



sMRT AU11

The sMRT AU11 is a dual operating AIS Personal Locator Beacon (PLB) alerting on the 121.5MHz international Search and Rescue (SAR) frequency, while simultaneously transmitting GPS coordinates on AIS.

Automatic activation will alert you of every MOB incident within 2 – 5 seconds. With GPS position updated every minute via AIS, your and every nearby vessel becomes an instant SAR asset able to track multiple casualties up to 75 miles away.

121.5
MHz

121.5 MHz

Features a low power homing signal to assist local rescue efforts

VHF 
DSC

VHF DSC

All nearby vessels are automatically alerted of the man overboard situation via DSC

AIS

AIS

The live location of the man overboard is regularly updated and displayed via AIS


DUAL GNSS

Dual GNSS

Combines both GPS & Galileo GNSS receivers for accelerated detection


M
Class-M

Class-M

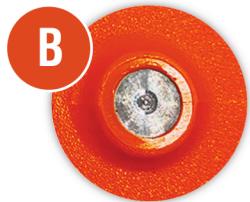
Compliant to European regulation ECC/DEC/ (22)02 relevant to the usage of MOB devices



PRODUCT FEATURES



STROBE LIGHT
Antenna can be unscrewed and detached for easy storage



WATER SENSOR
The AIS & 121.5 MHz transmission will automatically activate in water



MANUAL ACTIVATION
Easy push button allows the PLB to be manually activated



ARMING SWITCH
Arming switch, locks in and clearly displays if the PLB is ON or OFF



Audible Alarm

Highlight activation to both aid location and raise awareness of false activation



Test Functionality

Manual and app based device safety, providing a health check on power and functionality



Dual Activation Methods

Device can be activated manually or after immersion in water meaning it will still work if user is incapacitated



Clipping System

Rugged clipping system allows easy attachment options for life jackets



Dual GNSS Receivers

Dual GPS and Galileo GNSS receivers for accelerated location detection



Water Proof

The device is designed to withstand submersion up to 10 meters, ensuring its protection against water damage

WHAT IS A Class-M MAN OVERBOARD DEVICE?

To protect AIS from overloads caused by irrelevant off-ship devices, a new regulation, ECC/DEC/(22)02, has been approved and is scheduled to be implemented from December 2024. Under this regulation, in countries that adopt the Class-M standard, AMRDs (autonomous maritime radio devices, such as AIS MOBs), will no longer be permitted to use AIS channels 1 and 2. Instead, they will be required to switch to channel 2006, which is not designated as an emergency channel.

Where ECC/DEC/(22)02 is adopted, non-compliant MOBs will be prohibited to use/license.



GENERAL

BATTERY TYPE	6V Li-MnO2
BATTERY LIFE	Minimum of 12 hours at -20°C
BATTERY SHELF LIFE AT +20°C	>3 years
OPERATING TEMPERATURE	-20° to +55°C
STORAGE TEMPERATURE	-45° to +70°C
OPERATING HUMIDITY	To 95% non-condensing
SHOCK	20G min
VIBRATIONS	EuroCAE ED-14F
FLAMMABILITY RATING	ED 14F 26.3.3 Category C:
BUOYANCY	Buoyant (index=9%)
TRANSPORTATION	Air cargo UN 3091 not hazardous
DIMENSIONS (CASE)	80mm (H) x 95mm (W) x 35mm (D)
WEIGHT	250g
ENVIRONMENTAL	IEC 60945
STROBE LIGHT	TBC
ENVIRONMENTAL RESISTANCE	IP68
MOUNTING OPTIONS	Designed to integrate with a SOLAS approved life jacket
SELF ID	ITU-R M.585 compliant factory programmed freeform Maritime Identity with 972 prefix
COMPASS SAFE DISTANCE	30cm (for <1° deflection)
ALERTING RADIUS	Up to 5NM (depending on height of antenna)*

AIS/VHF TRANSMITTER PACKAGES

AIR BAND FREQUENCIES	121.500 MHz
AIS Tx POWER OUTPUT	Nominal 1W EIRP
VHF TRANSMISSION FREQUENCIES	VHF DSC Channel 70: 156.525 MHz, AIS Channel 1: 161.975 MHz , AIS Channel 2: 162.025 MHz
VHF DSC Tx POWER OUTPUT	Nominal radiated power 500mW
SIGNALLING TYPE	AIS and VHF-DSC
DISTRESS MODULATION	AM compliant to ITU-R M.690-2 (2012)
AIR BAND POWER	100mW PERP
MARINE-BAND POWER	Nominal 1W EIRP
VHF ANTENNA	Centre-fed dipole, comprising coaxial cable and 1/8 coil whip

GPS RECEIVER

GNSS RECEIVER TYPE	GPS plus Galileo
TTFF (TIME TO FIRST FIX)	15 seconds (typical) with nominal GPS signal levels -130dBm
GNSS UPDATE RATE	Every minute

VHF DSC AND AIS ALERTS

AIS	Within 30 seconds of GNSS position acquisition
INITIAL OPEN LOOP DSC ALERT	Within 30 seconds after activation
SUBSEQUENT OPEN LOOP DSC ALERTS	Every 5 minutes for the first 30 minutes, every 10 minutes thereafter until VHF-DSC acknowledgement or the battery expires
FIRST DSC GPS DATA ALERT SENT	Immediately after GNSS position acquired

CONTROLS AND OPERATION

AUTOMATIC WATER ACTIVATION	After 2 seconds of water sensor immersion
MANUAL ACTIVATION	Once armed, press activate button
OPERATING TIME	>12 hours continuous
PERMANENTLY ARMED	12 hours operation if armed for 12 months
GPS POSITION UPDATE	Minimum of 6 per minute
GPS TIME TO FIRST LOCK	Typically <1 minute under normal operating conditions
ALERT INDICATION	Audible and visible

APPROVALS

EUROPEAN APPROVALS	EN 303 132 V2.1.1**
US APPROVALS	RTCM 11901.1**
EMC	EN 301 489-22 V1.3.1, EN 301 489-1 V1.8.1
ELECTRICAL SAFETY	EN 60950-1:2006
MARINE	IEC 60945:2002
RADIO (121.5 MHZ)	EN 302 961 V1.2.1, RTCM 11901.1:2012
RADIO (AIS)	EN 303 098 V1.2.1, RTCM 11901.1:2012

* Expected range derived from sea trials. Actual alerting range dependent on sea state, atmospheric conditions and height/altitude of receiving antenna.

** Approval is pending



Call +1-772-388-1326

Email sos@marinerescuetechologies.com

Visit www.marinerescuetechologies.com

1623 US Highway 1, Suite A1, Sebastian, FL, 32958