

**SPECIFICATIONS OF MARINE VHF RADIOTELEPHONE
FM-8900S**

1 GENERAL

- 1.1 Number of channels INT'L: 59 (WRC-15), 57 (WRC-07)
USA: 50
Weather: 10
Canada: 57
INLAND-WA: 57
Private: 20
Memory CH: 50
- 1.2 Frequency stability Within ± 1.5 kHz
- 1.3 Communication system Simplex/Semi-duplex
- 1.4 Class of emission 16K0G3E (F3E) Voice, 16K0G2B (F2B) DSC
- 1.5 Antenna impedance 50 ohms
- 1.6 Display 4.3-inch color dot matrix LCD, 480 x 272 dots
- 1.7 Visible distance 0.7 m nominal

2 TRANSMITTER

- 2.1 Frequency range 155.000 to 161.600 MHz
- 2.2 Output power 25W max., 1W at power reduction
- 2.3 Frequency deviation Within ± 5 kHz

3 RECEIVER

- 3.1 Frequency range Simplex: 155.000 to 161.600 MHz
Semi-duplex: 159.600 to 164.200 MHz
- 3.2 Receiving system Double superheterodyne
- 3.3 Intermediate frequency 1st: 51.1375 MHz, 2nd: 62.5 kHz
- 3.4 Sensitivity +6 dB μ V or less (20 dB SINAD)
- 3.5 Channel selectivity 70 dB or more
- 3.6 Spurious response 70 dB or more
- 3.7 AF output Built-In speaker: 3W (4 ohms, THD: within 10%),
Handset earpiece: 2mW (150 ohms)

4 DSC

- 4.1 Protocol Rec. ITU-R M.541-10, M.493-14 (class A), M.689-2, M.821-1
- 4.2 Baud rate 1200 baud ± 30 ppm max.
- 4.3 Modulation AFSK
- 4.4 Frequency of modulation 1700 ± 400 Hz, Mark: 1300 Hz, Space: 2100 Hz

5 CH70 WATCH KEEPING RECEIVER

- 5.1 Receiving frequency 156.525 MHz
- 5.2 Receiving system Double superheterodyne

- 5.3 Intermediate frequency 1st: 38.3625 MHz, 2nd: 37.5 kHz
- 5.4 Sensitivity 0 dB μ V or less (SER<1%)
- 5.5 Channel selectivity 70 dB or more
- 5.6 Spurious response 70 dB or more

6 INTERFACE

- 6.1 Navigation data IEC61162-1 Ed.4(2010-11)
- Input sentences ACK, ACN, GGA, GLL, GNS, HBT, RMC, VDM, ZDA
- Output sentences ALC, ALF, ALR, ARC, DSC, DSE, HBT, TLL

7 POWER SUPPLY

- 7.1 Power voltage 24 VDC (-10%, +30%)
- 7.2 Power consumption (with all options)
 - Transmit 4.7A max. at 25W output
 - Receive 2.3A max. at 4W audio output
 - Waiting 1.3A max.

8 ENVIRONMENTAL CONDITION

- 8.1 Ambient temperature -15°C to +55°C
- 8.2 Relative humidity 93% or less at +40°C
- 8.3 Degree of protection
 - Transceiver unit (FM-8900S) IP20 (IP22: option)
 - Handset/Hanger (HS-2003/FP05-05510) IP24
 - Remote station RB-8900: IP22, RB-8900-W: IP56
 - Junction box IP20, IP22 (bulkhead mount, option)
- 8.4 Vibration IEC 60945 Ed.4

9 COATING COLOR

- 9.1 Transceiver unit N2.5 (fixed)
- 9.2 Remote station/ handset N2.5 (fixed)
- 9.3 VHF console 7.5BG7/2, 2.5G7/2 or specified