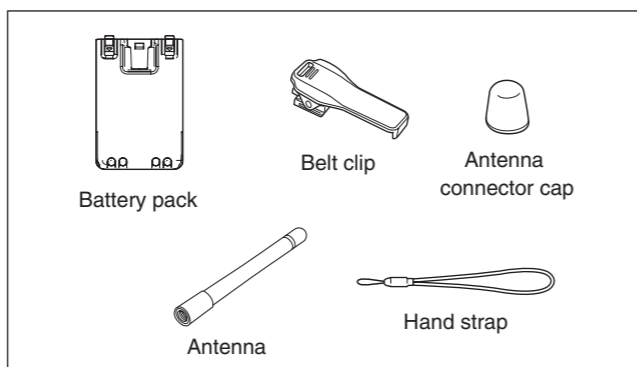


## EXPLICIT DEFINITIONS

WORD	DEFINITION
<b>⚠ DANGER!</b>	Personal death, serious injury or an explosion may occur.
<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.

Thank you for purchasing the IP100H IP COMMUNICATION TERMINAL.  
Please read these instructions carefully before operating the communication terminal.

## SUPPLIED ACCESSORIES



## PRECAUTIONS

**⚠ DANGER! NEVER** short the terminals (or charging terminals) of the battery pack. Also, current may flow into nearby metal objects such as a key, so be careful when placing battery packs (or the communication terminal) in bags, etc.

Simply carrying with or placing near metal objects such as a necklace, etc. may cause shorting. This may damage not only the battery pack, but also the communication terminal.

**⚠ DANGER!** Use and charge only specified Icom battery packs with Icom radios or Icom chargers. Only Icom battery packs are tested and approved for use with Icom radios or charged with Icom chargers. Using third-party or counterfeit battery packs or chargers may cause smoke, fire, or cause the battery to burst.

**⚠ WARNING RF EXPOSURE!** This device emits Radio Frequency (RF) energy. 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** hold the communication terminal so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The communication terminal will perform best if the microphone is 5 to 10 cm (2 to 4 inches) away from the lips and the communication terminal is vertical.

**⚠ WARNING! NEVER** operate the communication terminal with an earphone, headphones or other audio accessories at high volume levels. Hearing experts advise against continuous high volume operation. If you experience a ringing in your ears, reduce the volume level or discontinue use.

**CAUTION: MAKE SURE** the flexible antenna and battery pack are securely attached to the communication terminal, and that the antenna and battery pack are dry before attachment. Exposing the inside of the communication terminal to water will result in serious damage to the communication terminal. After exposure to water, clean the battery contacts thoroughly with fresh water and dry them completely to remove any water or salt residue.

**CAUTION: DO NOT** use harsh solvents such as benzine or alcohol to clean the communication terminal, because they can damage the communication terminal's surfaces.

**DO NOT** operate the communication terminal near unshielded electrical blasting caps or in an explosive atmosphere.

**DO NOT** use or place the communication terminal in direct sunlight or in areas with temperatures below  $-10^{\circ}\text{C}$  ( $+14^{\circ}\text{F}$ ) or above  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ).

**DO NOT** push the PTT unless you actually intend to transmit.

**BE CAREFUL!** The communication terminal meets IPX7\* requirements for waterproof protection. However, once the communication terminal has been dropped, waterproof protection cannot be guaranteed because of possible damage to the communication terminal's case or waterproof seal.

\*Only when the BP-271 or BP-272 (option), flexible antenna or antenna cap and [↖/↗] cap are attached.

The optional BP-273 and HM-186LS meet IPX4 requirements for splash resistance. When it is attached, the communication terminal corresponds to IPX4.

### • Battery caution

**⚠ DANGER! DO NOT** hammer or otherwise impact the battery. Do not use the battery if it has been severely impacted or dropped, or if the battery has been subjected to heavy pressure. Battery damage may not be visible on the outside of the case. Even if the surface of the battery does not show cracks or any other damage, the cells inside the battery may rupture or catch fire.

**⚠ DANGER! NEVER** use or leave battery pack in areas with temperatures above  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ). High temperature buildup in the battery, such as could occur near fires or stoves, inside a sun heated car, or in direct sunlight may cause the battery to rupture or catch fire. Excessive temperatures may also degrade battery performance or shorten battery life.

**⚠ DANGER! DO NOT** expose the battery to rain, snow, seawater, or any other liquids. Do not charge or use a wet battery. If the battery gets wet, be sure to wipe it dry before using.

## PRECAUTIONS (Continued)

**⚠ DANGER! NEVER** incinerate a used battery pack since internal battery gas may cause it to rupture, or may cause an explosion.

**⚠ DANGER! NEVER** solder the battery terminals, or **NEVER** modify the battery pack. This may cause heat generation, and the battery may burst, emit smoke or catch fire.

**⚠ DANGER!** Use the battery only with the communication terminal for which it is specified. Never use a battery with any other equipment, or for any purpose that is not specified in this instruction manual.

**⚠ DANGER!** If fluid from inside the battery gets in your eyes, blindness can result. Rinse your eyes with clean water, without rubbing them, and see a doctor immediately.

**⚠ WARNING!** Immediately stop using the battery if it emits an abnormal odor, heats up, or is discolored or deformed. If any of these conditions occur, contact your Icom dealer or distributor.

**⚠ WARNING!** Immediately wash, using clean water, any part of the body that comes into contact with fluid from inside the battery.

**⚠ WARNING! NEVER** put the battery in a microwave oven, high-pressure container, or in an induction heating cooker. This could cause a fire, overheating, or cause the battery to rupture.

**CAUTION:** Always use the battery within the specified temperature range,  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $+14^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$ ). Using the battery out of its specified temperature range will reduce the battery's performance and battery life.

**CAUTION:** Shorter battery life could occur if the battery is left fully charged, completely discharged, or in an excessive temperature environment (above  $+50^{\circ}\text{C}$ ;  $+122^{\circ}\text{F}$ ) for an extended period of time. If the battery must be left unused for a long time, it must be detached from the radio after discharging. You may use the battery until the battery indicator shows halfcapacity, then keep it safely in a cool dry place at the following temperature range:

- $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) to  $+50^{\circ}\text{C}$  ( $+122^{\circ}\text{F}$ ) (within a month)
- $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) to  $+35^{\circ}\text{C}$  ( $+95^{\circ}\text{F}$ ) (within three months)
- $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) to  $+20^{\circ}\text{C}$  ( $+68^{\circ}\text{F}$ ) (within a year)

### • Charging caution

**⚠ DANGER! NEVER** charge the battery pack in areas with extremely high temperatures, such as near fires or stoves, inside a sun-heated vehicle, or in direct sunlight. In such environments, the safety/protection circuit in the battery will activate, causing the battery to stop charging.

**⚠ WARNING! DO NOT** charge or leave the battery in the battery charger beyond the specified time for charging. If the battery is not completely charged by the specified time, stop charging and remove the battery from the battery charger. Continuing to charge the battery beyond the specified time limit may cause a fire, overheating, or the battery may rupture.

**⚠ WARNING! NEVER** insert the communication terminal (battery attached to the communication terminal) into the charger if it is wet or soiled. This could corrode the battery charger terminals or damage the charger. The charger is not waterproof.

**CAUTION: NEVER** charge the battery outside of the specified temperature range:  $0^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  ( $+32^{\circ}\text{F}$  to  $+104^{\circ}\text{F}$ ). Icom recommends charging the battery at  $+25^{\circ}\text{C}$  ( $+77^{\circ}\text{F}$ ). The battery may heat up or rupture if charged out of the specified temperature range. Additionally, battery performance or battery life may be reduced.

### • Charging time

BP-271 (Supplied): Approximately 2 hours  
BP-272 (Optional): Approximately 3.5 hours  
\*Charged with the optional BC-202 or BC-211.

## FCC INFORMATION

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.

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

### • FOR CLASS B UNINTENTIONAL RADIATORS:

NOTE: 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:

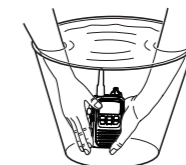
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## FOR CANADA

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

- i. the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.
- ii. the maximum antenna gain permitted for devices in the bands

## RECOMMENDATION



CLEAN THE COMMUNICATION TERMINAL THOROUGHLY WITH FRESH WATER after exposure to saltwater. Otherwise, the communication terminal's keys, switches and controllers may become inoperable due to salt crystallization.

## SAFETY TRAINING INFORMATION

This device was tested and approved with original accessories to ensure FCC Compliance. The use of third-party accessories may not comply with FCC RF exposure compliance requirements, and should be avoided.

## IP100H and Bluetooth® Interference

Bluetooth® uses the 2.4 GHz band. When using the IP100H in the 2.4 GHz band near a Bluetooth® device, interference may occur. This may cause a decrease in communication speed, and an unstable connection.

In such case, use the IP100H away from the Bluetooth® device communication area, or stop using the Bluetooth® device.

## PANEL DESCRIPTIONS

### ◇ Front and side panels

#### External antenna connector

Attach the supplied antenna.  
Or, attach the supplied antenna connector cap, if the internal antenna is used.

**CAUTION: NEVER HOLD** just the attached antenna when carrying the communication terminal.

#### [PTT] button

During half-duplex mode, hold down to transmit, and release to receive.  
During full-duplex mode, push to make a call.

#### [Option] button

Push to hangup a telephone call.  
Or, selects one of often used message or ID, depending on the programming.\*

#### Internal microphone

When VOX (Voice Operated transmission) function is used, the internal microphone cannot be used.

#### [PWR/VOL] knob

Turns ON and OFF the communication terminal power and adjust audio output level.

#### Function display

#### [↗/↖] jack (External microphone/speaker jack)

Connects an optional speaker-microphone or headset for hands-free, full-duplex operation.

**CAUTION:** Attach the jack cover when the optional equipment is not used.

Be sure to turn power OFF before connecting or disconnecting optional equipment to or from the [↗/↖] jack.

#### Function keys

See "◇ Function keys" for details.

#### Internal speaker

When an optional speaker-microphone or headset is connected, the internal speaker cannot be used.

### ◇ Function keys

#### [☰] (Address) key

Push each time to select an addressbook from All, Group, Individual and Telephone.

- Selectable addressbook may differ according to the IP1000C settings.
- Push [Δ]/[▽] to select a desired address.

#### [☰] (Call History) key

Push each time to select call history from TX log, RX log, TX MSG log, RX MSG log, TX TEL log and RX TEL log.

- Push [Δ]/[▽] to select a desired log.

#### [Δ] (Up)/[▽] (Down) keys

Push to select a desired address (ID), log, message, presence (status) or area call function.

#### [FUNC] key

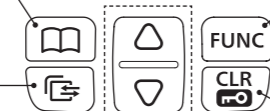
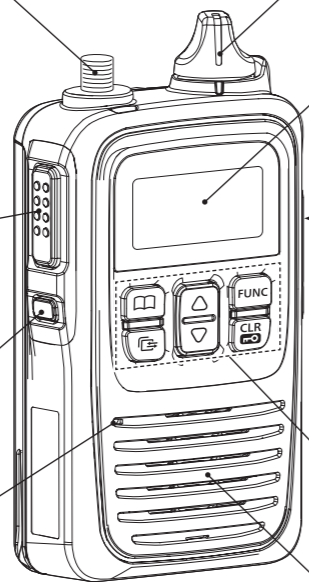
After a desired address selection, push each time to select a message, presence (status) or the area call function select status.

- Selectable function may differ according to the IP1000C settings.
- Push [Δ]/[▽] to select a desired message, status or the function setting.

#### [CLR•🔒] (Clear•Lock) key

• Push momentarily to select a stand-by screen.

- Hold down for 1 second each time to turns ON or OFF the key lock function.

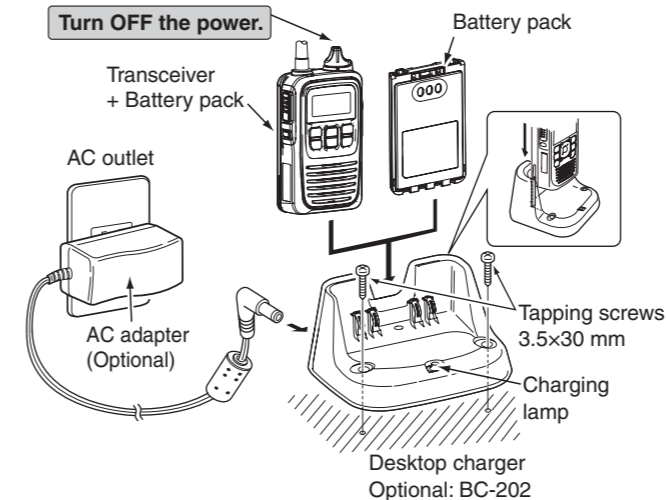


## BATTERY CHARGING

### ◇ Using the BC-202

The BC-202 rapidly charges of the Li-ion battery pack.  
Charging time for the BP-271: Approximately 2 hours  
Charging time for the BP-272: Approximately 3.5 hours  
The following item is required.

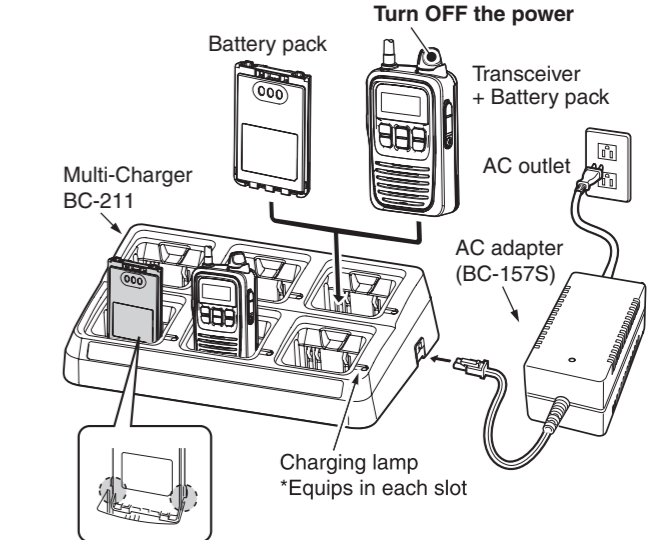
- An AC adapter (not supplied with some versions).



### ◇ Using the BC-211

The BC-211 rapidly charges up to 6 battery packs.  
Charging time for the BP-271: Approximately 2 hours  
Charging time for the BP-272: Approximately 3.5 hours  
The following item is required.

- An AC adapter or the DC power cable (OPC-656)



## CALLING PROCEDURES

### ◇ Voice communication

- Push [☰] several times to select a desired addressbook.
  - Select **All** for all stations call, **Group** for group call, **Individual** for individual station call or **Telephone** for extension call.
  - Selectable addressbook may differ according to the IP1000C's setting.
- Push [Δ]/[▽] several times to select a desired ID or extension number.
  - Selectable ID or extension number may differ according to the IP1000C's setting.
  - You can select a desired ID or extension number from call history by pushing [☰] for easy recalling.
- Push [PTT], then speak into the microphone.
- Release [PTT] to listen.
- Repeat the steps ③ and ④.

When full-duplex mode is selected at the IP1000C, the steps ④ and ⑤ are not necessary. Just speak into the microphone of the connected headset, the received audio is heard from the headset speaker at the same time.

When hanging up the extension call communication, push [Option].

### ◇ Text communication

- Push [☰] several times to select a desired addressbook.
  - Select **All** for all stations call, **Group** for group call, **Individual** for individual station call or **Telephone** for extension call.
  - Selectable addressbook may differ according to the IP1000C's setting.
- Push [Δ]/[▽] several times to select a desired ID or extension number.
  - Selectable ID or extension number may differ according to the IP1000C's setting.
  - You can select a desired ID or extension number from call history by pushing [☰] for easy recalling.
- Push [FUNC] several times to select a desired item.
  - Select **Message** for message transmission, **Presence** for status transmission, or **Area** for a limited area call.
- Push [PTT] to make a call.
  - Message or status is transmitted.
  - If **Area** is selected in the step ③, go to the next step.
- While holding [PTT] speak into the microphone to announce a message.

1) **FCC caution:** [\(SAR value is under process\)](#)

### **RF Exposure Information (SAR)**

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels.

The highest SAR value for the device as reported to the FCC is **1.313 W/kg** when placed next to the body.

This radio transmitter **FCCID: AFJ357600** has been approved by FCC to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

#### **Antenna List**

No.	Manufacturer	Part No.	Antenna Type	Peak Gain	Remark
1	Exceltek	N/A	Dipole	2.0 dBi for 2.4GHz 2.0 dBi for 5.15~5.25GHz	External Antenna
2	TAIYO YUDEN	AH 104N2450D1	Monopole	2.1 dBi for 2.4GHz 2.4 dBi for 5.15~5.25GHz	Internal Antenna

Note: The antenna connector is Reverse SMA type.

**Canadian caution should be included French version, as below:**

#### **Canada, avis d'Industry Canada (IC)**

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

### **Radio Frequency (RF) Exposure Information**

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has been evaluated for and shown compliant with the IC Specific Absorption Rate ("SAR") limits when operated in portable exposure conditions.

### **Informations concernant l'exposition aux fréquences radio (RF)**

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce dispositif a été évalué pour et démontré conforme à la Taux IC d'absorption spécifique ("SAR") des limites lorsqu'il est utilisé dans des conditions d'exposition portatifs.

This radio transmitter **IC: 202D-357600** has been approved by Industry Canada to operate with

the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Cet émetteur radio **IC: 202D-357600** a été approuvé par Industrie Canada pour fonctionner avec les types d'antennes énumérés ci-dessous avec le gain maximal admissible et impédance d'antenne requise pour chaque type d'antenne indiqué. Types d'antennes n'est pas inclus dans cette liste, ayant un gain supérieur au gain maximal indiqué pour ce type, sont strictement interdits pour une utilisation avec cet appareil.

**Antenna List**

No.	Manufacturer	Part No.	Antenna Type	Peak Gain	Remark
1	Exceltek	N/A	Dipole	2.0 dBi for 2.4GHz 2.0 dBi for 5.15~5.25GHz	External Antenna
2	TAIYO YUDEN	AH 104N2450D1	Monopole	2.1 dBi for 2.4GHz 2.4 dBi for 5.15~5.25GHz	Internal Antenna

Note: The antenna connector is Reverse SMA type.