



## INSTRUCTION MANUAL

# VHF/UHF FM TRANSCEIVER **IC-208H**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



**Icom Inc.**

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## FOREWORD

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Thank you for purchasing this Icom product. The IC-208H VHF/UHF FM 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.

We want to take a couple of moments of your time to thank you for making your IC-208H your radio of choice, and hope you agree with Icom's philosophy of "technology first." Many hours of research and development went into the design of your IC-208H.

### ◆ **FEATURES**

- *Switchable VHF and UHF transceiver*
- *Selectable backlit color from amber, green and yellow*
- *Detachable controller for flexible installation*
- *55 W\* of high transmit output power*  
\*VHF band; 50 W for UHF and Korean version, 25 W for Taiwan version
- *Remote control microphone standard*
- *New DMS (Dynamic Memory Scan) system*

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## IMPORTANT

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**READ ALL INSTRUCTIONS** carefully and completely before using the transceiver.

**SAVE THIS INSTRUCTION MANUAL—** This instruction manual contains important operating instructions for the IC-208H.

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## EXPLICIT DEFINITIONS

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WORD	DEFINITION
 <b>WARNING!</b>	Personal injury, fire hazard or electric shock may occur.
<b>CAUTION</b>	Equipment damage may occur.
<b>NOTE</b>	Recommended for optimum use. No risk of personal injury, fire or electric shock.

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## PRECAUTION

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**⚠ WARNING RF EXPOSURE!** This device emits Radio Frequency (RF) energy. Extreme caution should be observed when operating this device. If you have any questions regarding RF exposure and safety standards please refer to the Federal Communications Commission Office of Engineering and Technology's report on Evaluating Compliance with FCC Guidelines for Human Radio frequency Electromagnetic Fields (OET Bulletin 65).

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

**⚠ WARNING! NEVER** operate the transceiver while driving a vehicle. Safe driving requires your full attention—anything less may result in an accident.

**NEVER** connect the transceiver to a power source of more than 16 V DC. This will damage the transceiver.

**NEVER** connect the transceiver to a power source using reverse polarity. This will damage the transceiver.

**NEVER** cut the DC power cable between the DC plug and fuse holder. If an incorrect connection is made after cutting, the transceiver may be damaged.

**NEVER** expose the transceiver to rain, snow or any liquids. The transceiver may be damaged.

**NEVER** operate or touch the transceiver with wet hands. This may result in an electric shock or damage the transceiver.

**NEVER** place the transceiver where normal operation of the vehicle may be hindered or where it could cause bodily injury.

**NEVER** let objects impede the operation of the cooling fan on the rear panel.

**DO NOT** push the PTT when not actually desiring to transmit.

**DO NOT** allow children to play with any radio equipment containing a transmitter.

During mobile operation, **DO NOT** operate the transceiver without running the vehicle's engine. When the transceiver's power is ON and your vehicle's engine is OFF, the vehicle's battery will soon become exhausted.

**AVOID** using or placing the transceiver in direct sunlight or in areas with temperatures below  $-10^{\circ}\text{C}$  ( $+14^{\circ}\text{F}$ ) or above  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ).

**BE CAREFUL!** The transceiver will become hot when operating it continuously for long periods.

**AVOID** setting the transceiver in a place without adequate ventilation. Heat dissipation may be affected, and the transceiver may be damaged.

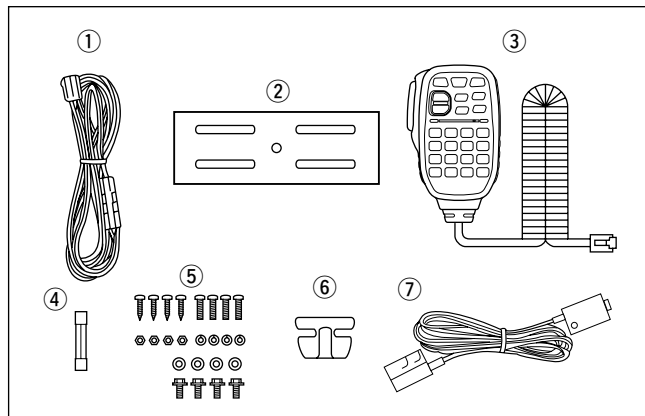
**AVOID** the use of chemical agents such as benzine or alcohol when cleaning, as they can damage the transceiver's surfaces.

**USE** Icom microphones only (supplied or optional). Other manufacturer's microphones have different pin assignments and may damage the transceiver if attached.

*For U.S.A. only*

**CAUTION:** Changes or modifications to this device, not expressly approved by Icom Inc., could void your authority to operate this device under FCC regulations.

## SUPPLIED ACCESSORIES



- ① DC power cable (3 m) ..... 1
- ② Mobile mounting bracket ..... 1
- ③ Microphone (HM-133)\* ..... 1
- ④ Fuse (20 A) ..... 1
- ⑤ Mounting screws, nuts and washers ..... 1 set
- ⑥ Microphone hanger ..... 1
- ⑦ Separation cable† (3.5 m; 11.5 ft) ..... 1

\*HM-118N HAND MICROPHONE or HM-118TN/TAN DTMF MICROPHONE supplied versions are also available.

†A ferrite core is adapted for the USA version.

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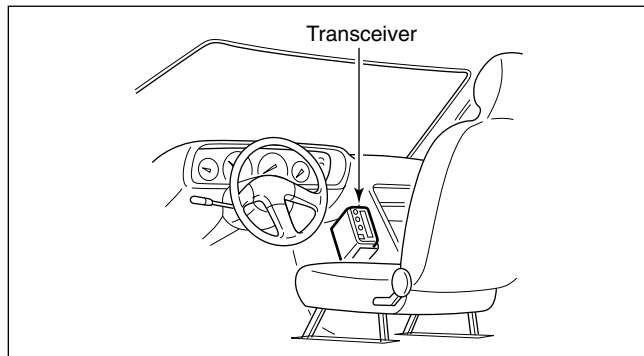
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# QUICK REFERENCE GUIDE

## ■ Installation

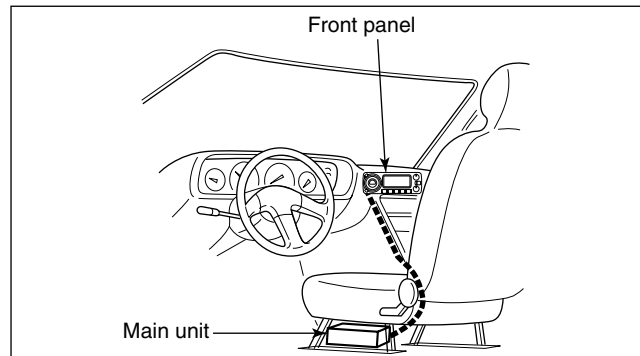
### ◇ Installation methods

#### • *Single body installation*



- The supplied mounting bracket (or optional MB-17A) can be used for the main unit installation.

#### • *Remote installation*



- The supplied OPC-600/R SEPARATION CABLE can be used for remote installation.
- Optional OPC-601/R SEPARATION CABLE (7 m; 23 ft) is available for extend installation.
- Optional MB-58 REMOTE CONTROLLER BRACKET and MB-65 MOUNTING BASE are available for increasing front panel mounting possibilities.
- Optional OPC-440 MICROPHONE CABLE (5.0 m; 16.4 ft) and OPC-647 (2.5 m; 8.2 ft) are available to extend the microphone cable.
- Optional OPC-441 SPEAKER CABLE (5.0 m; 16.4 ft) is available to extend the speaker cable.

## ◇ Location

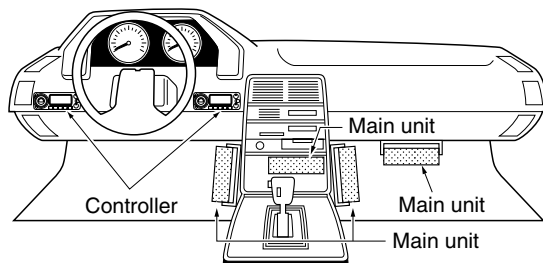
Select a location which can support the weight of the transceiver and does not interfere with driving. We recommend the locations shown in the diagram below.

**NEVER** place the transceiver or remote controller where normal operation of the vehicle may be hindered or where it could cause bodily injury.

**NEVER** place the transceiver or remote controller where air bag deployment may be obstructed.

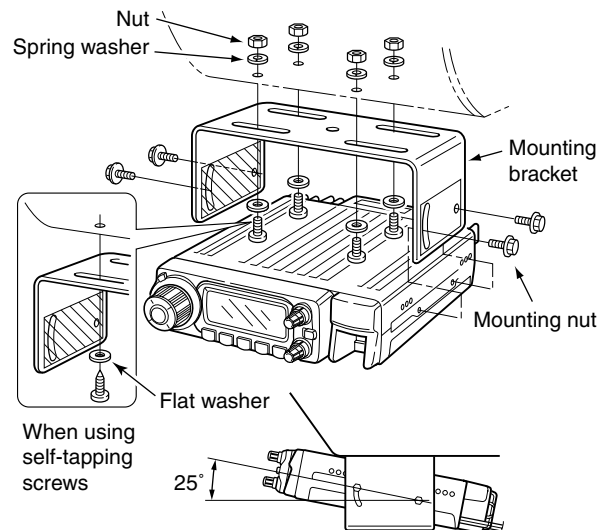
**DO NOT** place the transceiver or remote controller where hot or cold air blows directly onto it.

**AVOID** placing the transceiver or remote controller in direct sunlight.



## ◇ Using the mounting bracket

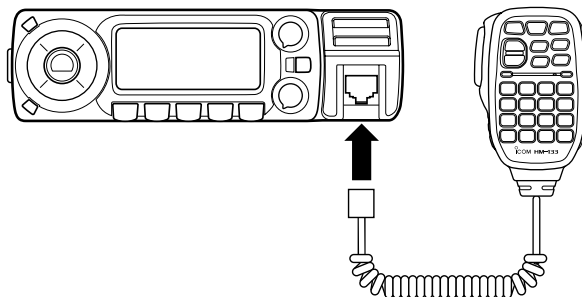
- ① Drill 4 holes where the mounting bracket is to be installed.
  - Approx. 5.5–6 mm (1/4") when using nuts; approx. 2–3 mm (1/8") when using self-tapping screws.
- ② Insert the supplied screws, nuts and washers through the mounting bracket and tighten.
- ③ Adjust the angle for your suitable position.



## QUICK REFERENCE GUIDE

### ◆ Microphone connection

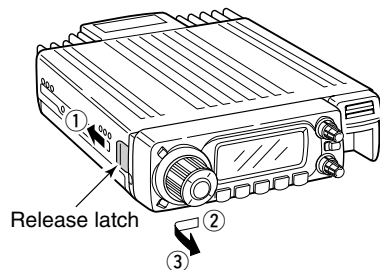
Connect the supplied microphone as illustrated below.



### ◆ Separation cable connection

Using the supplied separation cable (3.5 m; 11.5 ft) or the optional separation cable (7 m; 23 ft) the controller can be separated from the main unit, doubling as a remote controller.

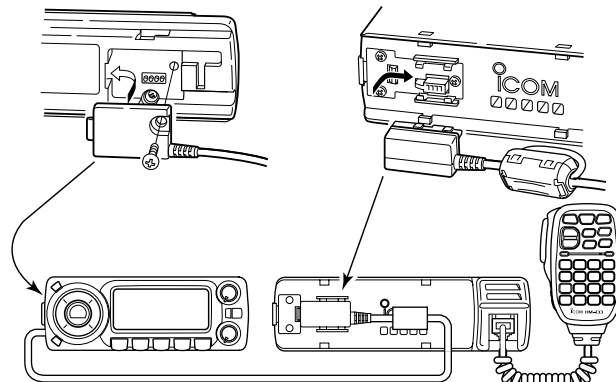
① Detach the controller as below.



② Connect a separation cable between the controller and main unit using the supplied screws as illustrated below.

• Controller's rear panel

• Main unit



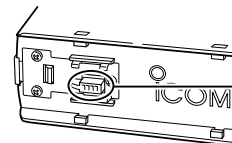
OPC-600/R or OPC-601/R

A ferrite core is adapted for the USA version.

### CAUTION!

**NEVER** short the terminals of the separation connector.

The 13.8 V power line is available in the connector, so the transceiver may damage when short circuited.



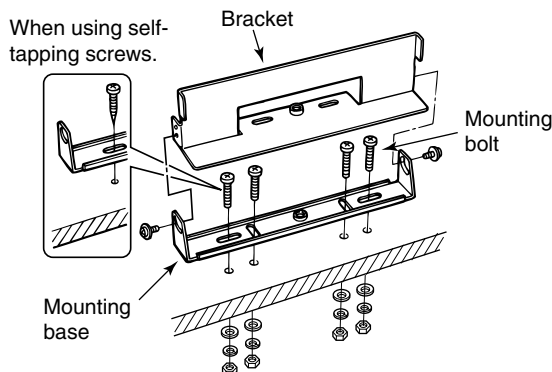
**NEVER** short the terminals



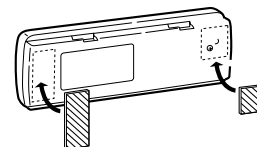
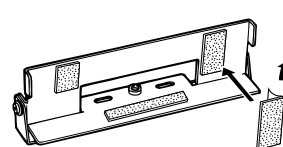
## ◆ Optional MB-58 installation

The optional MB-58 REMOTE CONTROLLER BRACKET is available for separate installation.

- ① Drill 2 or 4 holes where the bracket is to be installed.
  - Approx. 4 mm (1/8") when using nuts; approx. 1–2 mm (1/16") when using self-tapping screws.
- ② Insert the supplied screws, bolts and washers through the mounting base and tighten.
- ③ Adjust the angle for the clearest view of the function display and tighten 2 screws when the mounting base is used.

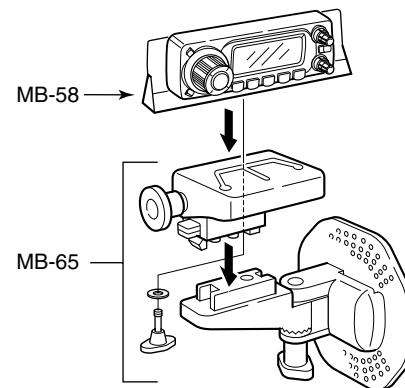


- ④ Attach the supplied Velcro pads (large) to the remote controller and bracket.
- ⑤ Attach the supplied Velcro pads (small) or rubber pad to the bracket as shown below; then attach the remote controller.



## • When using the optional MB-65

Adjust the viewing angle for maximum visibility of the function display.



## QUICK REFERENCE GUIDE

### ◇ Battery connection

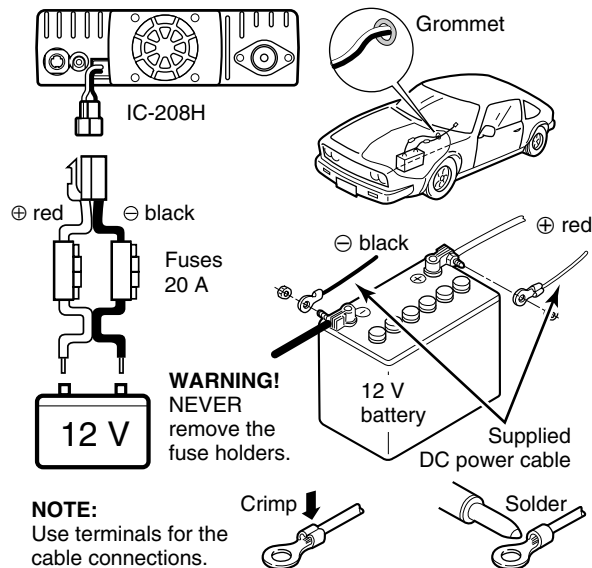
⚠ **WARNING NEVER** remove the fuse holders from the DC power cable.

⚠ **NEVER** connect the transceiver directly to a 24 V battery.

⚠ **DO NOT** use the cigarette lighter socket for power connections. (See p. 5 for details)

Attach a rubber grommet when passing the DC power cable through a metal plate to prevent a short circuit.

### • CONNECTING TO A DC POWER SOURCE

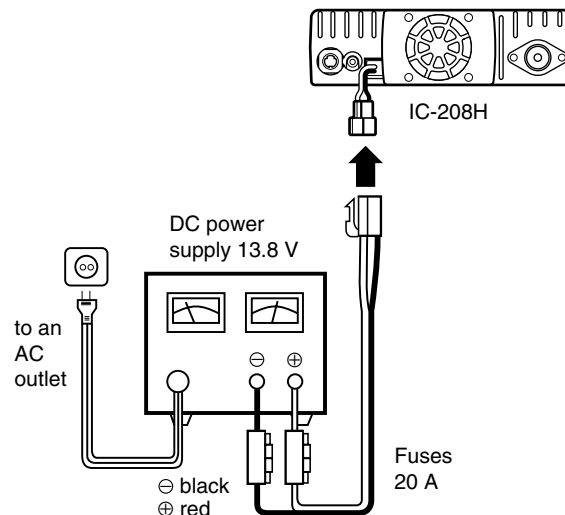


### ◇ DC power supply connection

Use a 13.8 V DC power supply with at least 15 A capacity.

Make sure the ground terminal of the DC power supply is grounded.

### • CONNECTING TO A DC POWER SUPPLY



See p. 76 for fuse replacement.

**Count on us!**

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