



VHF MARINE TRANSCEIVER

# IC-M90

## Commercial Grade Marine & Land Mobile Radio



**Submersible**  
1m depth for 30 minutes

### Wide LCD allows wide viewing angles

A wide viewing angle, high intensity LCD is used in the IC-M90, offering bright, easy to read characters. The LCD's contrast and backlight are adjustable in 4-levels\*. The bright LED indicator on top of the front panel shows the operating status clearly.

\* Backlight includes OFF setting.

### 100 programmable channels for land mobile use

The IC-M90 is suitable for both marine and land mobile applications. Up to 100 programmable channels are available for land mobile use (146–174MHz)\*. Each channel is programmable with CTCSS and DTCS tone signaling and wide/narrow channel bandwidth.

\* Appropriate license will be required. Ask your dealer for details.

### Built-in Voice scrambler

Built-in 32 code voice scrambler provides privacy in secret conversation. The scrambler system is compatible with the UT-112.

### Optional VOX (Voice Operated Transmit) headset

With one of Icom's optional headsets\* and the OPC-1392, the IC-M90 offers hands-free operation. \* See Options listed on back.

### Submersible speaker microphone, HM-125\*

\* Optional, equivalent to IPX7.  
(1m depth for 30 minutes)

### Tough and submersible for heavy-duty use

The IC-M90 is a submersible (IPX7\*), reliable, commercial grade radio. It's simple, yet rugged construction has a polycarbonate casing with an insert-type battery to prevent water intrusion. A newly developed "speed water removal" system removes water from the speaker grill to prevent distortion in received audio.

\* Equivalent to IPX7 of the corresponding International Standard IEC 60529 (2001). 1m depth for 30 minutes.

### Long wear printed buttons

Clearly labeled large buttons and positive button action allows for operation in all conditions, even when wearing heavy gloves. The transparent buttons are printed from behind (not on top), so the operating label on the keypad will never be erased under hard use over many years.

**Icom Inc.**

## Additional features

- Auto WX scan and WX Alert function
- Instant access to Ch. 16 and Ch. 9 (or call channel)
- Simple add/delete TAG scanning operation
- Monitor button and squelch shift function
- Automatic scan function
- 2 step power saver
- Battery indicator shows remaining battery power in 4 levels
- Beep sound is programmable for each button

## SPECIFICATIONS

### GENERAL

- Frequency range :
  - Marine Tx 156.025–157.425MHz
  - Rx 156.050–163.275MHz
  - LMR Tx/Rx 146.000–174.000MHz
- Usable channels\* : USA, INT, CAN, WX channels; 100 programmable channels
- Channel spacing :
  - Marine 25kHz
  - LMR 25/12.5kHz
- PLL channel step (LMR) : 5/6.25/7.5kHz
- Current drain (at 7.5V DC) :
  - Tx 5W output 1.6A typical
  - Rx AF max. 200mA typical
- Operating temperature range :
  - Marine –20°C to +60°C; –4°F to +140°F
  - LMR –30°C to +60°C; –22°F to +140°F
- Antenna impedance : 50Ω (SMA)
- Dimensions (W×H×D) : 65×145×44 mm; (projections not included) 2<sup>9</sup>/<sub>16</sub>×5<sup>23</sup>/<sub>32</sub>×1<sup>23</sup>/<sub>32</sub> in
- Weight (approx.) : 410g; 14.5oz (with BP-225)

### TRANSMITTER

- Output power (Hi/Mid/Low) : 5/3/1W
- Max. frequency deviation :
  - Marine ± 5.0kHz
  - LMR (W/N) ± 5.0/2.5kHz
- Frequency error : ± 5.0ppm
- Spurious emissions : –70dBc typical
- Adjacent channel power :
  - Marine 70dB
  - LMR (Wide/Narrow) 70/60dB
- Hum and noise ratio :
  - Marine 40dB
  - LMR (Wide/Narrow) 40/34dB
- Audio harmonic distortion : Less than 10% (at 60% mod.)

### RECEIVER

- Sensitivity : 0.25μV typical (12dB SINAD)
- Squelch sensitivity : 0.35μV typical (at threshold)
- Adjacent channel selectivity :
  - Marine 70dB typical
  - LMR (Wide/Narrow) 70/60dB typical
- Spurious response : 70dB typical
- Intermodulation rejection : 70dB typical
- Hum and noise ratio :
  - Marine 40dB
  - LMR (Wide/Narrow) 40/34dB
- Audio output power : 0.35W typical (at 10% distortion with an 8Ω load)

### Supplied accessories:

- Battery pack, BP-225
- AC adapter, BC-147
- Antenna, FA-S59V
- Battery charger, BC-158
- Belt clip, MB-103
- Hand strap

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

## OPTIONS

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

### BP-223 BATTERY CASE

Battery case for AA (LR6)×6 alkaline cells.

### BP-224 7.2V/750mAh Ni-Cd BATTERY PACK

BP-225 7.2V/1100mAh Ni-Cd BATTERY PACK  
Provides 7, 10 hours operating time\* respectively (approx. at 5 Watts).

\* Tx (Hi); Rx: standby=5:5:90

### BC-158 DESKTOP CHARGER

#### + BC-147A AC ADAPTER

Regularly charges the BP-225 in 12–18 hours. Same as supplied.

### BC-119N DESKTOP CHARGER

#### + AD-109 CHARGER ADAPTER

#### + BC-145A AC ADAPTER

For rapid charging of battery pack. Charges the BP-225 2.2–2.8 hours.

### BC-121N MULTI-CHARGER

#### + AD-109 CHARGER ADAPTER

#### + BC-124 AC ADAPTER

For rapid charging of up to 6 battery packs (Six AD-109s are required). Charges the BP-225 2.2–2.8 hours.

### CP-17L CIGARETTE LIGHTER CABLE WITH NOISE FILTER

### OPC-515L DC POWER CABLE

For use with the BC-119N or BC-158 with an external DC power supply. (12–16 V DC required)

### OPC-656 DC POWER CABLE

For use with the BC-121N with a DC power supply. (12–16V DC required)

### MB-86 SWIVEL BELT CLIP

MB-103 BELT CLIP : Alligator type.

### HM-125 SPEAKER-MICROPHONE

Full sized, submersible construction corresponds to IPX7 (1 m depth /30 min.).

### HS-94 EARPHONE-HEAD HEADSET

### HS-95 BEHIND-THE-HEAD HEADSET

### HS-97 THROAT MICROPHONE

+ OPC-1392 HEADSET ADAPTER CABLE  
For VOX hands-free operation. These headsets are not waterproof.



## Icom Inc.

1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013 URL: <http://www.icom.co.jp/world/index.html>

## Count on us!

### Icom America Inc.

2380 116th Avenue N.E., Bellevue, WA 98004, U.S.A.  
Phone: +1 (425) 454-8155  
Fax: +1 (425) 454-1509  
E-mail: [sales@icomamerica.com](mailto:sales@icomamerica.com)  
URL: <http://www.icomamerica.com>  
<Customer Service> Phone: +1 (425) 454-7619

### Icom Canada

Glenwood Centre #150-6165 Highway 17, Delta, B.C., V4K 5B8, Canada  
Phone: +1 (604) 952-4266  
Fax: +1 (604) 952-0090  
E-mail: [info@icomcanada.com](mailto:info@icomcanada.com)  
URL: <http://www.icomcanada.com>

### Icom (Australia) Pty. Ltd.

A.B.N. 88 006 092 575  
290-294 Albert Street, Brunswick, Victoria, 3056, Australia  
Phone: +61 (03) 9387 0666  
Fax: +61 (03) 9387 0022  
E-mail: [sales@icom.net.au](mailto:sales@icom.net.au)  
URL: <http://www.icom.net.au>

### Icom New Zealand

146A Harris Road, East Tamaki, Auckland, New Zealand  
Phone: +64 (09) 274 4062  
Fax: +64 (09) 274 4708  
E-mail: [inquiries@icom.co.nz](mailto:inquiries@icom.co.nz)  
URL: <http://www.icom.co.nz>

### Icom (Europe) GmbH

Communication Equipment  
Himmelgeister Str. 100,  
D-40225 Düsseldorf, Germany  
Phone: +49 (0211) 346047  
Fax: +49 (0211) 333639  
E-mail: [info@icomeurope.com](mailto:info@icomeurope.com)  
URL: <http://www.icomeurope.com>

### Icom Spain S.L.

Crta. de Gracia a Manresa Km. 14,750  
08190 Sant Cugat del Valles Barcelona, Spain  
Phone: +34 (93) 590 26 70  
Fax: +34 (93) 589 04 46  
E-mail: [icom@icomspain.com](mailto:icom@icomspain.com)  
URL: <http://www.icomspain.com>

### Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay, Kent, CT6 8LD, U.K.  
Phone: +44 (01227) 741741  
Fax: +44 (01227) 741742  
E-mail: [info@icomuk.co.uk](mailto:info@icomuk.co.uk)  
URL: <http://www.icomuk.co.uk>

### Icom France S.a

Zac de la Plaine, 1,  
Rue Brindejone des Moulinais BP 5804,  
31505 Toulouse Cedex, France  
Phone: +33 (5) 61 36 03 03  
Fax: +33 (5) 61 36 03 00  
E-mail: [icom@icom-france.com](mailto:icom@icom-france.com)  
URL: <http://www.icom-france.com>

### Icom Polska

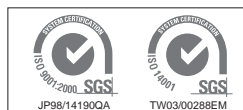
Sopot, 3 maja 54, Poland  
Phone: +48 (58) 550 7135  
Fax: +48 (58) 551 0484  
E-mail: [icompolska@icompolska.com.pl](mailto:icompolska@icompolska.com.pl)  
URL: <http://www.icompolska.com.pl>

### Asia Icom Inc.

1305, Wanshang Plaza, Sec. 1 Cheng-Teh Road, Taipei, Taiwan, R.O.C.  
Phone: +886 (02) 2559 1899  
Fax: +886 (02) 2559 1874  
E-mail: [sales@asia-icom.com](mailto:sales@asia-icom.com)  
URL: <http://www.asia-icom.com>

### Beijing Icom Ltd.

1305, Wanshang Plaza, Shijingshan Road, Beijing, China  
Phone: +86 (010) 6866 6337  
Fax: +86 (010) 6866 3553  
E-mail: [bjicom.com](mailto:bjicom.com)  
URL: <http://www.bjicom.com>



Icom Inc. (Japan), is an ISO 9001 and ISO 14001 certification acquired company.

Your local distributor/dealer:

## Point electronics

A- 1060 Wien, Stumpergasse 41 - 43

Tel.: +43/ 1/ 597 08 80/0

FAX: +43/ 1/ 597 08 80/ 40

[www.point.at](http://www.point.at) [www.icom.at](http://www.icom.at)  
[mail@point.at](mailto:mail@point.at)