

# IC-M424G

(With GPS Receiver)

## **VHF MARINE TRANSCEIVER**

Active Noise Cancelling Technology and Built-in GPS for Simple Installation





Optional COMMANDMIC™, HM-195GB



**Built-in GPS Receiver Simplifies Installation** 



**Active Noise Cancelling for Maximum Clarity** 



Icom Marine Family User Interface & White Backlit LCD & Keypad



10W Loud Audio, Public Address and Manual Horn



Optional COMMANDMIC<sup>™</sup> HM-195GB/GW for 2nd Station/Intercom



**Built-in Class D DSC** 



IPX7 Submersible Protection (1m depth for 30 minutes)



**Common NMEA Interface** for GPS/NAV Connection



MarineCommander<sup>™</sup> and MA-510TR Compatible



AquaQuake<sup>™</sup> Function



# Intuitive User Interface and White Backlit LCD and Keypad

Incorporating Icom's common Marine Family User Interface designed for simple, intuitive operation. A rotary selector and directional keypad provide quick and easy access to the intended functions. The high contrast white backlit LCD and laser-cut keypad match well with modern boat designs.

### **Active Noise Cancelling**

The built-in active noise cancelling provides superb performance. It reduces background noise up to 90% in the received signal and 30% in the transmits signal.

# 10W Loud Audio, Public Address and Manual Horn

The IC-M424G has a built-in 10W amplifier that increases the audio output to an external PA speaker. The public address function allows you to make an announcement from the microphone like a loud speaker.

### **Built-in Class D DSC**

The built-in DSC watch function monitors Ch. 70 (DSC channel) activity, even while you are receiving another channel. DSC functions include: distress, individual, group, all ships, urgency, safety, position request/report, polling request and DSC test calls.

#### **Built-in GPS Receiver**

The built-in GPS receiver shows your current position, date/time and can be used for DSC calls. The GPS data source is selectable from internal and external GPS.

# Optional White Backlit COMMANDMIC™ HM-195GB/GW

The optional white backlit COMMANDMIC makes it convenient for using the IC-M424G from a separate cabin or tower. All functions of the IC-M424G can be controlled from the COMMANDMIC and can be used as an intercom with the IC-M424G.

### **AIS Target Call with MA-510TR**

When connected to the optional MA-510TR Class B AIS transponder, the AIS target call function allows you to make an individual DSC call without having to manually input an MMSI number.

#### **And More**

- Simple remote control speaker-microphone, HM-205B/SW
- NMEA 0183 connectivity
- MarineCommander<sup>™</sup> compatible
- AquaQuake<sup>™</sup> draining function
- IPX7 submersible protection (1m depth for 30 minutes)
- Weather channels with alert function
- Dual/tri-watch function
- Priority and normal scan
- Black and super white versions available
- Supports 4-digit channels

### **SPECIFICATIONS**

Senseral   Sense   Sense   Sense   Sense   Sensitivity		
Rx	GENERAL	
Ch. 70 156.525MHz  Usable channels  Type of emission  Power supply requirement  Current drain (at 13.8V DC)  Tx 25W output  Rx AF max. External SP Internal SP Internal SP Internal SP Operating temperature range  Antenna impedance Dimensions (WxHxD) (projections not included) Weight (approx.)  NMEA in/out formats  TRANSMITTER  Output power (at 13.8V DC)  Tx 25W, 1W  Max. frequency deviation  Frequency tolerance  \$1.5A  \$5.0A (RX SP ON)  \$1.5A  \$5.0A (RX SP ON)  \$1.5A  \$5.0A (RX SP ON)  \$1.5A  \$1.5A  \$2.0° C to +60° C; -4° F to +140° F  \$1.5A  \$1.5A  \$1.5A  \$1.5A  \$2.0° C to +60° C; -4° F to +140° F  \$1.5A  \$1.5A  \$1.5A  \$2.0° C to +60° C; -4° F to +140° F  \$1.5A  \$1.5A  \$1.5A  \$2.0° C to +60° C; -4° F to +140° F  \$1.5A  \$1.5A  \$1.5A  \$2.0° C to +60° C; -4° F to +140° F  \$1.5A  \$1.5A  \$1.5A  \$2.0° C to +60° C; -4° F to +140° F  \$1.5A  \$1.5A  \$1.5B  \$1.		
Usable channels   Usa, Can, Int, Wx channels	1 1/4	
Type of emission  Power supply requirement  Current drain (at 13.8V DC)  Tx 25W output Rx AF max. External SP Internal SP Operating temperature range Antenna impedance Dimensions (WxHxD) Internal SP Internal SP Internal SP Antenna impedance Dimensions (WxHxD) Internal SP Internal		
Power supply requirement  Current drain (at 13.8V DC) Tx 25W output Rx AF max. External SP Internal S		
Power supply requirement Current drain (at 13.8V DC) Tx 25W output Rx AF max. External SP Internal SP Internal SP Internal SP Operating temperature range Antenna impedance Dimensions (W×H×D) Imensions (W×H×I)	Type of emission	
Tx 25W output Rx AF max. External SP Internal SP Internal SP Internal SP Operating temperature range Antenna impedance Dimensions (W×H×D) (projections not included) Weight (approx.) NMEA in/out formats TRANSMITTER Output power (at 13.8V DC) Max. frequency deviation Frequency tolerance Spurious emissions  RECEIVER Sensitivity Squelch sensitivity Adjacent channel selectivity Spurious response More than 70dB Intermodulation Audio output power (at 10% distortion, 4Ω load)  GPS RECEIVER RECEIVER RECEIVER RECEIVER RECEIVER SPURIOR (ARX SP ON) 1.5A  1.5A  5.0A (RX SP ON) 1.5A  2.0° (s0-239)  1.2kg; 2.65lb  NMC, GGA, GNS, GLL, DSC, DSE  TRANSMITTER  Output power (at 13.8V DC) Less than (-20°C to +60°C) Less than -70dBc (High) Less than -56dBc (Low)  RECEIVER  Sensitivity Less than -10dBμ Adjacent channel selectivity More than 70dB  Intermodulation More than 70dB  Intermodulation Audio output power (at 10% distortion, 4Ω load)  GPS RECEIVER  Receiving frequency Receiving frequency Receiving channels  66 channels	Power supply requirement	
Rx AF max. External SP Internal SP Intern	Current drain (at 13.8V DC)	
Internal SP   1.5A		
$\begin{array}{lll} & -20^{\circ}\text{C to} + 60^{\circ}\text{C}; -4^{\circ}\text{F to} + 140^{\circ}\text{F} \\ & \text{Antenna impedance} & 50\Omega  (\text{SO-239}) \\ & \text{Dimensions}  (\text{W}\times\text{H}\times\text{D}) & 180\times\text{82}\times119.\text{9mm}; \\ & \text{(projections not included)} & 7.09\times3.23\times4.72  \text{in} \\ & \text{Weight (approx.)} & 1.2\text{kg; } 2.6\text{5lb} \\ & \text{NMEA in/out formats} & \text{RMC, GGA, GNS, GLL, DSC, DSE} \\ \hline \textbf{TRANSMITTER} \\ & \text{Output power (at } 13.8\text{V DC}) & 25\text{W, } 1\text{W} \\ & \text{Max. frequency deviation} & \pm 5.0\text{kHz} \\ & \text{Frequency tolerance} & \pm 10\text{ppm}  (-20^{\circ}\text{C to} + 60^{\circ}\text{C}) \\ & \text{Spurious emissions} & \text{Less than } -70\text{dBc}  (\text{High}) \\ & \text{Less than } -56\text{dBc}  (\text{Low}) \\ \hline \textbf{RECEIVER} \\ & \text{Sensitivity} & (12\text{dB SINAD}) & -13\text{dB}\mu  \text{typ.} \\ & \text{Squelch sensitivity} & \text{Less than } -10\text{dB}\mu \\ & \text{Adjacent channel selectivity} & \text{More than } 70\text{dB} \\ & \text{Intermodulation} & \text{More than } 70\text{dB} \\ & \text{Intermodulation} & \text{More than } 70\text{dB} \\ & \text{Intermodulation} & \text{More than } 70\text{dB} \\ & \text{Audio output power} \\ & \text{(at } 10^{\circ}\text{d distortion, } 4\Omega  \text{load}) \\ \hline & \textbf{GPS RECEIVER} \\ & \text{Receiving frequency} & 1575.42\text{MHz} \\ & \text{Receiving channels} & 66  \text{channels} \\ \hline \end{array}$	Rx AF max. External SP	
Antenna impedance  Dimensions (W×H×D) (projections not included) Weight (approx.)  NMEA in/out formats  TRANSMITTER  Output power (at 13.8V DC)  Spurious emissions  RECEIVER  Sensitivity  Glad SINAD)  Squelch sensitivity  Adjacent channel selectivity  Spurious response  More than 70dB  Intermodulation  Audio output power (at 10% distortion, 4Ω load)  GPS RECEIVER  Receiving frequency  1575.42MHz  180×82×119.9mm; (709×3.23×4.72 in  120,803.23×4.72 in  120,803.23	Internal SP	
Dimensions (W×H×D)		
Copy		
Weight (approx.)     1.2kg; 2.65lb       NMEA in/out formats     RMC, GGA, GNS, GLL, DSC, DSE       TRANSMITTER       Output power (at 13.8V DC)     25W, 1W       Max. frequency deviation     ±5.0kHz       Frequency tolerance     ±10ppm (-20°C to +60°C)       Spurious emissions     Less than -70dBc (High)       RECEIVER       Sensitivity     (12dB SINAD)       Squelch sensitivity     Less than -10dBµ       Adjacent channel selectivity     More than 70dB       Spurious response     More than 70dB       Intermodulation     More than 70dB       Audio output power (at 10% distortion, 4Ω load)     10W typical (Ext. Speaker)       GPS RECEIVER       Receiving frequency     1575.42MHz       Receiving channels     66 channels		
NMEA in/out formats   RMC, GGA, GNS, GLL, DSC, DSE		
TRANSMITTER  Output power (at 13.8V DC)  Max. frequency deviation Frequency tolerance  \$\pmu\$10ppm (-20°C to +60°C)  Spurious emissions  \$\pmu\$10ppm (-20°C to +60°C)  Less than -70dBc (High) Less than -56dBc (Low)  RECEIVER  Sensitivity (12dB SINAD)  Squelch sensitivity  Adjacent channel selectivity  More than 70dB  Spurious response  More than 70dB  Intermodulation  More than 70dB  More than 70dB  Intermodulation  Intermodulation  More than 70dB  Intermodulation  Intermodulation  More than 70dB  Intermodulation  More than 70dB  Intermodulation  More than 70dB  Intermodulation  Intermodulation  More than 70dB  Intermodulation  Intermodulation  More than 70dB  Intermodulation  More th		
Output power (at 13.8V DC)       Max. frequency deviation     ±5.0kHz       Frequency tolerance     ±10ppm (-20°C to +60°C)       Spurious emissions     Less than -70dBc (High)       RECEIVER     Less than -56dBc (Low)       Sensitivity     12dB SINAD)       Squelch sensitivity     Less than -10dBµ       Adjacent channel selectivity     More than 70dB       Spurious response     More than 70dB       Intermodulation     More than 70dB       Audio output power (at 10% distortion, 4Ω load)     10W typical (Ext. Speaker)       GPS RECEIVER       Receiving frequency     1575.42MHz       Receiving channels     66 channels	NMEA in/out formats	RMC, GGA, GNS, GLL, DSC, DSE
Max. frequency deviation       ±5.0kHz         Frequency tolerance       ±10ppm (-20°C to +60°C)         Spurious emissions       Less than -70dBc (High)         RECEIVER       Less than -56dBc (Low)         Sensitivity       Less than -10dBμ         Adjacent channel selectivity       Less than -10dBμ         Adjacent channel selectivity       More than 70dB         Spurious response       More than 70dB         Intermodulation       More than 70dB         Audio output power (at 10% distortion, 4Ω load)       10W typical (Ext. Speaker)         GPS RECEIVER       1575.42MHz         Receiving frequency       1575.42MHz         Receiving channels       66 channels	TRANSMITTER	
Frequency tolerance ±10ppm (-20°C to +60°C) Spurious emissions Less than -70dBc (High) Less than -56dBc (Low)  RECEIVER  Sensitivity (12dB SINAD) -13dBμ typ. Squelch sensitivity Less than -10dBμ Adjacent channel selectivity More than 70dB Spurious response More than 70dB Intermodulation More than 70dB Audio output power (at 10% distortion, 4Ω load)  GPS RECEIVER  Receiving frequency 1575.42MHz Receiving channels 66 channels		25W, 1W
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
Less than -56dBc (Low)	Frequency tolerance	
Class than - SodBc (Low)	Spurious amissions	
Sensitivity (12dB SINAD) –13dBμ typ.  Squelch sensitivity Less than –10dBμ  Adjacent channel selectivity More than 70dB  Spurious response More than 70dB  Intermodulation More than 70dB  Audio output power (at 10% distortion, 4Ω load)  GPS RECEIVER  Receiving frequency 1575.42MHz  Receiving channels 66 channels	Spurious emissions	Less than -56dBc (Low)
Squelch sensitivity     Less than –10dBμ       Adjacent channel selectivity     More than 70dB       Spurious response     More than 70dB       Intermodulation     More than 70dB       Audio output power (at 10% distortion, 4Ω load)     10W typical (Ext. Speaker)       GPS RECEIVER     1575.42MHz       Receiving frequency     1575.42MHz       Receiving channels     66 channels	RECEIVER	
		Less than -10dBµ
Intermodulation     More than 70dB       Audio output power (at 10% distortion, 4Ω load)     10W typical (Ext. Speaker)       GPS RECEIVER       Receiving frequency     1575.42MHz       Receiving channels     66 channels	Adjacent channel selectivity	
Audio output power (at 10% distortion, $4\Omega$ load) GPS RECEIVER  Receiving frequency 1575.42MHz  Receiving channels 66 channels		
(at 10% distortion, 4Ω load)  GPS RECEIVER  Receiving frequency  Receiving channels  10W typical (Ext. Speaker)  1575.42MHz  Receiving channels		More than 70dB
Receiving frequency 1575.42MHz Receiving channels 66 channels		10W typical (Ext. Speaker)
Receiving channels 66 channels	GPS RECEIVER	
Receiving channels 66 channels	Receiving frequency	1575.42MHz
Satellite differential type WAAS, EGNOS, MSAS, GAGAN		66 channels
	Satellite differential type	WAAS, EGNOS, MSAS, GAGAN

Measurements made in accordance with TIA/EIA-603. All stated specifications are subject to change without notice or obligation.

#### Applicable IP Rating

Ingress Protection Standard	
Water	IPX7 (Waterproof protection)

### Supplied accessories:

- Hand microphone, HM-205B/SW DC power cable
- Mounting bracket kit

### **OPTIONS**



Amber backlit COMMANDMIC, HM-195B/HM-195SW are also available









lcom, lcom Inc. and lcom logo are registered trademarks of lcom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia, Australia, New Zealand and/or other countries. COMMANDMIC, MarineCommander and AQUAQUAKE are trademarks of lcom Inc. (Japan). All other trademarks are the properties of their respective holders.

www.icom.net.au

Icom (Australia) Pty. Ltd.

Icom Inc.

1-1-32, Kamiminami, Hirano-Ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

www.icomjapan.com

Count on us!

Icom America Inc. www.icomamerica.com

Icom Canada www.icomcanada.com

Icom Brazil

E-mail: sales@icombrazil.com

Icom (Europe) GmbH www.icomeurope.com

Icom Spain S.L. www.icomspain.com

Icom (UK) Ltd. www.icomuk.co.uk

Icom France s.a.s. www.icom-france.com

Your local distributor/dealer: