



GMDSS VHF TRANSCEIVER with CLASS A DSC

# GM600

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



IPX7



# GMDSS





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



Night mode

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



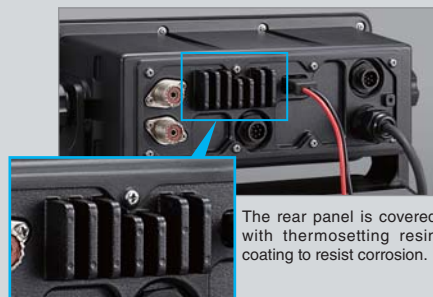
## GMDSS VHF Radio with Class A DSC

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.



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

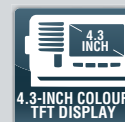
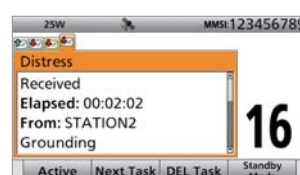
The built-in DSC provides automated distress and safety communication. The dedicated DSC watch-keeping receiver continuously monitors the DSC calling channel (CH70). A total of 100 MMSI numbers for DSC call (Individual ID: 75, Group: 25) can be stored with a 10-character ID name. Using the DSC Task mode 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 an other 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<br>Rx<br>DSC | 156.025–161.600 MHz<br>156.025–162.000 MHz<br>156.525 MHz |
| Usable channels                 |                 | INT 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<br>PS-310 | 1600 g<br>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%<br>(at 1 kHz, 60% deviation)                |

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

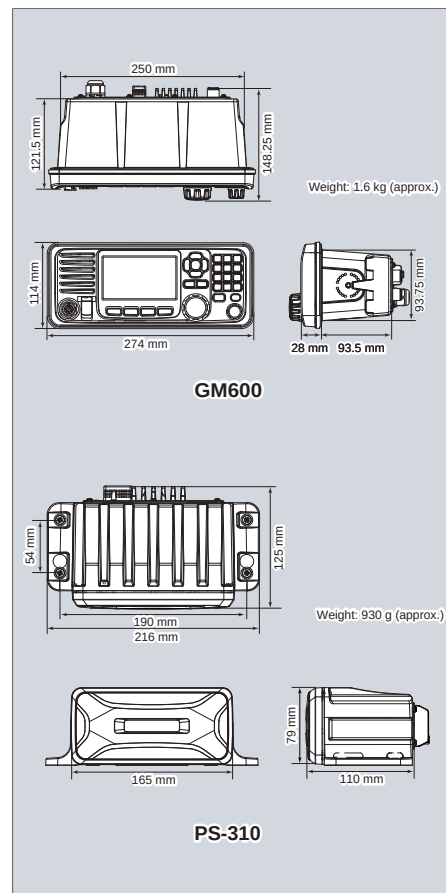
## Ingress Protection Standard

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

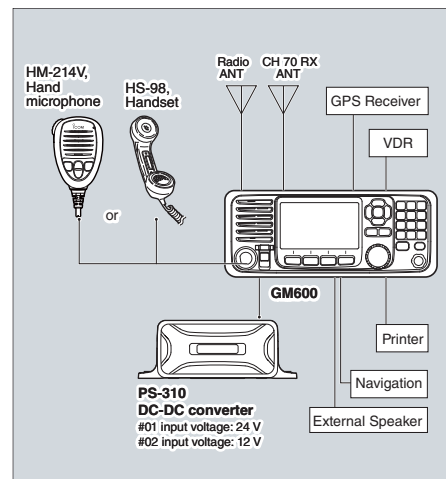
Waterproof. Same as supplied.

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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