

Sailor

RT 143

25 WATT VHF RADIO TELEPHONE

S. P. RADIO A/S



9200 AALBORG SV



SAILOR RT143

is an all-transistor marine VHF FM telecommunication set designed for telecommunication between ships or from ship to coast on the international maritime VHF-band.

SAILOR RT143 is a multi-channel set, in which all the international maritime VHF channels are built-in. The set is normally provided with a built-in duplex filter, which will make duplex communication possible on one aerial. The set is also available without duplex filter (semi-duplex on the duplex frequency).

SAILOR RT143 is prepared for the mounting of up to four private channels, selected as simplex channels, close to the international maritime frequency band.

SAILOR RT143 is provided with built-in DUAL WATCH facility, which enables the operator to listen to two channels at the same time, one of which channels – normally channel 16 – is a preference channel.

Compact structure

Owing to the 100 % transistorization it has been possible to build up a very compact set. All controls are placed on the front panel, easy to grasp, and hence no extra control-units are necessary. Connectors for aerial, accumulator, handset and auxiliary loudspeaker are conveniently accessible at the back of the set.

Installation

Owing to its small dimensions and to the fact that the entire set including power supply unit, loudspeaker and duplex filter is assembled in one unit, it is easy to install RT143 in the radioroom on the bridge or at any other desirable place.

The set is easily fitted into the accompanying, selflocking, suspension fitting.

The handset can be placed at one of the sides or on top of the set. If none of these three alternatives will do, the handset holder can be placed anywhere in the vicinity of the set. If necessary the cable can be extended.

Easy servicing

SAILOR RT143 is built up of modules, which means that a possible defect can easily be located and remedied, as the modules are easy to change. The modules are very accessible, as they are placed on swing chassis. It will thus be possible to test and control components and wire connections all over the set rapidly.

Technical Data RT143

General

All international maritime VHF channels	:	
Private channels	:	4 (chosen close to int. maritime band)
Channel separation	:	25 kHz
Modulation	:	Phase
Operation	:	Simplex and duplex
Temperature range	:	$\pm 20^{\circ}\text{C}$ to $+ 50^{\circ}\text{C}$
Frequency stability	:	± 10 ppm ($\pm 1,5$ kHz)
Antenna impedance	:	50 ohm
Power supply	:	12 Volt DC – 24 Volt DC
Power consumption	:	Stand-by = 220 mA
		Transmit = 4,5 Amp
Voltage variation	:	$\pm 10\%$
Voltage variation (with reduced data)	:	$+ 15\%$ \div $- 20\%$

Dimensions

: Height	220 mm
: Width	320 mm
: Depth	195 mm

Weight

: 12 kg

Receiver

Frequency range	
simplex	: 156,300 MHz – 156,875 MHz
duplex	: 160,625 MHz – 162,025 MHz
Sensitivity	: 0,4 μV
Output	: 2,5 Watt / 4 ohm
Distortion	: less than 7 %

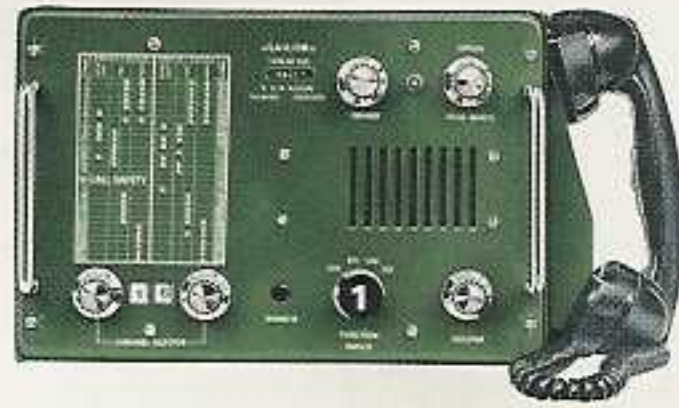
Transmitter

Frequency range	: 156,025 MHz – 157,425 MHz
Output	: 25 Watt (0,5 W reduced)
Distortion	: less than 7 %

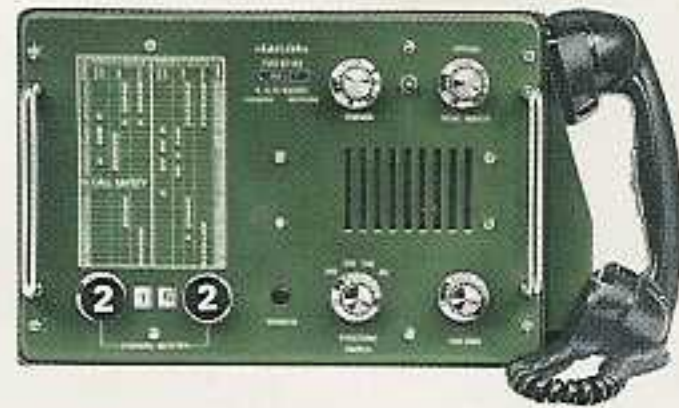
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Controls



- 1 FUNCTION SWITCH:**
OFF: The set is switched off.
ON: The set is switched on and ready for use immediately.
 $\frac{1}{2}$ W: Transmitter output reduced to $\frac{1}{2}$ Watt (for use in heavily trafficked waters).
SQ: Spring-loaded position, in which the AF-amplifier is opened in order that very weak signals may be heard.



- 2 CHANNEL SELECTOR:**
By means of the two CHANNEL SELECTORS the required channel number is selected.



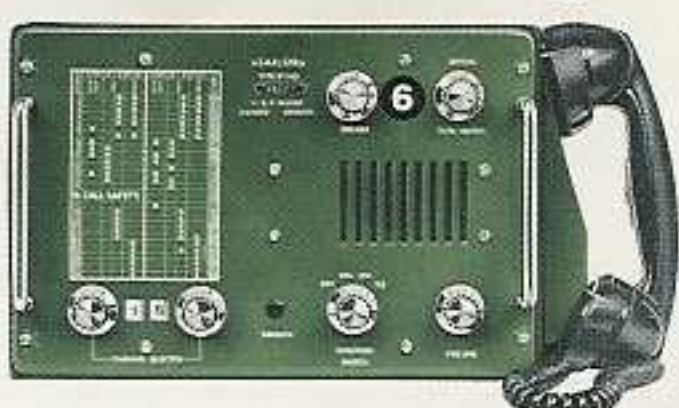
- 3 VOLUME:**
Continuous volume control.



- 4 DIMMER:**
Brightness control in channel indicator.



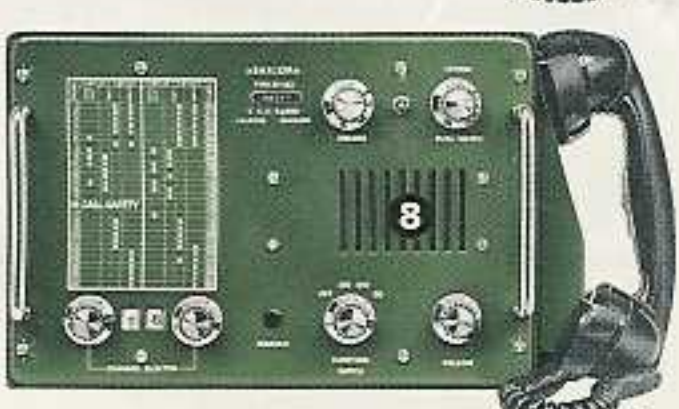
- DUAL WATCH:**
5 ON: With the handset 7 in its holder, the receiver is listening to the selected channel and is watching channel 16 (preference channel). If a signal is received on channel 16 (preference channel), the receiver will automatically switch over to listening to this channel, until the signal disappears. If the handset 7 is removed from its holder, the automatic listening will be switched off and the selected channel will be listened to.
OFF: DUAL WATCH automatic listening is switched off, and the selected channel listened to, with the handset in or out of its holder.



- 6 DUAL WATCH LAMP:**
The lamp will be alight, when there is a call on channel 16 (preference channel). When there is no call on channel 16, the lamp will be flashing.



- 7 HANDSET:**
When the handset key is pressed, the transmitter is started.
When the handset key is not pressed in, all calls will be heard in the loudspeaker.



- 8 LOUDSPEAKER:**
All calls are heard like mentioned under 7.
Auxiliary loudspeakers may be connected to the power supply plug.

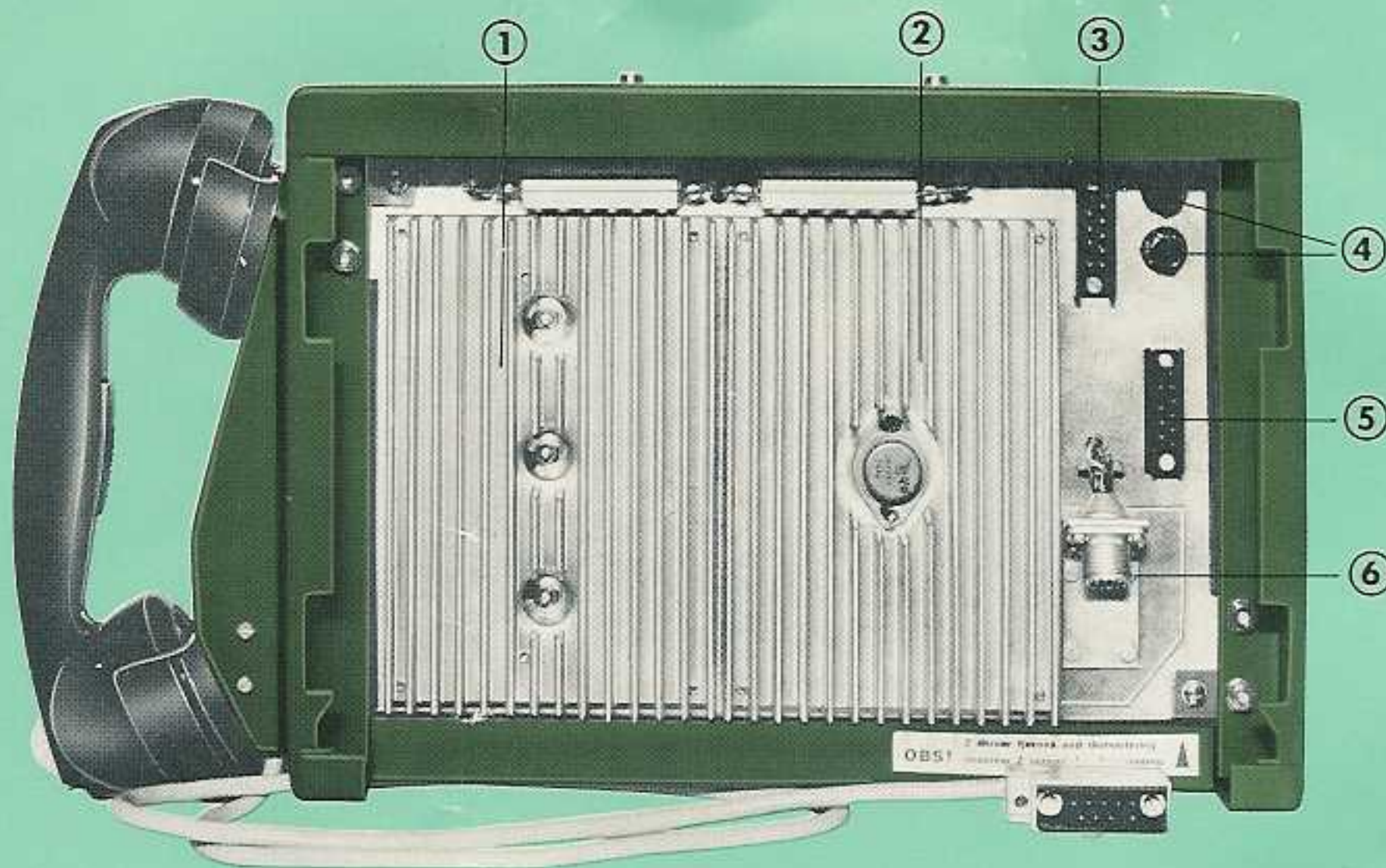


- 9 FREQUENCY TABLE:**
Showing the channel Nos. and their allocation.

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Backside view

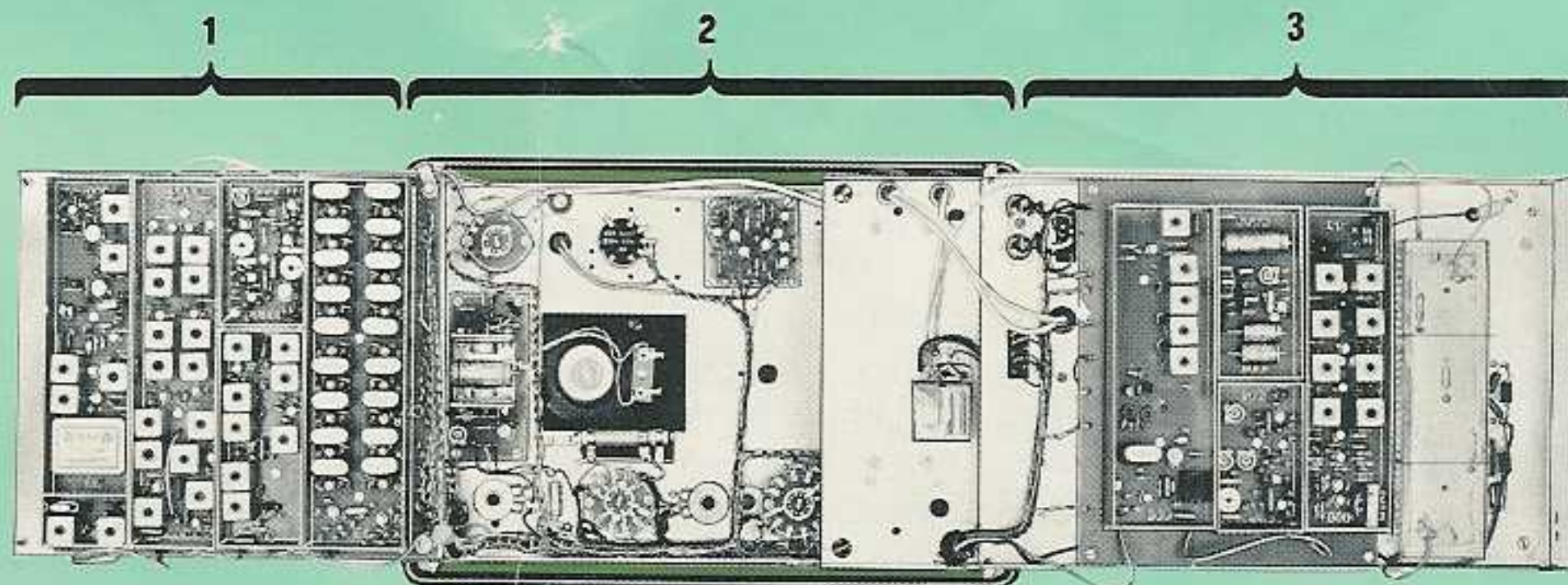
- 1 Heat sink for transmitter PA transistors.
- 2 Heat sink for voltage regulator transistor.
- 3 Plug row for power supply and auxiliary loudspeaker connection.
- 4 Fuses.
- 5 Handset connector.
- 6 Aerial connector.



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With both chassis swung out

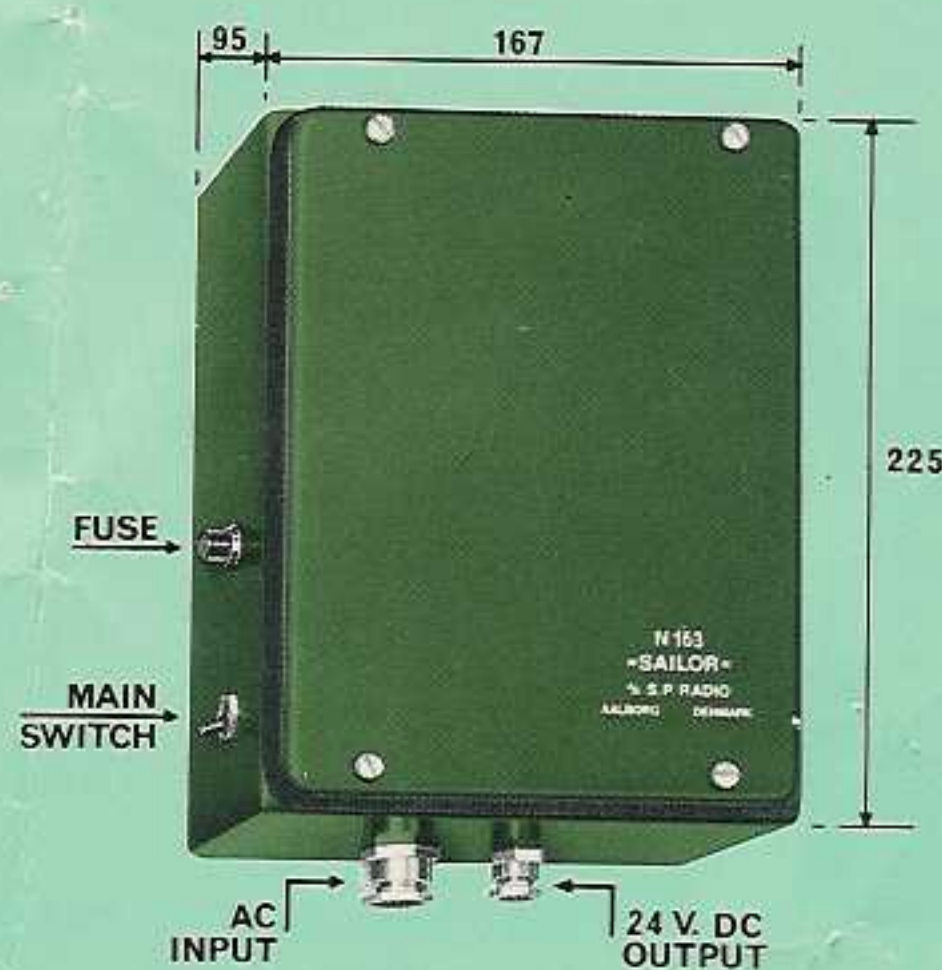
- 1 Receiver chassis.
- 2 Assembling chassis.
- 3 Transmitter chassis.



SAILOR

Power supply N 163

Auxiliary Power supply
220/127/110 V AC
for SAILOR VHF RT 143.



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