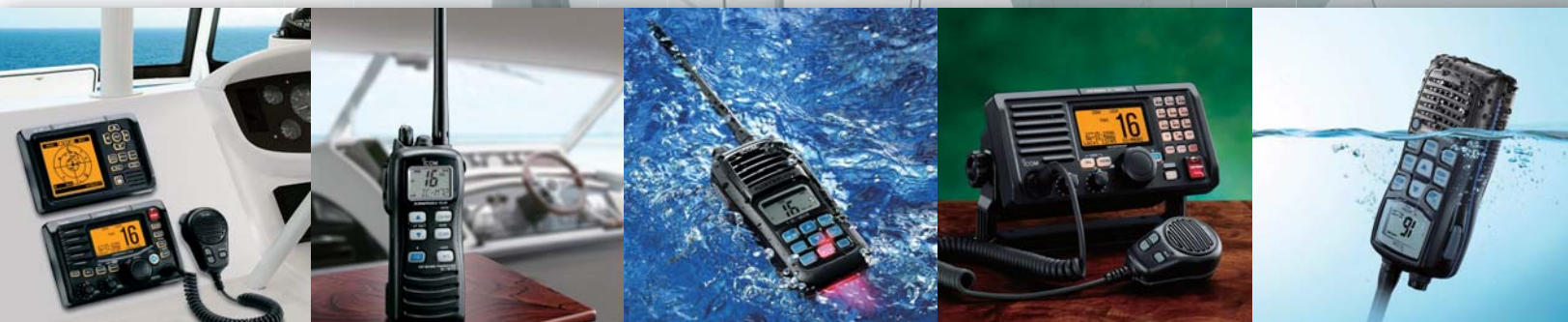


MARINE PRODUCTS

SIMPLY THE BEST



Float'n flash, the smallest and lightest floating VHF marine

Float'n flash*

With its innovative flashing red LED light, an overboard IC-M24 is easy to find, day or night. The light flashes even if the radio is turned off. * US patent pending.



Smallest and lightest in the world

As a floating VHF marine transceiver, the IC-M24 has the smallest and lightest body in the world.* * As of December, 2010, researched by Icom.

Built-in regular charger circuitry

Recharge the IC-M24 by plugging the wall charger directly in to the radio. By eliminating exposed metal charging points, the IC-M24 is even more protected from water damage.

Energy-saving 3.7V circuitry

The IC-M24 is powered by the 3.7V Lithium-Ion battery pack, BP-266, to reduce the volume and weight of the radio. A newly developed PA circuit provides 5W (approx.) RF output and 600mW (typ.) audio even at this low voltage, while saving battery consumption for 10 hours of operating time.*

* Typical operation with Tx (Hi): Rx: standby=5:5:90.

US patent pending.

Other features

- Large, easy-to-see LCD (32×16 mm)
- Dual watch and Tri-watch functions
- Instant access to Ch 16 and Ch 9
- Weather alert function (USA version only)
- AquaQuake™ draining function
- 2-step power saver • Auto scan function
- Tag scan and favorite channel functions
- IPX7 submersible construction (1m depth for 30 minutes)

VHF MARINE TRANSCEIVER IC-M24

Float'n
Flash

Submersible
1m depth for 30 minutes



Rugged
MIL-STD 810

FLOATING

Submersible
1m depth for 30 minutes



“Clear Voice Boost”, and it floats

LOUD button

When you need an instant “boost” in the volume, a simple push of the “LOUD” button gives you full volume immediately.

Noise cancelling microphone

The sub-microphone on the rear panel inverts phase and reduces ambient noise (particularly high-pitched noise) from the main microphone.

Automatic volume adjustment

When in an engine room or other high noise environment, the sub-microphone detects the ambient noise and the IC-M36 automatically increases the volume output to suit the surrounding environment.

And yes, it floats too!

Continuing the legacy of the IC-M34, the IC-M36 floats back up to the surface if dropped overboard.

Please note: The noise cancellation can produce little or no effect in some conditions depending on type of noise, or the position and distance between the noise source and the microphone, etc. The noise cancellation does not work when an optional external speaker-microphone is connected.

6W RF output with low power consumption

Although the IC-M36 delivers a high 6W RF output and 700mW audio output, its current saving circuit offers a practical 8 hours* of operating time with the supplied 980mAh Lithium-Ion battery pack.

* Typical operation with Tx (Hi): Rx: Stand-by=5:5:90

Large buttons and slim dimensions

Thanks to the large, easy-to-operate buttons, the IC-M36 provides intuitive operation. A pinched-waist slender body makes it easy to hold and carry the radio, and is surprisingly compact for a floating radio.

Other features

- Dual watch and Tri-watch functions
- Instant access to Ch 16 and Ch 9
- Weather alert function (USA version only)
- 4-step battery power indicator
- IPX7 submersible construction (1m depth for 30 minutes)

VHF MARINE TRANSCEIVER IC-M36

Powerful, stylish, submersible plus more

Compact body, great “form factor”

A compact design, hourglass body-shape, and comfortable side grips give the IC-M72 an outstanding “form factor” – it’s easy to use with just one hand!

6W RF output, long lasting battery

The IC-M72’s 6W of transmit power can carry a conversation a long way. A large capacity 2000mAh Lithium-Ion battery allows for 15–16 hours of operation under normal conditions*.

* Tx:Rx:Stand-by=5:5:90 with BP-245N.

Impressive Force5Audio™

The M72’s impressive audio output (600mW typ.*) is loud enough to hear in most any marine environment — even over loud engine noise. (* 10% distortion, 8Ω load)

Submersible PLUS™ (IPX8)

The IC-M72 offers Icom’s best-ever protection against water intrusion. This radio has been tested to survive after being submersed in 1.5m (4.9ft) of water for 30 minutes.

Other features

- Built-in voice scrambler compatible with other Icom fixed mount radios equipped with UT-112* *Depending on version
- Large, high resolution LCD display
- Dual watch and Tri-watch functions
- Instant access to Ch 16 and Ch 9
- Weather alert function (USA version only)
- AquaQuake™ draining function
- 4-step battery power indicator
- Auto power save • Auto scan function
- Optional headsets plus OPC-1392 offers hands-free (VOX) operation



VHF MARINE TRANSCEIVER
IC-M72



Compact size for commercial or recreational use

Tough and waterproof

The IC-M88 is built tough to withstand hazardous environments. Even if it is dropped into water, its waterproof construction* will protect it from harm.

* Equivalent to IPX7. (1m depth/30min.)

Simple operation

The volume/power knob combines with 6 clearly labeled front panel buttons to maximize simplicity of operation. A large, clear LCD with backlighting and backlit buttons make night time operation easy.

Li-Ion battery for long battery life

With the standard battery pack, the IC-M88 provides up to 15 hours of operating time.* Also, there's no worries about battery "memory" problems with Li-Ion technology.

* Tx:Rx:Stand-by= 5:5:90 with BP-227.

Intrinsically safe versions

Versions are available that conform to the intrinsically safe rating of FM Global. See the specification pages for the details.

22 programmable channels

The IC-M88 has 22 programmable channels reserved for land use (146–174MHz).* Wide/narrow channel spacing is programmable for each channel, and CTCSS and DTCS signaling is built-in.

* Appropriate license will be required.

Other features

- Instant access to Ch.16 and Ch.9
- Weather alert function (USA version only)
- Simple add/delete TAG scanning
- Monitor button opens squelch
- Auto power save • Key lock function
- 4-step battery indicator



VHF MARINE TRANSCEIVER IC-M88



GMDSS portable for survival craft

Meets strict environmental requirements for GMDSS

The IC-GM1600 meets temperature, thermal shock, vibration and drop resistant (from 1 m height) requirements. After passing those environmental tests, the IC-GM1600 retains 1m depth waterproof construction as specified by IMO resolution A.809(19) and other related regulations.

Superior low temperature characteristic Lithium battery pack

For survival craft use, the optional BP-234 (non-rechargeable) 3300mAh lithium battery pack provides more than 8 hours* of operating time even at -20°C.

* Tx:Rx:Stand-by=6:6:48.

Large keypad with positive button action

Large buttons and knobs provide tactile feedback for positive operation.

Wide viewing angle LCD display

A wide viewing angle, high intensity LCD offers extra clear, easy to read characters. The bright LED indicator on the top of the panel shows the operating condition clearly.

Easy to operate for all operators

Operation instructions are printed on the rear panel. All operations can be made with one hand.

Additional features

- One touch access to Channel 16 and call channel
- Highly visible yellow colored body

SURVIVAL CRAFT 2-WAY RADIO IC-GM1600



RIVIERA

"Image supplied by Riviera"

Submersible
1m depth for 30 minutes

**DSC Built-in
Class D**



Compact, easy-to-use and great value!

Available in black or super white.

Superior receiver sensitivity, superior speaker audio

The IC-M412 has 0.22 μ V (typical at 12dB SINAD) superior sensitivity for class-leading receiver performance. The front facing speaker offers 4.5W (typical) of loud, clear reception.

Built-in ITU Class D DSC

The built-in Class D DSC provides additional safety at sea. The built-in DSC watch function monitors Ch 70 (DSC channel) activity, even while you are receiving another channel. Distress, individual, group, all ships, position request/reply, polling request/reply and DSC test calls can be sent. DSC messages can be received and automatically stored in the message memory.

Common GPS/NAV interface

When connected to an external GPS receiver, current position and time are shown

on the IC-M412's display. When receiving position information from another vessel, the IC-M412 can transfer it to a navigational device via NMEA 0183 connectivity.

IPX7 submersible protection

The IC-M412 can withstand submersion in 1m of water for up to 30 minutes (except cables). The supplied microphone also has submersible protection.

MA-500TR AIS transponder compatible

When connected to MA-500TR AIS transponder, you can make an individual DSC call without having to manually input a MMSI number.

Other features

- Dual watch and Tri-watch functions
- Instant access to Ch. 16 and Ch. 9
- Weather alert function (USA version only)
- Display and keypad backlighting

- Convenient favorite channel function and "TAG" scanning function
- Transmitting power selection with microphone
- Low voltage indicator for low battery alert

AquaQuake™ draining function

If water is in the speaker grill and muffles the audio, Icom's unique AquaQuake™ draining function emits a buzzing sound which sheds water from the speaker, assuring you sharp, clear communications.



The AquaQuake™ draining function blows water away from the speaker. (Above photo is for illustrative purposes only.)

**VHF MARINE TRANSCEIVER
IC-M412**



Available in black or gray. Photo includes the optional COMMANDMICIII™.

Feature rich with a user friendly focus!

New Class D DSC Compliant

The IC-M504A has two receivers, one for the radio and one to monitor Ch. 70 for DSC all the time. When a distress call is received, an escalating alarm sounds and the radio automatically switches to Ch. 16. The auto switch and auto tune timer functions allow you to control the timing to switch. Compliant to new DSC class D regulations.

Position request and position report

Over the DSC, your own and other ships position data can be exchanged with the position request or position report functions. The received position information can be transferred to external navigation equipment with NMEA data format. In addition, the polling (request/reply) function checks whether a specific ship is in the communication range.

* External GPS receiver and navigation equipment which accepts NMEA0183 are required.

Optional COMMANDMICIII™

The optional COMMANDMICIII™ provides 2nd station capability to the IC-M504A, convenient for use in the fly bridge or cabin. All functions of the M504A, including DSC, distress call, fog horn, as well as normal transmission and reception are available from up to 18.3m (60ft) away.

Submersible PLUS™

The IC-M504A has superior water tight protection and extends the limit to 1.5m depth for 30 minutes, equivalent to IPX8 water proof protection standard.

25W hailer/RX speaker and fog horn capability

When connected to a hailer horn, the IC-M504A (or optional COMMANDMICIII™) can call another ship or person. The RX speaker function allows you to monitor the radio audio from the hailer. Four fog horn patterns are available for the automatic fog horn.

Large, dot-matrix LCD

The IC-M504A has a capability of up to 168-character full dot-matrix display that allows a variety of information such as GPS data and DSC emergency data etc. to be seen instantly and easily. With the backlight display, the large buttons and knobs, the IC-M504A is very easy to operate.

Rear panel microphone version

The rear panel microphone version allows flexible installation in limited space.

Other features

- NMEA Input/Output
- MA-500TR AIS Transponder compatible (Compatible new version required.)
- Dual watch and tri-watch functions for monitoring Ch.16 and/or Ch.9
- Instant access to Ch. 16 and Ch. 9
- Weather alert function (USA version only)
- Display and keypad backlighting
- Convenient "TAG" scanning function
- Superior receiver performance
- Big bass sound speaker
- Optional voice scrambler UT-112
- Black or gray color versions

VHF MARINE TRANSCEIVER
IC-M504A



COMMANDMICIII™ capable.

Submersible
1m depth for 30 minutes

DSC Built-in
Class D

FORCE 5 AUDIO™

Rugged
MIL-STD 810



Available in black or gray.

The ultimate VHF! DSC, hailer 2nd/3rd station capability and more!

New Class D DSC compliant

The IC-M604A has two receivers, one for the radio and one to monitor Ch 70 for DSC all the time. When a distress call is received, an escalating alarm sounds and the radio automatically switches to Ch 16.

Superior receiver performance

The IC-M604A has excellent receive specifications which allow a weak signal a better chance of being heard when louder signals are around it. The powerful audio output from the large front facing speaker further increases the quality of received calls.

NMEA input/output

When connected to a GPS receiver, the IC-M604A indicates position data. NMEA output allows you to plot other ships position data on a PC or navigation equipment.

Large, dot-matrix LCD

The large full dot-matrix display is designed for optimum readability in any lighting condition. With the extra large font, the channel number is maximized on the display and upper and lower case characters can be easily read.

Simultaneous connection of two COMMANDMICIII™s

See the COMMANDMICIII™ (HM-162B/SW) page for details.

30 Watt 2-way Hailer capability

When connected to a hailer horn, communication with other boats, deck hands or marina officials is easy. The built-in amplifier increases talk power to 30W making your message loud and clear.

Submersible construction

The IC-M604A has effective submersible waterproofing equivalent to IPX7*.

* Equivalent to IPX7. 1m depth for 30 minutes; except cables.

RX speaker function

The RX speaker function, "receiver-repeater" allows you to monitor the received radio audio from a hailer horn on the deck or tower. You can also make an announcement on-board from the microphone.

Other features

- Auto fog horn function with four selectable patterns
- Front and rear panel microphone connection
- MA-500TR AIS Transponder compatible (Compatible new version required.)
- Dual watch and tri-watch functions for monitoring Ch.16 and/or Ch.9
- Instant access to Ch. 16 and Ch. 9
- Weather alert function (U.S.A. version only)
- AquaQuake™ draining function
- Display and keypad backlighting
- 4×8 inch flush mount design
- Convenient favorite channel function and "TAG" scanning function
- Optional Voice Scrambler, UT-112 for private communication

VHF MARINE TRANSCEIVER
IC-M604A

Full control 2nd/3rd station capability for IC-M604A or M504A



COMMANDMICIII™



Available in black or super white.

**REMOTE-CONTROL MICROPHONE
HM-162B/SW**

Full control 2nd/3rd station capability for IC-M604A and M504A

The COMMANDMICIII™ is full control remote control microphone for use with the radio from up to 18.3m (60ft) away. All functions of the radio, including distress call, DSC, fog horn, as well as transmission, reception and Intercom are available.

* IC-M504A: 2nd station only.

IC-M604A: Two units available.

Multi-function rotary dial

The multi-function rotary dial gives you quick and easy access to many settings, including operating channel, AF volume, squelch, menu settings and more.

Submersible PLUS™ (1.5m depth for 30 min.)

The COMMANDMICIII™ is tightly protected from water intrusion. (1.5 m depth for 30 minutes, equivalent to IPX8)

Extra large 45mm (d) speaker for superior audio

Other features

- DSC full control capability
- DSC "Distress" button on back of unit
- Full dot-matrix LCD
- 2.8W (typ.) external speaker terminal

2nd station capability*

The COMMANDMICII™ provides 2nd station capability to talk and listen to other station(s), control most of the radio settings (not DSC) and use as an intercom between the radio and COMMANDMICII™.

* IC-M504A: 2nd station only.

IC-M604A: Two units can be attached.

Up to 60ft remote extension

The COMMANDMICII™ comes with a 20ft (6.1m) extension cable and up to 2 optional extension cables, OPC-999 (20ft; 6.1m), can be attached for 60ft (18.3m) remote extension.

Public Address (hailer) and Rx speaker function

When transceiver is connected to a hailer horn, the public address (hailer) and Rx speaker functions are available. The RX speaker function, "receiver-repeater" allows you to monitor the received radio audio from a hailer horn on the deck or tower.

Submersible (1m depth for 30 min.)*

* Equivalent to IPX7. (Except cables.)

Other features

- 4-step LCD and keypad backlighting
- Slim dimensions (31.4mm depth)

2nd/3rd station capability for IC-M604A or M504A

COMMANDMICII™



Available in black or super white.

**REMOTE-CONTROL MICROPHONE
HM-157B/SW**

Fully capable Class B AIS transponder for pleasure craft



CLASS B AIS TRANSPONDER
MA-500TR

Dual channel receive capability

The MA-5000 receives Ch 87B (161.975 MHz) and Ch 88B (162.025MHz) simultaneously and allows you to monitor Class A and Class B AIS data.

Dual mode data output

The MA-5000 has two data outputs. One is RS-422 for connection with equipment such as marine radar or GPS chartplotter which accept the VDM sentence format. The second is RS-232C for PC connection*.

* AIS software is not supplied from Icom.

Built-in antenna splitter to share one antenna

The MA-5000 has built-in antenna splitter to share a single antenna with a VHF radio*. When you transmit from the connected radio, the Tx signal bypasses the MA-5000 to protect the internal circuit.

* Insertion loss : 3.5dB (approx.)

GPS data multiplex

When connected a GPS receiver to the MA-5000, GPS position information such as RMC, GGA, GNS and GLL formats can be multiplexed with AIS data (VDM format).

Compact size

132(W)×34(H)×155(D)* mm dimensions.

* Mounting bracket is not included in the dimensions.

Class B AIS transponder

The MA-500TR provides 2W output power and receives dual AIS channels simultaneously.

Large, full dot matrix display

The display visually shows real-time vessel traffic information. PC and other marine network equipment are not required (but can be connected).

Collision-risk management

The CPA (Closest Point of Approach) and TCPA (Time to CPA) functions alerts you with beep sound and display indication. The dangerous list provides a list of vessels within CPA (6NM) and TCPA (60 minutes) range.

Integration with Icom VHF radios

When connected to IC-M604A, M504A or M412, pushing the DSC button on the MA-500TR allows you to make a DSC individual call to a selected vessel instantly.

Other features

- IPX7 submersible construction (1m depth for 30 minutes, except connectors)
- GPS receiver comes with MA-500TR
- 3 lines of NMEA 0183 input/output
- External alarm connection to emit a collision alarm from external audio equipment on the deck or tower

Real-time vessel traffic information for collision-risk management



AIS RECEIVER
MXA-5000



Photo shows the IC-M802 U.S.A. version.

Advanced DSP marine SSB with compact remote head

Digital Signal Processor

The speech compressor, utilizing DSP, increases average talk power. Flexible filter settings provide for narrow band signals like e-mail, SITOR, FSK and other operation without an optional filter.

Built-in ITU Class E DSC*

For added safety at sea, the IC-M802 offers the latest in one-touch DSC emergency communications technology. (ITU Class E standard.) The emergency button is covered by a red, spring loaded hatch to avoid accidental DSC activation.

* U.S.A. and Canadian versions only.

One-touch e-mail access*

The IC-M802 can be set to memorize your HF e-mail access frequency, mode and bandwidth settings. At sea e-mail has never been easier.

* U.S.A. and Canadian versions only. Please consult with an HF e-mail provider for details.

Standard 4 × 8 remote controller

The IC-M802 offers a 4-inch tall (10.16 cm) remote controller and external speaker. When set up with the IC-M504A or M604A VHF radio, Icom offers you a complete communications station.

Large LCD with dot matrix characters

You can easily read the alphanumeric name of any of the 1355 ITU channels at a glance with the large LCD display. Night-time operation is no problem with 10 levels (plus OFF) adjustable backlit display and keypad.

Easy to use in all conditions

The IC-M802 offers two large dials – bank and channel – for easy channel selection. Up to 16 banks of 20 (max.) each for user channels, and 17 banks for ITU channels are available.

150W (PEP) of powerful output

150 Watts of power offers superior world-wide communications. A one piece, die cast aluminum chassis and a large cooling fan allow continuous transmission at full output power – very important for data communications, like e-mail.

Automatic antenna tuner, AT-140

The optional automatic antenna tuner, AT-140, matches the IC-M802 to a long wire antenna with a little insertion loss. The AT-140 is tested to IP56 rating for dust and powerful water jet protections.

Other features

- Wideband receive coverage (0.5–29.999MHz)
- Remote control mic allows you to select channels directly
- GPS input, NMEA 0183 version 3.01
- A headphone jack in front of the controller
- DIN and RS-232C connectors for external equipment
- NMEA 0183 interface included
- Built-in 2-tone (2182kHz) alarm function*

* General version only.

HF MARINE TRANSCEIVER
IC-M802



Open Scanner for MR-1200TII/TIII (left) and Radome Scanner for MR-1200RII (right)



Easy-to-see 12.1 inch TFT radar

**MR-1200RII : 36nm range, 4kW
radome scanner**

**MR-1200TII : 48nm range, 4kW
open array scanner**

**MR-1200TIII : 72nm range, 6kW
open array scanner**

The MR-1200 series has 3 versions depending on the scanner unit and output power.

12.1-inch large TFT display

The radar echoes are displayed in clear green or red color images on the large 600×800 dots display. The display offers wide viewing angle and high contrast, brightness which is easy-to-see even in direct sun light. The display unit has a slim depth (119.2mm) and light weight (4.3kg) for easy installation and is protected with IPX4 water resistance (except connectors).

ATA (Automatic Tracking Aid)

The ATA function allows you to plot up to 10 targets and the radar continues to track the targets automatically. Used together with the CPA (Closest Point of Approach) and/or the TCPA (Time to CPA) alarm, reliable collision avoidance increases user's safety at sea.



Target identification number, bearing, distance read-out, course (CSE), speed (SPD), CPA and TCPA appear in the information screen.

MOB (Man OverBoard) function

If a crew member falls overboard, mark the MOB point on the screen. The MOB marker keeps the position on the display and shows the bearing, distance and estimated time to the MOB point with current speed.

* External bearing, speed and position data are required.

Waypoint indication

When connected to a GPS or other navigation system and waypoint data is applied, the radar shows the bearing and distance to the waypoint on the display.

* External bearing and position data are required.

Alarm zone setting

The desired range and bearing can be set for the alarm zone. If other ships or islands come into the alarm zone, an audible alarm warns of a possible collision, even when the power save function turns the monitor off.

Automatic tuning calibration

The automatic tuning calibration function adjusts the initial matching between the scanner and the display unit and eliminates tuning errors caused with manual tuning.

Other features










- English and Korean indication for display
- 2 EBLs (Electronic Bearing Lines) and 2 VRMs (Variable Range Markers)
- Switchable pulse-width to detect a small target
- Head-up, North-up, Course-up, and True motion*

* External bearing, speed and position data are required, depending on display mode.

Not available in the USA.











OPTIONS FOR VHF HANDHELD TRANSCEIVERS

MODEL NAME	BATTERY CASES		BATTERY PACKS						
	BP-226 AA(LR6)×5 cells Water resistance, equivalent to IPX4	BP-251* ¹ AAA(LR03)×5 cells	BP-224* ² (Ni-Cd) 7.2V/750mAh	BP-225* ² (Ni-Cd) 7.2V/1100mAh	BP-227 (Li-Ion) 7.4V/1850mAh (min.) 1950mAh (typ.)	BP-227FM (Li-Ion) 7.4V/1850mAh (min.) 1950mAh (typ.)	BP-234 9.0V/3300mAh (Lithium: non- rechargeable)	BP-245N (Li-Ion) 7.4V/1900mAh (min.) 2000mAh (typ.)	BP-252* ³ (Li-Ion) 7.4V/950mAh (min.) 980mAh (typ.)
IC-M24									
IC-M36		✓							✓
IC-M72								✓	
IC-M88	✓				✓	✓ (For Intrinsically safe use)			
IC-GM1600			✓ (On-board use only)	✓ (On-board use only)			✓ (For survival craft)		

*¹ The IC-M36 floats when used with most common brand AAA batteries. Battery weight varies by manufacturer. Please check your IC-M36 for buoyancy in a shallow area first when using AAA batteries.

*² Charge with BC-119N, BC-158 or BC-121N. *³ Charge with BC-162 or BC-173.

MODEL NAME	BATTERY PACKS	DESKTOP CHARGERS						MULTI-CHARGER
	BP-266 (Li-Ion) 3.7V/1500mAh (min.) 1590mAh (typ.)	BC-119N Rapid charger	BC-152N Regular charger	BC-158 Regular charger (For BP-224 or BP-225)	BC-162 Rapid charger	BC-166 Regular charger	BC-173 Regular charger	BC-121N Rapid charger
IC-M24	✓	✓ (Use with AD-123)						
IC-M36					✓		✓	
IC-M72		✓ (Use with AD-114)				✓		✓ (Use with AD-114)
IC-M88		✓ (Use with AD-100)	✓					✓ (Use with AD-100)
IC-GM1600		✓ (Use with AD-109; On-board use only)		✓ (On-board use only)				✓ (Use with AD-109; on-board use only)









MODEL NAME	AC ADAPTERS			WALL CHARGER	CHARGER ADAPTERS			
	BC-145S* ⁴ 16V/0.93A	BC-147S* ⁴ 12V/200mA	BC-157 12V/7A	BC-199S* ⁴ Regular charger	AD-100	AD-109	AD-114	AD-123
IC-M24								
IC-M24	✓ (Use with BC-119N)			✓				✓ (Use with BC-119N)
IC-M36	✓ (Use with BC-162)	✓ (Use with BC-173)						
IC-M72	✓ (Use with BC-119N)	✓ (Use with BC-166)	✓ (Use with BC-121N)				✓ (Use with BC-119N/BC-121N)	
IC-M88	✓ (Use with BC-119N)	✓ (Use with BC-152)	✓ (Use with BC-121N)		✓ (Use with BC-119N/BC-121N)			
IC-GM1600	✓ (Use with BC-119N; On-board use only)	✓ (Use with BC-158; On-board use only)	✓ (Use with BC-121N; On-board use only)			✓ (Use with BC-119N/BC-121N; On-board use only)		










*⁴ BC-145/BC-147/BC-199SA for 120V AC. SE for 230V AC. SV for 240V AC.

✓ : Applicable : Not applicable

Some options may not be available in some countries. Please ask your dealer for details.

OPTIONS FOR VHF HANDHELD TRANSCEIVERS

	CIGARETTE LIGHTER CABLES		DC POWER CABLES		SPEAKER MICROPHONES			
MODEL NAME	CP-23L	CP-24	OPC-515L	OPC-656	HM-138 IPX7	HM-165 IPX7	HM-167 IPX8	HM-168 IPX7
								
IC-M24		✓						
IC-M36						✓		
IC-M72	(Use with BC-119N)		(Use with BC-119N)	(Use with BC-121N)			✓	
IC-M88	(Use with BC-119N/BC-152)		(Use with BC-119N/BC-152)	(Use with BC-121N)	✓			✓
IC-GM1600	(Use with BC-119N/BC-158; On-board use only)							







	HEADSETS			HEADSET ADAPTER CABLE	BELT CLIPS				
MODEL NAME	HS-94 Earhook type with boom microphone	HS-95 Behind-the-head type	HS-97 Throat microphone type	OPC-1392	MB-86	MB-98	MB-103	MB-103Y	MB-109
									
IC-M24									
IC-M36									✓
IC-M72	(Use with OPC-1392)	(Use with OPC-1392)	(Use with OPC-1392)	✓	✓		✓		
IC-M88					✓	✓			
IC-GM1600					✓			✓	




	BELT CLIPS	LEATHER BELT HANGERS		ANTENNAS	
MODEL NAME	MB-124	MB-96N	MB-96F	FA-S59V FA-S64V FA-SC55V FA-SC58V	
					
IC-M24	✓			FA-SC58V	
IC-M36				FA-SC58V	
IC-M72		✓	(Use with MB-103)	FA-S64V	
IC-M88		✓	(Use with MB-98)	FA-S59V	
IC-GM1600		✓	(Use with MB-103Y)	Fixed type	

☒ : Applicable ☐ : Not applicable

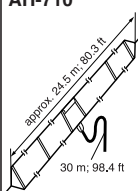






Some options may not be available in some countries. Please ask your dealer for details.




OPTIONS FOR VHF FIXED MOUNT TRANSCEIVERS

MODEL NAME	HAND MICROPHONES		COMMANDMIC™		EXTENSION CABLES			
	HM-126RB/RG Speaker microphone 	HM-164B/SW	HM-162B/SW 	HM-157B/SW 	OPC-999 6.1 m; 20 ft cable for use with COMMANDMICII 	OPC-1000 6.1 m; 20 ft cable for use with HM-126RB/RG	OPC-1541 6.1 m; 20 ft cable for use with COMMANDMICIII 	OPC-1542 For rear panel Mic. connection 
IC-M412		✓						
IC-M504A	✓		✓	✓	(Use with HM-157B/SW)	(Use with HM-126RB/RG)	(Use with HM-162B/SW)	(Use with HM-126RB/RG)
IC-M604A	✓		✓	✓	(Use with HM-157B/SW)	(Use with HM-126RB/RG)	(Use with HM-162B/SW)	

MODEL NAME	FLUSH MOUNT KITS		VOICE SCRAMBLER	
	MB-69 	MB-75 	UT-112 Total of 32 voice scramble codes available 	
IC-M412	✓			
IC-M504A		✓	✓	
IC-M604A		✓	✓	

OPTIONS FOR HF MARINE TRANSCEIVERS

MODEL NAME	FOLDED DIPOLE ANTENNA	ANTENNA MATCHERS		ANTENNA TUNERS		SHIELDED CONTROL CABLES		HAND MICROPHONE	
	AH-710  approx. 24.5 m 80.2 ft 30 m; 98.4 ft	MN-100 	MN-100L 	AT-130 	AT-140 IP56 	OPC-566	OPC-1147/N 10m; 32.8ft 	HM-135 	
IC-M802	✓	✓	✓	✓	✓	(Use with AT-130)	(Use with AT-140)	✓	

MODEL NAME	EXTERNAL SPEAKER	FLUSH MOUNT KIT	REMOTE CONTROLLER	SEPARATION CABLE
	SP-24 	MB-75 	RC-25	OPC-1106 5m; 16.4ft 
IC-M802	✓	✓	✓	✓

GENERAL PURPOSE POWER SUPPLY
PS-300 
<ul style="list-style-type: none"> • Max. 30A output (25A continuous) • 1–15V variable output voltage • Transformer type • Voltage and current dual meters • 209(W)×120(H)×280(D) mm; 8.23×4.72×11.02 in dimensions (Not available in some countries)

☒ : Applicable
 ☐ : Not applicable
 Some options may not be available in some countries. Please ask your dealer for details.

SPECIFICATIONS

VHF HANDHELD TRANSCEIVERS

		IC-M24	IC-M36	IC-M72	IC-M88	IC-GM1600
Frequency range (Unit:MHz)		Tx: 156.025–157.425 Rx: 156.050–163.275	Tx: 156.025–157.425 Rx: 156.050–163.275	Tx: 156.025–157.425 Rx: 156.050–163.275	Tx: 156.025–157.425 Rx: 156.050–163.275 146–174 (LMR; Tx/Rx)	156.300–156.875 (Tx/Rx)
Dimensions (projections not included; W×H×D)		58.5×128.5×34.5 mm 2.3×5.06×1.36 in	62×139.5×43 mm 2.44×5.49×1.69 in	52.5×125×30 mm 2.07×4.92×1.18 in	62×97×39 mm 2.44×3.82×1.54 in	65×145×44 mm 2.56×5.71×1.73 in
Weight (approx.)		260g; 9.2oz (With BP-266, MB-124 and FA-SC58V)	295g; 10.4oz (With BP-252, MB-109 and FA-SC58V)	320g; 11.3oz (With BP-245N, MB-103 and FA-S64V)	280g; 9.9oz (With BP-227)	385g; 13.6oz (With BP-234)
Current drain	Transmit (High)	2.3A typical (at 3.7V DC)	1.5A typical	1.7A/1.5A typ. (6W/5W)	1.6A typical	1.0A/0.7A (2W/1W)
	Max. audio	350mA typical	300mA typ. (Internal SP)	400mA typ. (Internal SP)	200mA typical	200mA
	Power save	8mA typical	10mA typical	30mA typical	20mA typical	—
Sensitivity (at 12dB SINAD)		0.25μV typical	0.25μV typical	0.22μV typical	0.25μV typical	0.25μV typ. (USA version)
Intermodulation rejection		70dB typical	70dB typical	70dB typical	70dB typical	70dB (USA), 68dB (GEN)
Audio output power (10% dist./ 8Ω load)		600mW typical	700mW typ. (Internal SP) (16Ω load)	600mW typ. (Internal SP)	350mW typical	350mW typical
RF output power		5/1W (approx.)	6/1W (With BP-252) 2/1W (With alkaline cells)	6/3/1W 5/3/1W (Aus version)	5/3/1W	2/1W

Measurements made in accordance with TIA/EIA603 for IC-M24, M36, M72 and M88. TIA/EIA603 and FCC Part 80.271 or ETS300-225-3 for IC-GM1600.

VHF FIXED MOUNT TRANSCEIVERS

		IC-M412	IC-M504A	IC-M604A
Frequency range (Unit:MHz)		Tx: 156.025–157.425 Rx: 156.050–163.275	Tx: 156.025–157.425 Rx: 156.050–163.275	Tx: 156.025–157.425 Rx: 156.050–163.275
Power supply requirement		13.8V DC ±15%	13.8V DC ±15%	13.8V DC ±15%
Dimensions (projections not included; W×H×D)		164×78×139.5 mm 6.46×3.07×5.49 in	165×110×123.2 mm 6.5×4.33×4.85 in	220×110×109.4 mm 8.66×4.33×4.31 in
Weight (approx.)		1.06kg; 2.3lb	1.45kg; 3.2lb	1.4kg; 3.1lb
Current drain	Transmit (High)	5.5A	5.5A	5.5A
	Max. audio output	1.5A	1.5A	1.5A
Sensitivity (at 12dB SINAD)		0.22μV typical	0.22μV typical	0.22μV typical
Intermodulation rejection		70dB	80dB typical	80dB
Audio output power (10% dist. /4Ω load)		4.5W typical	4.5W typical	5W typical
RF output power		25/1W	25/1W	25/1W

Measurements made in accordance with TIA/EIA 603.

AIS TRANSPONDER AND AIS RECEIVER

		MA-500TR	MXA-5000
Frequency range (Unit:MHz)		161.975, 162.025 (default) 156.025–162.025	Rx: 161.975, 162.025 Simultaneous reception
Type of emission		16K0GXW (GMSK)	16K0F1D (GMSK)
Power supply requirement		12.0V DC (9.6–15.6V)	12.0V DC (10.8–15.6V)
Dimensions (projections not included; W×H×D)		165×110×123 mm; 6.5×4.33×4.84 in	132×34×155 mm; 5.2×1.34×6.1 in
Weight (approx.)		1.0kg; 2.2lb	400g; 14.1oz
Current drain	Transmit	1.5A	—
	Receive	0.7A	0.25A
Sensitivity		–110dBm	–116dBm typ.
Intermodulation rejection		65dB	65dB
RF output power		2W	—

Measurements made in accordance with IEC62287-1.

HF MARINE TRANSCEIVER

		IC-M802
Frequency range (Unit:MHz)		Tx: 1.6–2.9999, 4.0–4.9999, 6.0–6.9999, 8.0–8.9999, 12.0–13.9999, 16.0–17.9999, 18.0–19.9999, 22.0–22.9999, 25.0–27.5000 Rx: 0.5–29.9999
Type of emission		J3E (USB/LSB), H3E*1, J2B (AFSK), F1B (FSK) A1A (CW), J2B (DSC)*2
Power supply requirement		13.6V DC ±15% (negative ground)
Dimensions (projections not included; W×H×D)		Main unit: 240×94×238.4 mm; 9.45×3.7×9.39 in Controller unit: 220×110×84.4 mm; 8.66×4.33×3.32 in
Weight (approx.)		Main unit: 4.7kg; 10.4lb, Controller unit: 570g; 1.3lb
Current drain	Transmit (High)	30A typ. at max. power
	Max. audio output	3.0A
Sensitivity (at 10dB S/N)		J3E, A1A, J2B, F1B : 0.5μV (1.8–29.999MHz) H3E : 3.2μV (1.8–3.999MHz) DSC (J2B)*2 : 0.5μV (1% error rate)
Audio output power (10% dist/ 4Ω load)		4.0W
RF output power (PEP)		150/60/20W

*1 Receive only for USA version. *2 USA version only.

SPECIFICATIONS

MARINE RADARS

		MR-1200RII	MR-1200TII	MR-1200TIII
General	Minimum range	25m (when measurement range is 1/8 NM)	25m (when measurement range is 1/8 NM)	25m (when measurement range is 1/8 NM)
	Maximum range	36NM	48NM	72NM
	Power supply requirement	10.2-42V DC	10.2-42V DC	10.2-42V DC
	Power consumption	60W	70W	80W
Display	Display (pixels)	12.1 inch TFT LCD (600×800 dots)	12.1 inch TFT LCD (600×800 dots)	12.1 inch TFT LCD (600×800 dots)
	Usable temperature range	-15°C to +55°C; +5°F to +131°F	-15°C to +55°C; +5°F to +131°F	-15°C to +55°C; +5°F to +131°F
	Dimensions (W×H×D) (projections not included)	300×323×119.2 mm 11.81×12.72×4.69 in	300×323×119.2 mm 11.81×12.72×4.69 in	300×323×119.2 mm 11.81×12.72×4.69 in
	Weight (approx.)	4.3kg; 9.5lb	4.3kg; 9.5lb	4.3kg; 9.5lb
Scanner	Type	2ft (60cm) slotted wave-guided array in radome	4ft (120cm) slotted wave-guided array	4ft (120cm) slotted wave-guided array
	Peak output power	4kW	4kW	6kW
	Rotation speed	24/36/48rpm typ.	24/36/48rpm typ.	22/24/36/48rpm typ.
	Beamwidth	Horizontal	4° typ.	2° typ.
		Vertical	22° typ.	25° typ.
	Intermediate frequency	60MHz	60MHz	60MHz
	Transmission frequency	9410MHz ±30MHz	9410MHz ±30MHz	9410MHz ±30MHz
	Usable temperature range	-25°C to +70°C; -13°F to +158°F	-25°C to +70°C; -13°F to +158°F	-25°C to +70°C; -13°F to +158°F
	Dimensions (projections not included)	607(diameter)×243(H) mm 23.9(diameter)×9.57(H) in	1205(diameter)×381(H) mm*1 47.44(diameter)×15(H) in	1205(diameter)×381(H) mm*1 47.44(diameter)×15(H) in
Cables	Weight (approx.)	8kg; 17.6lb	17kg; 37.5lb	17kg; 37.5lb
	Connection cable length between display and scanner	15m; 49.2ft (OPC-1188A, standard) 20m; 65.6ft (OPC-1077A, option) 30m; 98.4ft (OPC-1078A, option)	20m; 65.6ft (OPC-1189A, standard) 30m; 98.4ft (OPC-1078A, option)	20m; 65.6ft (OPC-1189A, standard) 30m; 98.4ft (OPC-1078A, option)



Applicable U.S. Military Specifications
Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and strict environmental standards.

*1 Diameter of rotation × height.

Standard	MIL-810 F Method, Proc.	IC-M36	IC-M72	IC-M88	IC-M504A	IC-M604A	HM-162
Low Pressure Storage (Altitude)	500.4 I	✓	✓	✓	✓	✓	✓
Low Pressure Operation (Altitude)	500.4 II	✓	✓	✓	✓	✓	✓
High Temp. Storage	501.4 I	✓	✓	✓	✓	✓	✓
High Temp. Operation	501.4 II	✓	✓	✓	✓	✓	✓
Low Temp. Storage	502.4 I	✓	✓	✓	✓	✓	✓
Low Temp. Operation	502.4 II	✓	✓	✓	✓	✓	✓
Temp. Shock	503.4 I	✓	✓	✓	✓	✓	✓
Solar Radiation	505.4 I	✓	✓	✓	✓	✓	✓
Rain Blowing	506.4 I	✓	✓	✓	✓	✓	✓
Rain Drip	506.4 III	✓	✓	✓	✓	✓	✓
Humidity	507.4	✓	✓	✓	✓	✓	✓
Salt Fog	509.4	✓	✓	✓	✓	✓	✓
Dust Blowing	510.4 I	✓	✓	✓	✓	✓	✓
Immersion	512.4 I	✓	✓	✓	✓	✓	✓
Vibration	514.5 I	✓	✓	✓	✓	✓	✓
Shock Functional	516.5 I	✓	✓	✓	✓	✓	✓
Shock Transit Drop	516.5 IV	✓	✓	✓	✓	✓	✓

Also meets equivalent MIL-STD-810-C, -D and -E tests.

All stated specifications are subject to change without notice or obligation.
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Approved intrinsically safe classifications for the IC-M88 intrinsically safe version.
Intrinsically safe : Class I, II, III, Division 1, Groups C, D, E, F, G
Non-incendive : Class I, Division 2, Groups A, B, C, D
Hazardous locations when used with Icom BP-227FM battery pack. *Max. Temp. T3C at 40°C".
The HM-138 is an approved accessory for use with Intrinsically Safe versions.

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