



Portable
Lifeboat Radiotelegraph Sender
and Receiver

Elektromekan Type SM 108 K



Sender: 500 kc/s. and 8364 kc/s.

Receiver: 500 kc/s. and 8266-8745 kc/s.

RADIO EQUIPMENT AND RADIO NAVIGATIONAL INSTRUMENTS

Portable Lifeboat Radiotelegraph Sender and Receiver

Type SM 108 K

ELEKTROMEKANO's portable lifeboat radiotelegraph sender and receiver Type SM 108 K has been developed and constructed to fulfil the applicable requirements of the International Convention for the Safety of Life at Sea, 1948, and the Atlantic City Radio Regulations.

The Type SM 108 K lifeboat radio equipment consists of a radio sender and receiver and a hand-driven generator, all contained in a compact, watertight metal box which is capable of floating on sea water and also of being dropped into the sea without suffering any damage. The box, which also contains the necessary antenna material and other accessories, is finished in a chrome yellow, which makes it easily perceptible on the sea surface.

As the sender is fitted with an automatic keying device for the sending of the Alarm Signal, the Distress Signal and two long dashes for D.F. purposes, it can easily be operated by an unskilled person with no knowledge of the Radio Code, and everything that might complicate the operation has been avoided in the design of this equipment.

Reliable visual indicators are provided to indicate antenna resonance for each operating sending frequency.

Specifications.

Sender.

Circuit:	2-stage crystal-controlled sender, comprising 3 tuned R.F. circuits.
Type of Emission:	Modulated telegraphy A2.
Anode Input:	The input to the anode of the final stage exceeds 10 watts.
Power Output:	3 watts (mast antenna). 4 watts (kite or balloon antenna).
Frequencies:	500 kc/s. and 8364 kc/s. (crystal-controlled).

Frequency Stability:	The sender fulfils the applicable requirements of the Atlantic City Radio Regulations.	
Modulation:	A modulation frequency of about 500 c/s. is obtained from a chopper wheel connected to the generator shaft. Depth of modulation greater than 70 ⁰ / ₁₀ .	
Keying Method:	Cathode keying of the final stage.	
Valves:	Crystal oscillator	one EF 93 (6BA6)
	Final stage	one EL 90 (6AQ5)
Power Supply:	Hand-driven generator supplying: 325 volts (H.T.) 6.3 volts (L.T.)	
Power Consumption:	325 volts 55 milliamps. 6.3 volts 0.75 amp.	

Receiver.

Circuit:	500 kc/s.: 3-valve straight-receiver comprising 2 R.F. amplifying valves, 1 germanium diode detector and 1 output valve. 8 Mc/s.: 3-valve superheterodyne receiver (I.F. 500 kc/s.) comprising 1 mixer valve, 1 I.F. amplifying valve, 1 germanium diode detector and 1 output and B.F.O. valve (double system).	
Types of Reception:	500 kc/s.: Telegraphy types A 2 and B. 8 Mc/s.: Telegraphy types A 1 and A 2.	
Frequencies:	The receiver is pre-tuned to 500 kc/s. and capable of manual tuning between 8266 kc/s. and 8745 kc/s.	
Frequency Stability:	On 500 kc/s. better than ± 1 kc/s. between -15 ⁰ C and +55 ⁰ C.	
Sensitivity:	Better than 100 μ V for a power output of 1 mW in 500 Ω (equal to the impedance of the headphones at 1000 c/s).	

- Selectivity:** 500 kc/s.: Within the band 490-510 kc/s. max. 6 dB attenuation. Outside the band 460-540 kc/s. min. 40 dB attenuation.
- Valves:** One EK 90 (6BE6), one EF 93 (6BA6) and one ECC 91 (6J6).
- Power Supply:** The hand-driven generator supplies power for the receiver as well as for the sender.
- Power Consumption:** 325 volts 25 milliamps.
6.3 volts 1.05 amps.
- Dimensions:** Sender and Receiver Unit:
Height: 35 cm
Width: 29 cm
Length: 58 cm
- Weight:** 27 kg

(All data are subject to possible alterations of design)



SM 108 K complete, i. e. all accessories included.

RADIO EQUIPMENT AND RADIO NAVIGATIONAL INSTRUMENTS

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