ICOM

VHF MARINE TRANSCEIVER

IC-M90E

Icom Inc.

IN CASE OF EMERGENCY

If your vessel requires assistance, contact other vessels and the Coast Guard by sending a distress call on Channel 16.
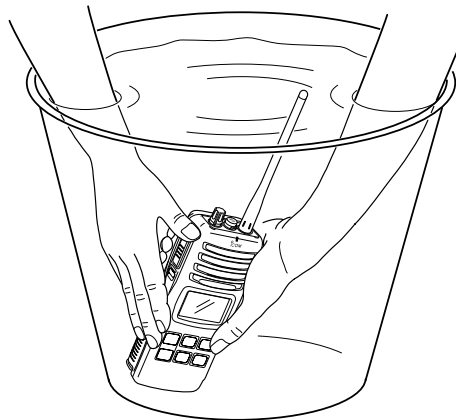
❍ *USING CHANNEL 16*

DISTRESS CALL PROCEDURE

1. "MAYDAY MAYDAY MAYDAY."

2. "THIS IS ...." (name of vessel)

3. Your call sign or other indication of the vessel.

4. "LOCATED AT .... " (your position)

5. The nature of the distress and assistance required.

6. Any other information which might facilitate the rescue.

RECOMMENDATION

CLEAN THE TRANSCEIVER THOROUGHLY WITH FRESH WATER after exposure to saltwater, and dry it before operation. Otherwise, the transceiver's keys, switches and controllers may become inoperable due to salt crystallization.

NOTE: DO NOT wash the transceiver in water if there is any reason to suspect the waterproofing may not be effective.
For example, in cases where the battery pack rubber seal is damaged, the transceiver/battery pack is cracked or broken, or has been dropped, or when the battery pack is detached from the transceiver.

FOREWORD

Thank you for purchasing this Icom radio. The IC-M90E VHF MARINE TRANSCEIVER is designed and built with Icom's state of the art technology and craftsmanship. With proper care this product should provide you with years of trouble-free operation.

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS INSTRUCTION MANUAL—This instruction manual contains important operating instructions for the IC-M90E.

EXPLICIT DEFINITIONS

WORD	DEFINITION
⚠DANGER	Personal death, serious injury or an explosion may occur.
⚠WARNING	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

FEATURES

☞ **Waterproof construction**
Built tough to withstand the punishing marine environment, the transceiver's submersible construction meets IPX7* requirements for waterproof protection (1 meter depth for 30 min.).
In addition to, the speaker grill adopts a new structure which drains water or seawater easily.
* Only when the battery pack and flexible antenna are attached.

☞ **Dualwatch and tri-watch functions**
Convenient functions which allow you to monitor the distress channel (Ch 16) while receiving one other channel of your choice (dualwatch), or while receiving one other channel of your choice and the call channel (tri-watch). See p. 14 for details.

☞ **Large, easy-to-read LCD**
With dimensions of 19(H) × 35(W) mm, the transceiver's function display is easy to read and shows operating conditions at a glance. Backlighting and contrast can be adjusted to suit your preferences.

☞ **Simple operation**
6 large buttons on the front panel provide user-friendly operation. The independent volume and channel buttons are located on the front panel for convenient one-handed operation.

PRECAUTION

⚠ **WARNING! NEVER** connect the transceiver to an AC outlet. This may pose a fire hazard or result in an electric shock.

⚠ **WARNING! NEVER** hold the transceiver so that the antenna is closer than 2.5 cm from exposed parts of the body, especially the face or eyes, while transmitting. The transceiver will perform best if the microphone is 5 to 10 cm away from the lips and the transceiver is vertical.

NEVER connect the transceiver to a power source other than the BP-223 or BP-252. Such a connection will ruin the transceiver.

DO NOT use or place the transceiver in direct sunlight or in areas with temperatures below −15°C or above +55°C : MARINE, −25°C or above +55°C : PMR.

KEEP the transceiver out of the reach of children.

KEEP the transceiver at least 0.9 meters away from your vessel's magnetic navigation compass.

MAKE SURE the flexible antenna and battery pack are securely attached to the transceiver, and that the antenna and battery pack are dry before attachment. Exposing the inside of the transceiver to water will result in serious damage to the transceiver.

BE CAREFUL! The transceiver meets IPX7* requirements for waterproof protection. However, once the transceiver has been dropped, waterproof protection cannot be guaranteed because of possible damage to the transceiver's case or the waterproof seal.

* Only when the battery pack and flexible antenna are attached.

Icom optional equipment are designed for optimal performance when used with this transceiver. We are not responsible for the transceiver being damaged or any accident caused when using non-Icom optional equipment.

TABLE OF CONTENTS

1 OPERATING RULES

◇ **Priorities**
• Read all rules and regulations pertaining to priorities and keep an up-to-date copy handy. Safety and distress calls take priority over all others.

• You must monitor Channel 16 when you are not operating on another channel.

• False or fraudulent distress calls are prohibited under law.

◇ **Privacy**
• Information overheard but not intended for you cannot lawfully be used in any way.

• Indecent or profane language is prohibited.

◇ **Radio licenses**
(1) SHIP STATION LICENSE
When your craft is equipped with a VHF FM transceiver, you must have a current radio station license before using the transceiver. It is unlawful to operate a ship station which is not licensed.

Inquire through your dealer or the appropriate government agency for a Ship-Radiotelephone license. This license includes the call sign which is your craft's identification for radio purposes.

(2) OPERATOR'S LICENSE
A restricted Radiotelephone Operator Permit is the license most often held by small vessel radio operators when a radio is not required for safety purposes.

The Restricted Radiotelephone Operator Permit must be posted near the transceiver or be kept with the operator. Only a licensed radio operator may operate a transceiver.

However, non-licensed individuals may talk over a transceiver if a licensed operator starts, supervises, ends the call and makes the necessary log entries.

A current copy of the applicable government rules and regulations is only required to be on hand for vessels in which a radio telephone is compulsory. However, even if you are not required to have these on hand it is your responsibility to be thoroughly acquainted with all pertinent rules and regulations.

SUPPLIED ACCESSORIES AND ATTACHMENTS

■ Supplied accessories

The following accessories are supplied: Qty.
• Handstrap 1
• Belt clip 1
• Battery pack 1
• Battery charger (with 2 screws)* 1
• AC adapter* 1
• Flexible antenna 1
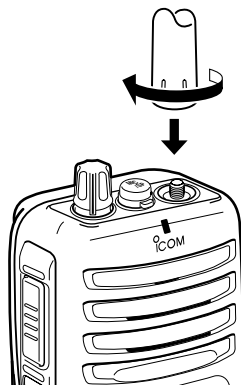 *Not supplied with some version.

■ Attachments

◇ Flexible antenna

Connect the supplied flexible an-
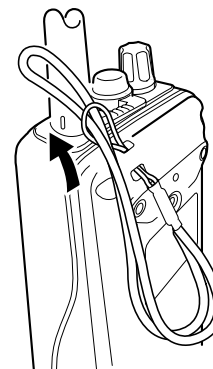tenna to the antenna connector.

CAUTION:
• **NEVER** carry the transceiver
  by holding the antenna.
• Transmitting without an an-
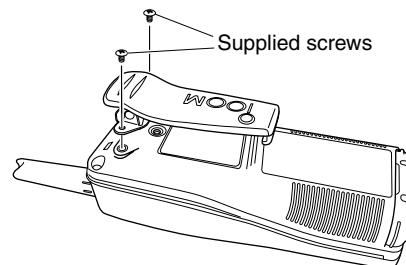 tenna may damage the trans-
  ceiver.

◇ Handstrap

Pass the handstrap through the
loop on the top of the transceiver
as illustrated at right. Facilitates
carrying.

◇ Belt clip

Attach the belt clip to the transceiver as illustrated below.

Supplied screws

◊ Battery pack

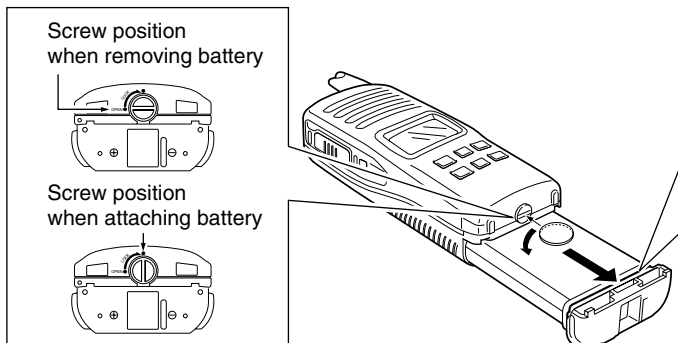*To remove the battery pack:*
Turn the screw counterclockwise, then pull the battery pack in the direction of the arrow as shown below.

To attach the battery pack:
Insert the battery pack in the IC-M90E completely, then turn the screw clockwise.

NEVER remove or insert the battery pack when the transceiver is wet or soiled. This may result water or dust getting into the transceiver/battery pack and may result in the transceiver being damaged.

NOTE: When the lock screw does not easily (feels tight), check to ensure the battery pack is sufficiently inserted to the transceiver. **DO NOT** bang or cause high impact to the battery pack, as this may damage the battery pack/or the transceiver.

NOTE: When removing or attaching the battery pack, use a coin or flat-blade screwdriver to loosen or tighten the bottom screw.
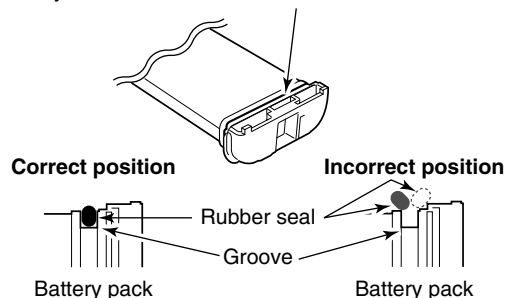
CAUTION:
When attaching or removing a battery pack, make sure the rubber seal is set in the groove of the battery pack correctly. If the seal is not neatly in the groove it may be damaged when attaching the battery pack.
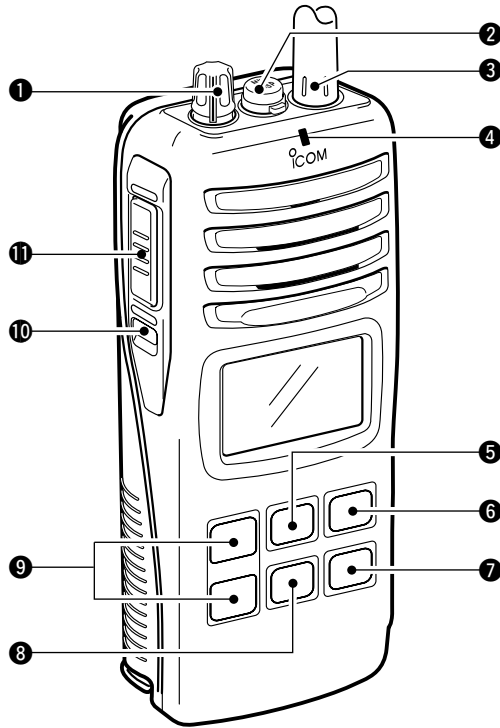If the seal is damaged, waterproofing is not guaranteed.

NOTE:
When attaching a battery pack, make sure dust or else does not adhere to the rubber seal. If dust or else is on the seal when attaching a battery pack, the water resistant may be reduced.

Make sure both the rubber seal (purple) is set to the groove correctly and dust or else does not adhere to it.

Screw position when removing battery

Screw position when attaching battery

Correct position　　　**Incorrect position**

Rubber seal

Groove

Battery pack　　　　Battery pack

■ Front, top and side panels

q **VOLUME CONTROL [VOL]**
Turns power ON and adjusts the audio level.

w **MICROPHONE CONNECTOR [MIC/SP]**
Connects the optional external microphone.
NOTE: Attach the [MIC/SP] cap when the optional speaker-microphone is not used.

e **ANTENNA CONNECTOR**
Connects the supplied antenna.

r **TRANSMIT/RECEIVE INDICATOR**
Lights green while receiving a signal or when the squelch is open; lights red while transmitting; lights orange while the VOX function is used.

t **DIAL/CHANNEL GROUP KEY [DIAL]**
• Selects one of 3 regular channels in sequence when pushed for 1 sec. (pgs. 8, 15)
 - U.S.A.*[1] (or ATIS*[2]), International and LAND (PMR) channels are available.
  *[1]U.K. version only.
  *[2]German version only.
• Push to return to the condition before selecting the channel when the priority channel or the call channel is selected.

y **SCAN KEY [SCAN•DUAL]**
• Starts and stops normal or priority scan when pushed. (pgs. 12, 13)
• Enters watch mode when pushed for 1 sec. (p. 14)

Count on us!

< Intended Country of Use >

☐ GER ☐ FRA ☐ ESP ☐ SWE
☐ AUT ☐ NED ☐ POR ☐ DEN
☐ GBR ☐ BEL ☐ ITA ☐ FIN
☐ IRL ☐ LUX ☐ GRE ☐ SUI
☐ NOR