

SPECIFICATIONS

PRODUCT NAME		VHF RADIOTELEPHONE
GENERAL CHARACTERISTICS		
Rules and Regulations		
VHF Radiotelephone	EN 301 925 V1.3.1 (2010-09)	
VHF ATIS	EN 300 698-1 V1.4.1 (2009-12)	
DSC	ITU-R M.493-13 (10/2009)	
	ITU-R M.541-9 (05/04)	
	ITU-R M.689-2 (09/94)	
	EN 300 338-1 V1.3.1 (2010-02)	
	EN 300 338-2 V1.3.1 (2010-02)	
Class of emission	G3E (Radiotelephone), G2B (DSC)	
Communication system	Simplex/Semi-duplex	
Channels	INTL: 57 (ITU-R Radio Regulations Appendix S18)	
	USA: 50 (FCC 47 CFR Ch. 1 § 80.371, § 80.373)	
	Canada: 57 (Industry CANADA RBR-2)	
	Weather: 10 (USA and Canada, receive only)	
	Inland waterway: 57 (ETSI EN 300 698-1 V1.4.1 2009-12)	
Display	Private: 20 (permitted by administrations)	
	MEMORY CH: 50	

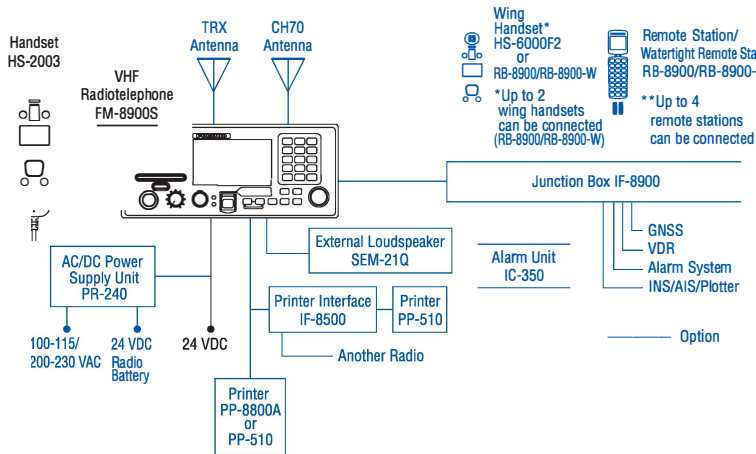
TRANSMITTER

Frequency range	155.000 - 161.475 MHz
RF output power	High: Max 25 W, Low: Not exceed 1 W
	US version: Manual override for 25 W available on CH13, CH67 and CH77 (usually not exceed 1W)
Frequency stability	Less than ±1.5 kHz
TX timeout (for US & Inland-waterway)	Deactivates the transmitter after an uninterrupted transmission of more than 5 minutes
ATIS	An ATIS signal is transmitted at the end of transmission, by modulating the carrier at 1,300 and 2,100 Hz

RECEIVER

Frequency range	Simplex: 155.000 - 159.600 MHz Semi-duplex: 161.475 - 164.200 MHz Double-conversion super-heterodyne
Receiving system	1st IF: 51.1375 MHz 2nd IF: 62.5 kHz
Sensitivity	Less than 6 dB µ V at SINAD 20 dB
Adjacent channel selectivity	70 dB or more
AF output power	Built-in speaker: 3 W (4 ohms, THD 10 % or less) Handset earphone receiver: 2 mW (150 ohms)
Audio response	De-emphasis of 6 dB/oct +1/-3 dB

INTERCONNECTION DIAGRAM



Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Россия +7(495)268-04-70

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новыйбурск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47

Казахстан +7(7172)727-132

Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35

Киргизия +996(312)96-26-47

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DSC SECTION

Message log	Receive: 50 distress messages and 50 non-distress messages
Interface	Nav data: IEC61162-1 Ed.4 Printer: Centronics-compatible
Alarm	Audible and visual on receipt of a DSC call
DSC watch-keeping receiver	Receiving frequency: 156.525 MHz (CH70) Sensitivity: Symbol error rate: Less than 1 % (at 0 dB µ V)

POWER SUPPLY

24 VDC, Standby: 0.6 A max., RX: 1.8 A max., TX: 4.7 A max.

ENVIRONMENT

Temperature	-15°C to +55°C
Relative humidity	93% (at 40°C)
Waterproofing	
FM-8900S (VHF Radiotelephone)	IP20 (IP22 with option)
HS-2003 (Handset)	IP24
IF-8900 (Junction box)	IP22 (Bulkhead), IP20 (Tabletop)
RB-8900 (Remote station)	IP22
RB-8900-W (Watertight remote station)	IP56
RC-8900 (VHF console)	IP20

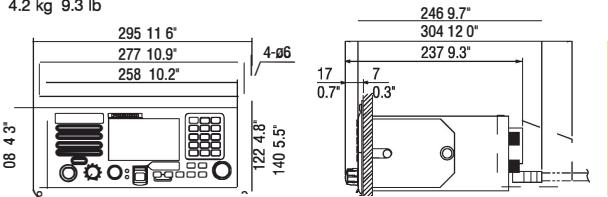
EQUIPMENT LIST

Standard			
VHF Radiotelephone	FM-8900S	1unit	
Handset	HS-2003	1unit	
Handset Cradle	FP05-05510	1unit	
Installation materials and spare parts		1set	
Option			
Junction Box	IF-8900		
Remote Station	RB-8900		
Watertight Remote Station	RB-8900-W		
Handset and Cradle			
Flush Mount Kit	OP05-129		
External Loudspeaker	SEM-21Q		
Printer	PP-8800A/PP-510		
Printer Interface	IF-8500		
AC/DC Power Supply Unit	PR-240		
VHF Console	RC-8900		

Transceiver Unit (Flushmount)

FM-8900S

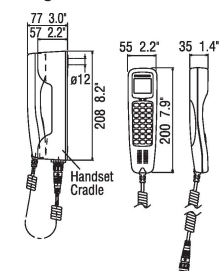
4.2 kg 9.3 lb



Remote Station

RB-8900

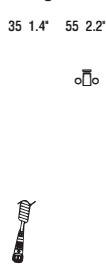
0.7 kg 1.5 lb



Handset

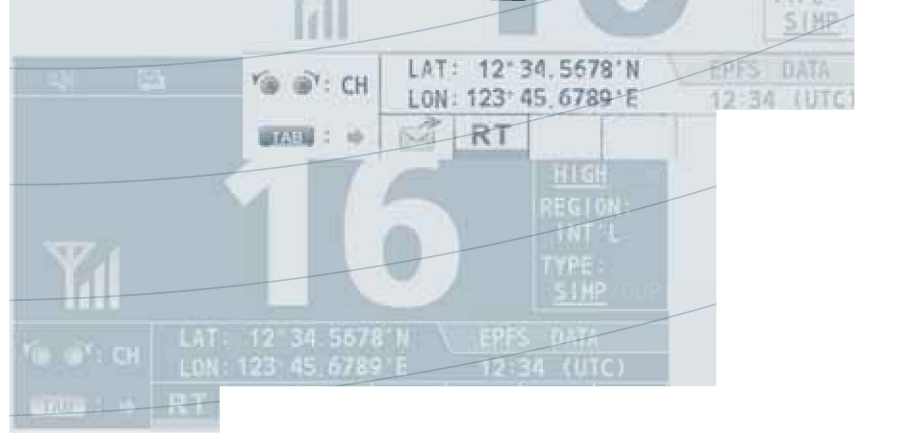
HS-2003

0.2 kg 0.4 lb



Marine VHF Radiotelephone

Model: **FM-8900S**



Full GMDSS-compliant VHF radiotelephone with Class-A DSC facility and CH70 watch receiver



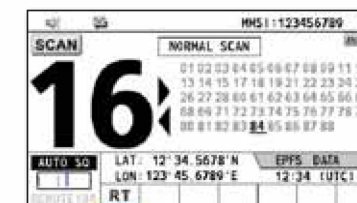
Model: FM-8900S

- **Semi-duplex 25-Watt VHF radiotelephone with a built-in Class-A DSC and CH70 watch Receiver**
- **Fully meets GMDSS carriage requirements for SOLAS ships**
- **Meets the new ITU recommendation on digital selective calling system for use in the Maritime Mobile Service, ITU-R M.493-13**
- **Easy to read, high-contrast 4.3" bright color LCD**
- **Enhanced noise reduction and speaker for superb voice quality**
- **Quick access to CH16 key**
Press the CH16 key on the keypad to switch to radiotelephone display and select CH16 instantly
- **Easy channel selection with rotary control or direct keypad input**
- **Automatic entry of own ship position and time through the interfaced GPS receiver**
- **ATIS signal transmission available for inland waterways**
- **Connect to an office or home via an existing PSTN (Public Switched Telephone Network)**



Scans all channels in the selected region and CH16

The FM-8900S scans all channels in the selected region as well as watches CH16 in alternate shift.



SCAN Display

Transmitting and receiving general/distress DSC messages

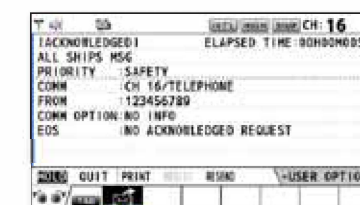
By long-pressing (3 seconds) the {DISTRESS} button, DSC distress alert can be transmitted. Also, quick entry to DSC message composition screen is available by use of {DISTRESS MSG} and {OTHER DSC MSG} buttons.

For general DSC messages, press {OTHER DSC MSG} to enter the composition screen.

For DSC messages for distress alert, press {DISTRESS MSG} to enter the composition screen.

For DSC messages for DROBOSE (DSC Relay On Behalf Of Someone else), press both {DISTRESS MSG} and {OTHER DSC MSG} to enter the composition screen.

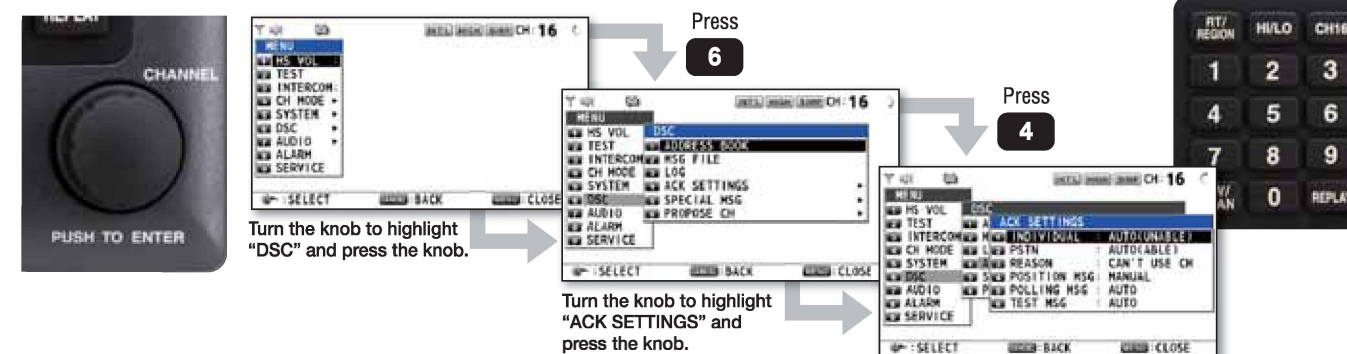
In the DSC Display, the operators can view the message log of the sent/received DSC messages.



DSC Display

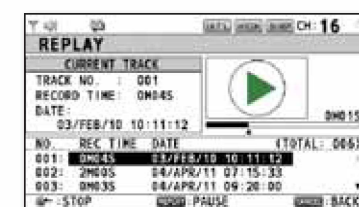
Quick access to dedicated functions in the menu operation using numeric keypad

In the menu, all tasks are assigned numbers, and the operator can access each of the menu items either by turning and pressing PUSH TO ENTER knob or simply pressing the corresponding numbers on the numeric keypad.



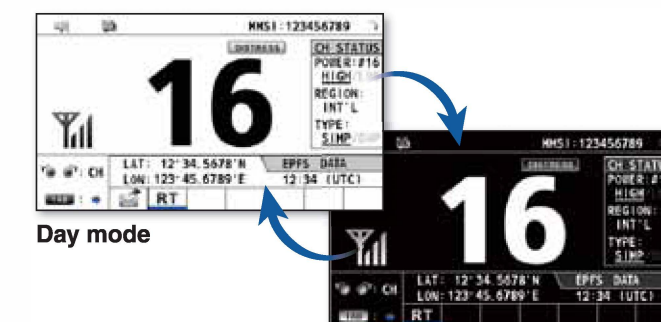
Replay function

The FM-8900S records the latest 120 seconds of incoming communication on the currently set channel. By simply pressing the "REPLAY" button on the numeric keypad, the last-received message will be played back on the spot.



Replay Display

Day mode and Night mode can be selected according to the lighting condition of the wheelhouse



Day mode

Night mode

Алматы (7273)495-231	Иваново (4932)77-34-06	Магнитогорск (3519)55-03-13	Ростов-на-Дону (863)308-18-15	Тольятти (8482)63-91-07
Ангарск (3955)60-70-56	Ижевск (3412)26-03-58	Москва (495)268-04-70	Рязань (4912)46-61-64	Томск (3822)98-41-53
Архангельск (8182)63-90-72	Иркутск (395)279-98-46	Мурманск (8152)59-64-93	Самара (846)206-03-16	Тула (4872)33-79-87
Астрахань (8512)99-46-04	Казань (843)206-01-48	Набережные Челны (8552)20-53-41	Санкт-Петербург (812)309-46-40	Тюмень (3452)66-21-18
Барнаул (3852)73-04-60	Калининград (4012)72-03-81	Нижний Новгород (831)429-08-12	Саратов (845)249-38-78	Ульяновск (8422)24-23-59
Белгород (4722)40-23-64	Калуга (4842)92-23-67	Новокузнецк (3843)20-46-81	Севастополь (8692)22-31-93	Улан-Удэ (3012)59-97-51
Благовещенск (4162)22-76-07	Кемерово (3842)65-04-62	Ноябрьск (3496)41-32-12	Саранск (8342)22-96-24	Уфа (347)229-48-12
Брянск (4832)59-03-52	Киров (8332)68-02-04	Новосибирск (383)227-86-73	Симферополь (3652)67-13-56	Хабаровск (4212)92-98-04
Владивосток (423)249-28-31	Коломна (4966)23-41-49	Омск (3812)21-46-40	Смоленск (4812)29-41-54	Чебоксары (8352)28-53-07
Владикавказ (8672)28-90-48	Кострома (4942)77-07-48	Орел (4862)44-53-42	Сочи (862)225-72-31	Челябинск (351)202-03-61
Владимир (4922)49-43-18	Краснодар (861)203-40-90	Оренбург (3532)37-68-04	Ставрополь (8652)20-65-13	Череповец (8202)49-02-64
Волгоград (844)278-03-48	Красноярск (391)204-63-61	Пенза (8412)22-31-16	Сургут (3462)77-98-35	Чита (3022)38-34-83
Вологда (8172)26-41-59	Курск (4712)77-13-04	Петрозаводск (8142)55-98-37	Сыктывкар (8212)25-95-17	Якутск (4112)23-90-97
Воронеж (473)204-51-73	Курган (3522)50-90-47	Псков (8112)59-10-37	Тамбов (4752)50-40-97	Ярославль (4852)69-52-93
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