❶ANTENNA CONNECTOR
Connects to an antenna. Ask your Dealer about antenna selection and placement.

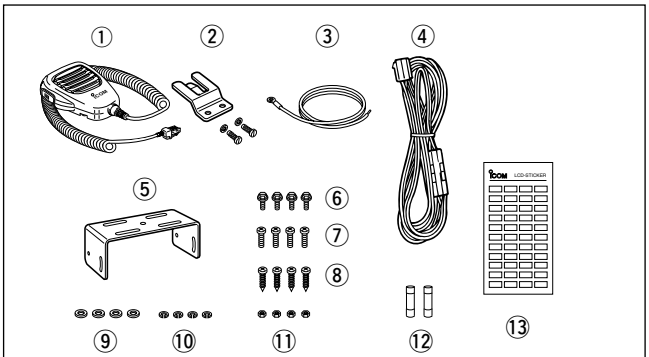
❷MICROPHONE HANGER
Connect the supplied microphone hanger to the vehicle's ground for microphone on/off hook functions. (See p. 2)

❸DC POWER RECEPTACLE
Connects to a **12 V DC** battery. Pay attention to polarities. **NEVER** connect to a **24 V** battery. This could damage the transceiver.

❹EXTERNAL SPEAKER JACK
Connect a 4–8 Ω external speaker, if desired.

❺OPTIONAL CABLE (OPC-617)
Connect an external modem unit, LCD backlight control, etc.

■ Supplied Accessories



① Microphone 1
② Microphone hanger and screw set ..... 1 set
③ Microphone hanger cable . 1
④ DC power cable (OPC-346) 1
⑤ Mounting bracket 1
⑥ Bracket bolts 4
⑦ Mounting screws (M5×12) . 4
⑧ Self-tapping screws (M5×20) 4
⑨ Flat washers 4
⑩ Spring washers 4
⑪ Nuts 4
⑫ Fuse s (20 A) 2
⑬ Function name stickers* (1705 LCD SEAL(D)) 1

***Function name stickers**
There are no names on the programmable function keys since the needed functions can be assigned to these keys.
Attach the supplied function name stickers above the appropriate keys.

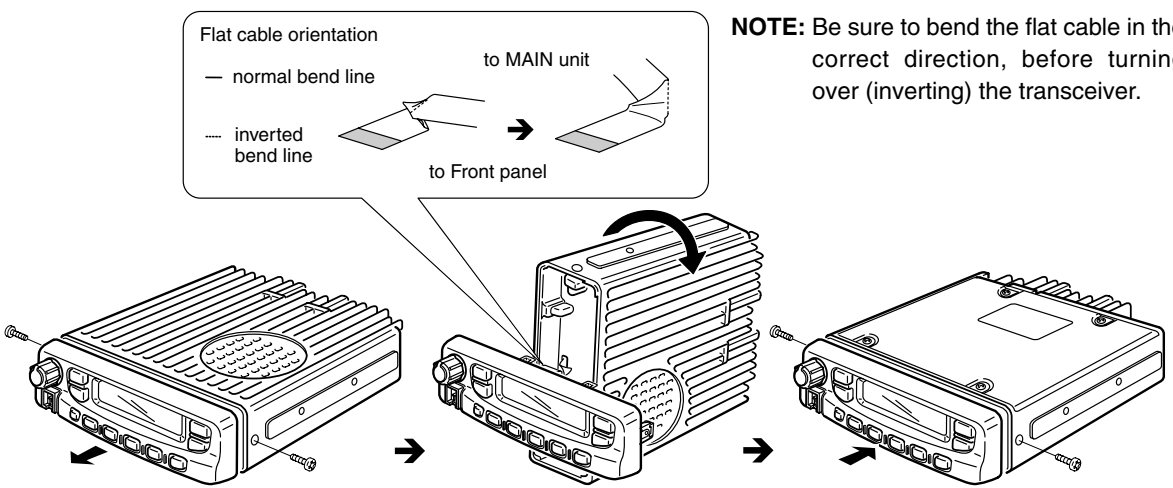
■ Mounting the transceiver

The front panel can be inverted for correct viewing while leaving the built-in speaker facing away from the mounting surface.

◇ Inverting the Front panel

① Unscrew the 2-side screws.
② Detach the Front panel forward from the transceiver.
③ Bend the flat cable between Front panel and main unit as shown in the following diagram.
④ Invert the transceiver 180 degrees clockwise as below.
⑤ Re-attach the Front panel to the transceiver.
⑥ Tighten the 2 screws.

CAUTION:
- **NEVER** rotate the transceiver more than 180 degrees.
- **DO NOT** bend the flat cable too hard. Damage may occur.

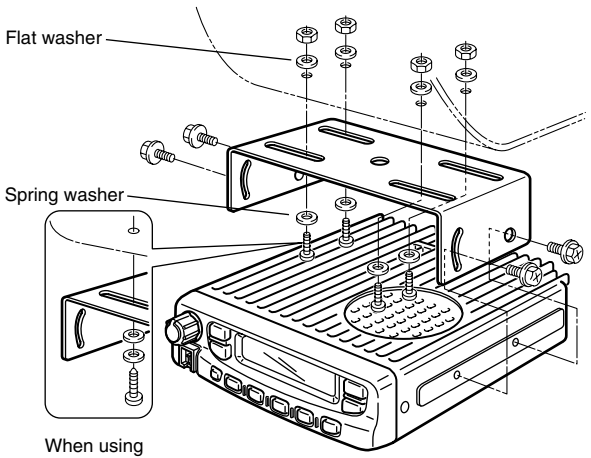


NOTE: Be sure to bend the flat cable in the correct direction, before turning over (inverting) the transceiver.

◇ Mounting the transceiver

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

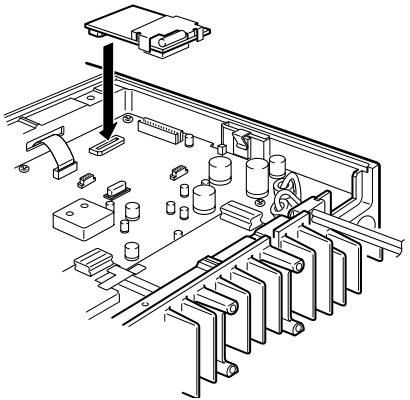
- Mount the transceiver securely with the 4 supplied screws to a thick surface which can support more than 1.5 kg.



■ Optional UT-105 and UT-108 installation

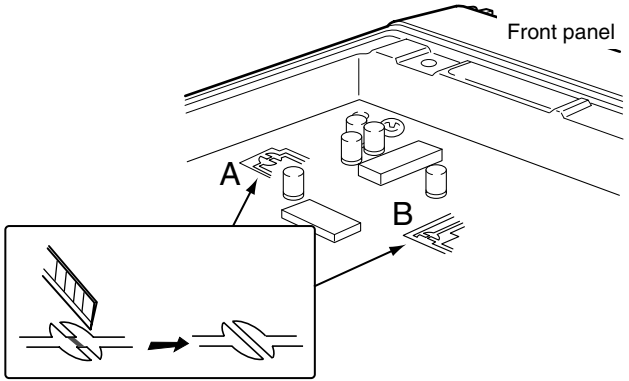
The optional UT-105 and UT-108 units install as follows:

① Turn power OFF, then disconnect the DC power cable.
② Unscrew the 4 screws, then remove the bottom cover.
③ Install the unit as shown in the diagram below.
④ Replace the bottom cover and screws, then the DC power cable.

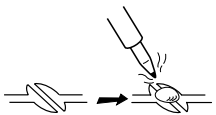


■ Optional UT-109 /UT-110 installation

① Turn power OFF, then disconnect the DC power cable.
② Unscrew the 4 screws, then remove the bottom cover.
③ Cut the print pattern on the PCB at the TX mic circuit (A) and RX AF circuit (B) as shown in the following figure.
④ Install the scrambler unit as shown in the left.
⑤ Return the bottom cover and screws to the original position.

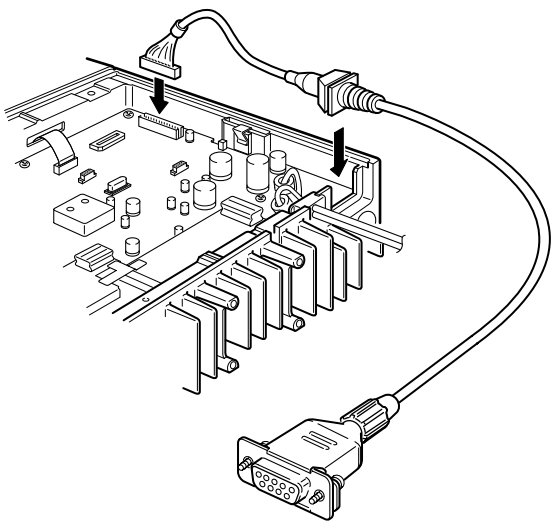


NOTE: Be sure to re-solder above disconnected points, otherwise no TX modulation or AF output is available when you remove the scrambler units.

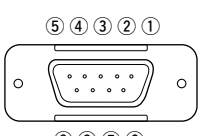


■ Optional OPC-617 installation

Install the OPC-617 as shown below.



OPTIONAL CABLE PIN ASSIGNMENT



① LCD backlit cont. IN
② AF OUT
③ Det. AF OUT
④ Mod. IN
⑤ PTT control IN
⑥ Horn drive cont. OUT
⑦ AF GND
⑧ Det. AF GND
⑨ Mod. GND

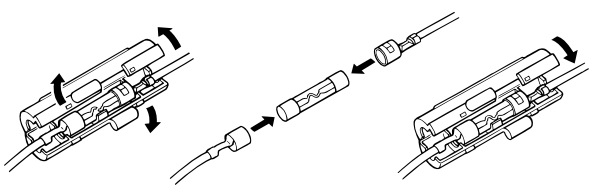
■ Antenna

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

■ Fuse replacement

Two fuses are installed in the supplied DC power cable. If a fuse blows or the transceiver stops functioning, track down the source of the problem, if possible, and replace the damaged fuse with a new rated one.

❑ Fuse rating : 15 A



■ Cleaning

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

AVOID the use of solvents such as benzene or alcohol, as they may damage transceiver surfaces.

5 OPTIONS

SP-22 EXTERNAL SPEAKER
Compact and easy-to-install.
Input impedance: 4 Ω
Max. input power: 5 W

HM-100TN
DTMF microphone.

SM-25
Desktop microphone.

UT-105 SmarTrunk II™ Logic Board
Provides SmarTrunk II™ capabilities.

UT-108 DTMF DECODER UNIT
Provides pager and code squelch capabilities.

UT-109/UT-110 (#02) VOICE SCRAMBLER UNIT
- UT-109: Non-rolling type (max. 32 codes)
- UT-110: Rolling type (max. 1020 codes)

UT-111 TRUNKING BOARD
Provides trunking oprtation.

OPC-617 ACC CABLE
Allows you to connect to an external terminal.

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-F521:
     The transmitter antenna is required to be located outside of a vehicle and kept at a separation distance of 63 centimeters or more between the transmitter antenna of this device and persons during operation.
  3. IC-F621:
     The transmitter antenna is required to be located outside of a vehicle and kept at a separation distance of 50 centimeters or more between the transmitter antenna of this device and persons during operation.

To ensure that your exposure to RF electromagnetic energy within the FCC allowable limits for occupational use, always adhere to the following guidelines:

- **DO NOT** operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC 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 total radio use time ("50% duty cycle"). Transmitting more than 50% of the time can cause FCC 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 pressing 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.

Count on us!

A-6120H-1EX
Printed in Japan

(45W/50W)

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