

# SALVARE 4

## New complete radio station for motor lifeboats

Marconi Marine now has available a new, fully solid-state motor lifeboat radio station known as Salvare 4.

While retaining the design philosophy employed in its predecessor, Salvare 3, of using as building blocks well-proven reserve equipment which meets the higher performance standards of ship radio stations, it has been possible to take advantage of new equipment designs to make the new station lighter by some 44kg, smaller in overall dimensions, and more economical on power consumption, using five amps less current from the 24V battery supply.

To permit flexibility of installation in the lifeboat Salvare 4 is housed in two separate cabinets. One cabinet contains the 500kHz and 2182kHz transmitter with integral radiotelephone alarm signal generator and the antenna switching unit. The second, the 8364kHz transmitter, the receiver and the automatic keying device, a charging control unit, and stowage for the headset and Morse key. These cabinets are fitted with removable covers which protect the controls and keep the entire equipment watertight when not in use. Quick release catches permit easy removal in an emergency.

The number of operating controls has been reduced and a system of numbered controls together with an explicit, step-by-step, operating instruction card enable the equipment to be used by survivors having no previous knowledge of the equipment. To further assist in distress situations, the Salvare 4 is provided with a self-supporting mast antenna fitted with a novel swivelling mount which enables one person to erect the antenna to the operating position in safety even in adverse sea conditions. This antenna is loaded so as to enhance its performance on the distress and safety frequencies of 500kHz, 2182kHz and 8364kHz on which the Salvare 4 operates. In addition the Salvare 4 will operate on any type of wire, whip or mast antenna normally fitted in lifeboats, although because of its improved performance over rigged wire antennas, the mast antenna provided is more effective.

The equipment can be connected, via a quick-release cable, to the ship's supplies for charging the lifeboat batteries and energising the anti-condensation heaters which are fitted in each cabinet.

Output power varies dependent on antenna type and earthing system of the lifeboat, but on 500kHz can be up to 140W p.e.p; on 2182kHz up to 80W p.e.p; and on 8364kHz up to 100W p.e.p.

The station operates over a wide temperature range from  $-15^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$  and is tested to ensure operation at high humidity. The cabinets are fitted with shock absorber mounts to protect the equipment against the effects of rapid launching of lifeboats and the pounding which can be experienced by such lifeboats in adverse weather conditions.

Salvare 4 meets IMCO recommendations and is the second equipment to meet the British Home Office specification MPT 1213, the only other approved equipment being its predecessor, Salvare 3.

When the Autokey 2 is set in operation it will automatically switch on the reserve transmitter and, after a short pause to allow the transmitter to warm up, key the alarm signal, pause to allow selection of hand keying if required, then continue by keying the distress signal SOS three times followed by the letters 'de' and the ship's call sign three times.

After the call sign sequence two dashes are keyed to enable ships in the vicinity to take direction-finding bearings of the position of the vessel in distress. At the end of the second dash, Autokey 2 will switch off the reserve transmitter to conserve the 24V emergency batteries.

Approximately 12 minutes later, Autokey 2 switches the reserve transmitter on again and, after a short warm-up period, repeats the distress sequence.

In the case of solid-state transmitters, which may not require a warming-up period, it is possible to omit this

delay by changing an internal link. The equipment will continue to key the distress sequence every 12 minutes until it is switched off or the battery supply fails.

Provision is made to allow for transmission of the distress sequence without first transmitting the alarm signal and to test the auto-alarm receiver with the alarm signal.

Autokey 2 also provides desensitising facilities for up to three receivers. Desensitising may be switched in and out for two of the three receivers and is permanently connected to the third.

Indicator lamps on the front panel of the auto-keying unit enable the operator to monitor the various keying functions.

The equipment is extremely compact and has been designed for standard rack mounting although cabinets are also available to permit installation either above or in conjunction with the Lifeguard 3 auto-alarm receiver.

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