



GMDSS VHF TRANSCEIVER with CLASS A DSC

# GM600

## The Latest GMDSS Functionality in a Very User-Friendly Package



IPX7



# GMDSS VHF



## GMDSS VHF TRANSCEIVER with CLASS A DSC **GM600**



# Class A DSC VHF Radio with Wide Viewing Angle Colour TFT LCD



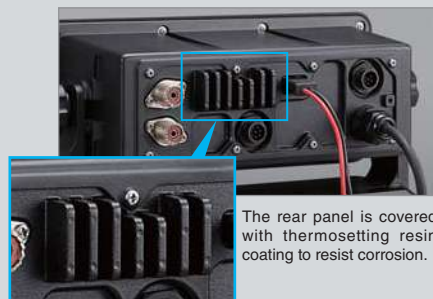
### GMDSS VHF Radio with Class A DSC

The GM600 is a GMDSS (Global Maritime Distress and Safety System) VHF radiotelephone which can be used as a part of GMDSS system equipment required by SOLAS or many domestic maritime regulations. When installed with the GM800 MF/HF radio, GM600 and GM800 radios provides an ideal GMDSS VHF, MF and HF radio station.



### Meets MED "Wheel Mark" Requirements

The GM600 meets the Marine Equipment Directive 2014/90/EU on European marine equipment requirements and has passed rigorous environmental testing and quality assurance process. The GM600 is designed to provide reliable operation and long-lasting durability under harsh maritime environments. In fact, the front panel has IPX7 protection (1 m depth of water for 30 minutes) and the rear panel has corrosion resistance coating.



The rear panel is covered with thermosetting resin coating to resist corrosion.



### Meets ITU-R M.493-13 DSC

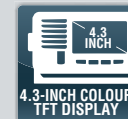
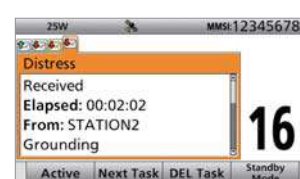
The built-in DSC provides automated distress and safety communication. The dedicated DSC watch-keeping receiver continuously monitors the DSC calling channel (CH70). A total of 100 MMSI numbers for DSC call (Individual ID: 75, Group: 25) can be stored with a 10-character ID name. Using the DSC Task mode provides straight-forward DSC operation.

#### DSC Task Mode Operation Example

When receiving a DSC call, a pop-up window appears. Push [Accept] button to send the acknowledgement to the calling station.



After sending or receiving a DSC call, the radio enters the DSC Task mode. Push [Next Task] button to select another task. Up to 7 tasks can be stored.



### 4.3 inch Wide Viewing Angle Colour TFT LCD

The 4.3 inch colour TFT LCD provides almost 180 degree very wide viewing angle and displays high resolution characters and function icons. Even when the radio is installed to the instrument panel, the operator can clearly recognize the display information from various viewing angle. The night mode display ensures good readability in a dark place.



Menu screen



Backlight settings screen



### Provides Loud, Clear Audio

The GM600's internal speaker enhances intelligibility of received calls. By adopting a new waterproof paper speaker cone, the speaker provides superior sound quality with a wide frequency range and a flat frequency response. In addition, the radio delivers powerful 10 W audio when connected to an external speaker.



### Intuitive User Interface

A combination of the directional keypad and soft keys provides simple operation. The main 12 functions are assigned to soft keys (at the bottom of the display) and toggled with the left and right keys. The clearly labelled keypad provides straightforward entry. The CH16 button offers one-touch access to the CH16.



### DC-DC Converter PS-310

The optional DC-DC converter PS-310 supplies a stable 12.6 V of power to the GM600 from either a 12 V or 24 V power source (depending on version) and provides a floating ground connection. The PS-310 protects the radio from momentary power interruption. The PS-310 must be used with the GM600 for MED certification compliance.



PS-310 DC-DC converter

### And more

- IEC 61162-1 interface for GNSS receiver
  - Supports new four-digit marine channels\* effective from January 1st, 2017
- \* Following additional channels can be used: 1078, 2078, 1019, 2019, 1079, 2079, 1020 and 2020.

## SPECIFICATIONS

GENERAL		
Frequency range	Tx	156.025–161.600 MHz
	Rx	156.025–162.000 MHz
	DSC	156.525 MHz
Usable channels		1NT channels
Type of emission		16K0G3E (FM), 16K0G2B (DSC)
Power supply requirement		13.8 V DC (GM600)
	PS-310 #01 input voltage	24 V DC (21.6–31.2 V)
	PS-310 #02 input voltage	12 V DC (10.8–15.6 V)
Current drain (with PS-310 #01)		(approximately)
	Tx 25 W output	3.3 A
	Rx Max. audio	2.0 A
Operating temperature range		–15°C to +55°C
Antenna impedance		50 Ω (SO-239)
Weight (approx.)	GM600	1600 g
	PS-310	930 g
IEC 61162-1 in/out format		
	Input	RMC, GGA, GNS, GLL, VTG
	Output	DSC, DSE
TRANSMITTER		
Output power		25 W, 1 W
Max. frequency deviation		±5.0 kHz
Frequency error		Less than ±0.5 kHz
Spurious emissions		Less than 0.25 μW
Adjacent channel power		More than 70 dB
Residual modulation		More than 40 dB
Audio harmonic distortion		Less than 10% (at 1 kHz, 60% deviation)

RECEIVER	
Intermediate frequency	30.15 MHz, 450 kHz (1st/2nd)
DSC	46.35 MHz, 450 kHz (1st/2nd)
Sensitivity (20 dB SINAD)	Less than –7 dBμ emf. typ.
DSC (1% BER)	Less than –7 dBμ emf. typ.
Squelch sensitivity	Less than –2 dBμ emf
Adjacent channel selectivity	More than 75 dB
DSC	73 dBμ emf
Spurious response	More than 75 dB
DSC	73 dBμ emf
Intermodulation	More than 75 dB
DSC	73 dBμ emf
Hum and noise	More than 40 dB
Audio output power	(at 10% distortion)
External speaker	10 W (4 Ω load)
Internal speaker	2 W

Measurements made in accordance with EN 301 925. These specifications are described when the GM600 is used with the PS-310. All stated specifications are subject to change without notice or obligation.

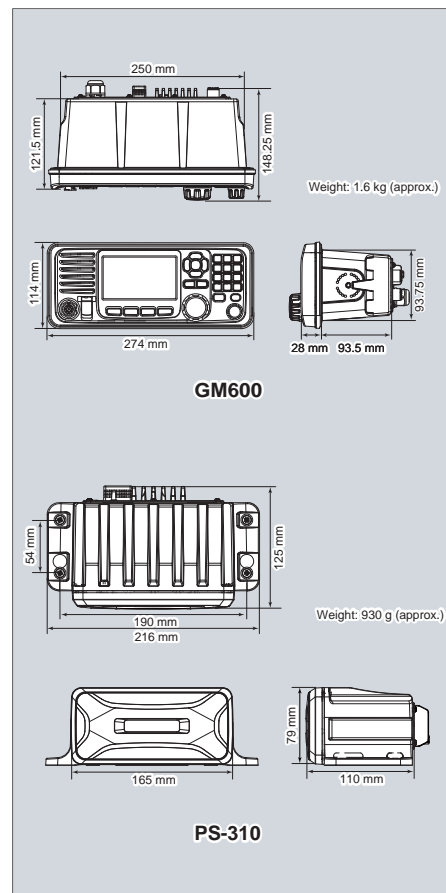
### Applicable IP Rating

Ingress Protection Standard	
Water	IPX7 (1 m depth water for 30 minutes)

### Supplied accessories:

- Hand microphone, HM-214V
- DC power cable
- Mounting bracket kit

## DIMENSIONS



## OPTIONS

### DC-DC CONVERTER

**PS-310**  
Provides stable 12.6 V DC output from 12 V or 24 V DC input, depending on version.

### HANDSET

**HS-98**  
Comes in handy for listening privacy on board.

### HAND MICROPHONE

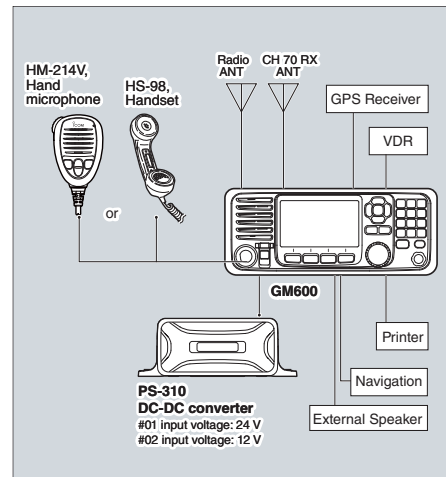
**HM-214V**  
Waterproof. Same as supplied.

Please Note: PS-310 MUST BE USED with GM600 for MED certification compliance.

## GMDSS MF/HF/VHF RADIO STATION



## INTERCONNECTION DIAGRAM



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