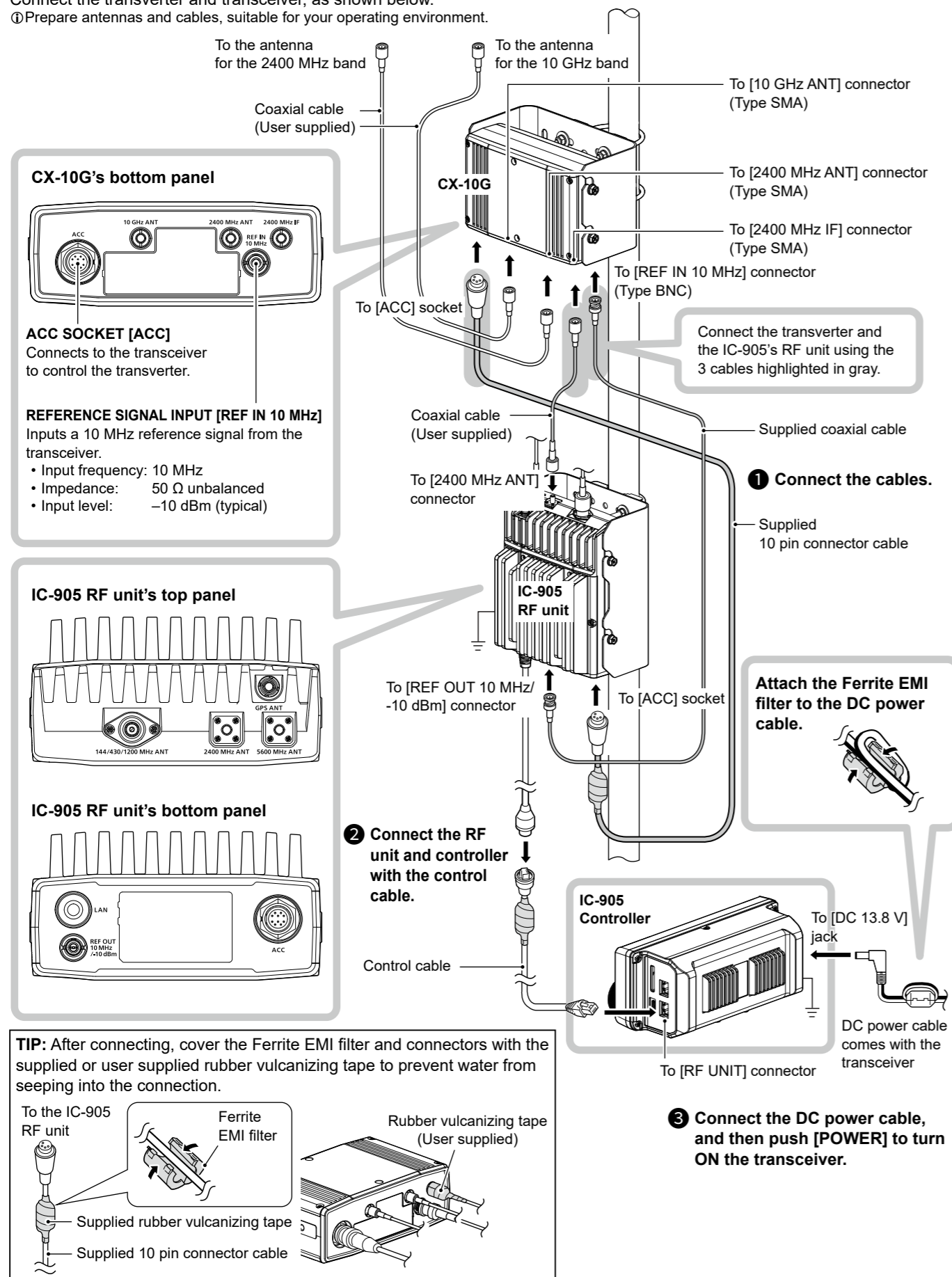
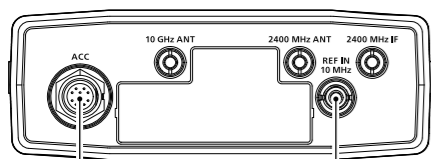


# Connecting the transverter and the transceiver

Connect the transverter and transceiver, as shown below.  
 ① Prepare antennas and cables, suitable for your operating environment.



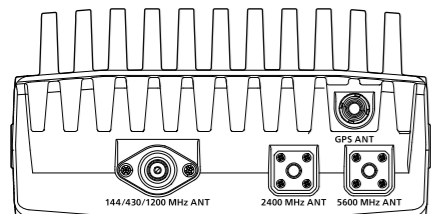
## CX-10G's bottom panel



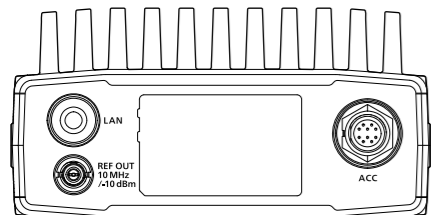
**ACC SOCKET [ACC]**  
 Connects to the transceiver to control the transverter.

**REFERENCE SIGNAL INPUT [REF IN 10 MHz]**  
 Inputs a 10 MHz reference signal from the transceiver.  
 • Input frequency: 10 MHz  
 • Impedance: 50 Ω unbalanced  
 • Input level: -10 dBm (typical)

## IC-905 RF unit's top panel



## IC-905 RF unit's bottom panel



# ICOM INSTRUCTIONS

## TRANSVERTER CX-10G

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

### Important

**SAVE THESE INSTRUCTIONS**— These instructions contain important safety and installation instructions for the CX-10G.

### Explicit definitions

WORD	DEFINITION
<b>⚠ WARNING!</b>	Personal injury, fire hazard or electric shock may occur.
<b>⚠ CAUTION</b>	Equipment damage may occur.
<b>NOTE</b>	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

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 transverter with any equipment that is not manufactured or approved by Icom.

### Disposal

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

### About CE and DOC

Hereby, Icom Inc. declares that the versions of CX-10G which have the "CE" symbol on the product, comply with the essential requirements of the Radio Equipment Directive, 2014/53/EU, and the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive, 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: <https://www.icomjapan.com/support/>

**Below statement is for UKCA purpose only**  
 United Kingdom Authorised Importer: Icom (UK) Ltd.  
 Address: Blacksole House, Altira Park, Herne Bay, Kent, CT6 6GZ, U.K.  
 To obtain the UKCA Declaration of Conformity, please contact Icom UK Limited by email at [info@icomuk.co.uk](mailto:info@icomuk.co.uk) or alternatively call + 44(0) 1227 741741.

### Precautions

**BE CAREFUL!** When you attach the transverter and antenna, wear gloves to avoid cutting your hand on the sharp edges of the transverter or antenna.  
 Icom is not responsible for any building breakage, any damage resulting from a drop of the mounting bracket from a high place or unstable site, or any personal injury or any accident in any other case. Be sure to consult an expert engineer for installation help.

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

**⚠ WARNING RF EXPOSURE!** This transverter emits Radio Frequency (RF) energy. Extreme caution should be observed when operating this transverter. 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** disassemble, modify, or repair the transverter. This may result in an electrical shock, cause a fire or damage the transverter.

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

**⚠ WARNING! NEVER** touch the transverter with wet hands. This may result in an electrical shock or damage the transverter.

**⚠ WARNING! NEVER** operate the transceiver during a lightning storm. It may result in an electric shock, cause a fire or damage the transverter and transceiver. Always disconnect the power source and antenna before a storm.

**CAUTION: DO NOT** use the transverter without securing the cables so that they cannot be pulled or stretched.

**CAUTION: DO NOT** put the transverter in any unstable place, such as on a slanted surface or a place that vibrates. This may cause an injury and/or damage the transverter.

**CAUTION:** Attach the transverter in a vertical position with the connectors down. The dust-protection and water jet resistance cannot be guaranteed if you attach the transverter upside down.

**NEVER** immerse the transverter in water. The transverter meets IP55\* requirements for dust-protection and water jet resistance. However, once the transverter has been dropped, dust-protection and water jet resistance cannot be guaranteed due to the fact that the transverter may be cracked or the waterproof seal damaged, and so on.  
 \* Only when the antenna and cables are attached.

**DO NOT** place or leave the transverter in excessively dusty environments.

**NEVER** leave the transverter in an insecure place to avoid use by unauthorized persons.

**BE SURE** to check your local regulations or laws to select the appropriate operating frequency.

## FCC information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

## ◇ FCC SDoC

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.

### Responsible Party

Company Name: Icom America Inc.  
Address: 12421 Willows Road NE Kirkland, WA 98034

### U.S. Contact Information

800-USA-ICOM (800-872-4266)  
Monday – Friday 7 AM to 5 PM PST

## Selecting a location

**NEVER** place the transverter in areas such as:

- A place without adequate ventilation.
- An unstable place that slopes or vibrates.
- Too close to each other or other devices, such as TV antennas.
- Near a radio tower emitting strong radio waves.
- Near a metal structure, such as warehouses.
  - ① If there is a metal wall, handrail, or pillar where the radio wave from the antenna travels, the radio wave may be reflected irregularly.
- A place without direct lightning protection, such as lightning rods.
- A place without grounding.

### NOTE:

- Make the connection as short as possible.
- Use a coaxial cable (user supplied) that is as low loss as possible.
- **DO NOT** bend the coaxial cable more than the allowable bending radius. This may cause more losses.

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## About the operating environment

- Communication may be temporarily unavailable or interrupted when:
  - The received signal is too weak.
  - There is heavy rain or snow.
  - Snow or ice accumulates on the transverter or external devices.
- When using in a cold location, **DO NOT** bend, pull, or move the cable if the cable is hardened. This may damage the cable.

## Specifications

### General

- Frequency coverage: Receiver/Transmitter 10.000 ~ 10.500 GHz
- Antenna impedance: 50 Ω unbalanced
- Frequency stability: Less than ±65 ppb\*1  
(-10°C ~ +55°C, 14°F ~ 131°F)
- IF connector impedance: 50 Ω unbalanced
- Power supply requirement: 12 V DC (±15%)
- Power consumption:
  - Transmit on the 10 GHz band Less than 15 W
  - Receive on the 10 GHz band Less than 4.8 W
  - Other Less than 4.8 W
- Operating temperature range: -10°C ~ +55°C, 14°F ~ 131°F

- Dimensions (projections not included):  
181 (W) × 115 (H) × 64 (D) mm,  
7.1 (W) × 4.5 (H) × 2.5 (D) inches
- Weight (approximate): 1.3 kg, 2.9 lb  
① Without the supplied accessories

### Transmitter

- Transmission loss: Less than 2.0 dB\*1  
① When operating in the 2400 MHz band (Bypassed)
- IF input frequency (To the [2400 MHz IF] connector):  
2.4 ~ 2.45 GHz\*2  
+7 dB (typical)\*2
- Conversion gain: +7 dB (typical)\*2
- IF input power:
  - Bypassed 2.0 W (typical)\*1  
① When the RF output power is set to 100%.
  - Transmit 0.1 W (typical)\*2
- Output power on the 10 GHz band:
  - SSB/CW/FM/RTTY/DV/DD/ATV 0.5 W (typical)\*2
  - AM 0.125 W (typical)\*2
- Spurious Emission:
  - Spurious domain emission Less than 100 μW\*1
  - Out-of-band domain emission Less than 50 μW\*1

### Receiver

- IF output frequency (From the [2400 MHz IF] connector):  
2.4 ~ 2.45 GHz\*2
- Conversion gain: +6 dB (typical)\*2
- Sensitivity:
  - SSB/CW (at 10 dB S/N) Less than -17 dBμV\*2
  - AM (at 10 dB S/N) Less than +1 dBμV\*2
  - FM (at 12 dB SINAD) Less than -13 dBμV\*2
- ① When the cable loss between the IC-905 and CX-10G is less than 1 dB.

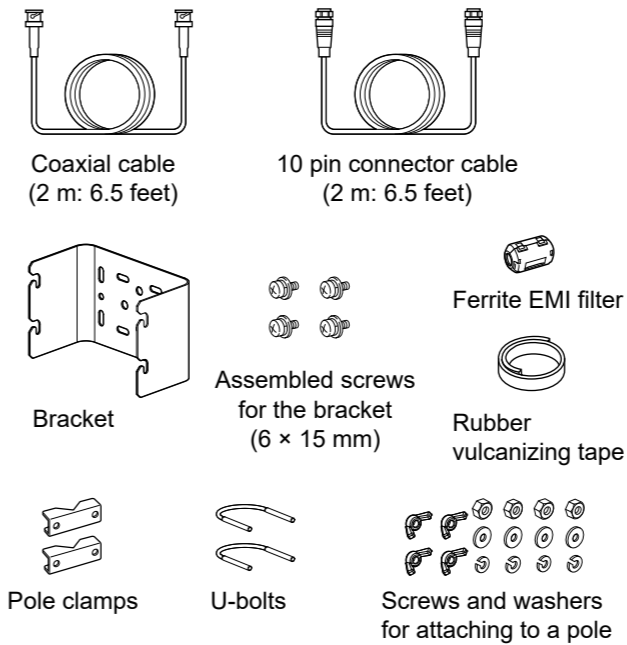
\*1 When connecting to the IC-905.

\*2 When connecting to the IC-905 and operating in the 10 GHz band.

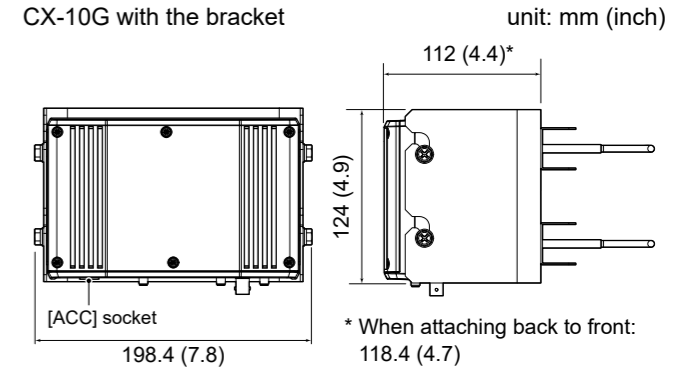
① All stated specifications and design are subject to change without notice or obligation.

This product includes "mbed TLS" open source software, and is licensed according to the open source software license. Refer to the "About the Licenses" page at the end of the IC-905 Basic manual in English for information on the open source software being used in this product. You can download the manual from the Icom website.

## Supplied accessories



## Dimensions



### To update the firmware

You can update the transverter's firmware using the transceiver. Updating the firmware adds new functions and/or improves performance parameters. You can download the latest firmware from the Icom website.

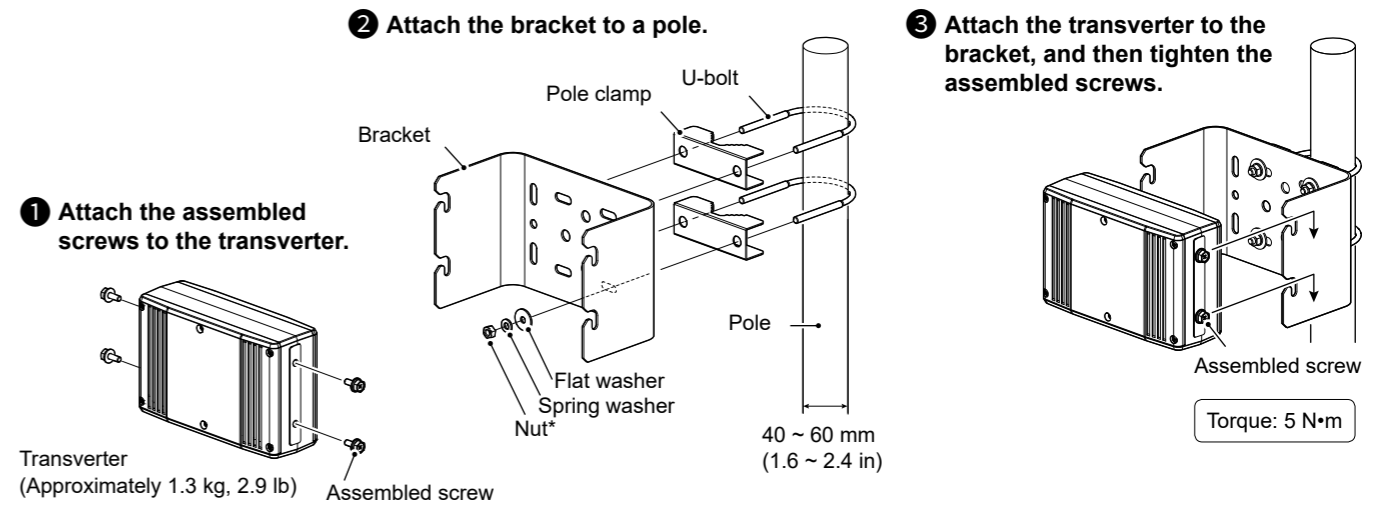
<https://www.icomjapan.com/support/>  
① See the IC-905 Advanced manual for details.

## Attaching the transverter to a pole

Attach the transverter to a pole, as shown below.

**CAUTION:** Attach the transverter in a vertical position with the connectors down. The dust-protection and water jet resistance cannot be guaranteed if you attach the transverter upside down.

**NOTE:** When attaching the transverter to the AH-109PB 10 GHz PARABOLA ANTENNA, see the AH-109PB instruction manual for attaching details.  
① The semi-rigid cable supplied with the AH-109PB may not reach if you attach the transverter to the bracket back to front.



\* You can also use the supplied butterfly nuts, depending on your need.

### To attach to a pole horizontal to the ground:

