

## IC-M85UL

**VHF MARINE TRANSCEIVER** 

## **Ultra Compact Intrinsically Safe Radio** with 5 Watt Power Output

5 W output power for hazardous locations approved by UL

\* Land mobile channels for the USA version: 2 W

Intrinsically safe: Class I, Division 1, Groups C, D;

Class II, Division 1, Groups E, F, G;

Class III. T3C.

Class I, Division 2, Groups A, B, C, D Non-incendive:

ANSI/TIA-4950-B, ANSI/UL 121201

\* When used with Icom BP-292UL battery pack

\* Ambient temperature: -20°C to +60°C

Compact and lightweight commercial grade marine and land mobile hybrid radio

Covering 136-174 MHz land mobile frequency, in addition to VHF marine channels

**700 mW powerful audio provides clear communications** 

**Abundant Emergency Functions; Man Over Board,** Man Down, and Lone Worker Alarms

Easy switch between channel groups (Marine ⇔ LMR) with a programmable multi-function button on the top panel

IP67 and MIL-STD-810G rugged construction

AquaQuake™ prevents audio degradation from a water-logged speaker

11 hours of long-lasting operating time (with BP-292UL, TX: RX: Standby = 5 : 5 : 90)

Optional speaker-microphone, HM-184UL



IC-M85UL



#### **OPTIONS**



**BP-292UL** Rechargeable Li-ion battery 1910 mAh (min.) 2010 mAh (typ.)

# DESKTOP CHARGER



BC-123S\*2 Charges the BP-292UL in 2.7 hours. (approx.)

### CONNECTABLE TYPE CHARGER



Charges the BP-292UL in 2.7 hours. (approx.)



Connects up to six BC-226 units

\*1 The battery charger must not be used in an explosive atmosphere

\*2 SE for Europe plug. SA for USA plug.















The IC-M85UL should only be used with the specified Intrinsically Safe approved options. DO NOT use the transceiver with any other equipment other than the above options.

#### Supplied accessories:

- BP-292UL, battery pack
- BC-227, desktop charger
- MBB-3, Belt clip
- BC-123SA/SE\*, AC adapter
- Hand strap
- FA-SC58V, antenna MBB\* May differ, depending on transceiver version.

### **SPECIFICATIONS**

			IC-M85UL		
GENERAL			Marine channels	LMR channels	
Frequency coverage		TX RX	156.025–157.425 MHz 156.050–163.275 MHz	136.000–174.000 MHz	
Usable channel groups, Number of channels			INT, USA*, CAN, WX* channels (* Varies according to version)	100 LMR channels	
Type of emissions (Channel spacing)		USA	16K0G3E (25 kHz)	11K0F3E (12.5 kHz)	
		EXP	16K0G3E (25 kHz)	16K0F3E (25 kHz) 11K0F3E (12.5 kHz)	
Power supply r	equ	irement	7.2 V DC nominal		
Current drain	TX	USA	1.5 A (at 5 W)	0.9 A (at 2 W) 1.5 A (at 5 W)	
(approximate)	RX Max. audio		0.45 A		
Antenna impe	dar	nce	50 Ω		
Operating temp	oera	ture	–20 °C to +60 °C, –4 °F to +140 °F	–30 °C to +60 °C, –22 °F to +140 °F	
Dimensions (W×H×D) (Projections not included)			$56 \times 92 \times 34.1 \text{ mm}, 2.2 \times 3.6 \times 1.3 \text{ in (With BP-292UL)}$		
Weight (approximate)			285 g, 10.1 oz (with BP-292UL, FA-SC58V and MBB-3)		
TRANSMITTE	₽R				
Output power (at 7.2 V DC)		USA EXP	5/3/1 W	2/1 W 5/3/1 W	
Max. frequency deviation			±5.0 kHz	±5.0 kHz (Wide) ±2.5 kHz (Narrow)	
Frequency stability			±5.0 ppm		
Spurious emissions			-70 dBc typical		
Hum and noise			40 dB	40 dB (Wide) 34 dB (Narrow)	
Audio harmon	ic c	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) 55 dB typical (Narrow)	
Spurious response			70 dB typical		
Intermodulation			70 dB typical		
Hum and noise			40 dB	40 dB (Wide), 34 dB (Narrow)	
Audio output Internal SP power External SP			700 mW typical (at 10% distortion with 12 Ω load) 700 mW (at 10% distortion with 8 Ω load)		
			ance with TIA/FIA-603	,	

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		
Stanuaru	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)

#### Read all instructions enclosed with the transceiver carefully and completely before using the transceiver.

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Your local distributor/dealer:

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