

 ICOM

VHF MARINE TRANSCEIVER

# IC-M87



## Not Just Another Marine Radio!

### Tough, waterproof construction

The IC-M87 is built tough to withstand hazardous and inhospitable environments at sea and on land. Even if the IC-M87 is dropped into water, complete waterproof will protect it from harm. The compact and durable body also meets military specifications (MIL-STD).

\* Equivalent to JIS Grade 7 or IPX7 of the corresponding International Standard IEC 529 (1989). (1m depth for 30 minutes)

### Simple operation

6 clearly labelled buttons on the front panel and the volume/power knob maximize simplicity of operation. Even when wearing gloves, the large buttons are easy to operate. A large, clear LCD with backlighting and backlit buttons make night time operation simple.

### Li-Ion battery for extra long battery life

With the standard 1700mAh Li-Ion battery pack, BP-227, you can get up to 15 hours of operating time\* without worrying about 'memory effect' of the battery. An optional AA alkaline battery case, BP-226, provides a convenient back up and great reassurance in an emergency.

\* Typical operation; Tx:Rx:Stand-by duty ratio = 5:5:90

### Waterproof speaker-microphone, HM-138

An optional waterproof speaker-microphone, HM-138, provides reliable operation, allowing you to wear the IC-M87 on your belt for added portable convenience.

### Powerful 5 Watts output power

The 5 Watts of output power ensures the reliability of your communication, even over long distances with the standard battery pack. To save on battery consumption, you can reduce the output power to 3 Watts or 1Watt.

### 22 programmable channels for PMR use

The IC-M87 has 22 free channels reserved for PMR 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.

### Desktop charger supplied

The BC-152 desktop charger is a simple drop-in charger. Set the charger on a table or mount it to a wall.



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## ADDITIONAL FEATURES

- Simple Up/Down switches for operating channel selection
- Instant access to Ch. 16 and call channel
- Simple add/delete TAG scanning operation
- Monitor button opens squelch
- Automatic scan function
- 2 step power saver
- Key lock function
- Battery indicator shows remaining battery power in 4 levels
- Beep sound is programmable for each button
- The self check function checks internal temperature, connected battery voltage (over voltage detection), and water intrusion

## SPECIFICATIONS

## GENERAL

- Frequency range
  - Marine Tx 156.000-161.450MHz
  - Rx 156.000-163.425MHz
  - PMR Tx/Rx 146.000-174.000MHz
- Usable channels\* : INT. U.S.A. channels  
\*Varies according to version. 22 PMR channels
- Channel spacing
  - Marine 25kHz
  - PMR 25/12.5kHz, 20/12.5kHz
- PLL channel step (PMR) : 5/6.25/7.5kHz
- Current drain (at 7.2V DC) :
  - Tx (at 5W output) 1.6A
  - Rx (at AF max.) 200mA
- Operating temp. range (except UP-227) :
  - Marine -15°C to +55°C
  - PMR -25°C to +55°C
- Antenna impedance : 50Ω (SMA)
- Dimensions (WxHxD) : 82x97x39 mm (projections not included)
- Weight (approx.) : 280g (with BP-227)

## TRANSMITTER

- Output power (Hi/Mid/Low) : 5/3/1W
- FRG version Marine 1/0.5W
- PMR 5/3/1W
- Max. frequency deviation :
  - Marine ±5.0kHz
  - PMR (25/20/12.5kHz) ±5.0/4.0/2.5kHz
- Audio harmonic distortion : Less than 10% at 60% mod.
- Spurious emissions : 0.25μW (below 2GHz)
- Adjacent channel power :
  - Marine 70dB
  - PMR (wide/narrow) 70/60dB
- Residual modulation :
  - Marine 40dB
  - PMR (wide/narrow) 40/34dB

## RECEIVER

- Sensitivity (at 20dB SINAD, only) :
  - Marine -20dBμ typical
  - PMR -40dBμ typical
- Squelch sensitivity (em) : ±0dBμ typical (at threshold)
- Adjacent Ch. selectivity :
  - Marine 70dB
  - PMR (wide/narrow) 70/60dB

- Spurious response : 70dB
- Intermodulation rejection :
  - Marine 60dB
  - PMR 85dB
- Hum and noise ratio :
  - Marine 40dB
  - PMR (wide/narrow) 40/34dB
- Audio output power (at 10% dist. with an 8Ω load) :
  - Marine 0.2W
  - PMR 0.35W

## Applicable U.S. Military Specifications

Standard	MIL-STD-883C	MIL-STD-883C	MIL-STD-883C	MIL-STD-883C
Method	Method	Method	Method	Method
Proc.	Proc.	Proc.	Proc.	Proc.
Low Pressure	500.1	500.2	500.3	500.4
High Temp.	501.1	501.2	501.3	501.4
Low Temp.	502.1	502.2	502.3	502.4
Temp. Shock	503.1	503.2	503.3	503.4
Shock	505.1	505.2	505.3	505.4
Humidity	507.1	507.2	507.3	507.4
Falt Fog	508.1	508.2	508.3	508.4
Dust	510.1	510.2	510.3	510.4
Vibration	514.2	514.3	514.4	514.5
Shock	515.2	515.3	515.4	515.5

## Supplied accessories:

- Battery pack
- Battery charger
- AC adapter\*
- Swivel belt clip
- Antenna, FA-859V
- Hand strap
- (\*Varies according to version.)

## OPTIONS

## BP-226 BATTERY CASE

Battery case for AA (R6) 5 alkaline cells.

## BP-227 LI-ION BATTERY PACK

7.2V/1700mAh Li-Ion battery pack. Provides 15 hours operating time\* (approx. at 5 Watts). The same as that supplied. Operating temp. range: -20°C to +60°C

\*Tx duty for standby: 5-90

## BC-152 DESKTOP CHARGER

## + BC-147A/E AC ADAPTER

Regularly charges the BP-227 in 9-10 hours. The same as that supplied.

## BC-119N DESKTOP CHARGER

## - AD-100 CHARGER ADAPTER

## - BC-145A/E/V/UK AC ADAPTER

For rapid charging of battery pack. An AC adapter is supplied depending on version. Charging time: 2-3 hours.

## BC-121N MULTI-CHARGER

## - AD-100 CHARGER ADAPTER

## - BC-124 AC ADAPTER

For rapid charging of up to 6 battery packs (5x AD-100s are required). Charging time: 2-3 hours.

## CP-17L CIGARETTE LIGHTER

## CABLE WITH NOISE FILTER

## OPC-515L DC POWER CABLE

For use with the battery charger, BC-152 or BC-119N, instead of the AC adapter. (12-18 V DC required)

## OPC-656 1X DC POWER CABLE

For use with the BC-121N with a DC power supply. (12-18V DC required)

## HM-138 SPEAKER-MICROPHONE

Full sized, waterproof construction equivalent to JIS grade 7 (110x30 mm).

## MB-86 SWIVEL BELT CLIP

Swivel belt clip. Prevents accidental dropping from your belt. The same as that supplied.

## MB-98 BELT CLIP

Alligator type belt clip.

## MB-96N LEATHER BELT HANGER

Swivel type belt hanger.

## MB-96F LEATHER BELT HANGER

Fixed type belt hanger for use with MB-98.



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