Thrane & Thrane

SAILOR RT5020 VHF DSC DUPLEX

Revolutionary full two-way communication at sea

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The SAILOR RT5020 VHF DSC Duplex is a state-of-the-art reliable communications tool for the professional mariner at sea. It is easy to operate and provides powerful and clear audio.

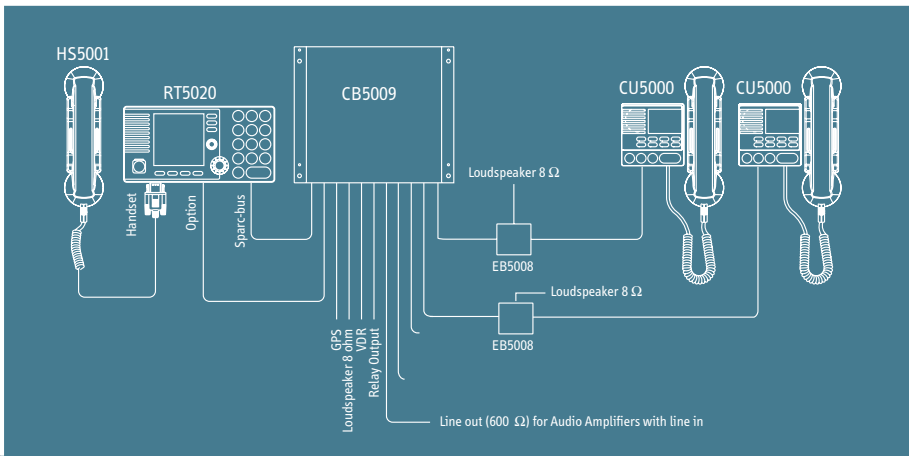
As a world first, the SAILOR RT5020 VHF DSC Duplex features the patented Replay function for improved communication and safety at sea. Push the replay button and the SAILOR RT5020 VHF DSC Duplex will replay the important messages that you may just have missed.

Features robust and compact design for flexible installation. Can be remote operated from i.e. bridge wings via the external waterproof CU5000 Control Unit.

Features

- Full duplex communication
- Replay function (Last 90 seconds of received data)
- 7-segment display for primary functions
- Graphical display with sleep mode for secondary functions
- All text and indicators in displays are red for improved night vision
- Display with Marine AR anti-reflection filter
- Efficient dimming of displays
- Powerful built-in 5W loudspeaker
- Ergonomic handset
- Easy to use, intuitive menus
- Scroll function
- Quick selection function
- Alarm mute button
- Large tactile buttons
- Tactile knobs for volume and squelch
- 25 to 1 watt switch button
- Built-in DSC Class A
- Dual watch
- Scanning
- Flexible installations with bracket and/or flush mounting
- Address book: 200 DSC addresses for vessels and coast stations
- Up to two semi-intelligent control units can be connected

SAILOR®



Technical Specifications

Conforms 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. ETSI EN 301 925, ETSI EN 300 698-1, ETSI EN 300 338, ITU-R M.493-11, ETU-R M.541-9, IEC 61162-1 and IEC/EN 60945 (CU5000).

GENERAL

Channels Channels	All international, US, Canadian and BI
	channels, covering most areas.
	Up to 30 private channels in 3 separate
	banks designated F, P or L. Each bank
	contains 10 private channels
Channel spacing	25 KHz / 12.5 KHz
Operation modes	Duplex / Simplex
Modulation	G3EJN for Telephony
	G2B for DSC
Frequency range	Rx/Tx: 150,800 – 157,425 MHz
	Rx: 160,625 – 163,600 MHz
Frequency stability	Better than ± 3 ppm
Aerial connectors	Standard 50 Ω female SO239
Temperature range	-15°C to +55°C
Supply voltage	12V to 24V DC nominal
Supply voltage range	10.8 - 31.2V DC

RECEIVER

Sensitivity for 20 dB	Better than -119 dBm
SINAD CCITT weighted	
AF rated Power Internal L.S.	5W
Output for External L.S.	5W (8 Ω)
Distortion	Less than 5%
S/N ratio	Better than 43 dB
Spurious emission	Less than 0.25 mW
Spurious response rejection	Better than 74 dB
Intermodulation response	Better than 73 dB
Co- channel rejection	Better than –10 dB
Adjacent channel selectivity	Better than 74 dB
Blocking level	Better than 94 dBµV
Duplex spurious response att.	Better than 74 dB
Duplex desentization	Below 3 db

TRANMITTER

RF output power	High: 25W +0 dB / –0.5 dB
	Low: 0.85W +0.5 dB / –1 dB
Adjacent channel power	Better than 75 dB
Conducted spurious emission	Better than 0.25 µW
Distortion	Better than 3%
S/N ratio	Better than 46 dB

DSC FACILITIES

DSC operation	According to Rec. ITU-R M.541-9 and
	Rec. ITU-R M.689-2
DSC protocol	According to Rec. ITU-R M.493-11 Class A
Navigator interface	According to IEC 61162-1
	GLL, RMC, ZDA, GGA, VTG, GNS
Symbol error rate	Better than $1*10^{-2}$ @ -121 dBm
	or 0.20 µV p.d.
Modulation	1700 Hz ± 400 Hz
	1200 baud
Frequency error	Better than ± 1 Hz
Residual modulation	Better than -26 dB

DIMENSIONS

Transceiver dimensions	Height: 100 mm (3.94")
	Width: 200 mm (7.87")
	Depth: 210 mm (8.27")
Transceiver weight	4.9 Kg (10.8 lbs)

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