

**800 W PEP &
240 CHANNELS (SYNTHESIZED)**
World wide communication

COMPACT & FLEXIBLE



Sailor

**SSB
Short-wave
Programme 1000**

S. P. RADIO A/s · 9200 AALBORG SV

Sailor short-wave programme 1000

Introduction

SAILOR short wave equipment is manufactured and produced in Europe's leading factory dealing in maritime radiotelephones, the annual output exceeding 20,000 sets. The S.P. RADIO network of dealers and service depots is world wide.

Years of experience with radiotelephone equipment, working under the worst conditions imaginable, from the African rivers to the harsh environments of the Arctic etc., have enabled S.P. RADIO to construct a radio set which not only complies with the technical test specifications of the authorities, but equally as important, meets the requirements of the user in every respect.

The set excels in the following fields: –

LONG RANGE COVERAGE

The transmitter has an output of 800 watts PEP against the usual 400 watts PEP together with a very efficient modulation system. Furthermore, the transmitter aerial can be sited at the best location on the ship. These qualities ensure maximum radiated power and consequently maximum range.

The specially designed front end selectivity system of the receiver, provides not only for exceptionally large signal capability, but also offers the opportunity for matching into the aerial conditions prevalent on board ship. This front end system, combined with the large dynamic range of the receiver and other features, ensures noiseless reception even in the difficult environment on board ship. In other words, long distance reception is ensured.

SIMPLE FITTING OF NEW TRANSMIT CHANNELS

Normally the fitting of new transmit channels in a Short Wave station takes place with the replacement or programming of a so called PROM. This calls for expensive specialist work, requiring advanced electronic equipment available at only a few places. This means the return of the equipment and the waiting time etc.

This problem is solved with SAILOR's new programming system in the S1300 (patented).

Programming can be carried out on board by a person of average skill merely by cutting a code in a programming strip. Extra programming strips, tools for cutting, and details of the programming procedure are in the instruction manual enclosed with every set.

SIMPLE OPERATION

As both receiver and transmitter have automatic band selection, the operation of the set is very simple.

For both receiver and transmitter this occurs when changing frequency: –

Select frequency, tune aerial.

It couldn't be simpler.

LOW POWER CONSUMPTION

In spite of the very large power output of the set, 800 watts PEP the power consumption is modest.

The power consumption is only 15–20 % higher than a normal 400 watt PEP set.

SIMPLE INSTALLATION

The set is provided with a mounting plate. This plate is mounted first, and all connections except transmitter aerial are made to the easily accessible terminal strips on it. When the connections have been made, the cabinet is suspended on the mounting plate.

The set can be supplied with a built in battery charger, all switches and meters required by the authorities being on the front panel. Battery cables and as supply cables are again connected on the mounting plate, making installation even more simple.

COMPACT, PROFESSIONAL CONSTRUCTION

By using our newly developed SAILOR 19" rack system, we have succeeded in making the set exceptionally compact in spite of the large power output.

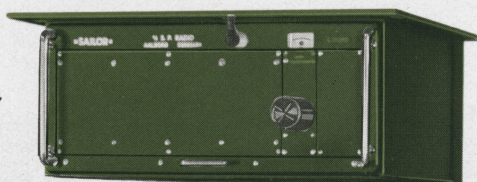
The drawers of the rack system are so designed that service operations are possible without the requirement of extension cables or the like.

Cabinet, front panels and chassis are made of steel. Front panels and cabinet are greyish-green Nylon coated. Control knobs and fittings are of deformation-resistant plastic and solid, chromium-plated brass.

... optimum positioning of aerial always possible

Remote control of transmitter T 1127

T 1127



Transmitter T1127 mounted at the base point of the aerial.

H 1200

S 1300

R 1117

N 1400



Short-wave station placed at the operator.

POSITION OF AERIAL

A traditional short wave set is so constructed, that the output stage and aerial tuning circuit are in one unit with the rest of the set.

In order to function satisfactorily, such a set must be placed not further than 2-3 m from the base point of the aerial (the aerial feed-through in the deck). This is often far from practical, so that on installation of a traditional set, one is forced into a compromise solution, which cannot possibly give satisfactory results.

S.P. RADIO have solved these problems in a unique way, as the transmitter T1127 can either be in one unit with the

rest of the set (see illustration on front page), or mounted in its own cabinet at the base point of the aerial (see illustration on this page). If this separate mounting method is used, the remote control unit H1200 is placed on top of the set replacing the transmitter T1127, the set then being operated in the normal way by the operator.

This flexibility has made it possible to make either traditional installations, or, when these are impractical, to place the aerial and transmitter up to 200 m away from the operating point.

The 'SAILOR' remote control principle (patent pending) has made »impossible« installations possible.

Sailor short-wave programme 1000

The short-wave programme consists of the following units:

Receiver R1117

Transmitter T1127

Exciter S1300 – S1301

Power supplies N1400 – N1401 – N1402 – N1403

Battery Charger N1404

Remote control unit H1200

Power supply change-over unit H1203

TELEPHONY RECEIVER R1117

SAILOR R1117 is a telephony receiver intended for reception of A3, A3H, A3A, A3J, A2 and A2H signals in the frequency ranges 1,6–4,0 MHz and the 4, 6, 8, 12, 16, 22 and 25 MHz maritime HF bands.

SAILOR R1117 uses a digital synthesizer for frequency generation and thus can be set to any frequency in the above mentioned frequency ranges.

SAILOR R1117 is provided with high order tunable RF filters to ensure good duplex performance.

SAILOR R1117 can be used in conjunction with telex-equipment.

SAILOR R1117 has the following frequency stability:

In the temperature range 0°C–40°C:

less than ± 1 ppm (± 25 Hz)

Long time stability:

less than ± 1 ppm (± 25 Hz)

Short time stability:

less than ± 5 Hz

SAILOR R1117 can operate in the temperature range –15°C to +55°C.

TRANSMITTER T1127

SAILOR T1127 is an SSB transmitter for use in conjunction with the EXCITERS S1300 and S1301.

SAILOR T1127 can over a distance up to 200 metres be remote controlled by H1200. This means that the location for the radio station and aerial can be chosen independently for maximum performance.

SAILOR T1127 has the following output effects:

1,6–4,0 MHz : 400 W PEP

Maritime HF bands: 800 W PEP

SAILOR T1127 can operate in the temperature range –15°C to +55°C.

SAILOR T1127 can be supplied from N1400 (24V DC) or N1401 (AC).

TELEPHONY EXCITER S1300

SAILOR S1300 is a telephony exciter for use in conjunction with the transmitter T1127.

SAILOR S1300 can be programmed for 240 channels free selected in the frequency range 1,6–4,0 MHz and in the maritime HF bands 4, 6, 8, 12, 16, 22 and 25 MHz.

SAILOR S1300 channel programming is extremely easy and can be carried out with normal handtools, no instruments are required.

SAILOR S1300 uses a digital synthesizer for frequency generation.

SAILOR S1300 has possibility for the following transmission modes A3J, A3A and A3H.

SAILOR S1300 can be supplied with TELEX and TELEGRAPHY A1 and A2H.

SAILOR S1300 has the following frequency stability:

Temperature range 0°C–40°C:

less than ± 1 ppm (± 25 Hz)

Long time stability:

less than ± 1 ppm (± 25 Hz)

Short time stability:

less than ± 2 Hz

SAILOR S1300 can operate in the temperature range –15°C to +55°C.

MAIN EXCITER S1301

SAILOR S1301 has the same data as SAILOR S1300 except for the following points:

SAILOR S1301 can by the operator be set for any frequency in the maritime bands from 1,6 to 27,5 MHz.

SAILOR S1301 has built in TELEX and TELEGRAPHY facilities.

Sailor short-wave programme 1000

DC POWER SUPPLY N1400

SAILOR N1400 is for supply from 24V DC.

SAILOR N1400 supplies all the voltages to T1127, S1300/01 and R1117.

SAILOR N1400 has built-in loudspeaker.

SAILOR N1400 has on the frontplate a voltmeter to control supply voltage and the output voltages.

| Input current (26,5V DC) | MF 1,6 - 4,0 MHz | HF 4,0 - 27,5 MHz |
|--------------------------|---------------------|----------------------|
| Receiver only | 2,3A | 2,3A |
| Stand by | 8,8A | 8,8A |
| On | 9,9A | 9,9A |
| Tune (full PEP 2-tone) | 45A | 60A |
| SSB Normal Speech | 36A | 45A |
| A3H Normal Speech | 42A | 56A |

AC POWER SUPPLY N1401

SAILOR N1401 is for supply from AC mains 110/127/220/237V AC.

SAILOR N1401 supplies all the voltages to T1127, S1300/01 and R1117.

SAILOR N1401 has built-in loudspeaker.

SAILOR N1401 has on the frontplate a voltmeter to control supply voltage and the output voltages.

| Input current (220V AC) | MF 1,6 - 4,0 MHz | HF 4,0 - 27,5 MHz |
|-------------------------|---------------------|----------------------|
| Receiver only | 0,25A | 0,25A |
| Stand by | 1,2A | 1,2A |
| On | 1,4A | 1,4A |
| Tune (full PEP 2-tone) | 5,0A | 6,5A |
| SSB Normal Speech | 4,2A | 5,2A |
| A3H Normal Speech | 4,5A | 5,8A |

MECHANICAL DIMENSIONS

SAILOR short wave programme gives many combination possibilities. Below is a table of the mechanical dimensions.

| Combination possibilities | Height | Depth | Width |
|--|--------|--------|--------|
| T 1127 - S 1300/01 - R 1117 - N 1400/01 | 615 mm | 498 mm | 495 mm |
| T 1127 - S 1300/01 - R 1117 - N 1400 - N 1401 - H 1203 | 793 mm | 498 mm | 495 mm |
| T 1127 - S 1300/01 - R 1117 - N 1400 - N 1404 | 759 mm | 498 mm | 495 mm |
| H 1200 - S 1300/01 - R 1117 - N 1400/01 | 541 mm | 498 mm | 495 mm |
| H 1200 - S 1300/01 - R 1117 - N 1400 - N 1401 - H 1203 | 719 mm | 498 mm | 495 mm |
| H 1200 - S 1300/01 - R 1117 - N 1400 - N 1404 | 685 mm | 498 mm | 495 mm |
| T 1127 (remote controlled) | 243 mm | 530 mm | 560 mm |

AC POWER SUPPLY N1402

SAILOR N1402 is an AC power supply for the receiver R1117 when it is delivered in its own cabinet.

SAILOR N1402 is for supply from AC mains 110/127/220/237V AC.

DC POWER SUPPLY N1403

SAILOR N1403 is an DC power supply for the receiver R1117 when it is delivered in its own cabinet.

SAILOR N1403 is for supply from 24V DC.

40 AMP. BATTERY CHARGER N1404

SAILOR N1404 gives automatic charging facilities which ensures that the batteries remain fully charged with a minimum of supervision.

SAILOR N1404 is built up in SAILOR 19" rack system and mounted under DC power supply N1400.

SAILOR N1400 has on the frontplate a meter for Battery Voltage and a meter for charge or discharge of the battery.

REMOTE CONTROL UNIT H1200

SAILOR H1200 can over a distance up to 200 metres control the transmitter unit T1127.

SAILOR H1200 is mounted on top of SAILOR 19" rack system instead of T1127.

POWER SUPPLY CHANGEOVER UNIT H1203

SAILOR H1203 has to be used when the station is provided with two power supplies N1400 and N1401.

SAILOR H1203 cuts in the AC or DC power supply, which ever is in ON position. If both the AC and the DC power supply in ON position, H1203 cuts in the AC power supply.

On request you can have the mounting instruction for SAILOR Short Wave Programme.

Accessories for SAILOR short-wave programme 1000

Cabinet for receiver R1117: SAILOR H1212
Ext. loudspeaker (Nylon coated steel cabinet): SAILOR L167
Ext. loudspeaker (plast cabinet)
Headphones

Installation materials for SAILOR short-wave programme 1000

When mounted free-standing on table-top following mounting kits are available.

| Combination possibilities | Type-nr. |
|--|----------|
| T 1127 - S 1300/01 - R 1117 - N 1400/01 | H 1205 |
| T 1127 - S 1300/01 - R 1117 - N 1400 - N 1401 - H 1203 | H 1206 |
| T 1127 - S 1300/01 - R 1117 - N 1400 - N 1404 | H 1210 |
| H 1200 - S 1300/01 - R 1117 - N 1400/01 | H 1207 |
| H 1200 - S 1300/01 - R 1117 - N 1400 - N 1401 - H 1203 | H 1208 |
| H 1200 - S 1300/01 - R 1117 - N 1400 - N 1404 | H 1211 |

Whip-aerial, length 8.5 m: Type No. KUM850
Mast mountings for whip-aerial
Aerial relay: SAILOR AR 166K
Receiver aerial connection box: SAILOR H 1209
Aerial change-over switch for grounding the transmitter aerial or change over to other equipment: Type No. TEF
Deckhead insulator: Type No. SG 1.8
Stand-off insulator (delrin): Type No. H30
Insulator (delrin) 20 cm
Aerial-wire clamps Type No. LK
Aerial-wire 16 square
Copper-band 50×0,5 mm
Coaxial cable for receiver (50 ohm) Type No. RG213U
Triaxial cable for receiver (50 ohm) Type No. H1213



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