

VHF RT2047

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**SAILOR** COMPACT 2000 PROGRAMME

ENGLISH

The SAILOR RT2047 VHF radiotelephone has been designed to be used with the SAILOR Compact 2000 module programme.

The SAILOR RT2047 can either be installed and operated as an independent unit, or in combination with other elements of the Compact 2000 module programme. These include a coast telephony station with a 400 Watt PEP SSB transmitter, an SSB receiver with built-in FM and AM bands, and a scrambler which ensures complete communication secrecy.

The SAILOR VHF RT2047 has, by means of the latest technology in casting technique, been constructed to withstand the most extreme conditions experienced in small, semi-open boats. Its compact, weatherproof construction ensures a degree of resistance to sea spray.

The printed circuits, which have made possible a combination of compactness and exceptional performance, are coated with a special, moisture-repellent lacquer.

In the design of this VHF radiotelephone, SAILOR have taken into account all the circumstances it will be exposed to in day-to-day operation. However, even a product of this high quality requires regular servicing and maintenance, and we recommend a close observance of the directions contained in the instruction book.

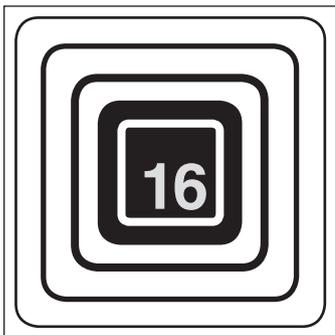
SAILOR is one of Europe's leading producers of maritime radio communication equipment - a position which has been maintained by means of constant and extensive product development. We have a world-wide network of distributors, represented in approx fifty countries. All our distributors are well-trained and able to service all SAILOR products.



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### **DISTRESS CALL PROCEDURE**

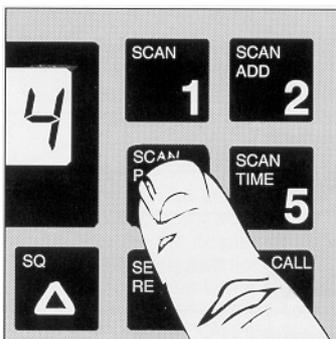
Transmit on channel 16:  
**MAYDAY MAYDAY MAYDAY**  
 This is:  
**NAME OF SHIP**, call sign or  
 other identification (THREE  
 TIMES), followed by:  
**MAYDAY - NAME OF SHIP -**  
 Position, type of emergency,  
 help required and other infor-  
 mation which may help rescue  
 operations.

For clarity when SPELLING OUT  
 words, the following alphabet  
 should be used:

A - <b>Alfa</b>	N - <b>November</b>
B - <b>Bravo</b>	O - <b>Oskar</b>
C - <b>Charlie</b>	P - <b>Papa</b>
D - <b>Delta</b>	Q - <b>Quebec</b>
E - <b>Echo</b>	R - <b>Romeo</b>
F - <b>Foxtrot</b>	S - <b>Sierra</b>
G - <b>Golf</b>	T - <b>Tango</b>
H - <b>Hotel</b>	U - <b>Uniform</b>
I - <b>India</b>	V - <b>Victor</b>
J - <b>Juliett</b>	W - <b>Whiskey</b>
K - <b>Kilo</b>	X - <b>X-ray</b>
L - <b>Lima</b>	Y - <b>Yankee</b>
M - <b>Mike</b>	Z - <b>Zulu</b>

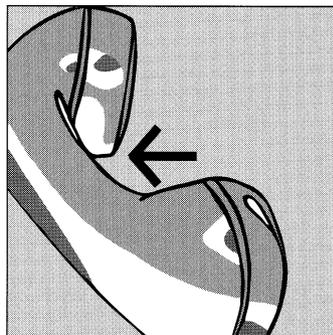
### **NOTE:**

1. The distress call should be repeated from time-to-time until an answer is heard.
2. If no reply is heard on channel 16, the call should be repeated on any other available channel.
3. Speak slowly, pronouncing each word distinctly.



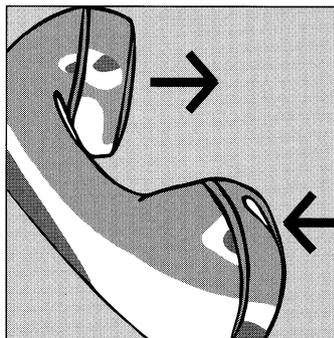
### **OPERATING**

The operating panel is provided with the so-called membrane switches instead of the traditional pushbuttons. These require only a light pressure and are extremely reliable. Keyed operations appear instantly on the large, liquid crystal display in confirmation of the keys which have been operated. The read-out thus functions as a positive checking device. All operating facilities are fitted with night illumination.



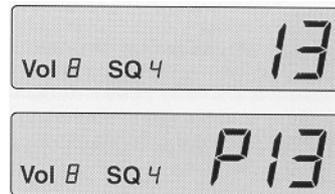
### **SIMPLEX COMMUNICATION**

All ship/ship and some ship/port communications are carried out in the simplex mode. This means that the handset key switch is depressed while the message is delivered, ending with the word „over“ The switch is now released, allowing the other party to reply.



### **DUPLEX COMMUNICATION**

All ship/coast station communications and some ship/port communications are in the duplex mode. This is two-way communication where the handset switch is depressed throughout thus making it possible to hear the other party whilst one is speaking - just as on an ordinary telephone.



### **PRIVATE CHANNELS**

There is standard provision for the programming of up to 20 private channels. However, it is possible to increase the total to 67 private channels.

A private channel is indicated on the display with a "P" in front of the channel number.

Private channels include fishing and leisure channels as well as the special channels allocated by post and telegraph authorities.

# CONTROLS

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	Turns the set on or off		Selects scanning programme.
	Increases volume progressively in 16 steps.		Adds a channel to the scanning table.
	Reduces volume progressively in 16 steps.		Deletes a channel from the scanning table.
	Increases squelch sensitivity progressively in 8 steps, a gradual exclusion of weak signals with atmospherics.		Stores the current scanning programme in the memory.
	Reduces squelch sensitivity progressively in 8 steps		Selects the scan time from 1 to 99 seconds. The time chosen will be used to listen on one of the secondary channels receiving a signal.
	Stops and starts scanning sequence. Listen out on several predetermined channels,		Selects the dual watch facility.
	Quick select of the call and distress channel 16		Resets the selcall decoder after a call.
	Digits from 1 to 0.		Tests the selcall decoder.
	Selects private channels.		Selects 1W reduced power output.
	Terminates the keying in of selected channels, scanning programmes, scan time ect.		Selects the VHF channels used in the USA.
	Activates the functions marked in orange on the keyboard.		Switches the panel illumination on or off.

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# READ-OUT

## ● SCANNING

The scanner contains 6 programmes of which 5 can be determined by the operator. The programme chosen is shown on the display as "Scan 0" up to and including "Scan 5". Channel 16 has top priority during scanning.

## ● DUAL WATCH

When the "DW" sign is illuminated, it indicates that the international distress channel 16 is being listened to every 1.5 seconds, whilst the secondary channel, which is shown on the display, is being listened to the rest of the time. If a signal is received on channel 16, it will be listened to continuously for as long as the signal continues.

## ● USA -CHANNELS

In the USA a number of the international duplex channels are used as simplex channels. Ships sailing in American waters must, therefore, be able to select these channels as simplex channels. The appearance of "USA" on the display indicates that this mode of operating is in use.

## ● SELECTIVE CALLING

Upon receipt of a selective call from a coast station, the word "Call" will be shown on the display. Upon receipt of an "all ships call" e.g. a distress call, gale warning or navigational warning, the display will show "CQ"

## ● DUPLEX

If a duplex channel is chosen, the display will show "Duplex" and a fully duplex conversation in the form of a dialogue without technical switching will be possible.



## ● CHANNEL READ-OUT

All international maritime channels are shown by the two digits to the far right on the display when the chosen channel has been keyed in. A "P" at the right indicates that the channel chosen is a private channel - usually the leisure and fishing channel.

## ● SQUELCH

The squelch can be adjusted in 8 steps and the current adjustment can be read on the display. On step 0 the squelch function is not operative. This means that all signals, including noise, will be heard on the loudspeaker. On step 8 all weak signals with atmospheric noise will be excluded from the loudspeaker and only clear, intelligible signals will be heard.

## ● REDUCED POWER

In harbour areas or in the close vicinity of another vessel, transmissions should be with reduced power. When the display shows 1W the transmitter power output is reduced from the maximum 25 Watts to under 1 Watt. Where two stations are close together, this reduction can improve communication.

## ● VOLUME

The volume can be adjusted in 16 steps - from 0 to 15 and the current setting can always be read on the display.

## ● TRANSMITTING

Whenever the handset switch is depressed, the transmitter will operate and "TX" will appear on the display in confirmation of this.

# OPERATION

The VHF radiotelephone is operated exclusively by means of pushbuttons. This ensures adjustment of volume, selection of channels etc. in all situations.

The large, liquid crystal display panel shows volume level, squelch level, channel in use as well as the various keyed functions such as 1 Watt and dual watch.

When the station is switched off, all settings in use will be stored in the built-in memory and will be re-displayed as soon as the station is switched on again.

## How to Set the Squelch

Press:



until white noise - a uniform light hissing sound - is heard in the loudspeaker.

Then press:



until the white noise just disappears.

The adjustment is to be done on a channel without signal.

Read-out:

SQ8 - The squelch will exclude weak signals.

SQ0 - The squelch will keep the station operative even when no signal is received.

## How to Turn On the Front Panel Illumination

Press:



## How to Turn Off the Front Panel Illumination

Press:

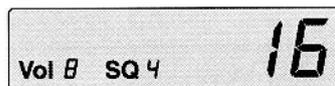


## How to Select the Distress and Call Channel 16

Press:



Read-out:

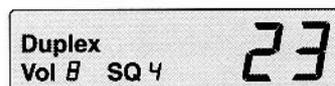


## How to Select a Channel

E.g. Channel 23. Press:



Read-out:

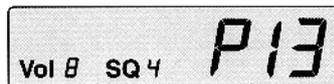


## How to Select a Private Channel

E. g. Channel P13. Press:



Read-out:

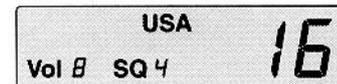


## How to Select Channels Used in USA

Press:



Read-out:

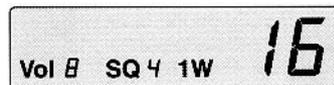


## How to Select Reduced Output Power

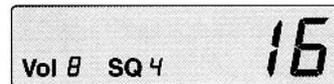
Press:



Read-out:

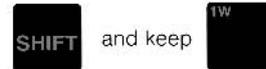


## How to Return to 25W Output Power



## How to Raise Output Power to 25W on Channels 13 or 67 in US-Mode

Press:



depressed simultaneously with the handset key

Read-out:

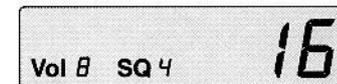


## How to Return to International Channels

Press:



Read-out:



# SELECTIVE CALLING

When a selective call is received from a coast station, the read-out will show "Call" and the acoustic alarm will sound for 10 seconds.

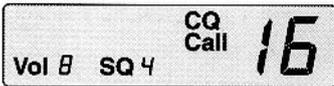
When an "all ships call", containing distress messages, gale warnings, navigational warnings, etc, is received from a coast station, the read-out will show "CQ", and the acoustic alarm will sound until the selcall is reset.

## How to Test the Selcall Decoder

Press:



Read-out:



The acoustic alarm will sound.

This read-out indicates that the test has been correctly carried out.

Now press:



## How to Reset the Selcall Decoder

After an individual call or an "all ships call" has been received, press:



# DUAL WATCH OPERATION

In addition to the selected channel, which is shown on the display, the VHF station will listen on channel 16 for 0.1 second every 1.5 seconds.

If there is a signal on channel 11, the dual watch sequence will be as follows:



Any signal received on channel 16 will be heard continuously and the read-out will show "16" until the signal ceases.

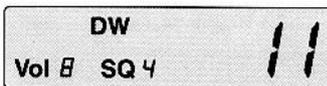
If the transmitter is keyed, the dual watch function will be switched off and the read-out will show the channel selected.

## How to Select Dual Watch

Press:



Read-out:

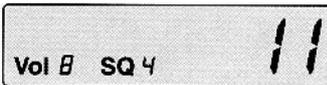


## How to Switch Off Dual Watch

Press:



Read-out:



# SCANNING OPERATION

The VHF radiotelephone includes 6 scanning programmes, to be stored in the corresponding registers from 0 to 5. The corresponding read-outs are "Scan 0", "Scan 1", "Scan 2", "Scan 3", "Scan 4", and "Scan 5".

## "Scan 0"

"Scan 0" is programmed from the factory with all the channels which are available in the set except private channels from P20 to P67. Channels can be deleted or added in accordance with the operator's wishes and needs. When the VHF station is switched on, "Scan 0" will once again contain all channels.

## "Scan 1-5"

The scanning programmes from "Scan 1" to "Scan 5" are operator-programmed and stored in a special memory which retains the scanning programme even when the station is switched off.

The operator can construct his own scanning programmes in each of the 5 registers. The only limitation to the number of channels in each programme is the private channels from P20 to P67. Examples of the private programmes are such things as the fishing channel, harbour service, weather service, and other public channels.

By pressing "Add" or "Delete", the scanning programme can be changed during operation without any change in the programme stored in the special memory. To store a changed programme in the memory press "Scan Prog".

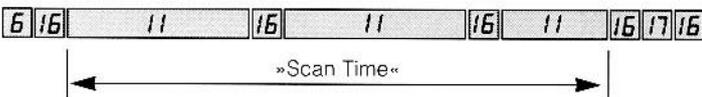
## Scanning

In principle, scanning is an advanced form of the dual watch system in which the secondary channel selected changes constantly whilst the distress and call channel 16 is listened to simultaneously.

If, for example, a scanning programme consists of channels 6, 11, 17 and 70, the scanning sequence will look like this:

6 16 11 16 17 16 70 16 6

If there is a signal on channel 11 the sequence will be:



The "Scan Time" is the time during which the scanner listens out on channel 11 whilst at the same time watching out on channel 16 - exactly like it happens on the dual watch system. The "Scan Time" can be programmed by the operator.

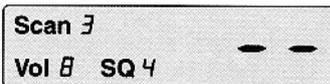
To obtain a continuous listening to the signal being received on channel 11, the scanning is stopped by a single press on "STOP/RUN". The scanning can be started again by pressing once on the same button.

## How to Select a Scanning Programme

E. g. programme 3, Press:



Read-out:



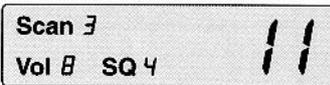
The two bars indicate that the scanner is running.

## How to Stop the Scanner

Press:



Read-out:

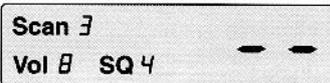


## How to Start the Scanner Again

Press:



Read-out:



## How to Return to the Last Channel with Signal

A long press on:



## How to Check the Channels Contained in a Scanning Programme

A constant press on:



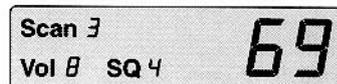
results in all the channels in that particular programme being shown slowly on the display.

## How to Add a Channel to a Scanning Programme

E.g. to add channel 69 to "Scan 3" press:



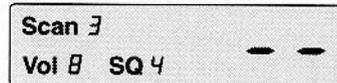
Read-out:



To re-start the scanning programme press:



Read-out:

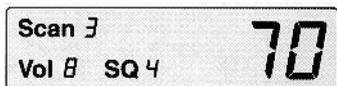


### How to Delete a Channel from a Scanning Programme

E.g. to delete channel 69 from "Scan 3" press:



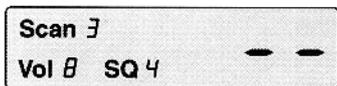
The read out shows the next channel in the programme, e.g.:



The revised scanning programme becomes operative by pressing:



Read-out:



### How to Store the Revised Programme in the Special Memory

The revised "Scan 3" is stored in the special memory by pressing:



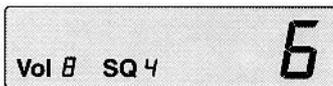
The programme will remain in the memory even when the station is switched off.

### How to Set "Scan Time"

To set "Scan Time" to 10 seconds press:



Read-out shows the previously selected "Scan Time". 6 seconds.



To continue with an unchanged "Scan Time" press:

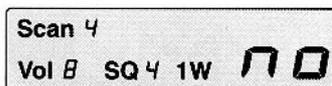


To change "Scan Time" to 10 seconds press:



### Empty Scanning Programme

If one of the scanning programmes (e.g. 4) is empty of channels, the read-out will show:



To leave the empty programme press:

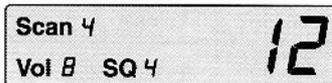


The read-out will show the last utilized channel or channel 16.

Alternatively, to insert channel 12 as part of the scanning programme press:



The read-out will then show:





# QUICK SELECT CHART

Distress and Call Channel	<b>16</b>	Vol 7 SQ 4 <b>16</b>
Channel Selection	<b>2</b> <b>3</b> <b>ENT</b>	Duplex Vol 7 SQ 4 <b>23</b>
US-mode (Channel Required in the USA)	<b>SHIFT</b> <b>USA</b>	USA Vol 7 SQ 4 <b>23</b>
Reduced Power	<b>SHIFT</b> <b>1W</b>	Duplex Vol 7 SQ 4 1W <b>23</b>
Dual Watch	<b>SHIFT</b> <b>D.W.</b>	Duplex DW Vol 7 SQ 4 <b>23</b>
Select Scanning Programme e.g 3	<b>SHIFT</b> <b>SCAN</b> <b>3</b> <b>ENT</b>	Scan 3 Vol 7 SQ 4 <b>--</b>
Add a Channel to Scanning Programme	<b>6</b> <b>9</b> <b>SHIFT</b> <b>SCAN ADD</b>	Scan 3 Vol 7 SQ 4 <b>69</b>
Start Scanning	<b>STOP RUN</b>	Scan 3 Vol 7 SQ 4 1W <b>--</b>
Delete a Channel from Scanning Programme	<b>6</b> <b>9</b> <b>SHIFT</b> <b>SCAN DELETE</b>	Scan 3 Vol 7 SQ 4 <b>70</b>
Store a Revised Scanning Programme	<b>SHIFT</b> <b>SCAN PROG</b>	
Set of "Scan time" to 10 Seconds	<b>SHIFT</b> <b>SCAN TIME</b> <b>1</b> <b>0</b> <b>ENT</b>	



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