# Guardian Manoverboard (MOB) beacon



The new Guardian™ Manoverboard wristwatch represents a major breakthrough in marine safety! For recreational cruising or racing boaters, divers, personal water craft users, commercial or sports fishermen, in fact anyone who spends time on or near the water.

This lightweight, easy to wear waterproof, multi-function wristwatch has a builtin radio transmitter which when activated either manually or automatically, immediately transmits a distress tone on the international emergency search and rescue frequency (121.5MHz). The powerful signal transmitted can be detected by a surface rescue vessel or helicopter, which can accurately home in to the watch using direction-finding equipment.

- Automatic activation with manual on/off override
- Hour, minute, second, day of the week, month and date display
- Chronograph 1/100 second with lap/split control
- Alarm with chime
- LCD Backlight
- Water resistant tested to a depth of 150 feet
- Transmission activation audible and visual LED alarms
- Up to 8 hours transmission time
- Range to surface vessel up to 1 nautical mile
- Range to SAR helicopter greater than 5 nautical miles
- Transmits on 121.5MHz



**Making the Ocean a Safer Place** 

# Guardian<sup>™</sup> Wristwatch Manoverboard Beacon

The greatest advantages of the Guardian™ watch over traditional beacons is that the design and construction encourage the user to wear it like a normal wristwatch, 24 hours a day. This dramatically reduces the risk of loss of life on the water should an unexpected event occur! The Guardian™ watch is ideal for aiding in the recovery of personnel who are in the water either by accident or as part of a coordinated evacuation.

Although the Guardian™ will activate automatically on immersion in water, manual activation is also available at the touch of a button! When activated the watch has a flashing LED and audible warning reassuring the Manoverboard that the watch is transmitting. Once activated the distress signal will trigger an audible alarm on the vessel or fixed platform, such as an oilrig. In addition the location of the signal can immediately be shown on compatible electronic chart systems.

To complete the Guardian™ Manoverboard system either the Emergency Receiver or Direction Finder should be fitted to your vessel.

# **Emergency Receiver**

The Emergency Receiver is a high quality Manoverboard surveillance system operating on the international 121.5MHz emergency frequency. Used in conjunction with the Guardian™ watch this system will give all crew members the confidence of knowing that no one should go overboard undetected.

### Features:

- 2 Reception modes (Standard 121.5MHz+ Swept tone PLB/EPIRB/ELT code)
- 8 Level signal strength indicator
- Built-in alarm
- Auto squelch on/off
- Alarm reset function
- Relay contact output (I.E. GPS or Radar contacts)
- Continuous self-diagnostic fault indicator
- 12/24 VDC Power input

# **Direction Finder**

Used together with the Guardian™ watch, Precision™ EPIRB or FastFind™ PLB, this direction finder is the latest state-of-the-art unit using the international 121.5MHz emergency frequency or the 121.65MHz training frequency. A bearing relative to the vessels head is displayed along with an incoming signal strength indicator. The visual and audible alarm provides easy-to follow information, allowing the operator to quickly search for and rescue the man overboard.

### **Features**

- 360 Degree incoming signal reception
- 4 level incoming signal strength indicator
- Built-in audible alarm
- Output for external speaker
- 2 reception modes (Standard 121.5MHz + Swept tone PLB/EPIRB/ELT code)
- User adjustable squelch
- 12/24 VDC Power input

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# **Specifications**

### **Guardian MOB Beacon**

### **Environmental**

Operation temperature range:  $-4^{\circ}F \sim +158^{\circ}F$ Water Pressure Rated: 164.1 feet or 5atm Weight inc. strap: 2.84 oz

### **Electrical**

RF Transmitter
Frequency: 121.5MHz (121.65MHz
Training)

Class of Emission: A3X
RF Power: -25dBm
Frequency error: +/- 3.5kHz
Duty cycle: 100%

Modulation type: Sweep downward from 1.5kHz to 650Hz with sweep repetition

of 2Hz 50%

Modulation duty-cycle:

**Power** 

Voltage: 3.2 Volts max. (CR2 Battery)
Current draw: 20uAmps Quiescent

110mAmps Transmitting

## **MOB Emergency Receiver**

### **Environmental**

Operation temperature range:  $-4^{\circ}F \sim +140^{\circ}F$  Water Proof Rating: IP65
Weight inc. strap: 12.25 oz

### **RF** Receiver

Frequency: 121.5MHz (121.65MHz

Training)

Sensitivity: <0.5mV at antenna

Modulation type: Sweep downward from 1.6kHz

to 300Hz

Audio output: 8V max. (speaker >8 Ohm) Relay contact (NOC): Floating, carrying cap.

0.5A/10W max.

### **Power**

 $\begin{array}{lll} \mbox{Voltage:} & \mbox{12/24V DC ($\pm$ 20%)} \\ \mbox{Current draw:} & \mbox{80mAmps Ouiescent} \end{array}$ 

400mAmps Receiving alarm + ext. speaker

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