

sMRT Crewguard

User Manual



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DECLARATION OF CONFORMITY

Name of Manufacturer/Eu importer: Marine Rescue Technologies Ltd.
Marshall House, Zarya Court, Grovehill Road,
Beverley, HU17 0JG. United Kingdom
sales@mrtsos.com | www.mrtsos.com

Declares that products: sMRT Crewguard CG-121 MkII

Conforms to the EMC Directive 2004/108/EC and the R&TTE Directive 1999/5/EC as attested by conformity with the following harmonized standards with the following harmonized standards:

ETSI EN 301 489-1 V1.1.1 (2002-08)

Low Voltage Directive 73/23/EEC as attested by conformity with the following harmonized standard:

EN60950-1:2001

Information technology equipment — Safety —
part 1: General requirements.

Signed: 

Name: Ryan Pettit

Position: CEO

Place: Beverley

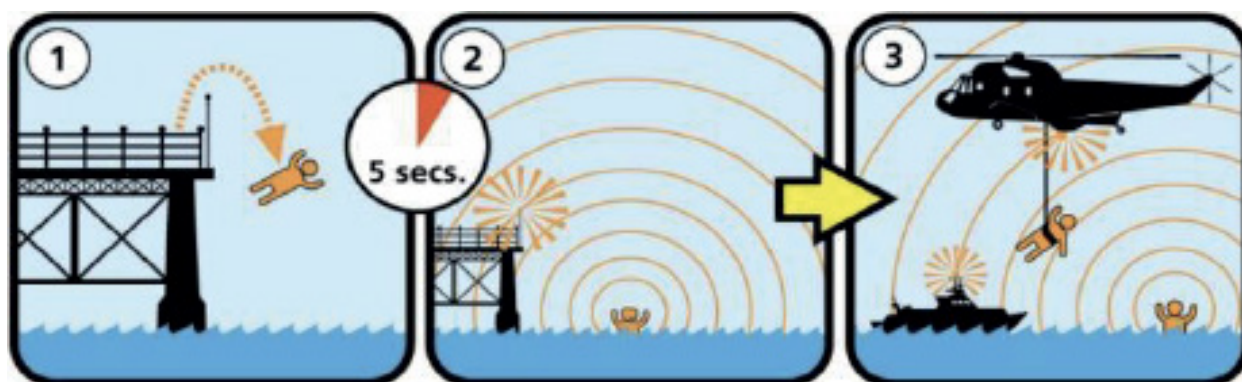
Date: FEB 2021

TECHNICAL DATA - sMRT Crewguard CG-121

Control Box Dimensions	170x120x60mm Aluminium Box (excluding antenna & connectors)
Control Box Weight	1400gms
Mounting Options Surface	200mm x 130mm (Opt 1)
Bracket	198mm long x 60mm wide (Opt 2) weight 450gms
Temperature Range	-20°C + 60°C
Waterproofing	IP68
Sensitivity	3 dBuV/m (threshold of target bearing resolution)
Frequencies	121.5 MHz, 121.65 MHz (Test 1), 121.775 (Test 2)
Sensitivity	0.5 uV at antenna input
Frequencies	121.5 MHz, 121.65 MHz (Test 1), 121.775 (Test 2)
Criteria Of Elt/Plb Recognition	Audible AM-modulated howling, downward LF-range within 300Hz...1600Hz LF-range 700 Hz minimum Time of repetition: 250ms.500ms• DELTA If/25MS: -10Hz...-250Hz
Audio Exit	max. 8Vss (speaker > 8 Ohm)
Relay Contact	Floating, carrying capacity max. 0.5 A/10W
Current Drain	Standby = 80mA / If alarm + ext. speaker (8 Ohm) = 400mA
Operating Voltage	12V DC (+ - 20%) • Airband
Fixed Antenna (Optional)	Type: Fixed, Freq Range 120/300MHz. Impedence Impedence: 50 Ω Gain:3.4dBi (120MHz), 5.5dBi (300 MHz). VSWR: <1.5. Rated Wind Velocity: 60m/sec. Length: 1.7m. Max Dia: Approx 34cm. Weight: 1kg. Type: 5/8 wave(120MHz) 2x5/8 wave(800MHz). Connector: M(M-J)
Highgain Whip Antenna(Optional)	Type: Dipole ½ with loaded radial. Freq Range:118-137MHz. Impedence: 50 Ω Radiation (HPlane):360° Omnidirectional. Gain: 2.15dbi.Max Power: 50Watts. Feed System: direct / Centre. Cable Length/Type: 5m, RG58 C/U. Connector: FME-female. Length: 760mm. Weight: 330gr. Radial Length: 165mm. Mounting Hole:14mm.

OVERVIEW

The Crewguard is a simple low cost monitor/alarm unit which continuously monitors its local area for an SOS signal from a Sea Marshall beacon. It will raise the alarm within a few seconds of receiving an SOS signal by automatically sounding an external alarm and flashing all the LEDs on its display

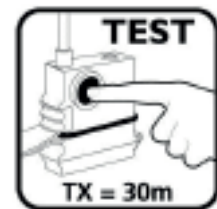


MOUNTING OF THE CREWGUARD BOX

1. The Bridge Box can be flush mounted by cutting a hole in the mounting surface. The unit can then be mounted using the four M4 nuts and bolts provided or used with the supplied trunnion mount adjustable bracket.
2. In either case the display should be mounted on a smooth and stable surface. The back of this unit has to be accessible for power supply connectors. Ensure that there are no other vulnerable elements within the mounting surface (e.g. electric cables, gas pipes or water pipes).
3. When installing ensure you leave space for the supplied antenna or if using an external antenna, the cable connection. An externally mounted Hi-gain antenna or whip antenna can also be fitted (sold separately) to increase detection range. External antenna with mounting brackets. Comes with 5m cable and plugs, fitting, mounting bracke. Significantly increases monitoring area of MOB system and provides coverage in radio blind spots.

TESTING THE SYSTEM

1. Ensure the system has been correctly installed.
2. Switch the Crewguard control box on, by pressing **POWER** and then press **TONE DETECT**.
3. Make sure the PLB is switched off (side switch in up position) then press and hold the round activation button, your PLB will transmit a low powered signal on the live distress frequency of 121.5MHz to a range of approx 30m to 50m.
4. When the Crewguard alarms the LEDs will flash **ON** and **OFF** and the siren will sound.
5. Repeat the test at different points around your vessel and away from your vessel until



CREWGUARD CONTROL PANEL FUNCTIONS

POWER – Turns unit on and off.

tone DETECT – Enable/disable

In this mode the Crewguard only identifies and responds to a signal from a Sea Marshall® SOS Alerting Unit (PLB). When an SOS signal is received the unit activates both its internal and external alarm or other external devices connected to the unit.

FREQUENCY - Set to 121.5MHz when the power ON/OFF button and or reset button is pressed.

TEST - Select test frequency as required (121.65 or 121.775MHz).

NOTE: the unit will automatically default back to 121.5MHz after 20 minutes. (Your unit if required may be programmed to default to 121.65MHz).

RESET – Press this button to cancel the external alarm and reset the unit

VOLUME – HIGH / LOW – NOTE these buttons can be used to control the brightness of the display LEDs. To do this press and release the POWER button so that all LEDs are lit. Use the VOLUME buttons to adjust the LED brightness.

RRSI – Received signal indicator. (Red LED in middle of SOS logo)

RSSI – Received Signal Strength Indicator – 4 Green LEDs

PLUG WIRING:

Black 1	Relay Contacts
Black 2	0V DC Negative
Black 3	12V DC Positive
Green / Yellow	Relay Contacts

If for any reason you are unable to affect your rescue contact the Coast Guard and tell them you have a man in the water wearing a 121.5MHz PLB.

PRODUCT NAME – CREWGUARD LONE WORKER MONITORING SYSTEM

(For declaration of conformity refer to individual component products in this manual)

OVERVIEW

The Sea Marshall® Crewguard lone worker monitoring system provides 24/7 MOB health and safety cover for organisations which have employees spread out over very large areas, with individuals often working alone either on or next to water. This system has been used at water reclamation plants, refuelling jetties and fish farms both at sea and in shore.

1. UNMANNED AREA CREWGUARD® lone worker man overboard MONITORING system. This system is made up of the following components:

- 1 × Cabinet mounted Crewguard® CG-121 MKII monitor alarm (with auto-dialler depending on requirement)
- 1 × High gain external antenna with 20m cable, (plus xtures and ttings). (External siren with strobe light if required).
- MOB alerting units (PLBs) as required (sold separately) with optional lifejackets

This system provides automatic 24/7 man overboard cover for all types of jetties and large areas of water, it is an automated version of the Crewguard system which uses a telephone auto-dialler (either land-line based or GSM) to notify key persons if there is a MOB incident. (For further information refer to Alerting Unit handbook).

2. Monitor on jetty or control room on platform

The telephone auto-dialler MOB monitor/alarm system. Several telephone numbers can be programmed into the auto-speech dialler. A personalised voice message is recorded onto the auto-dialler by the user; for example “May Day, May Day, May Day, Man Overboard at position 1 ...(Position 1 or a system with a single monitor in one location only, position 2 for a system with 2 monitors in different geographic locations...ongoing as required for systems which have several monitors covering a large geographical area). In the event of a man overboard incident the SOS signal from the Alerting Unit worn by the man overboard will trigger the Crewguard MOB monitor alarm which in turn activates the telephone auto-dialler - automatically calling the first member of staff from the pre-programmed list of telephone numbers if they fail to answer it will continue to dial every number on the list until someone acknowledges the phone call and takes appropriate action.

OVERVIEW

A fast rescue craft fitted with a SARfinder® locator unit could then be launched to track the SOS signal being transmitted by the man over board's PLB.

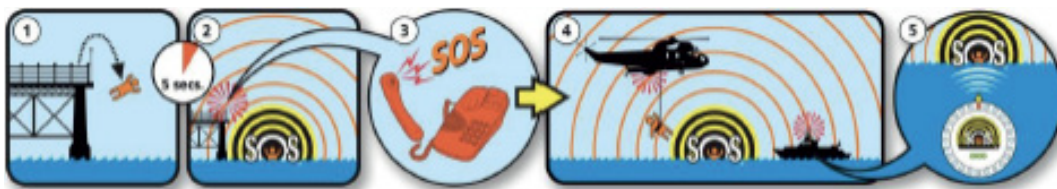
There may be differences in the type of dialler fitted into the cabinet mounted monitoring system, please refer to the manufacturer's instruction manual supplied with your system.

Dimensions – Cabinet Approx. Height = 40cm, Depth = 15cm, Width = 30cm

- Weight – Approx. 7.5kg
- Temperature Range -20°C + 60°C
- Waterproofing IP-65
- Power Supply basic system 12V – Cabinet mounted option comes supplied with mains 12V adapter and universal plug fittings.

3. The MOB alarm on the Crewguard® monitor will sound & the warning lights will flash on and off.

4. The MOB alarm will activate accompanied by a telephone call playing your pre-recorded SOS, "May Day, May Day, May Day ...Man Overboard at position 1" telephone message.



5. Press the RESET button to cancel the alarm or cancel remotely using phone (full instructions on how to cancel alarm can be found in supplied auto-dialler manual).

6. To test for the best coverage use a test beacon at regular distances away from the receiving antenna until the alarm no longer activates, this will indicate the maximum range of the system. To find out if you have any radio blind spots move around your area and repeat the above test process. To overcome radio blind spots increase the height of the external antenna or reposition the antenna.

WARRANTY

Your unit is covered by a standard 1 year parts and labour warranty. Marine Rescue Technologies Ltd (MRT) warrants to the purchaser that the products conform to manufacturers specifications and that the products are free of defects on materials and workmanship for a period of one year from the date delivered to the customer/end user. In the event of a defect, due to faulty material, design or construction, the customer will return to MRT at the business address where we, or the manufacturer will undertake, at our choice, a repair or replacement. Warranty covers all parts, materials and labour, provided that the product is returned to our works. Exclusions: damage caused by other than normal use and lack of general care and attention or incorrect sealing of the unit carried out in accordance with this instruction manual. MRT Ltd. does not accept any responsibility or any claim for direct or indirect consequences of defects of the equipment, either during the guarantee period or at a later stage.

Repairs

MRT Ltd. offers a full and comprehensive service and repair facility with return normally within 14 days upon receipt of customer's authorisation.

Disclaimer

The sMRT products are an aid to recovery only, it is the responsibility of the user/operator to ensure they are fully conversant with the operation of the equipment and the equipment is kept in full working order at all times combined with functionality and damage checks before and after each use. MRT Ltd. does not accept liability for loss of life or injury caused during any accident during which the equipment is being used, howsoever it arises. sMRT Alerting Units/MSLDs are an 'Aid to rescue only', they do not guarantee your safety. The sMRT MSLDs will dramatically increase the chances of detection and location of a Man Over Board. Personal safety remains at all times the sole responsibility of the individual. It is the responsibility of the individual to inform their local Coast Guard, their senior personnel/crew members and or family of their intended location/destination and estimated duration of journey. It is also the responsibility of the individual to notify these people of the type of safety equipment they will be carrying. In the case of accidental activation the user should de-activate the unit and notify the appropriate SAR Authority.



NOW PART OF



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