ICOM INSTRUCTIONS

VHF DIGITAL TRANSCEIVER

IC-F5130D

Thank you for choosing this Icom product.
READ ALL INSTRUCTIONS carefully and completely before using this product.

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- Force majeure, including, but not limited to, fires, earthquakes, storms, floods, lightning, other natural disasters, disturbances, riots, war, or radioactive contamination.
- The use of Icom transceivers with any equipment that is not manufactured or approved by Icom.

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IMPORTANT

SAVE THESE INSTRUCTIONS— This instruction sheet contains basic operating instructions for the transceiver.

This instruction sheet includes some functions that are usable only when your dealer presets them. The transceiver may have other functions and operations that are not described in this instruction sheet. Ask your dealer for preset function details.

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.

PRECAUTIONS

⚠ **DANGER HIGH RF VOLTAGE! NEVER** touch an antenna or antenna connector while transmitting. This could cause an electrical shock or burn.

⚠ **DANGER! NEVER** operate the transceiver near unshielded electrical blasting caps or in an explosive atmosphere. This could cause an explosion and death.

⚠ **DANGER! NEVER** place the transceiver where air bag deployment may be obstructed during mobile operations.

⚠ **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 during a lightning storm. It may result in an electric shock, cause a fire or damage the transceiver. Always disconnect the power source and antenna before a storm.

⚠ **WARNING! NEVER** let metal, wire, or other objects contact the transceiver inside or make incorrect contact with connectors on the rear panel. This could cause an electric shock or damage the transceiver.

⚠ **WARNING! NEVER** place the transceiver where the vehicle's normal operation may be hindered or where it could cause bodily injury.

⚠ **WARNING! NEVER** operate the transceiver if you notice an abnormal odor, sound, or smoke. Immediately turn OFF the power and remove the DC power cable. Contact your Icom dealer or distributor for advice.

⚠ **WARNING! NEVER** put the transceiver in an unstable place where the transceiver may suddenly move or fall. This could cause an injury or damage the transceiver.

CAUTION: DO NOT connect the transceiver to a power source of more than 16 V DC such as a 24 V battery. This could damage the transceiver.

CAUTION: DO NOT cut the DC power cable between the DC plug and fuse holder. If an incorrect connection is made after cutting, the transceiver might be damaged.

CAUTION: DO NOT expose the transceiver to rain, snow or any liquids. They could damage the transceiver and microphone.

CAUTION: DO NOT use the non-specified microphone. Other microphones have different pin assignments and may damage the transceiver.

CAUTION: DO NOT use the transceiver in areas with temperatures below –30°C (–22°F) or above +60°C (+140°F), or in areas subject to direct sunlight, such as the dashboard.

CAUTION: DO NOT place or leave the transceiver in excessively dusty environments. This could damage the transceiver.

CAUTION: DO NOT use harsh solvents such as Benzine or alcohol when cleaning. This could damage the equipment surfaces. If the surface becomes dusty or dirty, wipe it clean with a soft, dry cloth.

CAUTION: DO NOT reverse the DC power cable polarity. This could damage the transceiver.

NEVER place the transceiver in an insecure place to avoid inadvertent use by unauthorized persons.

NEVER operate the transceiver without running the vehicle's engine. The vehicle's battery will quickly run out when the transceiver transmits while the vehicle's engine is OFF.

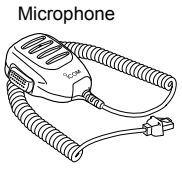
BE CAREFUL! The transceiver may become hot after continuously transmitting for long periods of time.

VOICE CODING TECHNOLOGY

The AMBE+2™ voice coding Technology embodied in this product is protected by intellectual property rights including patent rights, copyrights and trade secrets of Digital Voice Systems, Inc. This voice coding Technology is licensed solely for use within this Communications Equipment. The user of this Technology is explicitly prohibited from attempting to extract, remove, decompile, reverse engineer, or disassemble the Object Code, or in any other way convert the Object Code into a human-readable form. U.S. Patent Nos.
#8,359,197, #7,970,606, and #6,912,495 B2.

SUPPLIED ACCESSORIES

Microphone



Microphone hanger and screws (3×16 mm)



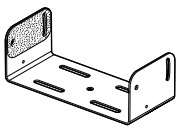
Microphone hanger cable



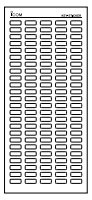
DC power cable



Mounting bracket



Function name stickers*



Bracket bolts (M4×8 mm)



Mounting screws (M5×12 mm)



Self-tapping screws (5×20 mm)



Flat washers (M5)

Spring washers (M5)

Nuts (M5)

* Used for labelling the programmable function keys according to their assinged functions.

NOTE: Some accessories are not supplied, or the shape is different, depending on the transceiver version.

OPTIONS

- **HM-152/HM-152T/HM-148G/HM-148T** HAND MICROPHONES
  HM-152: Hand microphone
  HM-152T: DTMF microphone
  HM-148G: Self ground heavy duty microphone
  HM-148T: Self ground heavy duty DTMF microphone
- **HM-211** NOISE CANCELING MICROPHONE
- **HM-239T** DTMF MICROPHONE
- **HM-249** HANDSFREE MICROPHONE
- **SM-26** DESKTOP MICROPHONE
  Desktop microphone with a monitor switch.
- **SP-30/SP-35/SP-35L** EXTERNAL SPEAKERS
  Input impedance: 4 Ω
  SP-30: Rated input 20 W, Maximum input 30 W
  SP-35/SP-35L: Rated input 5 W, Maximum input 7 W
- **OPC-1939/OPC-2078** ACC CABLES
  Used to connect an external device.
  OPC-1939: D-sub 15-pin, an external level converter (user supplied) is required.
  OPC-2078: D-sub 25-pin, built-in level converter
- **OPC-2478** DC POWER CABLE

ANTENNA

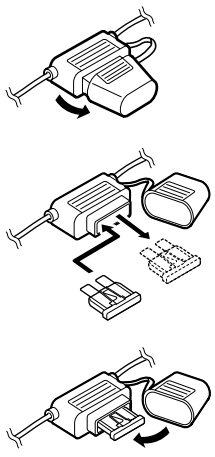
A key element in the performance of any communication system is the antenna. Contact your dealer for information regarding antennas and how to install them.

REPLACING FUSES

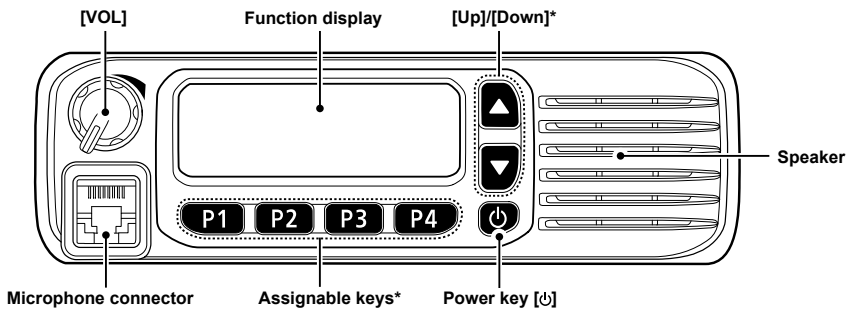
Fuses are installed in the supplied DC power cable. If a fuse blows, track down the source of the problem, repair it, and replace the damaged fuse with a new rated one.
ⓘ The shape of fuses and its cases are different, depending on the supplied DC power cable.
ⓘ Fuse rating: 32 V, 20 A

NOTE: Use only specified fuses

OPC-2478

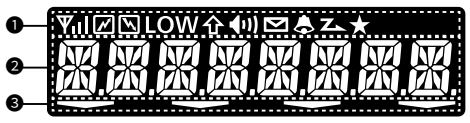


PANEL DESCRIPTION



*The assigned function may differ, depending on the presetting. Ask your dealer or the transceiver's administrator for details.

FUNCTION DISPLAY



❶ ICON AREA

Displays the icons, as shown below.

	Displays the relative receive signal strength level.
	Displayed while transmitting a signal.
	Displayed while the channel is busy (receiving).
LOW	Displayed when the low output power is selected.
	Displayed when the Shift function is ON. The user can use a Dealer Assignable key's secondary function in the Shift mode. Ask your dealer for details.
	Displayed when the channel is in the audible (unmuted) mode.
	Blinks after messages (Message or Status Message) have been received.
	Displayed when a matching signal is received, depending on the presetting.
	• Blinks while scanning. • Displayed when a scan is paused.
	Displayed when the channel is selected as a scan target channel.

❷ ALPHANUMERIC READOUT
Displays messages such as channel text.

❸ DEALER ASSIGNABLE KEY ICONS
Displayed while the function assigned to [P1], [P2], [P3], or [P4] is operating.
ⓘ May not be displayed, depending on the assigned function.

BASIC OPERATION

◇ Turning ON or OFF the transceiver

- Hold down [⏻] for 1 second to turn ON or OFF the transceiver.

NOTE: Entering the password may be required to turn ON the transceiver, depending on the presetting.
Ask your dealer or the transceiver's administrator for details.

◇ Receiving

1. Push [Up] or [Down] to select a channel.
   • "▨" is displayed while receiving.
   ⓘ Rotate [VOL] to adjust the audio output level to a comfortable listening level.

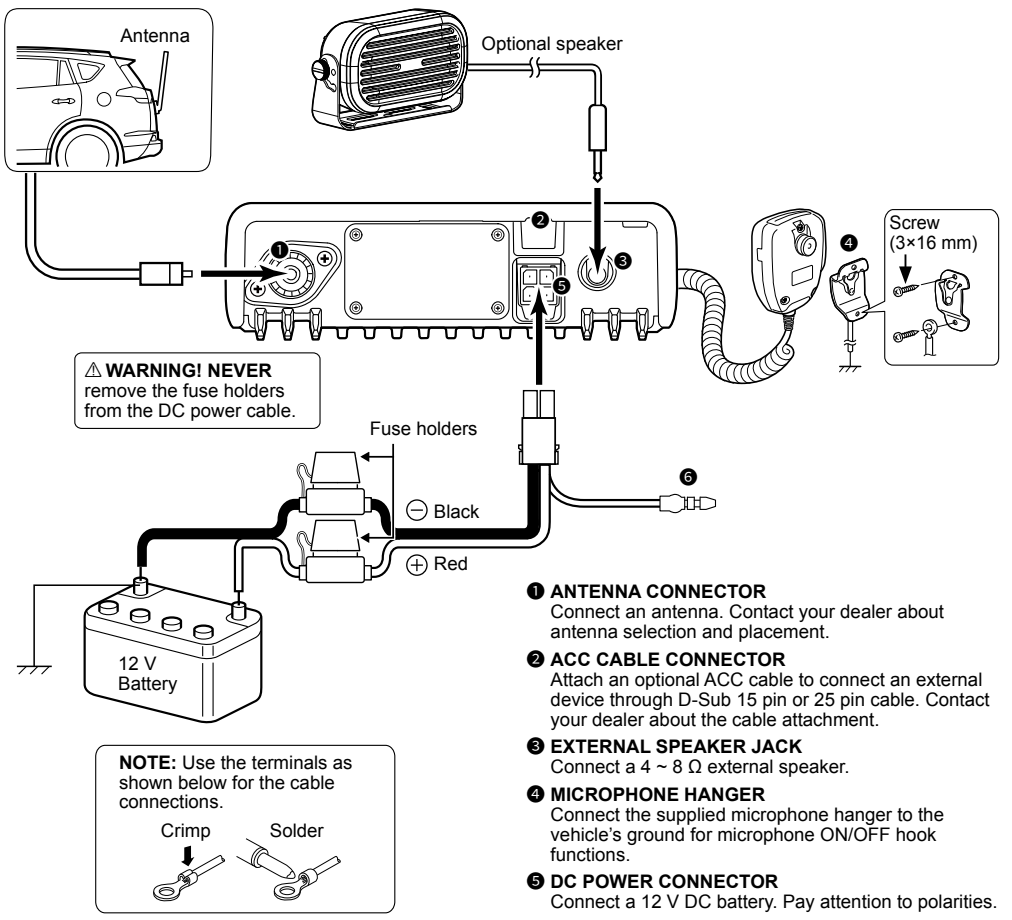
◇ Transmitting

CAUTION: DO NOT transmit without an antenna.

1. Wait until the channel is clear to avoid interference.
2. While holding down [PTT], speak at your normal voice level.
   • "▨" is displayed while transmitting.
3. Release [PTT] to receive.

IMPORTANT:
To maximize the readability of your signal:
1. After pushing [PTT], pause briefly before you start speaking.
2. Hold the microphone 5 ~ 10 cm (2 ~ 4 inches) from your mouth, then speak at your normal voice level.

CONNECTIONS



❶ ANTENNA CONNECTOR
Connect an antenna. Contact your dealer about antenna selection and placement.

❷ ACC CABLE CONNECTOR
Attach an optional ACC cable to connect an external device through D-Sub 15 pin or 25 pin cable. Contact your dealer about the cable attachment.

❸ EXTERNAL SPEAKER JACK
Connect a 4 ~ 8 Ω external speaker.

❹ MICROPHONE HANGER
Connect the supplied microphone hanger to the vehicle's ground for microphone ON/OFF hook functions.

❺ DC POWER CONNECTOR
Connect a 12 V DC battery. Pay attention to polarities.

CAUTION: DO NOT connect to a 24 V battery. This will damage the transceiver.

❻ IGNITION LEAD
Connects to an ignition line.

MOUNTING THE TRANSCEIVER

Mount the transceiver on a flat surface using the mounting bracket supplied with your transceiver.

1. Drill 4 holes on a flat surface where you want to install the mounting bracket.
   ⓘ When using the supplied nuts: Approximately 5.5 ~ 6 mm (d)
   ⓘ When using the supplied self-tapping screws: Approximately 2 ~ 3 mm (d)
2. Attach the mounting bracket on the flat surface using the supplied screws, nuts, and washers.
3. Attach the transceiver to the mounting bracket using the supplied bracket bolts.

Mounting example:

