



SEASAFE[®]
MODEL SSTX/01 & SSTX/DV

**PERSONAL MAN-OVERBOARD and LOST-DIVER ALARM & TRACKING
TRANSMITTER**



USER MANUAL

www.sea-safe.com.au

Seasafe SSTX/01 & SSTX/DV Transmitter User Manual

Contents	Page
1. Technical support	3
2. Warranty	3
3. Regulatory compliance	3
4. Box contents	3
5. Layout	4
6. Equipment introduction	5
7. Equipment specification	5
8.1 Operation – SSTX/01 (Man-Overboard & Diving to 30 metres)	
a. Battery	6
b. Antenna	6
c. Arm-Band & Belt-Clip	6
d. Optional Dive-Cap	6
e. Man-Overboard Operation	7
f. Lost-Diver Operation	7
8.2 Operation – SSTX/DV (Diving to 40 metres)	
a. Lost-Diver surface location	8
9. Accessories	8
10. Copyright	8
11. Warranty Registration Certificate	9

1. Technical Support

For any technical questions or for support, please contact your local Seasafe distributor or visit:



Internet: www.sea-safe.com.au
Email: info@sea-safe.com.au
Telephone: +61 7 3488 2622

2. Warranty

Seasafe warrants this product to be free from defects in materials and workmanship for 12 months after the date of purchase. If your Seasafe personal transmitter is found to be defective within that time, we will promptly repair or replace it. This warranty does not cover accidental damage, wear and tear, or consequential or incidental loss. Either complete the warranty form at the back of this manual and hand to your Seasafe dealer or alternatively register your warranty at www.sea-safe.com.au

3. Regulatory Compliance

This device complies with AS 4268.2 as amended by LIPD (Low Interference Potential Device) 24 August 2005. In particular table ZZ1. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including any interference that may cause undesired operation.

- ◆  **N15546**
- ◆  1999/5/EC (ETSI EN 300 220-2, ETSI EN 300 220-1, ETSI EN 301 489-1, ETSI EN 301 489-3, EN 61000-3-2, EN 6100-3-3)
- ◆ **AS 4268.2**

4. Box Contents

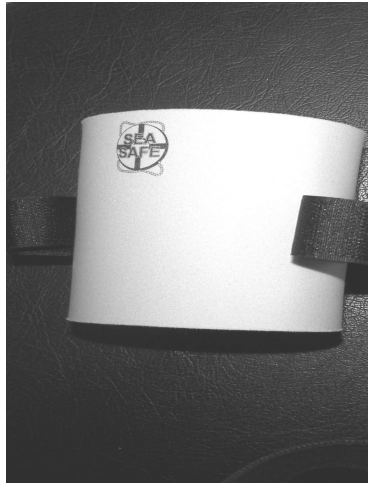
Included in the purchase of the Seasafe SSTX/01 & SSTX/DV Personal Alarm & Tracking Transmitter are the following components:

- ◆ Seasafe Model: SSTX/01 or /DV Personal Alarm & Tracking Transmitter
- ◆ Antenna
- ◆ 1 x CR123A Lithium battery
- ◆ 1 x Arm-Band mounting adapter
- ◆ 1 x interchangeable belt-clip
- ◆ 1 x ergonomic arm-band. (Not in box).
- ◆ Instruction manual



Seasafe SSTX/01 & SSTX/DV Transmitter Box Contents

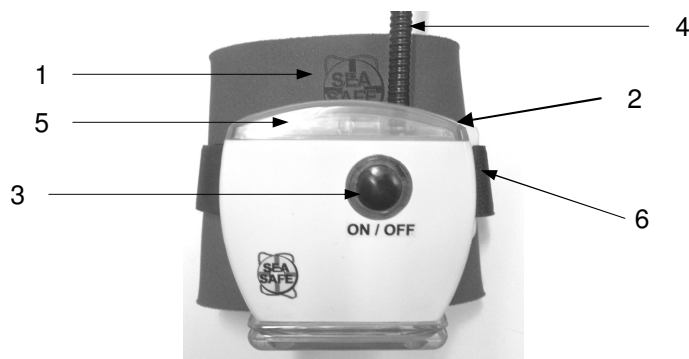
Ergonomic Arm-Band is not supplied in the box but is supplied as part of the kit



Arm-Band

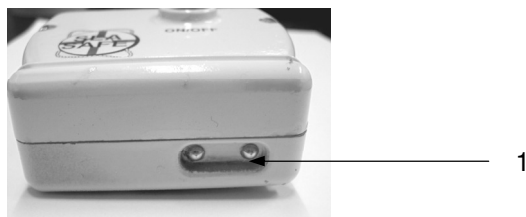
5. **Seasafe Model: SSTX/01 Personal Transmitter Lay-out & Controls**

Personal Transmitter Front



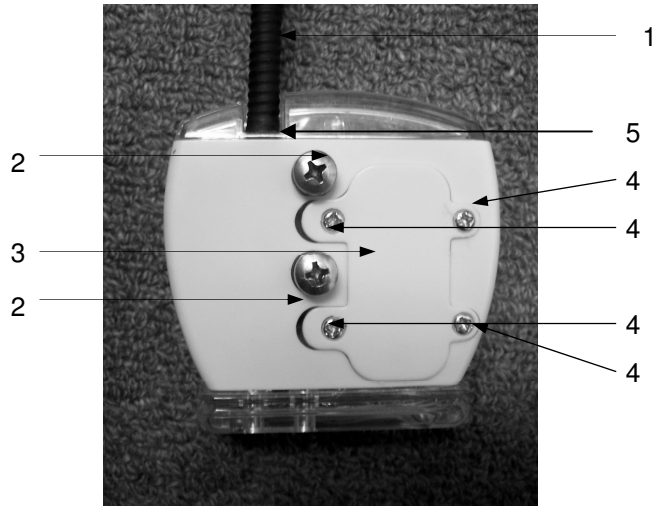
1. Arm-Band
2. Arm-Band mounting adapter
3. Manual On/Off Button
4. Flexible Antenna
5. Clear Lens with Flashing Red LED (when activated)
6. Adjustable arm strap

Personal SSTX/01 Transmitter Bottom



1. Automatic Water-Activation Sensors

Personal SSTX/01 Transmitter Back



1. Flexible Antenna
2. Arm-Band Mounting Adapter / Belt-Clip mounting screws
3. Battery Compartment Cover
4. Battery Compartment Cover Screws
5. Antenna Mounting post

6. Equipment Introduction

Congratulations on your purchase of the Seasafe SSTX/01 or SSTX/DV Personal Alarm and Tracking Transmitter. Used in conjunction with the Seasafe SSRX/01 Alarm & Tracking Receiver, the Seasafe system represents a major breakthrough in personal tracking and location technology.

Please remember that the Seasafe system is an Aid to rescue only and DOES NOT guarantee your safety. This at all times remains the responsibility of the individual.

Before using the Seasafe system is important that you ensure the equipment complies with any or all standards and regulations which may pertain to the prospective country/s in which you intend to use the system.

The Seasafe system is a stand-alone and self-contained Alarm, Tracking & Location system. It operates independently of traditional EPIRB satellite and International Emergency Frequency based systems. Seasafe allows non-critical and critical situations to be responded to immediately at the time and place at which they occur. The system is not reliant on a response from National or International Search & Rescue Authorities and allows a response to be undertaken immediately an emergency occurs.

The Seasafe system may be used in any marine or land-based pursuit whereby a person may become lost, disorientated or in need of assistance.

7. Equipment Specification

Frequency.....	173.4875 MHz
Dimensions.....	80mm H x 78mm W x 32mm D
Weight (with battery).....	+/- 250 g
Temperature tolerance.....	-10° C to +55° C
Frequency Stability.....	15 PPM
Transmitter Power.....	60 Milliwatts nominal at antenna terminal
Radiated Power.....	Approx 8 Milliwatts
Modulation.....	+/- 3 KHz
Water resistance Model: SSTX/01.....	Maximum 30 metres underwater
Water resistance Model: SSTX/DV.....	Maximum 40 metres under water
Spurious Radiation.....	< 0.1 uW (-40 DBM)
Power requirement.....	3VDC Lithium cell
'C-Tick' compliance registration number.....	N15546
Australia / New Zealand Compliance.....	AS 4268.2
European CE conformance.....	1999/5/EC

8.1 Operation

Model: SSTX/01 – Suitable for Man-Overboard Operation and Diving to 30 metres

The Seasafe SSTX/01 is a personal tracking and location device which works on a transmitted radio frequency signal in conjunction with the SSRX/01 Tracking and Location receiver. The transmitter can be used in ANY land or marine based activity whereby a person may become lost, in distress or requiring medical attention. The distance over which the transmitter signal may be received is dependent on a number of factors including but not limited to; prevailing weather conditions, sea state, wave height, line-of-sight obstructions and cloud cover. Generally, the higher the transmitter is above the ground, the longer the transmitted range. The same principle applies to the height of the receiver antenna.

a. Battery – Important Information

Upon purchase of the SSTX/01 and SSTX/DV and prior to use, the included Lithium battery should be installed into the device. The four battery cover securing screws should be carefully removed and the battery should be inserted into the battery compartment. Utmost care should be made to install the battery the correct way round. The +ve side of the battery should match the '+ve' markings in the battery compartment and the same with the '-ve' markings. Once the battery has been inserted, the battery compartment cover should be carefully screwed back in place making sure the rubber o-ring is in place and taking care to tighten the screws beginning at one corner and then tightening the opposite corner screw. Continue to tighten opposite screws until all four are tightly secured. Failure to tighten the screws in this sequence may result in the compartment not sealing correctly. This may allow moisture into the transmitter which will render it un-operational. The battery compartment is sealed through the use of black rubber 'O' ring. You must ensure that the 'O' ring is correctly seated into its groove. If at any time the 'O' ring appears brittle, cracked or not in perfect condition, a replacement should be obtained from your nearest Seasafe dealer and installed. It is recommended that you return your SSTX/01 transmitter to an authorised dealer for battery replacement. This will ensure that the battery is correctly installed and the o-ring inspected and/or replaced if necessary.

The battery must be replaced with a new one, at least every three years. This will ensure that the battery is always in a fully charged condition.

If the transmitter has been activated for any length of time during the three year period, it MUST be replaced immediately. Once the battery has been installed, you may test the transmitter by depressing the "On/Off" switch TWICE in succession for approximately half a second each time, within a 5 second timeframe until the red LED begins to flash. The transmitter should then be immediately turned off by again by depressing the "On/Off" switch for approximately 1 second until the red LED flashes several times in quick succession. The LED should not flash again at this stage. When testing the unit, ensure that the antenna is NOT attached to the transmitter otherwise the transmitter will activate any Seasafe receivers which may be in range. This may cause a false alarm to be received and an unnecessary response to be initiated.

b. Flexible Antenna

The Seasafe SSTX/01 & SSTX/DV transmitters are supplied with a 'screw-on' flexible antenna. Prior to use, the antenna should be securely screwed onto its mounting position at the top of the transmitter. Be sure not to over-tighten the antenna on to its mounting post.

The length of the antenna is extremely important to the operation of the transmitter. If the antenna were to be lengthened or shortened in any way, the transmitter would cease to operate correctly. Care should also be taken not bend the antenna unnecessarily.

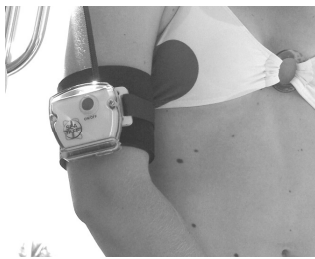
c. Attaching the transmitter to your body

The transmitter is provided with a number of mounting options. Included in the box with the transmitter is a 'belt-clip' and an 'arm-band' mounting adapter. Your transmitter purchase also includes (not supplied in the box) an ergonomic adjustable arm-band.

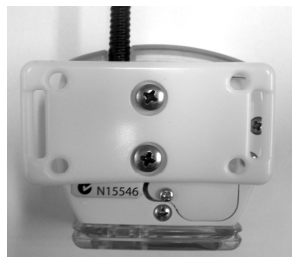
The belt-clip and arm-band mounting adapter are interchangeable. On the back of the transmitter are two stainless steel screws. Depending whether you require the belt-clip or arm-band, simply remove the two mounting screws, place the mounting of your choice in position and re-insert the two screws. The belt-clip may be mounted in either the vertical or horizontal planes depending how you intend to wear the device.

If using the arm-band, mount the arm-band adapter to the back of the transmitter and then attach the transmitter to the arm-band. The arm-band may be loosened or tightened by adjusting the clip straps on the arm-band. The arm-band mounted transmitter should be worn on the upper arm (bicep). In this position, if a person falls in the water and assuming they are wearing a life-jacket, the device will be in the most appropriate position for a portion of the antenna to protrude above the water and to transmit a signal. The device will NOT transmit a signal if the antenna is under the water.

When using the belt or webbing clip, the device should be worn in a position which will provide the best opportunity for the antenna to protrude above the water in the event that a person falls overboard. Both the belt-clip and arm-band adapter have additional holes which may be used for attaching a lanyard to a life-jacket or other part of your person.



Seasafe Transmitter fitted to Arm-Band



Rear view of transmitter showing Arm-Band mounting adapter



Side view of transmitter showing belt-clip

d. Optional Dive-Cap

The Seasafe transmitter may be automatically activated upon submersion in water or manually activated by depressing the “On/Off” button. The transmitter is automatically activated through the submersion of two metallic ‘water-activation’ sensors on the underside of the body of the device. When both these sensors have been submerged in water for approximately 5 seconds, the transmitter will switch on and begin transmission of signal. Automatic activation is designed as a mechanism to switch the device on in the event of a person falling overboard in an unconscious state.

If it is intended that the Seasafe transmitter is to be used for underwater (diving) purposes then an optional rubber “Dive-Cap” must be purchased. Use of the dive-cap ensures that the device will not be unintentionally activated when submersed under water during the course of underwater activities. The dive-cap serves the purpose of isolating or sealing the automatic water activation sensors from the water.

If it is necessary to activate the device when using the dive-cap, then it should be removed by firmly pulling the pull-ring until the cap is fully removed from the bottom of the transmitter.

If the transmitter has been automatically activated through immersion of the ‘water activation’ sensors, it is not possible to switch the device off by using the manual ‘on/off’ button. The device will stop transmitting once the water sensors are removed from the water and are dry.

e. Man-Overboard Operation

If you intend to use the device as a ‘Man-Overboard’ alarm, once on board the vessel, the transmitter should be attached to your body using one of the methods described above.

The transmitter automatic activation circuit has been designed so as not to activate the transmitter in the event that it is exposed to rain and/or wave splashes normally associated with marine activities.

If you fall overboard or you are knocked unconscious overboard, after 5 seconds in the water (with the water activation sensors immersed) the transmitter will switch on and begin transmitting a signal. Any Seasafe receiver within range will receive an alarm and can begin tracking your signal immediately. If you are conscious and able to, it is recommended that you also manually activate the transmitter by pushing the “On/Off” button as described in the manual activation procedure above. This will ensure that the device continues to transmit even if it is not immersed in the water all of the time. Once you have been rescued or if you no longer require assistance, the transmitter should be switched off by firmly depressing the “On/Off” button for 1 second (if you have also manually activated the device) or by drying off the water sensors (if the device has been automatically activated). This will ensure that persons involved in the search will know that their service is no longer required. At the first available opportunity, the battery in your Seasafe transmitter should be replaced with a new one.

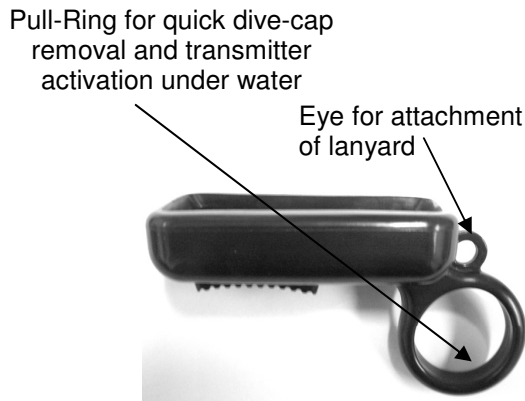
f. Lost-Diver Operation

In order to use the Seasafe transmitter for underwater or diving applications, you need to purchase an optional rubber dive-cap. Before you enter the water, the dive cap must be firmly installed over the bottom of the transmitter ensuring that there is a firm seal and that the cap is installed the correct way round. Looking at the front of the transmitter, the ‘pull-ring’ on the dive-cap should be on the right-hand side. See diagram below.

The Seasafe transmitter with fitted dive-cap should be secured to an appropriate place on your person so it is easily accessible. Generally, securing it by means of the belt/webbing clip to the BCD is a good option. Should you require assistance or find yourself in distress whilst underwater, remove the dive-cap by pulling firmly on the dive-cap pull ring. This will expose the water-activation sensors to the water and the transmitter will activate. The flashing red LED will begin to flash. This should act as an indicator to anyone diving in close proximity, that you require attention. The radio frequency signal will not transmit through water and the dive boat will only receive an alarm once you and the antenna break the surface of the water. It is also recommended that once you have broken surface you should manually activate the transmitter by depressing the ‘On/Off’ button according to the ‘manual activation’ procedure mentioned above (signal transmission is indicated by flashing red LED). This will ensure that the device continues to transmit even if it is not permanently immersed in the water. Once you have been recovered by the dive vessel you should immediately deactivate your transmitter by depressing the ‘On/Off’ button for 1 second (indicated by two quick flashes of the red LED). The battery in your transmitter should be replaced at the earliest opportunity.

The dive-cap may be attached to the transmitter by means of a lanyard connected to the eye on the dive-cap and one of the spare holes either on the belt-clip or arm-band adapter. This will ensure that you do not lose the dive-cap in the event that you remove it in an emergency. Similarly, the transmitter can be also be attached to your body by means of a lanyard, if required.

The Seasafe SSTX/01 transmitter is only recommended for use down to a maximum of 30 metres underwater and is not guaranteed for use below this depth.



Rubber Dive-Cap for under water applications



Transmitter with Dive-Cap fitted

8.2 SYSTEM OPERATION

Model: SSTX/DV – SUITABLE FOR DIVING TO 40 METRES

a. Lost-Diver Surface Location

The SSTX/DV has been developed specifically for scuba diving applications. This model transmitter can NOT be used for Man-Overboard applications and does not make use of “automatic water activation sensors”. The transmitter may only be manually activated and only once the diver has reached the surface. In the event of a diver surfacing out of sight of the dive vessel or if a diver is in need of assistance, the transmitter should be manually activated by using the manual ON/OFF button. In order to activate the transmitter, the button should be pressed twice for approximately half a second each time, within a five second time-frame. The red flashing LED will indicate that the device is transmitting. Once a diver has been recovered, the device should be de-activated by holding down the ON/OFF button for approximately one second. The red LED will flash quickly several times and then cease to flash. At the earliest opportunity, the transmitter should be returned to an authorised Seasafe dealer for battery replacement.

The rest of the specifications of this device are identical to the Model: SSTX/01 transmitter.

8. Accessories

a. Dive-Cap

The optional rubber Dive-Cap is for use in underwater applications or in marine activities where it is expected that the transmitter may be exposed to large volumes of water which may inadvertently activate the device through the water-activation sensors. If used with the dive-cap, the transmitter is UNABLE to automatically activate and must be manually activated. Before use, ensure that the dive-cap is fitted firmly and the correct way round. If it is not fitted correctly, water may enter the dive-cap and the transmitter will activate.

9. Copyright

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