

 ICOM

IC-M85

VHF MARINE TRANSCEIVER

*A Marine and Land Mobile Radio  
Combined in One*





# Ultra Compact and Powerful with Land Mobile Features



[ Actual Size ]



## Compact and Lightweight

The IC-M85 is the most compact (W×H×D: 56 × 92 × 29 mm; 2.2 × 3.6 × 1.1 in) and lightweight (weight: 246 g; 8.7 oz (with BP-290, FA-SC58V and MBB-3)) commercial grade marine and land mobile hybrid radio in the world\*.

\* As of November 2017, researched by Icom.



## Covering 136–174 MHz Land Mobile Frequency

In addition to VHF marine channels, the IC-M85 covers 136–174 MHz land mobile channels. Up to 100 programmable channels are available for land mobile use. Each channel is programmable with CTCSS and DTCSS tone.



## 700 mW Powerful Audio

Despite its compact body, the IC-M85 delivers 700 mW of loud audio. Clear communications is vital in noisy environments.



## Private Conversation

The radio has a built-in Voice Scrambler and provides private communication between stations (32-code, compatible with UT-112 voice scrambler unit).

### Supplied accessories;



BP-290 battery pack



BC-227 rapid charger

VHF MARINE TRANSCEIVER  
**IC-M85**

# Marine Handheld



## Automated Emergency Alarm

The IC-M85 has three emergency related functions: the MOB Alarm, Man Down and Lone Worker functions. If one of these functions are activated, the radio automatically makes an emergency alarm.



## Instant Operation with Multi-Function Button

Channel group changing (marine ⇌ land mobile) or the scrambler function ON/OFF can be assigned in the multi-function button on the top panel\*. The Key lock function can be activated by holding the button.



Multi-function button

\* Ask your dealer for details.



## IP67 and MIL-STD Rugged Construction

The IC-M85 is built durable to endure 1 m submersion for 30 minutes and dust-tight protection. The radio also passes MIL-STD-810 specifications.



### And More

- AquaQuake™ prevents audio degradation from a water-logged speaker
- Internal VOX capability for hands-free operation
- 14 hours of long battery life (TX: RX: Standby=5:5:90.)
- 5 W output power (land mobile channels for USA: 2 W)
- Weather channel receiving
- The self check function checks internal temperature, and connected battery voltage (over voltage detection)
- Monitor function □ Priority scan function
- Dual/Tri-watch function for monitoring CH16 and/or call channel
- Favorite channel function for quick access to often used channels

\* SA for USA plug. SE for Europe plug.



BC-123S\* AC adapter    FA-SC58V antenna    MBB-3 belt clip    Hand strap

## Variety of Audio Accessories

### Submersible Speaker-Microphones

**HM-236**

**HM-222**  
 With 3.5 mm earphone jack.

### Hands-Free Operation with Headsets



**HS-94**  
 Earphone-headset

or  
**HS-95**  
 Behind-the-head headset

or  
**HS-97**  
 Throat microphone

**VS-5MC**  
 PTT switch cable



### Earphones and Speaker Microphones for Noisy Environments



**SP-27**  
 Tube earphone\*

or  
**SP-29**  
 Earhook type earphone\*

or  
**SP-40**  
 Earphone\*

**AD-135**  
 3.5 mm earphone jack adapter.

or  
**HM-222**  
 Waterproof speaker microphone with 3.5 mm earphone jack.

\* With 3.5 mm plug.

### Stylish Operation with Tie-Clip Microphone and Earphones



**SP-26**  
 Tube earphone\*

or  
**SP-28**  
 Earhook type earphone\*

or  
**EH-15B**  
 Earphone\*

**HM-163MC**  
 Tie-clip microphone

\* With 2.5 mm plug.

### Covert Earphone

**SP-32**  
 Tube earphone adapter for use with EH-15B and HM-163MC.

OPTIONS


**BATTERY PACK AND CASE**



**BP-290**  
Rechargeable Li-ion battery with intelligent reporting. 1910 mAh (min.) 2010 mAh (typ.). IP67 Waterproof

**BP-291**  
Battery case LR6 (AA) x 5. IP54 Water resistance

**MULTI-CHARGER**



**BC-214** **BC-157S** **AD-132N**

Charges up to six BP-290 batteries in 2.8 hours (approx.). AD-132N is supplied with BC-214, depending on version.

**CONNECTABLE TYPE CHARGER**



**BC-226** **BC-228**

Charges the BP-290 in 2.7 hours. (approx.) Connects up to six BC-226 units.

**INTELLIGENT CHARGER** **DESKTOP CHARGERS**



**BC-225** **BC-123S\***  
Shows the charging information with LED lighting. Charges the BP-290 in 2.5 hours. (approx.)

**BC-227** **BC-123S\***  
Charges the BP-290 in 2.7 hours. (approx.)

**BC-219N** **BC-123S\***  
Charges the BP-290 in 2.5 hours. (approx.)

\* SE for Europe plug. SUK for UK plug. SV for Australia plug.

**BELT CLIPS** **BELT HANGERS** **ACC ADAPTOR**



**MBB-3** **MB-136**  
Alligator type. Swivel type.

**MB-96N** **MB-96F** **MB-96FL**  
Swivel type. Fixed type. Long type.

**AD-118**  
14-pin multi-connector to 6-pin Hirose connector

**CARRYING CASES** **CIGARETTE LIGHTER CABLE & POWER SUPPLY CABLES** **ANTENNA**



**LC-187** **LC-188**  
Hard type. Hard type. Charging is possible while the case is attached.

**CP-23L** **OPC-515L** **OPC-656**  
For use with the BC-219N or BC-227. For use with the BC-219N, BC-225 or BC-227. For use with the BC-214.

**FA-SC58V**

SOFTWARE

• **RS-BC225** : Intelligent charger software for Windows® PC. For use with BC-225.

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SPECIFICATIONS

|                                                  |                            | IC-M85                                            |                                                  |
|--------------------------------------------------|----------------------------|---------------------------------------------------|--------------------------------------------------|
| GENERAL                                          |                            | Marine channels                                   | Land mobile channels                             |
| Frequency coverage                               | Tx<br>Rx                   | 156.025–157.425 MHz<br>156.050–163.275 MHz        | 136.000–174.000 MHz                              |
| Usable channel groups,<br>Number of channels     |                            | USA, INT, CAN, WX channels                        | 100 land mobile channels                         |
| Type of emissions                                |                            | 16K0G3E                                           | 16K0F3E/11K0F3E                                  |
| Channel spacing                                  |                            | 25 kHz                                            | 25 kHz/12.5 kHz                                  |
| Power supply requirement                         |                            | 7.2 V DC nominal                                  |                                                  |
| Current drain (approximate)                      | Tx<br>Rx                   | USA<br>EXP                                        | 0.9 A (at 2 W)<br>1.5 A (at 5 W)                 |
| Max. audio                                       |                            | 0.45 A                                            |                                                  |
| Antenna impedance                                |                            | 50 Ω                                              |                                                  |
| Operating temperature range                      |                            | -20 °C to +60 °C;<br>-4 °F to +140 °F             | -30 °C to +60 °C;<br>-22 °F to +140 °F           |
| Dimensions (W×H×D)<br>(Projections not included) |                            | 56 × 92 × 29 mm; 2.2 × 3.6 × 1.1 in (With BP-290) |                                                  |
| Weight (approximate)                             |                            | 246 g; 8.7 oz (with BP-290, FA-SC58V and MBB-3)   |                                                  |
| TRANSMITTER                                      |                            |                                                   |                                                  |
| Output power (at 7.2 V DC)                       | USA<br>EXP                 | 5/3/1 W                                           | 2/1 W<br>5/3/1 W                                 |
| Max. frequency deviation                         |                            | ±5.0 kHz                                          | ±5.0 kHz (Wide)<br>±2.5 kHz (Narrow)             |
| Frequency stability                              |                            | ±5.0 ppm                                          |                                                  |
| Spurious emissions                               |                            | -70 dBc typical                                   |                                                  |
| FM hum and noise                                 |                            | 40 dB                                             | 40 dB (Wide)<br>34 dB (Narrow)                   |
| Audio harmonic distortion                        |                            | 10% (at 60% deviation)                            |                                                  |
| Modulation limiting                              |                            | 60–100% of maximum deviation                      |                                                  |
| RECEIVER                                         |                            |                                                   |                                                  |
| Sensitivity (at 12 dB SINAD)                     |                            | 0.25 μV typical                                   |                                                  |
| Adjacent channel selectivity                     |                            | 70 dB typical                                     | 70 dB typical (Wide)<br>55 dB typical (Narrow)   |
| Spurious response                                |                            | 70 dB typical                                     |                                                  |
| Intermodulation                                  |                            | 70 dB typical                                     |                                                  |
| Audio output power                               | Internal SP<br>External SP | 700 mW typical (at 10% distortion with 12 Ω load) | 700 mW typical (at 10% distortion with 8 Ω load) |

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

Applicable U.S. Military Specifications & IP Rating

| Standard          | MIL 810 G |           |
|-------------------|-----------|-----------|
|                   | Method    | Procedure |
| Low Pressure      | 500.5     | I, II     |
| High Temperature  | 501.5     | I, II     |
| Low Temperature   | 502.5     | I, II     |
| Temperature Shock | 503.5     | I-C       |
| Solar Radiation   | 505.5     | I         |
| Rain Blowing/Drip | 506.5     | I, III    |
| Humidity          | 507.5     | II        |
| Salt Fog          | 509.5     | -         |
| Dust Blowing      | 510.5     | I         |
| Immersion         | 512.5     | I         |
| Vibration         | 514.6     | I         |
| Shock             | 516.6     | I, IV     |

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

| Ingress Protection Standard |                                             |
|-----------------------------|---------------------------------------------|
| Dust & Water                | IP67 (Dust-tight and waterproof protection) |