

1. Introduction

- 1.1. The R5001 marine and general purpose receiver is designed for use in a marine main radio station. The receiver has synthesized operation in the frequency range 10 kHz to 29,999.9 kHz.

The receiver is designed for reception of type F1, A1, A2, A2H, A3, A3H and upper-sideband A3A and A3J signals. It is fully transistorized, and widespread use is made of integrated circuits. These features, in connection with the fact that no crystal ovens are used, cause the receiver to be ready for operation immediately after having been switched on.

Depending on the power pack installed in it, the receiver can be powered from a 24 V battery or from AC voltages normally occurring in practice.

The dimensions match a 19-inch standard rack.

Because we are constantly processing the experience gained during the production and operation of our equipment, it is possible for minor modifications to occur relative to the information given in this instruction manual. Wherever practicable, however, any corrections will be listed on a correction sheet at the back of the front cover of this manual.



FRONTPANEL AND OPERATING CONTROLS
R5001

4. Technical Data

4.1. Reciever R5001

Frequency Range:

Synthesized operation from 10 kHz to 29.9999 MHz

Frequency Presentation:

Fully digital read-out.

Modes of Operation:

A1, A2, A2H, A3, A3H, A3J and F1. Simplex, semiduplex and duplex with built-in duplex filters.

Selectivity:



Wide:	 	6 dB at ± 4 kHz, 60 dB at ± 17.5 kHz 6 dB at ± 2.7 kHz, 60 dB at ± 10 kHz
Intermediate:		6 dB at ± 1.2 kHz, 60 dB at ± 1.9 kHz
Narrow:		6 dB at ± 0.5 kHz, 60 dB at ± 3.5 kHz
Very narrow:		6 dB at ± 0.1 kHz, 60 dB at ± 2 kHz
SSB:		6 dB at 350 and 2700 Hz
SSB:		60 dB at -400 and +3400 Hz
F1 (optional)		6dB at ± 400 Hz, 60 dB at ± 850 Hz

Selectivity:



Wide:		6 dB at ± 4 kHz, 60 dB at ± 17.5 kHz
Intermediate:		6 dB at ± 2.7 kHz, 60 dB at ± 10 kHz
Narrow:		6 dB at ± 0.5 kHz, 60 dB at ± 3.5 kHz
Very narrow:		6 dB at ± 0.1 kHz, 60 dB at ± 2.0 kHz
SSB:		6 dB at 350 and 2700 Hz
SSB:		60 dB at - 400 and + 3400 Hz

Sensitivity:

Connection made for high input impedance

Max input
for 10 dB SINAD

0.1-1.6 MHz	A1	4 μ V
	A2, A2H, A3	18 μ V
1.6-4 MHz	A1, A3A, A3J, F1	1 μ V
	A2, A2H, A3, A3H	4 μ V

Connection made for low input impedance (50 ohm)

0.1-1.6 MHz	A1	2 μ V
	A2, A2H, A3	9 μ V
1.6-4 MHz	A1, A3A, A3J, F1	0.5 μ V
	A2, A2H, A3, A3H	2.5 μ V
4-30 MHz	A1, A3A, A3J, F1	0.5 μ V
	A2, A2H, A3, A3H	2.5 μ V

Audio-Output:

10 mW to phones (400 ohms)
5 W to loudspeaker(s) (4 ohms)
10 dBm to line (600 ohms)

Supply Voltage:

24V battery with P 5010 Power Pack
110/115/120 or 220/230/240V single – or two phase AC 50-60 Hz with P 5011 Power Pack
24V battery and/or 110/115/120 or 220/230/240 single – or two phase AC 50-60 Hz with P 5012 Power Pack

Supply Voltage Variations:

DC: – 10 to +30%
AC: + 10%

Consumption:

24V battery: approx. 2A
AC mains: approx. 45 VA

The duplex filters bandwidth:

»4 MHz«	– 1 dB at 4355 kHz and 4445 kHz
»6 MHz«	– 1 dB at 6500 kHz and 6596 kHz
»8 MHz«	– 1 dB at 8710 kHz and 8840 kHz
»12 MHz«	– 1 dB at 13100 kHz and 13350 kHz
»16 MHz«	– 1 dB at 17230kHz and 17830 kHz
»22 MHz«	– 1 dB at 22570 kHz and 23430 kHz
»25 MHz«	– 1 dB at 25300 kHz and 26300 kHz

Dimensions:

Height: 245 mm
Width: 520 mm
Depth: 306 mm
Weight: 23.6 kg