

COM

**GMDSS MF/HF TRANSCEIVER with CLASS A DSC** 

# GM800



Day mode display (DSC scan screen)

# WE GADSS

**Global Maritime Distress and Safety System** 

Reliable Performance for MF/HF Long Distance Communication

Satisfies the SOLAS Carriage Requirements for a MF/HF Class A DSC Radio

Will Meet MED\* "Wheel Mark" Requirements

\* Type approval pending as of November, 2015.

Large and High Contrast 4.3 inch Color TFT LCD with Day and Night Mode

New Intuitive User Interface for Straightforward Operation

IPX7 Waterproof Construction
(Controller only)



Night mode display

Please Note: The complete GMDSS installation for MF/HF DSC (Class A) and telephony additionally requires the optional antenna tuner, AT-141.



# **Satisfies SOLAS Carriage Requirements**

The GM800 meets the GMDSS requirements as required for SOLAS regulated commercial vessels engaging in international voyage. The GM800 will meet the MED\*, "wheel mark" requirements for European merchant ships. \* Type approval pending as of November, 2015.

# ITU Class A DSC (ITU-R M.493-13)

A dedicated DSC watch receiver continuously scans the six distress channels in rotation. The DSC Multi-task function shows up to seven DSC procedures. The GM800 is also capable of sending a distress relay call.

# Large 4.3 inch Color TFT LCD

The color TFT LCD offers user-friendly icons and display design. The improved font allows quick recognition of screen information. You can select the day and night modes according to the lighting conditions.

# **New Intuitive User Interface**

Menu items are shown with user-friendly icons and that can be navigated via the main dial knob or the up and down keys. Often-used functions are lined up at the bottom of the display and can be toggled with the left and right keys.

# And More

- IPX7 waterproof construction for controller (1m depth of water for 30 minutes)
- 125W\* (PEP) output power \* 85W (PEP) 1.6-3.999MHz
- Built-in 24V DC-DC converter
- 57mm diameter front speaker
- IEC 61162-1 for GPS connection
- Unified design with GM600 (VHF)

### Supplied accessories:

- Handset, HS-98 Mounting brackets
- DC power cable

# **SPECIFICATIONS**

Carpendar   Tx	SF ECH ICAHONS							
Rx   DSC   DSC   2.1875, 4.2075, 6.3120, 8.4145, 12.5770, 16.8045MHz	GENERAL							
DSC   2.1875, 4.2075, 6.3120, 8.4145, 12.5770, 16.8045MHz     Type of emission   Tx/Rx   J3E (USB/LSB*), J2B (AFSK), F1B (FSK), A1A* (CW), H3E* (AM)     DSC   F1B   * Receive only     Number of channels   1237 channels (maximum) (160 user-programmable; 249 ITU SSB duplex; 72 ITU SSB simplex; 21 C1; 31 C2; 704 ITU FSK duplex)     Power supply requirement   216-31.2V DC (24V DC) (floating ground)     Current drain (approx. at 24V)   Tx   Maximum power   Rx   Maximum audio   Less than 20A (at 1.1kHz and 1.7kHz two tones)     Less than 3A   -15°C to +55°C     Antenna impedance   50Ω (SO-239x2)     Frequency stability   Tx/Rx   DSC   ±10Hz (0.5-29.9999MHz)   ±10Hz (0.5-29.9999MHz)   ±10Hz     Less than 3A   SDSC   ±10Hz (0.5-29.9999MHz)   ±10Hz (0.5-29.9999MHz)   ±10Hz (0.5-29.9999MHz)   ±10Hz (0.5-29.9999MHz)   ±10Hz (0.5-29.9999MHz)   ±10Hz (0.5-29.9999MHz)   ±10Hz (0.5-29.999MHz)   ±10Hz (0.5-29.99MHz)   ±10Hz (0.5-29.99MHz)	Frequency range	Tx						
Type of emission Tx/Rx DSC TBB (VSB/LSB*), J2B (AFSK), F1B (FSK), A1A* (CW), H3E* (AM) F1B *Receive only  Number of channels 1237 channels (maximum) (160 user-programmable; 249 ITU SSB duplex; 72 ITU SSB simplex; 21 C1; 31 C2; 704 ITU FSK duplex)  Power supply requirement 21.6–31.2V DC (24V DC) (floating ground)  Current drain (approx. at 24V) Tx Maximum power Rx Maximum audio Deprating temperature range Antenna impedance Fou (SO-239x2)  Frequency stability: Tx/Rx DSC ±10Hz (0.5–29.9999MHz) ±10Hz (0.5–29.9999MHz) ±10Hz  NMEA Interface GGA, GNS, GLL, RMC  TRANSMITTER  Rated output power (at AT-141 output power) 85W PEP (1.6–3.999MHz) (125W PEP (4.0–27.500MHz) (43dB below peak output power)		Rx	0.5-29.9999MHz (continuously)					
DSC   F1B   *Receive only		DSC	2.1875, 4.2075, 6.3120, 8.4145, 12.5770, 16.8045MHz					
Number of channels   1237 channels (maximum)	Type of emission	Tx/Rx	J3E (USB/LSB*), J2B (AFSK), F1B (FSK), A1A* (CW), H3E* (AM)					
(160 user-programmable; 249 ITU SSB duplex; 72 ITU SSB simplex; 21 C1; 31 C2; 704 ITU FSK duplex)  Power supply requirement 21.6–31.2V DC (24V DC) (floating ground)  Current drain (approx. at 24V) TX Maximum power RX Maximum audio  Operating temperature range Antenna impedance Frequency stability; Tx/Rx iDSC  IDSC  MMEA Interface GGA, GNS, GLL, RMC  TRANSMITTER  Rated output power (at AT-141 output power) (at AT-141 output power) Spurious emissions  (160 user-programmable; 249 ITU SSB duplex; 72 ITU SSB simplex; 72 ITU S		DSC	F1B * Receive only					
Power supply requirement Current drain (approx. at 24V) Tx Maximum power Rx Maximum audio Operating temperature range Antenna impedance Frequency stability: Tx/Rx DSC ±10Hz DSC	Number of channels		1237 channels (maximum)					
Power supply requirement Current drain (approx. at 24V) Tx Maximum power Rx Maximum audio Operating temperature range Antenna impedance Frequency stability Tx/Rx								
Current drain (approx. at 24V) Tx Maximum power Rx Maximum audio Operating temperature range Antenna impedance Frequency stability Tx/Rx DSC INMEA Interface GGA, GNS, GLL, RMC TRANSMITTER Rated output power (at AT-141 output power) Spurious emissions 43dB below peak output power (Maximum power)								
Tx Maximum power Rx Maximum audio  Operating temperature range Antenna impedance  Frequency stability Tx/Rx  DSC  NMEA Interface  TRANSMITTER  Rated output power (at AT-141 output power)  Spurious emissions  Less than 20A (at 1.1kHz and 1.7kHz two tones)  Less than 3A  -15°C to +55°C  50Ω (SO-239x2)  ±10Hz (0.5-29.9999MHz)  ±10Hz  GGA, GNS, GLL, RMC  TRANSMITTER  85W PEP (1.6-3.999MHz)  125W PEP (4.0-27.500MHz)  Spurious emissions  43dB below peak output power (Maximum power)	Power supply requirement		21.6–31.2V DC (24V DC) (floating ground)					
Rx Maximum audio	Current drain (approx. at 24V)							
Operating temperature range								
Antenna impedance   50Ω (SO-239x2)	Rx Maximum audio							
±10Hz (0.5–29.9999MHz)   ±10Hz (0.5–29.9999MHz)   ±10Hz	Operating temperature range							
DSC   ±10Hz	Antenna impedance							
NMEA Interface GGA, GNS, GLL, RMC  TRANSMITTER Rated output power (85W PEP (1.6–3.999MHz) (125W PEP (4.0–27.500MHz) Spurious emissions 43dB below peak output power (Maximum power)								
TRANSMITTER Rated output power (at AT-141 output power) Spurious emissions  85W PEP (1.6–3.999MHz) 125W PEP (4.0–27.500MHz) 43dB below peak output power (Maximum power)								
Rated output power (at AT-141 output power) 85W PEP (1.6–3.999MHz) 125W PEP (4.0–27.500MHz) Spurious emissions 43dB below peak output power (Maximum power)	NMEA Interface		GGA, GNS, GLL, RMC					
(at AT-141 output power)     125W PEP (4.0–27.500MHz)       Spurious emissions     43dB below peak output power (Maximum power)	TRANSMITTER							
Spurious emissions 43dB below peak output power (Maximum power)	Rated output power							
	(at AT-141 output power)		125W PEP (4.0–27.500MHz)					
	Spurious emissions							
	Carrier suppression		40dB below peak output power (Maximum power)					
Unwanted sideband suppression   55dB below peak output power (Max. power) (With 1000Hz AF input)	Unwanted sideband suppression		55dB below peak output power (Max. power) (With 1000Hz AF input)					

RECEIVER								
Sensitivity								
	0.5-1.599MHz	1.6-3.999MHz	4.0-29.999MHz					
J3E, A1A (20dB SINAD)	30dBμV emf.	16dBμV emf.	11dBμV emf.					
H3E (20dB SINAD)	44dBµV emf.	30dBμV emf.	_					
	1.6-2.099MHz	2.1-27.500MHz						
J2B, F1B (1% error rate)	3dBµV emf.	0dBμV emf.	-					
DSC (J2B) (1% error rate)	0dBµV emf. (2.1875,	4.2075, 6.3120, 8.4145,	12.5770, 16.8045MHz)					
Squelch sensitivity (at signal strength meter)  H3E	(Threshold/Tight) Less than +20dBμV/Less than +90dBμV (at 12.230MHz) Less than +30dBμV/Less than +110dBμV (at 1.000MHz)							
Spurious response J3E rejection J2B	More than 60dB (0.5–29.999MHz) More than 90dBµV emf.							
Audio output power Internal SI External SI	2W with 8Ω load (at 10% distortion) 4W with 4Ω load (at 10% distortion)							
Clarity variable range	±150Hz							

All stated specifications are subject to change without notice or obligation.

### Applicable IP Rating

Ī	Ingress Protection St	andard	
1	Water	IPX7* (1m depth of water for 30 minutes) * Controller only	

# **OPTIONS**

MB-108

MOUNTING BRACKET

Some options may not be available in some countries



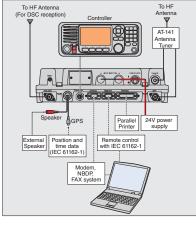


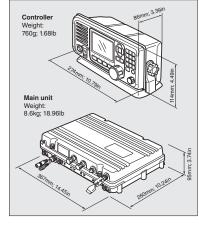






# INTERCONNECTION DIAGRAM DIMENSIONS





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