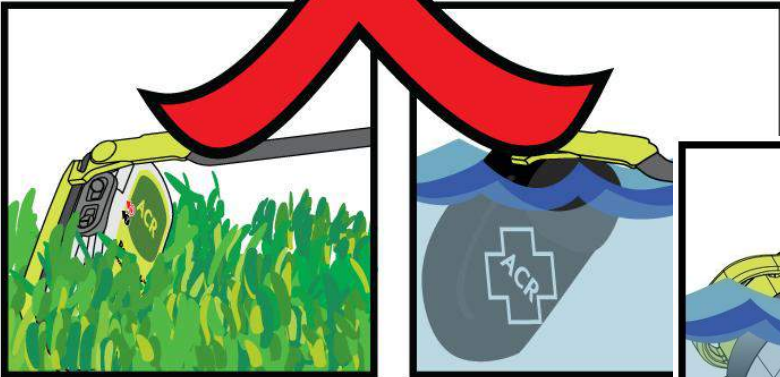
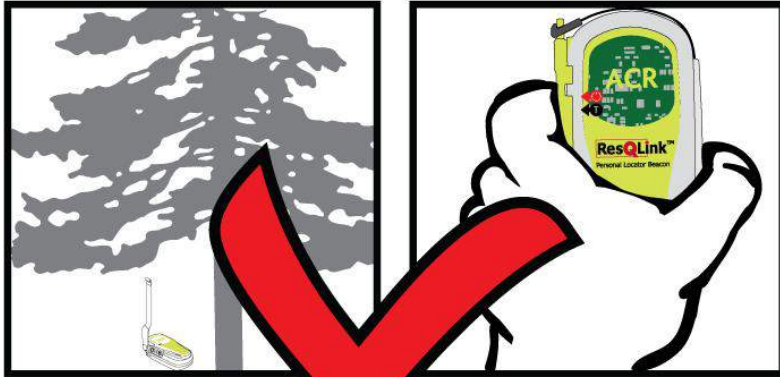
**Green Flashing Light =  
Sending 406 MHz  
Signal with GPS  
Coordinates**



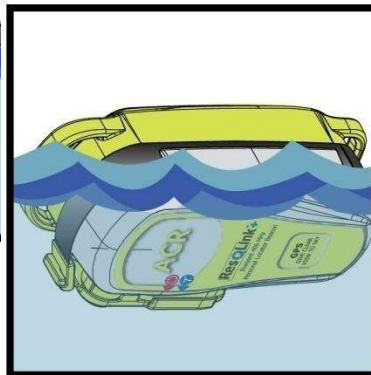
# 4. Activating Your Beacon

## Proper Positioning and Handling during Activation

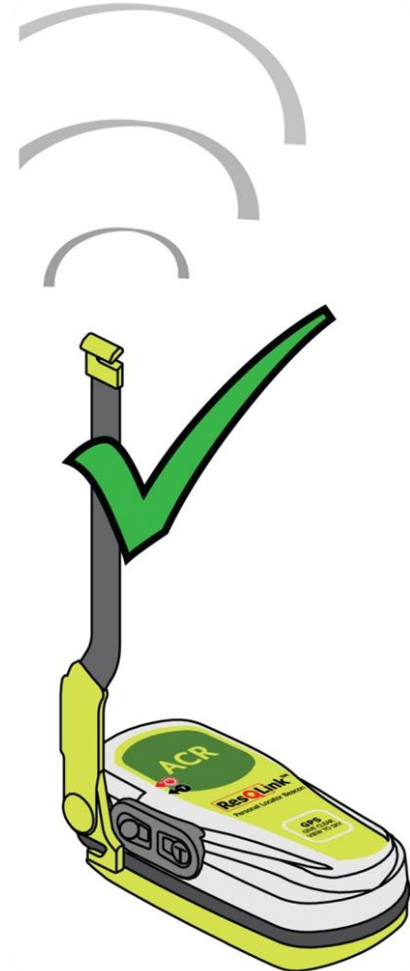
**Do not cover the GPS receiver with your hand and make sure you have a clear view to the sky to ensure GPS is downloaded.**



**Make sure the antenna is pointing towards the sky, out of the water. Beacon is not intended to operate in water. While the unit is waterproof, it must be above the water's surface to function properly.**



**ResQLink+ Floating Version:  
Not intended to operate in water.**



## 5. Turning Your Beacon Off

### **Turning off the beacon**

To deactivate your beacon; depress the ON/OFF button for more than 3 seconds. Once the beacon is deactivated, all blinking LED lights will stop, signifying that the beacon is no longer sending your distress message.

If deactivation should fail, try again before removing the 2 screws holding the unit together and unplugging the battery to disable the unit. Return the beacon to ACR Electronics for service.

**NOTE:** Leave beacon on until rescued. Turning beacon off will prolong or prevent rescue. Repeated activations could be viewed as a hoax.



## Post Rescue Follow Up

Hopefully you are never put in the situation where you have to activate your beacon to be rescued, however, should you activate your beacon in an emergency that requires Search and Rescue assistance, please contact ACR Electronics in the days that follow.

It is important for us to learn the nature of your emergency, how the beacon performed so that we can continue to build the world's best life saving equipment.

Real life activations and how people use our beacons in these situations plays a major role in designing and manufacturing our products. We also like to share these rescues with others in an effort to promote proper use of Personal Locator Beacons.

You can learn more about our Post Rescue Follow Ups by visiting our Survivor Club at [www.acrelectronics.com/survivors/](http://www.acrelectronics.com/survivors/)

# 6. Testing Your Beacon

Your beacon has the ability to perform 2 different tests to ensure the beacon is working perfectly. The first is a basic self test which checks the beacons Data Integrity and Memory; 406 MHz Synthesizer; RF Power/Battery; GPS header and sends a satellite burst. The second test is a GPS Self Test that actually turns the GPS Receiver on, downloads your position and then transmits this data in the Self Test satellite burst.

Note: Self test should only be performed in the first 5 minutes of any hour.

## Basic Self Test (No GPS Data)

During a Self-test your beacon will send a 406 MHz signal coded as Self-test to the satellite system and a 121.5 MHz homing signal.

This beacon has enough excess battery life to perform 60 self tests over the 5 year life of the battery.



To perform a Basic Self Test:

1. Unclip the antenna latch from the case.
2. Move the antenna into the upright position
3. Depress the Test button for 1 full second






A Green Light will flash followed by a Second Long Green Light flash and the strobe light. This indicates a successful Basic Self Test.

If a red LED flashes at the completion of the Self-test, your beacon has failed. Repeat the Self-test. If the failure persists, contact [ACR Electronics](#) or an [authorized Battery Replacement Center](#) for servicing of your beacon.

ACR strongly recommends performing the **Self-Test once per month**, or at least two weeks prior to a trip allowing enough time for service should your beacon require it.

## Battery Witness Seal Life

If your beacon flashes an initial Amber light at the beginning of the Self- test, this indicates that your electronic witness has been broken and you have used more than 1 hour of battery life. While the beacon will still operate normally in a distress situation, ACR strongly recommends you have your battery replaced and the electronic witness reset to ensure that you will have at least 24 hours of battery power.

Light Scheme	Light Meaning
	Self Test Passed
	Self Test Passed (Battery: <24 Hours)
	Self Test Fail
	Self Test Fail (Battery: <24 Hours)
	Battery Fail

# 6. Testing Your Beacon

## GPS Self Testing (GNSS Self-Test)

The GPS receiver is located under the bottom front portion of the case. It is imperative that the receiver is not obstructed during Self-Test or activation to ensure that the GPS receiver is acquiring your latitude (LAT) and longitude (LON) position. This test must be performed outside with a clear view of the sky.

This beacon has enough excess battery life to perform **12** GPS self tests over the 5 year life of the battery. Once this GPS testing feature reaches 12 times, the feature will be disabled by internal software.

To perform a GPS Self Test:

1. Unclip the antenna latch from the case.
2. Move antenna into the upright position
3. Depress the Test button for 5+ seconds



3 Green LEDs will flash followed by a continuous series of RED flashes until GPS has been downloaded into the beacon. Once valid GPS data has been obtained, a long GREEN flash will appear followed by a flash of the Strobe Light. This indicates a successful GPS Self Test. This will take no longer than two minutes.

3 Red LEDs at the start of test indicates that 12 GPS test have been performed; the test will not run.

If at the end of the GPS Self Test, a long Red light appears, this indicates that the beacon was unable to find your GPS coordinate.






**Quick Tip:**  
A Basic Self Test will take roughly 10 seconds to perform and complete.

A GPS Self Test will take roughly 45-120 seconds to perform and complete.



## Battery Witness Seal Life

If your beacon flashes an initial Amber light at the beginning of the Self- test, this indicates that your electronic witness has been broken and you have used more than 1 hour of battery life. While the beacon will still operate normally in a distress situation, ACR strongly recommends you have your battery replaced and the electronic witness reset to ensure that you will have at least 24 hours of battery power.

Light Scheme	Result	Light Meaning
 Every 3 seconds		GPS Downloaded Data and Sent in Test Burst
 Every 3 seconds		GPS Unable to Download
		Test Not Initiated: GPS Self Test Limit Exceeded

# 7. Satellite Testing Your Beacon

## Optional Advanced through Satellite Testing and Beacon Management

Additional features and through satellite testing services are available for this beacon when you subscribe to [www.406Link.com](http://www.406Link.com).

When you sign up for this optional service you can test your beacon and have confirmation messages sent to your cell phone or email. Expanded services also will include friends and family contact information for check in messaging. Visit [406Link.com](http://406Link.com) for complete details. (This service is not required for your beacon to function as a Personal Locator Beacon.)

Service limited to North and South America. See Coverage Map at [www.406Link.com](http://www.406Link.com)



## 2 Day Free Trial

Want to know your beacons works through the satellites without purchasing a subscription. Click on the 2 Day Free Trial link on [www.406Link.com](http://www.406Link.com) and test it for Free. No Credit Card Required.



# 8. False Alarms

## **Preventing false alerts**

A false alert is any activation of the beacon, intentional or otherwise, that does not result from a situation of grave and imminent danger.

Be sure to do the following to help minimize false alerts:

**Register your beacon.** This does not reduce false alert rates; however, when the beacon is properly registered, the situation can usually be resolved with a phone call.

**Be careful with whom you leave your beacon.** Make sure that they know how to use it, and that they understand the ramifications of causing a false alert. A lot of false alerts are generated by curious individuals. If you notice the beacon is flashing the red or green LED and strobing periodically on its own, this likely means it has accidentally been activated and needs to be shut off and reported.

The Cospas-Sarsat satellites detect distress beacon transmissions immediately and locate the transmission within a few minutes of beacon activation.

**NOTE:** If you report a false alert and the authorities have not received the signal, do not be concerned. This may mean that you were able to deactivate the beacon before transmitting the signal.

## **False alert**

A false alert **must** be reported to the search and rescue authorities.

False alerts in the USA that are rectified must be reported to the US Air Force Rescue Coordination Center (AFRCC) to let them know that the situation has been corrected and everything is fine. Responsibly reporting these events to the AFRCC or your proper authority will not incur a penalty, but deliberate misuse or not notifying the proper authority may incur a severe penalty.

## **Reporting**

Should there be a false alert for any reason, it **must** be reported to the nearest search and rescue authorities. The information that should be reported includes:

- The PLB 15-digit Unique Identifier Number (UIN)
- Time and date
- Duration and cause of activation
- Location of beacon at the time of activation

***To report false alerts outside of the USA,*** contact the national authority where your beacon is registered.

***To report false alert in the United States,*** contact:

**United States Air Force Rescue Coordination Center (AFRCC)**

**Tel: 1-800-851-3051**

# 9. Beacon Maintenance

## Routine Maintenance

Carefully inspect the beacon case for any visible cracks. Cracks may admit moisture, which could falsely activate the beacon or otherwise cause a malfunction. Any cracks observed should be immediately referred to ACR for evaluation by calling +1 (954)-862-2110. ACR Technical Support can also be reached by sending an email to: [service@acrelectronics.com](mailto:service@acrelectronics.com)

After checking the beacon case for cracks, it may be wiped down with a clean, damp cloth. Do not use any type of cleaner on your beacon.

## Battery Replacement

Replace the battery no later than 6 years from beacon date of manufacture, 5 years from in service date, or after emergency use. At each inspection, check the time remaining until replacement is required. The battery should be replaced if the beacon has been activated for any use other than the Self-test. Always refer battery replacements and other beacon service to a factory authorized [Battery Replacement Center](#). Battery replacement includes servicing the beacon by replacing all o-rings, testing the water seal and the electrical properties.

**NOTE:** There are no user serviceable items inside the beacon. **DO NOT OPEN THE BEACON.** Opening the beacon will void the warranty.



For the nearest location of a Battery Replacement Center, visit our website at [www.acrelectronics.com/where-to-buy/find-a-battery-service-provider/](http://www.acrelectronics.com/where-to-buy/find-a-battery-service-provider/)

This beacon contains 1 lithium metal battery pack that is less than 0.8 grams. They are not classified as Hazmat for transportation. Prior to shipping beacon for service, alert your carrier about the batteries contained in this equipment to make sure they properly label your package. Call ACR's Technical Service department at +1 (954)-862-2110 for proper shipping instructions or visit the ACR website for an MSDS.

[Download MSDS Sheet](#)

# 9. Beacon Maintenance

## Changing ownership or contact information

As the owner of the beacon, it is your responsibility to advise the national authority of any change in your registration information. If you are transferring the beacon to a new owner, you are required to inform the national authority. You can do this by using their online database or by letter, fax or telephone and informing the authority of the name and address of the new owner.

The new owner of the beacon is required to provide the national authority with all of the information requested on the registration form. This obligation transfers to all subsequent owners.

## Lost or stolen PLBs

**If your PLB is lost or stolen, do the following immediately:**

- Report to your local authorities that the PLB has been lost or stolen
- Contact your National Authority with the following information:
  - Police department name
  - Police department phone number
  - Police case number

If your PLB were to be activated, the information you provided will be forwarded to the appropriate search and rescue authorities who will ensure that your PLB gets back to you.

If someone attempts to register a PLB reported as stolen, your national authority will notify the appropriate police department.

Save Time! Register your beacon online at: [www.beaconregistration.noaa.gov](http://www.beaconregistration.noaa.gov)

**Official 406 MHz PLB Registration Form**  
Mail or Fax to: NOAA/S&AT, 6205, 6293, 4231 Sulfur Road, Solomons, MD 20746, Fax 301-617-4585

**PLB Information** (Beacon ID (Unique Identifier Number) is the number assigned to PLB registration.)  
Beacon ID: A1BCD11234567890  
PLB Manufacturer: ACR Electronics Model No.: RESQLINK PLB-375

**PLB Registration**  
 New PLB Registration  Replacement of PLB Decal  
 Renewal of PLB Registration  Check here if this PLB is a replacement for a previously registered PLB.  
 Change of PLB Information or Ownership Please enter the old PLB unique ID number \_\_\_\_\_

**Owner/Operator Information**  
Name: Sample, John A Telephone \_\_\_\_\_  
Mailing Address: 5757 Ravenswood Rd (694) 981-3333  Home  Work  Other  Other  
City: Fort Lauderdale State/Province: FL (694) 983-8087  Home  Work  Other  Other  
ZIP (Postal) Code: 33312 Country: USA ( )  Home  Work  Other  Other  
E-mail \_\_\_\_\_

**General Use Data**  
Usage:  Commercial  Non-commercial  Government Military  Government Non-military  
Specific Usage:  Hiking  Hunting  Fishing  Other \_\_\_\_\_  
Type:  Land Vehicle  Boat  Aircraft  None  Other \_\_\_\_\_

**Additional Data**  
Land Vehicle: Jeep Wrangle White License Plate Florida # ABC123  
Boat: 21' Center Console Boat Name: S.S. EPIRB  
Next Schedule Fishing Trip is: Feb. 3-5, 2011, 4 Persons on board, Leaving Ft. Lauderdale Heading to Bimini, 1 Person on board with Heart Problems.

**Emergency Contact Information** (Please indicate someone other than the owner)  
Name of Primary 24-Hour Emergency Contact: John Sample Name of Alternate 24-Hour Emergency Contact: Tom Sample  
Telephone: (693) 123-4567  Home  Work  Other  Other Telephone: (693) 234-5678  Home  Work  Other  Other  
(694) 981-3333  Home  Work  Other  Other (694) 981-3333  Home  Work  Other  Other  
(693) 235-6789  Home  Work  Other  Other (693) 456-7891  Home  Work  Other  Other  
( )  Home  Work  Other  Other (693) 567-8910  Home  Work  Other  Other

Signature: John Sample Date: 01/14/2011

If you have any questions about this form or web PLB registration in general, please call 1-888-212-SAVE (7283) or 301-617-4515. ©2008 (884-0295) Expires 31-03-2009 For information on the U.S. Search & Rescue Satellite-Aided Tracking system, please visit [www.asrat.noaa.gov](http://www.asrat.noaa.gov)

# 10. Product Specifications

## GENERAL/ENVIRONMENTAL

Product Number	2880
Model Number	PLB-375
Size	P/N 2880 1.3 x 1.9 x 3.9" (3.3 x 4.8 x 9.9 cm)
Weight	4.6 oz (130 g)
Buoyancy	Category 2, non buoyant
Product Number	2881
Model Number	PLB-375
Size	P/N 2881 1.6 x 1.9 x 4.5" (4.1 x 4.8 x 11.4 cm)
Weight	5.4 oz (153 g)
Buoyancy	P/N 2881 Category 1, buoyant*

\*The ResQLink+ is a buoyant PLB but is not intended for operation in water. Intended operational environments include on ground and above ground including held in hand. In all cases, the beacon must be facing skyward with the antenna perpendicular.

Material	High impact and UV resistant plastic
Color	ACR-treuse™(high visibility yellow)
Strobe	Bright white, one flash per three seconds
Activation	Manual
Operation	2 steps: deploy antenna, press ON button. Give clear view of sky
Waterproof	16.40 ft (5 m) @ 1 hr., 33 ft (10 m) @ 10 min. Factory tested @ 70°F, exceeds RTCM waterproof requirements
Accessories	P/N 9521 Flotation Pouch for P/N 2880
<a href="#">Approvals</a>	<a href="#">Cospas-Sarsat</a> , <a href="#">FCC</a> , <a href="#">R&amp;TTE</a> , Canada Meets AMSA (P/N 2880.64, 2880.65, 2881.64, 2881.65) PLB-375 meets the requirements of Federal Communications Commission (FCC) Part 95 Subpart K. For all other type approval information, please visit <a href="#">our website</a> .
Limited Warranty	5 years
Lead Free	Yes
<b>TEMPERATURE RANGE</b>	
Operating	-4°F/ -20°C to +131°F/ +55°C
Storage	-40°F/-40°C to + 158°F/+70°C

## BATTERY

\*Batteries meet the UN Classification for non-dangerous goods

Class	Class 2 (non-hazmat) lithium batteries
Replacement	Replacement due six (6) years from date of manufacture or five (5) years after beacon is placed into service, whichever is first, or after emergency use
Operational Life	Exceeds 24 Hours @ -4°F/-20°C to +131°F/+55°C

## 406 MHZ TRANSMITTER

Frequency	406.037 MHz
Output Power	5+ Watts
Stability	2 ppb/100ms

## DIGITAL MESSAGE

Format	144 bits
Long Message	Serialized*
Message Protocol	Standard Location
Duration	520 ms
Rate	400 bps
Encoding	Biphase L
Modulation	±1.1 radians peak

\* Beacons are shipped from ACR with a Serialized code but can be reprogrammed at a service center to other coded formats including nationality of registration.

## 121.5 MHZ TRANSMITTER

Frequency	121.5 MHz
Tolerance	±50 ppm
Output Power	>25mW PEP (typical 63mW)
Morse Code "P" ID	Every 50 seconds(approx.) (U.S. Protocol)

## MODULATION

Type	AM (3K20A3N)
Sweep Range	500 to 1600 Hz
Sweep Rate	4 Hz
Duty Cycle	33.3%
Morse P	AM (2K00A2A)

## ANTENNA

Frequency	406.037 & 121.5 MHz
Polarization	Vertical
VSWR	Less than 1.5:1



CAUTION: Contains lithium batteries. Do not incinerate, puncture, deform, short-circuit or recharge. Do not dismantle the PLB, contains no user-serviceable parts. Dispose of the used PLB with the battery removed in accordance with local waste disposal regulations.

Download [MSDS Sheet](#)

# 11. Product Warranty

## **Limited Warranty**

This product is warranted against factory defects in material and workmanship for a period of 1 (one) year\* from date of purchase or receipt as a gift. During the warranty period ACR Electronics, Inc. will repair or, at its option, replace the unit at no cost to you for labor, materials and return transportation from ACR. For further assistance, please email our Technical Service Department at [service@acrelectronics.com](mailto:service@acrelectronics.com) or telephone: +1 (954)-862-2110

This warranty does not apply if the product has been damaged by accident or misuse, or as a result of service or modification performed by an unauthorized factory. Except as otherwise expressly stated in the previous paragraph, THE COMPANY MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER WITH RESPECT TO THIS PRODUCT. The Company shall not be liable for consequential or special damages.

To place the warranty in effect, register online at [www.acrelectronics.com](http://www.acrelectronics.com) or return the attached card within 10 days.

\*Five years for the following products: EPIRB, PLB, S-VDR, SSAS.

[Complete Warranty Online](#)