

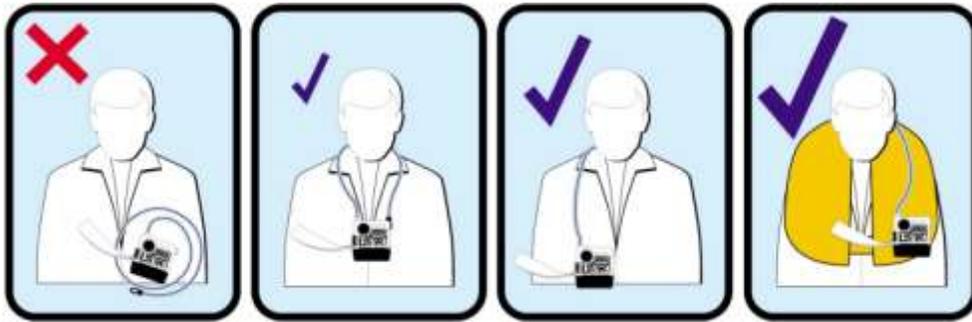
## Frequently Asked Questions (FAQ's) – Lone Worker

### How does the system work?

Basically there are two components, an alert (or transmitter) and a base unit (receiver). The alerts are designed for different applications, dive, workboat, lone worker and oil and gas. The alert weighs about 6 ounces and is water activated or can be turned on manually. The base units come in two versions, one (CG121) is an alarm only and the other provides an alarm and precision direction back to the MOB.

### How is the alert worn?

The alert can be worn around the neck, but it is recommended and preferred that the alert is integrated into a work vest or life vest. This ensure a one step process, when working in a marine environment at risk of being lost at sea or man overboard, you would put on a work vest with the alert already attached.



How would the alert be attached or integrated into a type III or type V work vest.



Normally, companies like Great Lake Dredge would simply use industrial VELCRO and fasten the alert to the vest and use Velcro straps or electrical tie wraps to create eyelets to string the lanyard antenna up and around the shoulders. In addition a protective pouch with a belt loop makes integration easier.



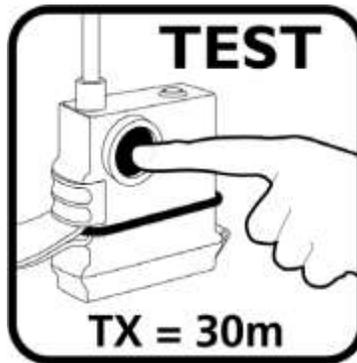
Pouch with belt loop

### How long does the battery last?

The alerts are equipped with either a standard 100mW battery or a 500mW (long range) battery, both 10 year lithium batteries, designed to work on average about 5 years under normal working conditions

### Is there a battery check?

Yes the alerts have a manual battery check function. In addition, AU9 microprocessor will automatically self diagnose the battery condition and give a low battery condition indication both audible and visual. Please check the operators guide for more information.



### What is the range of the system?

This depends on power output of the alert, position of the alert on the MOB and height of the receiver. Range can be anywhere from a mile to over 70 miles. Please see below for ranges based on the 100mW and 500mW alert.



100mW AU9



500 mW or Long Range AU9

**When is the base alarm only receiver used?**

When a man overboard alarm to alert the crew or others (dock workers, security office or someone in a remote area that would handle the rescue.

**Explain when and how the alarm only is used for remote MOB notification.**

Typically when the distance between the base unit or alarm and the persons responsible for responding to the MOB is beyond earshot. For example below



Point B. Offices and security guard station (24x7) located about a 1/4 mile away.

Point A. Lone worker at dock side

Having an MOB alarm can be done in a number of ways. Below are the options:

1. There are two alerts, that provide different ranges back to the base unit or receiver. Test the standard 100mW alert from point A with the receiver installed at point B. The range is significantly increased if the antenna is installed outside (recommended) and high up, preferably with a high gain antenna.

2. Try testing with the long range Sea Marshall alert, that emits 500mW's. Range will vary but in even a hilly terrain optimum range has been up to 5.5 miles
  3. Install base unit at point B, use the dry contact or relay to sound a very loud exterior siren. The siren could be located anywhere between point A and B.
  4. Install (point A) CG121 alarm unit with an optional auto dialer, that will dial (cell or landline) up to 5 different phone numbers with a pre-recorded voice announcement "Emergency, man overboard, dockside at Anderson Ferry dockside, Emergency, man overboard, dockside at Anderson Ferry dockside loading"
- Please call your installer or Marine Rescue for suggested design of system.



Sea Marshall Base Unit and auto dialer installed in a enclosure

**Can the base unit send a message to a computer, say an e-mail providing a message that there is a MOB incident, for example "Emergency, man overboard, dockside at Anderson Ferry dockside, Emergency, man overboard, dockside at Anderson Ferry dockside loading"**

Yes in one of two ways. To have a dedicated line/number (this problematic or expensive) which points to a computer based phone system that when it receives an 'SOS' call, automatically fires out a a preset e-mail. **Recommend a voice call to a landline or cell number as well.** The other solution would be to have one number on the auto dialler programmed to dial an answering service. She answers the line for Consolidated Barge and Grain, upon hearing the message she process the message by computer and out to unlimited number of e-mails. Cost for a month would be only \$50-\$60 for

Price	Minutes	Overage Cost
\$49.95	75	\$.65 per minute

Even with 70 locations it would be doubtful that you would ever reach 75 minutes. **Recommend a voice call to a landline or cell number as well.**

**How fast does the base unit go into alarm after someone goes into the water.**

The alert (depending on the application or alert ordered will activate automatically in 2 seconds or in 5 seconds and the alarm or base unit will go into alarm a few second later (5 seconds or 10 seconds respectively)

**When is it recommended that a receiver that provides an alarm and direction finding capability be used?**

The objective is to minimize risk. If there is a risk of a MOB becoming lost, due to conditions (unconscious, weather, water flow, size of area, darkness), a base unit with direction finding capability should be considered. A direction finder is typically installed on vessels that can respond and locate a MOB in the water. For example, tugs, pilot boats, skiffs or dedicated fast rescue vessels

**What kind of maintenance is required?**

Maintenance is minimal. A frequent battery check on all alerts is recommended. Often companies recommend that they are tested for battery condition daily before use. In addition we recommend to test the alert regularly to the base unit. This can be done when the alert is turned on in the low power position. If the unit is wet we recommend to wipe with a clean dry cloth. Store the alerts in a clean dry spot.

**How do you train personnel on the use of the system?**

We recommend that a test alert is purchased with every system. The test alert transmits on the 121.65 or 121.775 Mhz and the base unit can be set to receive that signal for training or test purposes. It is best that the training be as real life as possible without exposing any participants to any risk during the exercise. A “volunteer, can emulate a MOB in the water or better yet , a mannequin with a life vest and test alert installed as normal. The alert will water activate within 5 seconds of being submerged and the base alarm will sound the alarm (and provide DF if applicable).

**Have you any other suggestions for reducing risk of serious injury for MOB incidents.**

Most often when companies recommend a standard operating procedure (or HSE policy) for workers in a marine environment, they will also recommend or make mandatory the same guidelines for guests, consultants or sub contractors. The advantage is that all in the area of risk will be aware of the danger, be adequately trained and prepared in the event something goes wrong. There is also protection in numbers. A subcontractor who has a crew wearing the same alerts and a direction finder installed can increase the effectiveness (collaborative effort) of a rescue operation in the event of a MOB incident.

In addition, a method of retrieving an individual from the water with a line and rescue net or rescue cradle should be considered for all vessels and dock areas. The task of 2 grown men lifting a 200 pound man dead weight is virtually impossible.



Resources:

[www.seamarshall-us.com](http://www.seamarshall-us.com)

AU9 Operators Guide

Base unit Operators Guide

Have you any other questions?

Call or e-mail questions to [SOS@MarineRescueTechnologies.com](mailto:SOS@MarineRescueTechnologies.com) or 772-388-1326

Marine Rescue Technologies Inc., 539 Cross Creek Circle, Sebastian, FL 32958  
P (1) 772 388 1326, F (1) 772 594 0157, [www.seamarshall-us.com](http://www.seamarshall-us.com)