

ICOM INSTRUCTIONS

VHF P25 TRUNKING
MOBILE TRANSCEIVER
IC-F9511HT

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

For more information, see the INSTRUCTION MANUAL on the Icom website for details.
http://www.icom.co.jp/world/support/

When the optional UT-125 AES/DES ENCRYPTION UNIT is installed:
When you attempt to re-export this product and/or AES encryption of this product is activated, you must comply with the export regulations of your country, which can be highly restrictive. YOUR FAILURE TO COMPLY WITH EXPORT REGULATIONS MAY SUBJECT YOU TO FINES OR PENALTIES. AES encryption products including this software fall under the control of the Japanese Government as described in Appendix I: Export Legal Controls and Appendix: Exchange Legal Controls. Please consult with your dealer or sales representative for details.

Icom is not responsible for the destruction, damage to, or performance of any Icom or non-Icom equipment, if the malfunction is because of:

- 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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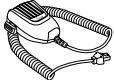
ICOM Inc.

1-1-32 Kamiminami, Hirano-ku,
Osaka 547-0003, Japan
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SUPPLIED ACCESSORIES


Microphone



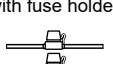
Microphone hanger and screw set




DC power cable




Black and red cables with fuse holders




Fuses*1




Socket terminals




Crimp terminals



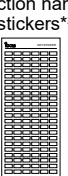
Binding bands




Separation cable




Function name stickers*2



Key caps



Housing



Mounting bracket for main unit



Flat washers (M5)



Mounting screws (M5×12)



Spring washers (M5)



Self-tapping screws (M5×16)



Nuts (M5)



Bracket bolts



Mounting bracket for controller



Flat washers (M5)



Mounting screws (M5×12)



Spring washers (M5)



Self-tapping screws (M5×16)



Nuts (M5)



Bracket screws



*1 Fuses should be installed in the fuse holder of the black and red cables, respectively.

*2 Used for labeling the programmable function keys according to their assigned functions.

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

EXPLICIT DEFINITIONS

WORD	DEFINITION
⚠ 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

- ⚠ **WARNING! NEVER** connect the transceiver to an AC outlet. This may pose a fire hazard or result in an electric shock.
- ⚠ **WARNING! NEVER** connect the transceiver to a power source of more than 16 V DC or use reverse polarity. This could cause a fire or damage the transceiver.
- ⚠ **WARNING! 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.
- CAUTION: NEVER** place the transceiver where normal operation of the vehicle may be hindered or where it could cause bodily injury.
- CAUTION: NEVER** allow children to touch the transceiver.
- CAUTION: NEVER** expose the transceiver to rain, snow or any liquids. The transceiver may be damaged.
- USE** the specified microphone only. Other microphones have different pin assignments and may damage the transceiver.
- DO NOT** use or place 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.
- DO NOT** place the transceiver in excessively dusty environments.
- DO NOT** operate the transceiver without running the vehicle's engine. The vehicle's battery will quickly run out if the transceiver transmits while the vehicle's engine OFF.
- DO NOT** place the transceiver against walls. This will obstruct heat dissipation.
- DO NOT** use harsh solvents such as benzine or alcohol when cleaning, as they damage the transceiver surfaces.
- BE CAREFUL!** The transceiver will become hot when operating continuously for long periods.
- KEEP** the transceiver away from heavy rain, and never immerse it in the water.

When the supplied/optional microphone*, the front/rear plate(s) and the speaker jack cover of the controller are attached, the main unit and the controller meet IP54 requirements for dust-protection and splash resistance. However, once these items have been dropped, dust-protection and splash resistance cannot be guaranteed because of possible damage to these cases or the waterproof seal.

* The microphone is not dust-protection and splash resistance.

For U.S.A. only


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

ANTENNA

A key element in the performance of any communication system is an antenna. Contact your dealer about antennas and the best places to mount them.

CLEANING

If the transceiver becomes dusty or dirty, wipe it clean with a soft, dry cloth.



DO NOT use harsh solvents such as benzene or alcohol, as they may damage the transceiver surfaces.

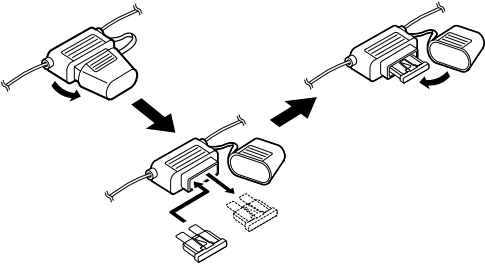
FUSE REPLACEMENT

Fuses should be installed in the fuse holder of the black and red cables, respectively.

If a fuse blows or the transceiver stops functioning, track down the source of the problem, have it repaired, and replace the damaged fuse with a new rated one.

① Fuse rating: 30 A


NOTE: Use only specified fuses.



OPTIONS

- **OPC-607, OPC-608, OPC-609, OPC-726**
SEPARATION CABLES
Used for a controller and a main unit connection.
OPC-607: 3 m (9.84 ft)
OPC-608: 8 m (26.3 ft)
OPC-609: 1.9 m (6.3 ft)
OPC-726: 5 m (16.4 ft)
- **SP-30 EXTERNAL SPEAKER**
Input impedance: 4 Ω
Rated input: 20 W
Max. input power: 30 W
- **HM-152, HM-152T, HM-148G HAND MICROPHONE**
HM-152: Hand microphone
HM-152T: DTMF microphone
HM-148G: Self ground heavy duty microphone
- **OPC-1532, OPC-1871 ZONE COPY CABLES**
OPC-1532: Mobile to mobile zone copy cable.
OPC-1871: Mobile to handy zone copy cable.
- **UT-125 AES/DES ENCRYPTION UNIT**
- **UT-128 DES ENCRYPTION UNIT**

SAFETY TRAINING INFORMATION




WARNING

Your Icom radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the “General Population” in an uncontrolled environment.

- For compliance with FCC and Industry Canada RF Exposure Requirements, the transmitter antenna installation shall comply with the following two conditions:

1. The transmitter antenna gain shall not exceed 0 dBi.
2. **IC-F9511HT:**
The antenna is required to be located outside of a vehicle and kept at a distance of 66.2 centimeters or more between the transmitting antenna of this device and any persons during operation. For small vehicle as worst case, the antenna shall be located on the roof top at any place on the centre line along the vehicle in order to achieve 66.2 centimeters separation distance. In order to ensure this distance is met, the installation of the antenna must be mounted at least 66.2 centimeters away from the nearest edge of the vehicle in order to protect against exposure to bystanders.
3. Transmit only when people outside the vehicle are at least the recommended minimum distance of 148 centimeters away from the properly installed antenna. This separation distance will ensure that there is sufficient distance from a properly installed externally-mounted antenna to satisfy the RF exposure requirements in the applicable RF exposure compliance standards.

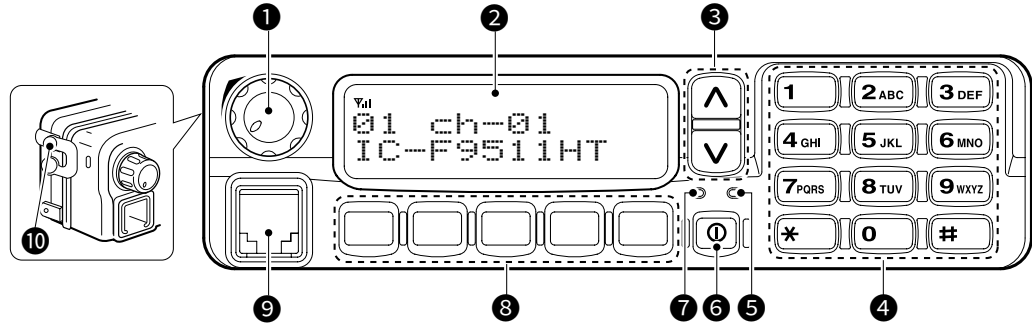


CAUTION

- **DO NOT** operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC and IC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio.
- **DO NOT** transmit for more than 50% of the total radio use time (“50% duty cycle”). Transmitting more than 50% of the time can cause FCC and IC RF exposure compliance requirements to be exceeded. The radio is transmitting when the “TX indicator” lights red. You can cause the radio to transmit by pushing the “PTT” switch.
- **Electromagnetic Interference/Compatibility**
During transmissions, your Icom radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. **DO NOT** operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

PANEL DESCRIPTION

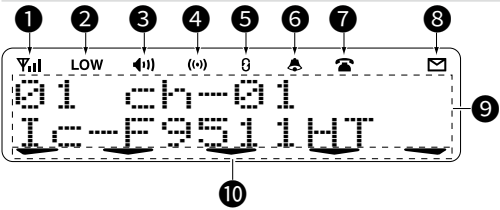
NOTE: Different functions may have been assigned to the keys by your dealer, except for the Power key.



- ① **AF VOLUME CONTROL KNOB**
Rotate the knob to adjust the audio output level.
① Minimum audio level is pre-programmed.
- ② **FUNCTION DISPLAY**
Displays a variety of information, such as an operating channel number/name, DTMF numbers and audible condition, etc.
- ③ **UP/DOWN KEYS**
Push to select an operating channel, etc.
① The desired function can be assigned by your dealer.
- ④ **10-KEYPAD**
The keypad allows you to enter digits to:
 - Select memory channels, tone channels and DTMF codes (when in the DTMF code channel selection mode)
 - Start up with a password
 - Input the Individual ID code during P25 mode operation. (Depending on the pre-setting)
- ⑤ **BUSY INDICATOR**
Lights green while receiving a signal, or when the squelch is open.
- ⑥ **POWER SWITCH [POWER]**
Push to turn the power ON and OFF.
① The following functions are available at power ON as options:
 - Automatic scan start
 - Password prompt
 - Set mode
- ⑦ **TRANSMIT INDICATOR**
Lights red while transmitting.
- ⑧ **DEALER-PROGRAMMABLE KEYS**
Desired functions can be programmed independently by your dealer.
① In this instruction manual, these keys are from the left, called [P0]/[P1]/[P2]/[P3]/[P4].
- ⑨ **MICROPHONE CONNECTOR**
Connect the supplied or optional microphone.
① When you connect a microphone, be sure to fit the connector cover of the microphone into the connector to maintain the controller's dust protection and splash resistance.

CAUTION: DO NOT connect non-specified microphones. The pin assignments may be different and may damage the transceiver.
- ⑩ **SPEAKER JACK**
Connect a 4–8 Ω external speaker.
 - Max. ouput power: 7 W
 - Attach the jack cover when no external speaker is connected.

FUNCTION DISPLAY— CONTROLLER



- 1 RECEIVED SIGNAL STRENGTH INDICATOR**
Indicates relative signal strength level.
Weak ⇐ Receive Signal level ⇒ Strong
- 2 LOW POWER INDICATOR**
Appears when low output power is selected.
• When high output power is selected, no indicator appears.
- 3 AUDIBLE INDICATOR**
Appears when the channel is in the 'Audible' (unmute) condition.
- 4 COMPANDER INDICATOR**
Appears when the compander function* is activated.
* Analog mode operation only

BASIC OPERATION

◇ Turning power ON

① When you use the transceiver for the first time, or after the transceiver has been left unused for a long time, make sure to check the date and time indication after turning the power ON. If the time and date are not correct, reset them.

- Push [**1**] to turn the power ON.
- If the transceiver is programmed for a start up password, input the digit codes as directed by your dealer.
 - 10-keypad can be used for password input.
 - The keys as below can be used for password input: The transceiver detects numbers in the same block as identical. Therefore "01234" and "56789" are the same.

KEY	P0	P1	P2	P3	P4
NUMBER	0 5	1 6	2 7	3 8	4 9

- *In this instruction manual, these keys are from the left, called [P0]/[P1]/[P2]/[P3]/[P4].
- When the "PASSWORD" indication does not clear after inputting 6 digits, the input code number may be incorrect. Turn the power OFF and start over in this case.

- 5 SCRAMBLER INDICATOR**
Appears when the voice scrambler or encryption function is activated.
- 6 BELL INDICATOR**
Appears/blinks when a matched signal is received, depending on the pre-programming.
- 7 TELEPHONE INDICATOR**
Appears when a phone call* is received.
* P25 operation only
- 8 SHORT MESSAGE INDICATOR**
Appears when an Status message or Short message is received.
- 9 ALPHANUMERIC DISPLAY**
Displays an operating channel number, channel name, Set mode contents, DTMF code, etc.
- 10 ACTIVATED KEY INDICATOR**
Appears above the key assigned as [Scan Add/Del (Tag)] key when that key has been activated.

① Ask your Icom dealer or system operator for details concerning your transceiver's programming.

◇ Receiving and Transmitting

Receiving:

- Push [**1**] to turn the power ON.
- Push [CH Up] or [CH Down] to select a channel in sequence.
- While receiving a call, adjust the audio output level to a comfortable listening level.

Transmitting:

Wait for the channel to become clear to avoid interference.

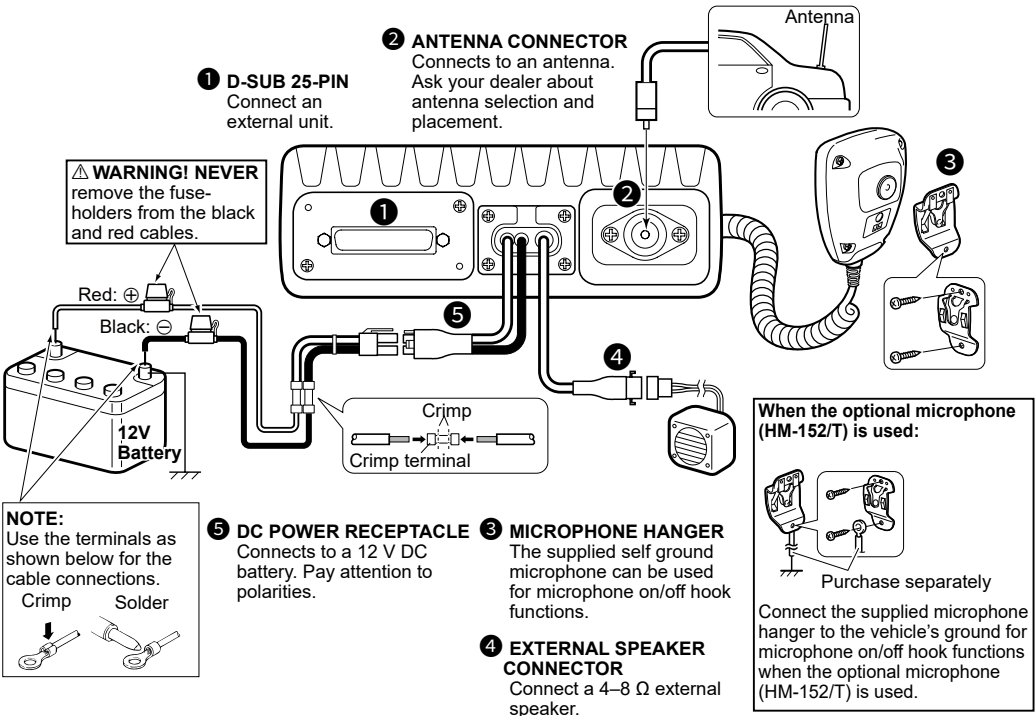
- Take the microphone off hook.
 - The 'audible' condition is selected and BUSY indicator lights green.
 - A priority channel may be selected automatically.
- Wait for the channel to become clear.
 - The channel is busy when BUSY indicator lights green.
- While pushing and holding [PTT], speak into the microphone at your normal voice level.
- Release [PTT] to receive.

IMPORTANT:

To maximize the readability of your signal:

- After pushing [PTT], pause briefly before you start speaking.
- Hold the microphone 5 ~ 10 cm (2 ~ 4 inches) from your mouth, then speak at your normal voice level.

REAR PANEL CONNECTION



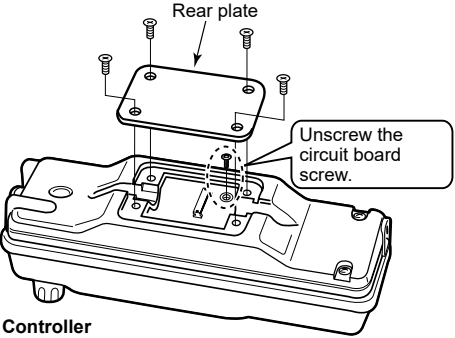
SEPARATION CABLE CONNECTION

- CAUTION:** To avoid damage to the transceiver, disconnect the DC power cable from the transceiver before connecting the separation cable.
- NOTE:** The following connections should be performed by your Icom dealer or distributor.

① The supplied or optional separation cable is required for the controller and the main unit connection. See the OPTIONS section for the separation cable details.

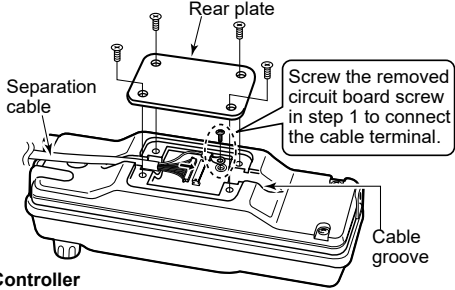
◇ Controller

- Unscrew the 4 screws, then remove the rear plate from the controller.



Controller

- Connect the separation cable to the controller as shown below.
 - The cable can be inserted into either the left or right grooves as desired.

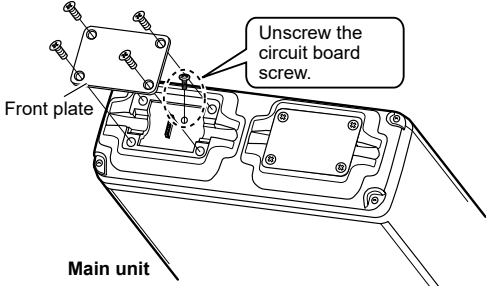


Controller

- After the cable connection, replace the removed rear plate and the 4 screws, then connect the opposite side of the separation cable to the main unit.

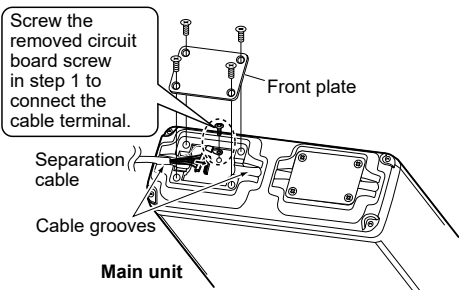
◇ Main unit

- Unscrew the 4 screws of the front plate (either the left or right), then remove the front plate from the main unit.



Main unit

- Connect the opposite side of the separation cable that is connected to the controller described on the previous page as shown below.
 - The cable can be inserted into either the left or right grooves as desired.



Main unit

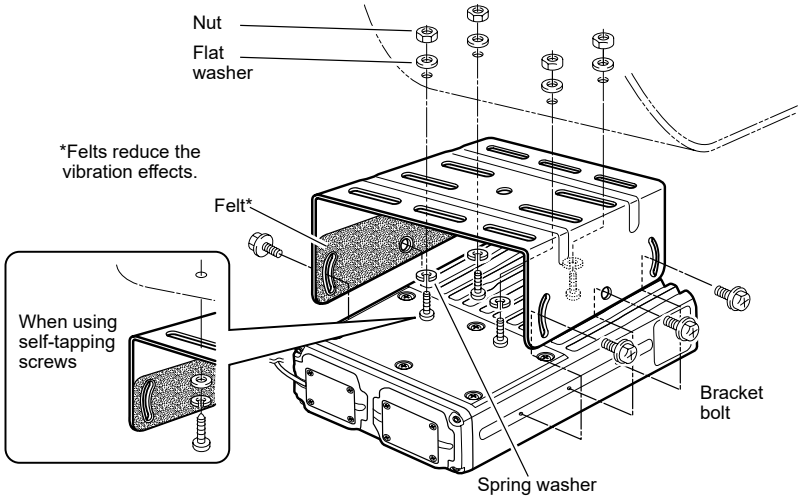
- After the cable connection, replace the removed front plate and the 4 screws, then connect the DC power cable.

MOUNTING THE TRANSCEIVER

◇ Main unit

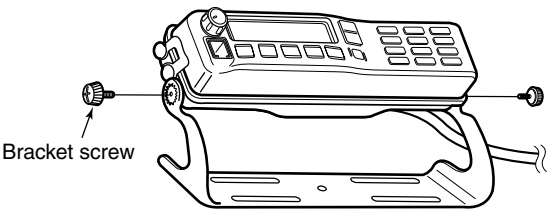
The universal mounting bracket supplied with your transceiver allows overhead mounting.

① Mount the main unit securely with the 4 supplied screws to a thick surface which can support more than 8 kg (17.63 lb).



◇ Controller

On-board mounting



Overhead mounting

Mount the controller securely with the 4 supplied screws to a thick surface which can support more than 2 kg (4.40 lb).

