

Compliance Matrix for IMO A.697 (17)

Figure and pictures for compliance:

- 1.) SART unit and Activation switch picture.
- 2.) SART with mounting pole picture
- 3.) SART Operation instructions label picture.
- 4.) SART Battery expiration label picture.
- 5.) PART 80 compliance label. This device complies with the GMDSS provisions of part 80 of the FCC rules.
- 6.) SART Circuit Block Diagram

General

- 1) Unit complies with 2.0 of IMO A.697(17). The unit's location is identified on the assisting unit's display by a series of evenly spaced dots.
See compliance plot on page 2 of Annex A to Test Report 1.
- 2) Unit complies with 2.1.1 of IMO A.697(17). The unit is fitted with a single rotary activation switch on the base of the unit. It is capable of operation by unskilled personnel.
See compliance test report 1 paragraph 6.2.1. Also see figure 1.
- 3) Unit complies with 2.1.2 of IMO A.697(17). The unit is fitted with a means to prevent inadvertent activation. Manual activation requires a 'weak link' to be broken. The switch must be depressed and then turned to activate.
See compliance test report 1 paragraph 6.2.2. Also see figure 1.
- 4) Unit complies with 2.1.3 of IMO A.697(17). The unit has a visual indication of correct operation (yellow flashing LED) and both audio and visual recognition of triggered by radar interrogation.
See compliance test report 1 paragraph 6.2.3.
- 5) Unit complies with 2.1.4 of IMO A.697(17). The unit is capable of manual activation and deactivation. There are no provisions for automatic activation.
See compliance test report 1 paragraph 6.2.4.
- 6) Unit complies with 2.1.5 of IMO A.697(17). The unit has a visual indication of the standby condition i.e. activated but not triggered.
See compliance test report 1 paragraph 6.2.5.

- 7) Unit complies with 2.1.6 of IMO A.697(17). The equipment serial number 31021 was set up ready for normal use and allowed to fall freely from a height of 20 meters into water. No damaged occurred, no water ingress was observed and the unit functioned correctly.
See compliance test report 1 paragraph 6.2.6.
- 8) Unit complies with 2.1.7 of IMO A.697(17). Test was combined with 6.2.8 of test report 1.
See compliance test report 1 paragraph 6.2.7.
- 9) Unit complies with 2.1.8 of IMO A.697(17). The unit serial number 31021 was placed in an environmental chamber at a temperature of +65°C for ≥ 3h. It was then transferred to a pressure vessel containing water at +20°C and immersed to a depth of 100mm. The pressure was raised to 100 kPa for a period of 1 hour. The test was then repeated with the environmental chamber at a temperature of -10°C. On completion of the test the unit showed no signs of leakage or malformation and functioned correctly.
See compliance test report 1 paragraph 6.2.8.
- 10) Unit complies with 2.1.9 of IMO A.697(17). The unit is not specifically designed to be part of a Survival craft. The check for floating was performed for 5 minutes following test 6.2.8.
See compliance test report 1 paragraph 6.2.9.
- 11) Unit complies with 2.1.10 of IMO A.697(17). The unit is fitted with a 10-meter buoyant lanyard suitable for use as a tether to a survival craft.
See compliance test report 1 paragraph 6.2.10.
- 12) Unit complies with 2.1.11 of IMO A.697(17).
See data supplied in manufactures supplied test data, Part 1 in test report 1.
- 13) Unit complies with 2.1.12 of IMO A.697(17).
See data supplied in manufactures supplied test data, Part 1 in test report 1.
- 14) Unit complies with 2.1.13 of IMO A.697(17). The unit is made of highly visible orange plastic with yellow labels. A reflective band is fitted to the top of the unit.
See compliance test report 1 paragraph 6.2.13. Also see figure 1.
- 15) Unit complies with 2.1.14 of IMO A.697(17). Unit has a smooth construction to avoid damage to a survival craft. **See figure 1.**

Battery capacity

- 16) Unit complies with 2.2 of IMO A.697(17). The SART battery packs have sufficient capacity to operate in the standby mode for 96 hours then followed by an 8 hour transmission while being interrogated by 1 kHz repetition frequency.

Battery Packs tested that comply:

- 1.) Dowty battery pack, type # 670-00406-V
- 2.) Tadiran battery pack, type # 670-00408N.
- 3.) Hoppecke battery pack, type # D-5790 Brilon 2.

See compliance test report 1, page 9.

Temperature

- 17) Unit complies with 2.3 of IMO A.697(17). The unit was stored at +65°C for 10 hours then temperature was lowered to +55° and the performance of the unit was monitored for 2 hours. The unit temperature was lowered to -30°C for 10 hours then the temp was raised to -20°C an the performance of the unit was monitored. The unit met all the requirements for the functionality test. **See compliance test report 1, pages 10.**

Mounting

- 18) Unit complies with 2.4 of IMO A.697(17). The unit comes with a mounting pole that is ≥ 1 meter. **See figure 2.**

Antenna Polarization

- 19) Unit complies with 2.5 of IMO A.697(17). The polar data from the testing indicates that the antenna is Omnidirectional in the horizontal plane and horizontally polarization is used for transmission and receiving. **See compliance test report 1, pages 16.**

Interrogation distance

- 20) Unit complies with 2.6 of IMO A.697(17). The unit was interrogated at 7.02 nm at 1 meter off the ocean. For a search height of 3000 feet and a peak power equivalent to 10 kW approximate detection range is 55 n miles using the figure 3 in CCIR report 1036. **See compliance test report 1, page 11.**



FIGURE 1
SART ACTIVATION SWITCH



FIGURE 2
SART WITH MOUNTING POLE



FIGURE 3
SART OPERATING INSTRUCTION LABEL



**FIGURE 4
SART BATTERY EXPIRATION LABEL**



**FIGURE 5
PART 80 COMPLIANCE LABEL**

**THIS DEVICE COMPLIES WITH THE GMDSS PROVISIONS OF
PART 80 OF THE FCC RULES.**

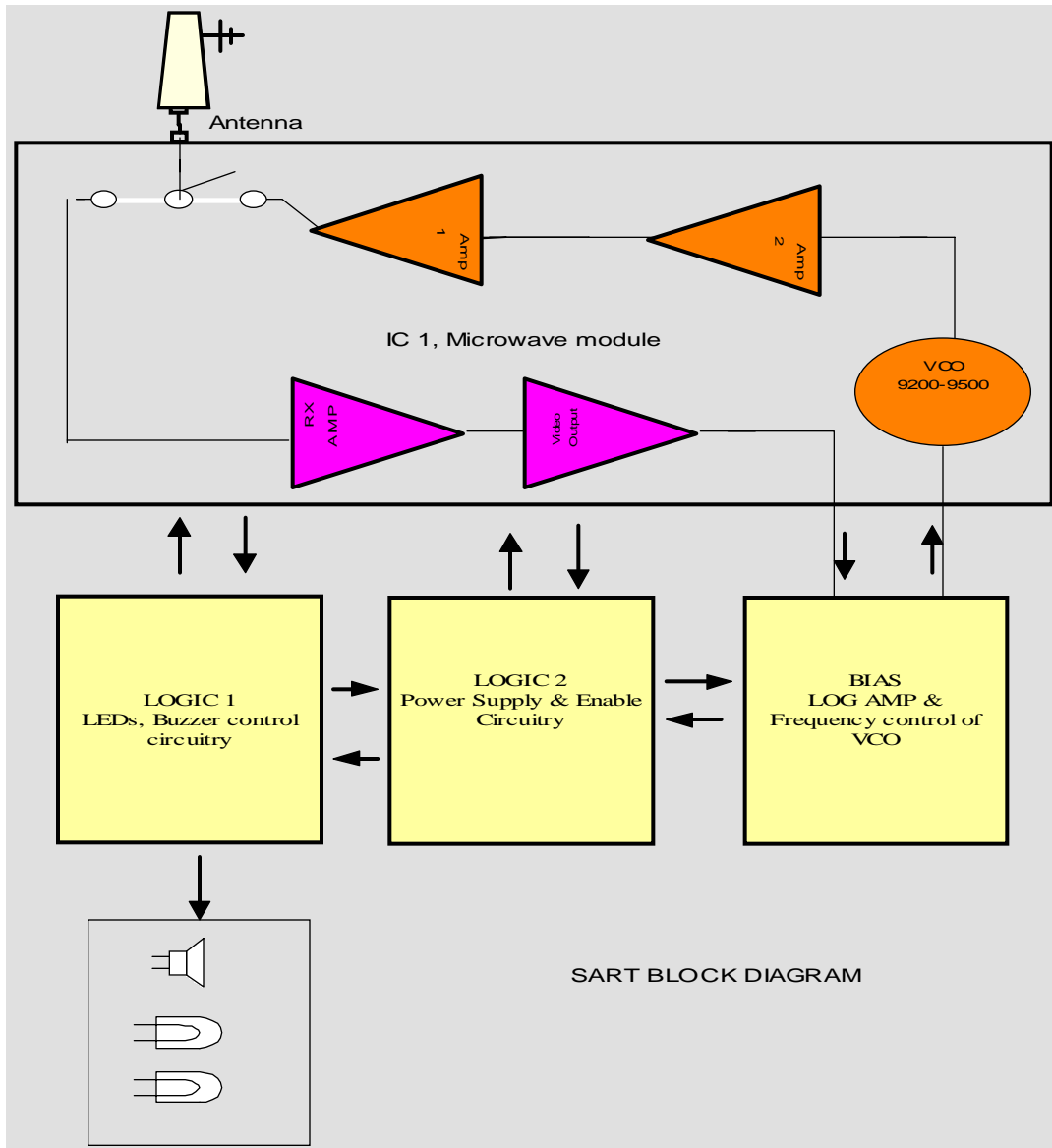


FIGURE 6
CIRCUIT BLOCK DIAGRAM SART

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