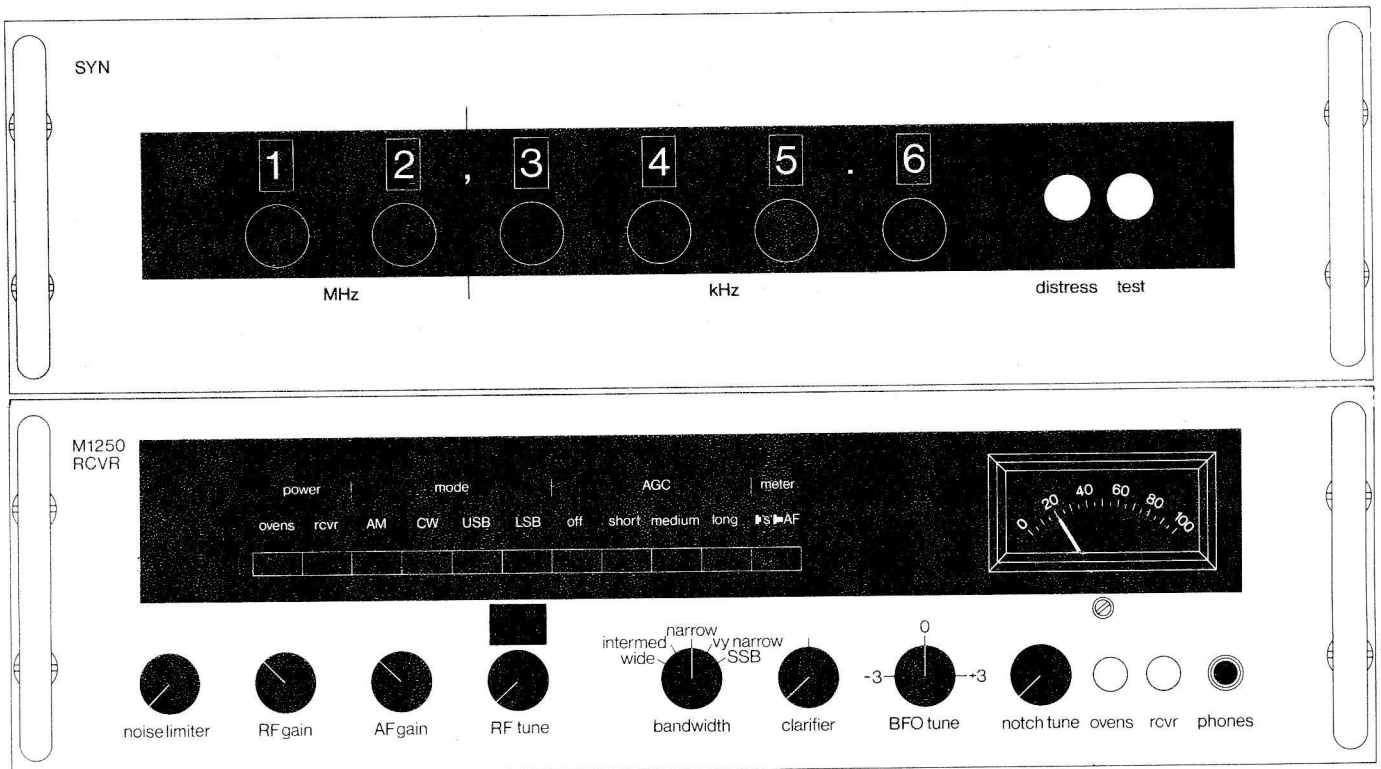


dansk radio aktieselskab



SSB-Communication Receiver

elektromekano M1250

employing digital synthesizer frequency control giving an exceptionally high frequency stability and setting accuracy

full frequency range 10 kHz - 30 MHz without band selection

all solid state

modular construction

simple operation

Complying with the applicable rules
in the Radio Regulations, Geneva 1967,
and SOLAS, London 1960

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The ELEKTROMEKANO Type M 1250 Receiver is a high performance communications receiver primarily intended for use as a ship's main receiver.

The M 1250 Receiver employs Synthesizer Frequency Control giving an exceptionally high frequency stability and frequency setting accuracy. The frequency synthesizer is a digital type synthesizer in which a high frequency oscillator is phase-locked to the reference frequency of a high precision standard oscillator. Frequency setting and read-out are digital, minimum frequency increment being 100 Hz.

The M 1250 Receiver's completely solid-state circuitry with a large number of integrated circuits gives the advantages of high reliability, long life and low power consumption.

The M 1250 Receiver consists of two units, a frequency synthesizer unit and a receiver circuitry unit. The units are designed to conform to standard 19" rack dimensions.

SPECIFICATION

Frequency Range:	10 kHz - 30 MHz
Modes of Reception:	A1, A2, A2h, A3, A3a, A3h, A3j (USB) F1
Frequency Stability:	Short Term (15 min.) better than 10 Hz Long Term (3 months) better than 30 Hz
Sensitivity:	Min. performance: A1, A3j <1.4 μ V for 10 dB signal/noise ratio at 2.15 kHz bandwidth and signal frequencies >1 MHz. Min. performance: A3 <4 μ V for 10 dB signal/noise ratio at 6 kHz bandwidth and signal frequencies >1 MHz.
Selectivity:	6 kHz at 6 dB, 12 kHz at 66 dB 3.15 kHz at 6 dB, 6 kHz at 66 dB 2.15 kHz at 6 dB, 4.25 kHz at 66 dB 0.5 kHz at 6 dB, 1.5 kHz at 66 dB
Cross Modulation:	For a wanted signal of 100 μ V an interfering signal of 10 mV removed 20 kHz from the wanted signal produces a cross modulation signal 20 dB below the wanted signal.
Intermodulation:	For a wanted signal of 30 μ V the third order intermodulation products from two interfering signals of 10 mV will be 20 dB below the wanted signal.
Blocking:	For a wanted signal of 1 mV an interfering signal of 100 mV removed 20 kHz from the wanted signal causes a change in the wanted signal of less than 3 dB.
Image Suppression:	60 - 80 dB
I.F. Suppression:	70 - 80 dB
Spurious Response to other external signals:	- 80 dB
Automatic Gain Control:	A 100 dB change in input signal produces a change of less than 3 dB in the receiver output.
	Time constants:
	Attack Hang Decay
	1. 10 ms 150 ms 50 ms
	2. 20 ms 200 ms 200 ms
	3. 20 ms 2 s 200 ms
Beat Frequency Oscillator:	Variable \pm 3 kHz for CW reception Crystal-controlled for SSB reception

A.F. Notch Filter:

Notch of > 40 dB variable from 300 Hz to 3 kHz.

A.F. Output:

2 watts for loudspeaker
10 milliwatts for 100 Ω headphones
10 milliwatts for 600 Ω line

Metering:

Meter indicating "S"-units or A.F. level.

Power Supply:

110 or 220 V A.C.
24 V D.C.

Climatic Standards:

Temperature range - 20 to + 60°C
Relative humidity up to 95 % at 40°C

DIMENSIONS AND WEIGHT:

For rack mounting:

2 panels, each	Height:	133 mm (5 1/4")
	Width:	483 mm (19")
	Depth:	420 mm (16 1/2")

In cabinet:	Height:	approx. 350 mm
	Width:	approx. 530 mm
	Depth:	approx. 480 mm
	Weight:	approx. 25 kg

Controls etc.:

Synthesizer Unit:

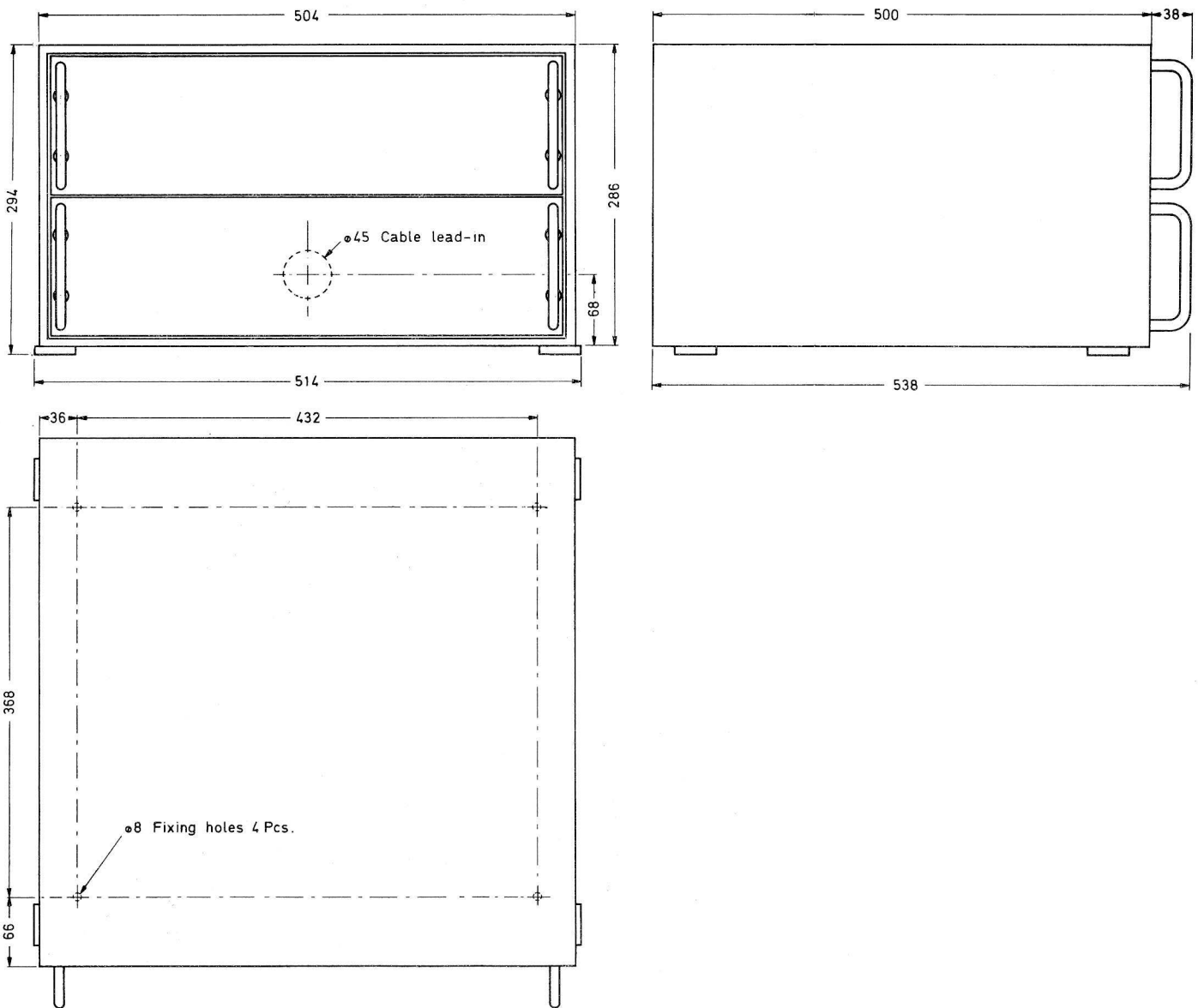
Digital frequency selection and display by means of six control knobs. Minimum frequency increment 100 Hz.

Receiver Unit:

Power Switch
Loudspeaker Switch
Reception Mode Selection: CW-AM-USB
A.G.C. Selection: OFF-SHORT-MEDIUM-LONG
Meter Switch: "S"-A.F.
R.F. Gain Control
A.F. Gain Control
R.F. TUNE Control (Front-end tuned circuits)
Bandwidth Selector
CLARIFIER, very fine tuning control
Beat Frequency Oscillator Tuning
Notch Filter Tuning
Noise Limiter Control
Headphone Jack

(All data are subject to possible alterations of design).

Outline and Mounting Dimensions M 1250



All dimensions are in mm (NTS)

COMPLETE MARINE RADIO INSTALLATIONS ● RADIOTELEPHONE EQUIPMENT FOR SMALLER VESSELS ● MARINE RECEIVERS ● AUTO ALARMS
 DIRECTION FINDERS ● AUTOMATIC ALARM SIGNAL KEYERS ● PORTABLE LIFEBOAT EQUIPMENT ● MOTOR LIFEBOAT EQUIPMENT
 SALINOMETER FOR FRESHWATER GENERATORS ● MEASURING INSTRUMENTS ● ECHO SOUNDERS FOR VERTICAL AND HORIZONTAL USE
 RADAR EQUIPMENT ● LORAN EQUIPMENT ● ANTI INTERFERENCE AERIAL EQUIPMENT FOR RADIO AND TV ● LOUDHAILER EQUIPMENT
 VHF MARINE TELEPHONE EQUIPMENT ● MAST AND ROD AERIALS ● FACSIMILE RECORDERS FOR WEATHER CHARTS. Please write for further details