

## Search and Rescue Radar Transponder

# SART TBR-610



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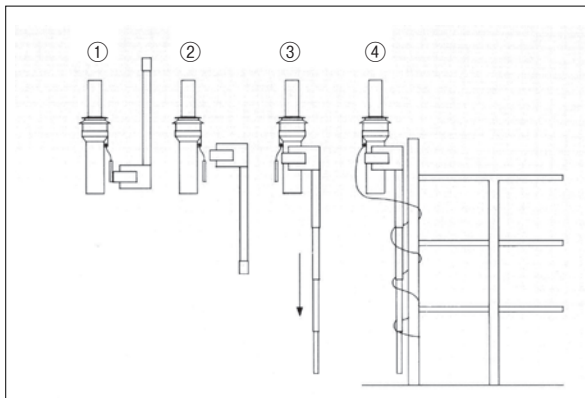
## ■ General Description

TAIYO SART MODEL TBR-610 is a radar transponder for search and rescue (SRA) to inform exact position of a unit in distress with signals in 9 GHz radar band. When a SRAT detects radar signals from a SAR craft, it automatically starts to transmit the answer signals synchronizing to that radar. Crew on a SAR craft can confirm SART's location on the radar screen with 12 dots. Survivors with the unit in distress are also encouraged by its blinking red LED which informs of SAR operation is active. When the red LED keeps lighting, it indicates that SAR craft is very close to the SART. Its typical effective range is 5 nautical miles from a SAR ship whose radar antenna should be 15m or more height from the sea surface and 30 nautical miles from a SAR aircraft which is flying at 3000 feet or more.

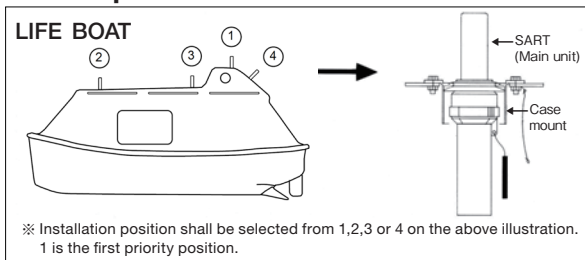
## ■ Operation

- 1) Turn off radar (s) on board.
- 2) Turn power on by rotating the switch toward "ON" position and confirm the green LED is lighting.
- 3) Insert SART to its socket holder or case mount firmly, confirming radome section of main unit upward.

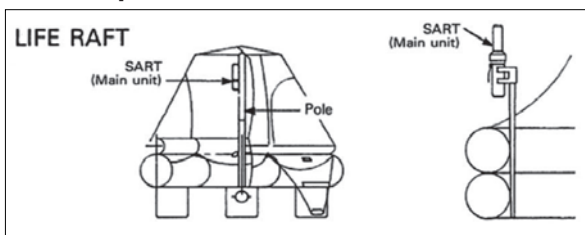
### ■ Example of installation on board



### ■ Example of installation in a life boat



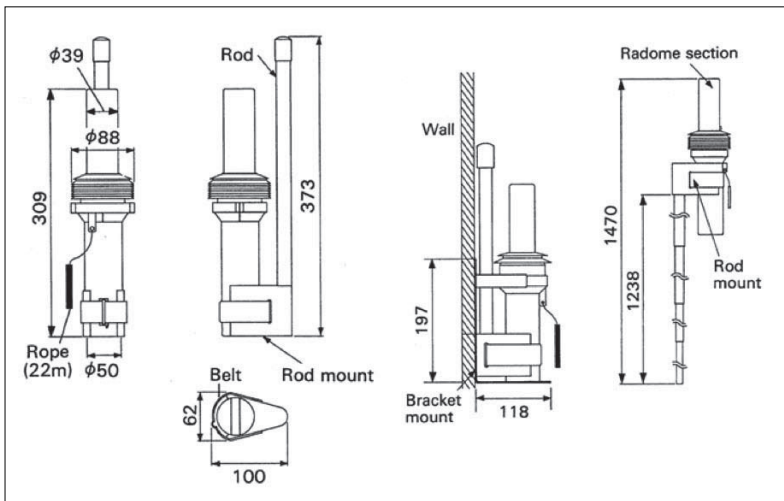
### ■ Example of installation in a life raft



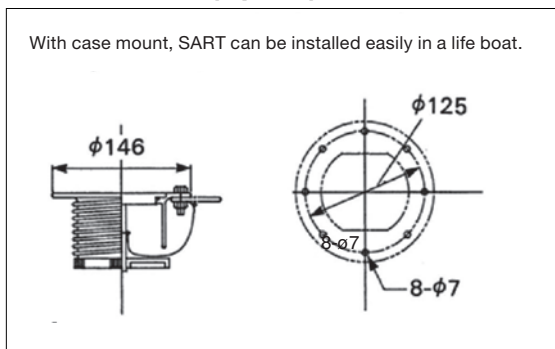
## ■ Specifications

	<b>Antenna</b>
Frequency range	From 9,200MHz to 9,500MHz
Polarization	Horizontal
Horizontal radiation pattern	Omnidirectional (360 degrees)
	<b>Receiver</b>
Sensitivity (e.r.s)	Better than -50dBm
Recovery time	10μs or less
Delay time	0.5μs or less
	<b>Transmitter</b>
Sweep	Sawtooth sweep
Sweep time over frequency range	Forward $7.5 \pm 1.0 \mu s$ Return $0.4 \pm 0.1 \mu s$
Signal length / number of sweeps	100μs nominal /12 sweeps
Radiated power (e.i.r.p)	400mW or more
	<b>Battery</b>
Battery	Lithium battery
Capacity	Capable of 8 hours operation after 96 hours standby
Shelf life	3 years after shipment
	<b>Environment</b>
Operation	-20°C ~ + 55°C Storage -30°C ~ +70°C
	<b>Weight</b>
Main unit	600 g

### ■ Size and outside view



### ■ Case mount (Option)



\*Specifications and design subject to change without notice for future improvement.

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