

# SEAWATCH 7001C-DSC

## Integrated MF/HF DSC Guard Receiver and Controller

- Program option to establish continuous Guard of a single MF / HF DSC call frequency
- Program authorized functions for Default operations and Routine operations by Supervisors
- Selective Scan Function of 2187.5 KHz, 4207.5KHz, 6312.0KHz, 8414.5KHz, 12577.0KHz or 16804.5 KHz
- Traffic Notices and decoded DSC messages transported to remote terminals via RS-232 or Ethernet
- Designed for primary control by interconnected Remote Terminals via RS-232 and/or Ethernet ports
- Local Transmitter / Transceiver interface provided
- 8 Mb standard memory to record incoming distress / urgent calls and routine messages
- Indicates presence or absence of DSC signal on front panel
- Encoder responds to Distress calls with programmable responses
- Encoder output is in AFSK format for direct input to MF / HF SSB transmitter
- Remote Terminal PC application available

The **SEA 7001C-DSC** is a six-channel (6) synthesizer controlled FSK/DSC receiver and DSC Decoder-Encoder system designed for GMDSS watch-keeping and DSC calling applications on the MF/HF International Digital Selective Calling frequencies. The receiver features high sensitivity and is designed to assure reception of important DSC calls, Distress and Emergency traffic. The decoder features low-error rate detection due to its DSP based design.

The standard model 7001C-DSC is supplied to be capable of operations on the MF/HF DSC channels of 2187.5 KHz, 4207.5 KHz, 6312.0KHz, 8414.5KHz, 12577.0KHz or 16804.5 KHz for MF Guard duty of Sea Area A2 and HF guard duty of Sea Area A3. The receiver can be programmed to selectively Scan all or any of the six channels, or for continuous Guard operations on a single MF or HF GMDSS DSC channel.

A DSC Encoder operation is supported within the same chassis. The Encoder can be programmed to generate appropriate responses to GMDSS distress calls and other desired DSC messages.

Generation of each response can be programmed on a type-of-message basis to allow full system flexibility.

The DSC response output is in an AFSK format suitable for direct input into an MF/HF SSB transmitter for generation of J2B signals. 7001C-DSC is supplied as a standard Rack mount unit.

All circuitry is conservatively designed for continuous 24 hour, 7 day-a-week operations and extended MTBF.

Since 1975, SEA has designed and manufactured leading edge marine communication equipment and is known throughout the industry for engineering excellence, product reliability and ease of operation.

SEA has a worldwide service network to support all of its products, insuring back-up support no matter where your SEA equipment is being used. SEA provides American manufacturing excellence, backed by local service.

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## SPECIFICATIONS

### GENERAL

Primary Voltage:	115 VAC, 60HZ
Current Drain:	1.0 Amp Max
Compliance:	CComplies with CFR 47, Part 80, Subpart W, para. 80.1101 C.E.P.T. T/R 34-01, Annex XIII, IMO Resolution A 694 ITU Recommendation 493-11 and 541-9
Size:	3.5" (H) x 19" (W) x 8" (D) Panel Mount
Weight:	10.7 LBS
Operating Temperature:	-20°C to +55°C
Safe Compass Distance:	1 meter
Panel Controls:	Power On/Off and Dimmer, Channel select, Scan Mode selection

### RECEVEIR

Operating Frequencies:	2187.5 KHz, 4207.5 KHz, 6312.0KHz, 8414.5KHz, 12577.0 and 16804.5KHz
Circuitry:	Fully synthesized, double conversion
Mode of Reception:.	F1B, J2B
Sensitivity:	Error rate less than 10 <sup>-2</sup> at 1 uV
Stability:	±10 Hz
Bandwidth:	270 - 300 Hz (-6dB)

### Decoder

Signal Indicator:	Front Panel – lights indicate selected channels
Data Indicators:	Front Panel - indicates Active DSC data communications
Clock :	Date and time of day, battery backed
Data Terminal 1:	DSC Received messages, RS-232 serial port, DB-9 connector
Data Terminal 2:	DSC Received messages, Ethernet port, RJ –45 connector

### Encoder Option

DSC Message Input:	DSC transmit messages via Data Terminal 1 & 2
Audio Output:	AFSK signal on Audio Line Output terminal. Option for 600 ohm balanced, -10 dBm to +10 dBm
Transmitter Control:	PTT output for transmitter control
Audio Input option :	Option for 600 ohm balanced, -10 dBm to +10 dBm (receive only)
Receiver Status Input option:	Analog input for RSSI indication, digital input for COR indication



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