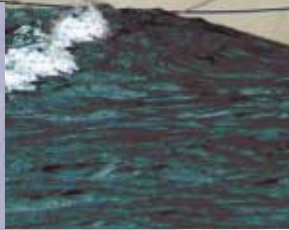


SAILOR A1 VHF



The serious  
choice





### **A serious choice**

For SAILOR, communication and safety are two sides of the same coin: any ship has to be able to communicate directly without problems or delay. Because at sea poor communication is the same as poor safety.

SAILOR A1 VHF is developed for powerboat owners, serious yachtsmen, workboat crews, fishermen and other people with a need for reliable, compact and inexpensive maritime communication equipment.

SAILOR A1 VHF links convenient telephony with safety and optional distress communication – all operated from a single easy-to-use handset. In this way you have easy and dependable communication with any vessel in your area. In areas where coast stations offer the service, digital selective telephony is also available – just as from a normal telephone.

### **Make a safe choice**

The SAILOR A1 VHF consists of a transceiver unit, a control handset, and optional loud-speakers and/or external power supply.

SAILOR A1 VHF comes in two versions: Basic and DSC (Class D). Both versions are developed to increase safety and ease communication for all kinds of vessels – from power boats, leisure boats and fishing vessels to cargo ships, cruise liners or workboats.

The SAILOR A1 VHF DSC offers a secure and reliable way to make a distress call – all in one button. The system transmits the ship's identity code, and specifies the position and the time of the call when GPS-connected. You can also send a more detailed distress message if time allows.

### **Meets or exceeds all requirements**

The system conforms to all relevant ETSI, IEC, ITU and IMO requirements and resolutions. It also more than satisfies international requirements to Class D DSC equipment.





### Functional Design

A compact transceiver. A splash-proof handset with an alphanumeric LCD display and built-in speaker. Safety and distress communication and VHF telephony functions gathered in one system. These are a few of the features emphasising the functional design of the SAILOR A1 VHF.

### Multichannel dual receiver system

The multichannel dual receiver system gives you extra security. By means of the two independent receivers, you are always able to stay in touch with Distress Channel 70.



### Automatic public call facilities

The SAILOR A1 VHF is your gateway to automatic public calls, as easy as from an ordinary telephone.

### Programmable scanning

Due to the programmable scanning facilities, you can save channels of your own choice in a scanning sequence.



### Intercom

The system works as an on-board intercom, allowing you to communicate between two or more handsets. This facility is extremely convenient on board large vessels.

### NMEA Navigator Interface

The NMEA Navigator interface connects the VHF system to the on-board navigational equipment, thus automatically updating the system with the present position – a function of great importance when sending a distress call.

### Flexibility

Flexibility is a keyword in relation to the SAILOR A1 VHF, as you can install the VHF transceiver wherever you like, leaving only the handset visible. The system can operate with as many as seven handsets. The maximum distance between the transceiver unit and the control handset is 40 metres in 12V DC installations and as much as 80 metres in 24V DC installations.

SAILOR A1 VHF DSC consists of:

- RT4801 Transceiver
- C4901 Control Handset

Option:

- C4951 Waterproof Handset

SAILOR A1 VHF consists of:

- RT4800 Transceiver
- C4900 Control Handset

# TECHNICAL SPECIFICATIONS

Conform to all relevant international requirements and resolutions as agreed by ETSI, IEC, ITU, and IMO as well as other national requirements. These specifications include i.e. ETS 300 162, ETS 300 338, IEC 945, IEC 1097-3 and IEC 1097-7.

## GENERAL

Normal channels	All int. ch's for 25 kHz operation. Up to 40 private channels.
Opt. channels	All int. ch's for 12.5 kHz operation. Up to 224 ch's with up to 54 private ch's.
Channel spacing	25 kHz / opt. 12.5 kHz
Frequency range	150.8 MHz – 163.6 MHz.
Operating modes	Simplex/Semi-duplex.
Modulation	G3EJN for telephony receiver G2B for DSC signaling
DSC Operation	According to Rec. ITU-R M.541-6 and Rec. ITU-R M.689-2
DSC Protocol	According to Rec. ITU-R M.493-7 Class D
Navigator interface	NMEA 0183, GGA, GLL, ZDA
Frequency stability	± 10 ppm/ opt. ± 5ppm
Antenna connectors	Standard 50 ohm female, SO239
Temperature range	-15 °C to +55 °C
Supply voltage	13.2 VDC Nominal
Supply range	10.8 VDC to 15.6 VDC
Supply current	Stand - by 180 mA Transmitter on 1.3 A (Low power) Transmitter on 5.3 A (High power)
Transceiver dimen.	H*W*D 55*202*136mm.
Transceiver weight	1.3 kg

ATIS with "killer" is a standard feature in the SAILOR A1 DSC (Class D\*) and an option in the SAILOR A1 Basic.

## RECEIVER

Sensitivity for:	
12 dB SINAD	-119 dBm or 0.25µV p.d.
Symbol error rate below 1*10 <sup>-2</sup> at AF rated power	-119 dBm or 0.25µV p.d.
Output 1	4 W/ 4 ohms
Output 2	6 W/ 4 ohms
Distortion THD	Below 5%
Signal/noise ratio	Better than 40dB
AF response	- 6dB/octave
Spurious emission	Below 2nW
Spurious resp. att.	More than 70dB
Intermodulation att.	More than 68dB
Blocking	More than 90dBµV
Co-channel rejection	Better than -10 dB
Adj. ch. selectivity	More than 70dB

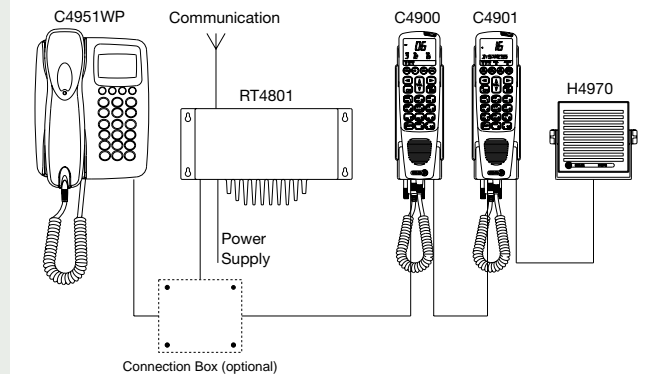
## TRANSMITTER

RF output power	High 25 W + 0 dB to -0.5 dB Low 0.9 W +0.5 dB to - 1 dB
Adj. ch. power	Below -70dBc
Spurious radiation	Below 0.25µW
Cabinet radiation	Below 0.25µW
Af response	+ 6dB/octave
Distortion	Below 5%
Signal/noise ratio	Better than 40dB
Modulation	1700 Hz ± 400 Hz 1200 Baud ( 30 ppm)
Frequency error	Below ± 1 Hz
Residual DSC-mod.	Below -26 dB

Specifications subject to change without further notice.

\*Class D equipment provides facilities for VHF DSC distress, urgency and safety calls as well as routine calling and reception. Class D offers the key benefits of DSC in a form that is suitable for non-deep sea usage.

## SYSTEM CONFIGURATIONS



The SAILOR VHF RT4801 includes in a basic configuration a transceiver unit and a handset control unit. The units are connected by means of the SPARC-bus interface. This advanced balanced data and AF interface can be used to interconnect multiple control units as well as exterior computer based control/programming options. The maximum distance between transceiver unit and handset control unit may be up to 40m in 12VDC installations, in 24 VDC installations up to 80m.

## Options

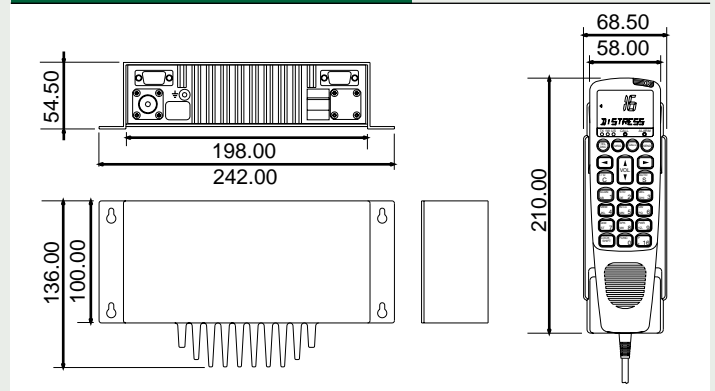
The system can be configured for individual needs:

- With additional loudspeakers designed for outside installation
- With multiple control units
- Or with an exterior computer for controlling and programming options.

An external loudspeaker may be connected directly to the control handset holder. Alternatively the dual AF output channels on the transceiver unit can be used. These terminals may be configured for split level control, to follow two different handset control units.

The nominal system power supply is 12VDC. By means of SAILOR N163 and/ or N420 the system can be powered from the AC mains or a 24 VDC battery. A standard NMEA interface for connection to on-board navigational equipment is available in the transceiver option connector.

## DIMENSIONS





### The SAILOR concept

The well-known SAILOR brand, which was launched more than 50 years ago, includes leisure radios, equipment for fishing vessels of every size and complete communication solutions for the deep sea sector.

The SAILOR name is a guarantee for reliable and technologically superior radio equipment.

### We work hard to make it easy

SAILOR has always been a pioneer in the market for professional maritime communication. Therefore, the SAILOR A1 VHF meets all requirements for high quality, sturdiness, ease of operation and compact design.

### A home in every harbour

When you buy SAILOR, you buy safety. One of the reasons for this is that SAILOR has a global network of Certified Service Centres (CSC). This means that no matter where in the world you may be, you are never far away from rapid assistance and skilled technicians.

### Made for the rough life at sea

The C4951WP handset from SAILOR is specially designed for the wet and noisy environment at sea. It is designed to operate with the SAILOR A1 VHF Class D. User-friendly functions such as dual channel watch, channel scan, up to 40 private channels, automatic public call facilities and automatic squelch are available.

### Features for the C4951WP

- Digital Selective Calling (DSC)
- Waterproof (IP67)
- Powerful 4-Watt loudspeaker
- Ergonomic design
- Full intercom facility
- Plug-and-play installation
- Large back-lit keypad
- Large LCD display
- Programmable scanning
- MMSI phone book
- Large distress button
- Easy snap-on/off mounting





A FRIEND IN NEED IS A FRIEND INDEED, the saying goes; and truly, SAILOR is committed to being there for you should a problem arise. What is more, we want to make sure that you are always on safe ground, even when you are on the open sea. That is why we operate under the maxim: "SAILOR – When safety counts".

With more than 50 years of experience in the market, SAILOR is a true

professional. We know that we have to earn the loyalty of our customers. That is why nearly 15% of our annual turnover is reinvested in research and development and more than one employee in ten is engaged in finding solutions to the challenges of tomorrow.

Today, SAILOR provides a well-known range of communications products that includes everything from radios for

the leisure market to equipment for fishing vessels and complete communications solutions for the deep sea sector. The SAILOR brand has become synonymous with reliable and technologically superior radio equipment – and covers everything from basic VHF units to state-of-the-art satellite systems, AIS (Automatic Identification System), SSAS (Ship Security Alert Systems) and complete compact GMDSS solutions.

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 **SAILOR**  
 When safety counts

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