

# AN/SSQ-937D

## Bathythermal Buoy

### *Water thermal-gradient measurement and transmission*

The Ultra Electronics' SSQ-937D is an "G" size bathythermal buoy that has been designed, built, and qualified for use by the U.K. MoD. This world leading product provides the ASW operator with an extremely precise plot of sea temperature versus depth. Gravity launched from aircraft, helicopters, or surface ships, the SSQ-937D offers high performance in a small package, light weight bathythermal buoy.

- g "G" size micro-processor controlled bathythermal sonobuoy
- g 99 channel VHF-FM selection capability
- g Accurate temperature versus depth profile from the sea surface to 800 metres
- g Entire water column profiled within 10 minutes of water entry
- g Compatible with all known acoustic processors and sonobuoy receivers
- g Operational flexibility due to reduced size and weight as compared to "A" size bathythermal buoy
- g Equipped with probe release detection to ensure data integrity in water profiling



Engineered for  
accuracy and  
reliability

## SPECIFICATIONS

### GENERAL DESCRIPTION

<b>Description</b> .....	Water thermal gradient measurement and transmission
<b>Applicable Specification</b> ...	U.K. MoD RAEIRSP 5011 Issue 1 U.K. MoD RAEIRSP 5002 Issue 2
<b>Dimensions</b> .....	16.5 in (419 mm) long by 4.875 in (124 mm) diameter
<b>Weight</b> .....	8.6 lbs (3.9 kg) bare buoy
<b>Power Source</b> .....	Five poly-carbon monoflouride Lithium cells approved for Unrestricted transportation by IATA
<b>Activation Time</b> .....	Within 31 seconds (after splash)
<b>Operating Life</b> .....	12 minutes maximum (in water)
<b>Scuttling Time</b> .....	Less than 30 hours after operation
<b>Processor and Display</b> .....	Radio Receiving Sets: AN/ARR-52A, -72, -75, -76 Aircraft Data Processors: AN/AQA-7, 7(V), OL-82, OL-320, OL-5004, UYS-1, UYS-2, AQS-901, AQS-902, AQS-903
<b>NATO Stock Number</b> .....	New (TBD)

### TRANSMITTER CHARACTERISTICS

<b>Frequency Range</b> .....	136 MHz to 173.5 MHz
<b>Transmission Channels</b> .....	99 preselectable
<b>Transmitter RF Power</b> .....	0.25 W ERP minimum

### PROBE CHARACTERISTICS

<b>Operating Depth</b> .....	Continuous 0 – 800 metres (0 – 2625 feet)
<b>Descent Time</b> .....	525 seconds (at 1.5 m/s) (in water)
<b>Sensor Type</b> .....	Thermistor temperature probe
<b>Sensor Thermal Time Constant</b> .....	Less than 200 ms
<b>Sensor Temperature Range</b> .....	-2°C to + 35°C
<b>Temperature Accuracy</b> .....	±0.56°C

### OPERATING ENVIRONMENTAL CONDITIONS

<b>Storage Temperature</b> .....	-40°C to +70°C
<b>Launch Temperature</b> .....	-20°C to +55°C
<b>Seawater Temperature</b> .....	-2°C to 35°C
<b>Wind Velocity</b> .....	30 knots (maximum)
<b>Sea State</b> .....	5 (maximum)
<b>Maximum Launch Altitude</b> .....	30,000 ft (9144 m)
<b>Maximum Launch Airspeed</b> .....	370 knots IAS at 1850 ft (564 m)



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01-09-05/AN/SSQ-937D  
Printed in Canada, 2005