

## FCC INFORMATION

**• FOR CLASS A UNINTENTIONAL RADIATORS:**  
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### CAUTION:

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

## COUNTRY CODE LIST

### ISO 3166-1

	Country	Codes		Country	Codes
1	Austria	AT	18	Liechtenstein	LI
2	Belgium	BE	19	Lithuania	LT
3	Bulgaria	BG	20	Luxembourg	LU
4	Croatia	HR	21	Malta	MT
5	Czech Republic	CZ	22	Netherlands	NL
6	Cyprus	CY	23	Norway	NO
7	Denmark	DK	24	Poland	PL
8	Estonia	EE	25	Portugal	PT
9	Finland	FI	26	Romania	RO
10	France	FR	27	Slovakia	SK
11	Germany	DE	28	Slovenia	SI
12	Greece	GR	29	Spain	ES
13	Hungary	HU	30	Sweden	SE
14	Iceland	IS	31	Switzerland	CH
15	Ireland	IE	32	Turkey	TR
16	Italy	IT	33	United Kingdom	GB
17	Latvia	LV			

### < Intended Country of Use >

AT BE CY CZ DK EE  
FI FR DE GR HU IE  
IT LV LT LU MT NL  
PL PT SK SI ES SE  
GB IS LI NO CH BG  
RO TR HR

## 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.

#5,870,405, #5,826,222, #5,754,974, #5,701,390, #5,715,365, #5,649,050, #5,630,011, #5,581,656, #5,517,511, #5,491,772, #5,247,579, #5,226,084 and #5,195,166.

## RECOMMENDATION

**CLEAN THE TRANSCEIVER THOROUGHLY WITH FRESH WATER** after exposure to saltwater, and dry it before operating. Otherwise, the transceiver's keys, switches and controllers may become unusable due to salt crystallization.

**NOTE: DO NOT** submerge the transceiver in water if there is any reason (one of the following) to suspect the waterproof protection may not be effective.

- When the transceiver has been dropped
- When the transceiver's case or the waterproof seal is cracked or damaged
- When the jack cover or the optional HM-168LWP, HM-171GPW, HS-94LWP, or HS-95LWP is detached from the transceiver



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# ICOM

## PRECAUTIONS

VHF DIGITAL TRANSCEIVERS

# IC-F1000D series

UHF DIGITAL TRANSCEIVERS

# IC-F2000D series

Thank you for choosing the IC-F1000D series VHF DIGITAL TRANSCEIVERS or IC-F2000D series UHF DIGITAL TRANSCEIVERS.  
**READ ALL PRECAUTIONS** carefully and completely before using the transceiver.

## 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.

## PRECAUTIONS

⚠ **DANGER! NEVER** short the terminals of the battery pack.

⚠ **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! NEVER** hold the radio that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The radio will perform best if the microphone is 5 to 10 cm (2 to 4 inches) away from the lips and the radio is vertical.

⚠ **WARNING! NEVER** operate the radio with a headset or other audio accessories at high volume levels. The continuous high volume operation may cause a ringing in your ears. If you experience a ringing, reduce the volume level or discontinue use.

⚠ **WARNING! NEVER** operate the radio while driving a vehicle. Safe driving requires your full attention—anything less may result in an accident.

**CAUTION: MAKE SURE** the flexible antenna, battery pack and jack cover are securely attached to the radio, and that the antenna and battery pack are dry before attachment. Exposing the inside of the radio to dust or water will result in serious damage to the radio.

**DO NOT** operate the radio near unshielded electric blasting caps or in an explosive atmosphere.

**DO NOT** push [PTT] when you do not actually intend to transmit.

**DO NOT** use or place the radio in direct sunlight or in areas with temperatures below  $-25^{\circ}\text{C}$  ( $-13^{\circ}\text{F}$ ) or above  $+55^{\circ}\text{C}$  ( $+131^{\circ}\text{F}$ ): ETS version, below  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ) or above  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ): TIA version. The basic operations, transmission and reception of the radio are guaranteed within the specified operating temperature range.

**DO NOT** modify the radio. The specifications may change and then not comply with the requirements of a corresponded regulation. The radio warranty does not cover any problems caused by unauthorized modification.

**DO NOT** use harsh solvents such as benzene or alcohol when cleaning, as they will damage the radio surfaces.

**BE CAREFUL!** The radio will become hot when operating it continuously for long periods of time.

**BE CAREFUL!** The radio meets IP67\* requirements for dust-tight and waterproof protection. However, once the radio has been dropped, dust-tight and waterproof protection cannot be guaranteed because of possible damage to the radio's case or the waterproof seal.

\*Only when the jack cover, the optional HM-168LWP, or HM-171GPW is attached.

Even when the radio power is OFF, a slight current still flows in the circuits. Remove the battery pack from the radio when not using it for a long time. Otherwise, the installed battery pack will become exhausted, and will need to be recharged or replaced.

**MAKE SURE** to turn the radio power OFF before connecting the supplied or optional equipment.

## PRECAUTIONS (Continued)

### • Battery caution

Misuse of Li-ion batteries may result in the following hazards: smoke, fire, or the battery may rupture. Misuse can also cause damage to the battery or degradation of battery performance.

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

⚠ **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°C (+140°F). High temperature buildup in the battery, such as could occur near fires or stoves, inside a sun-heated vehicle, 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.

⚠ **DANGER! KEEP** battery packs away from fire. Fire or heat may cause them to rupture or explode. Dispose of used battery packs in accordance with local regulations.

⚠ **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 radio 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, for the radio -25°C to +55°C (-13°F to +131°F): ETS version, -30°C to +60°C (-22°F to +140°F): TIA version, and the battery itself -20°C to +60°C (-4°F to +140°F). Using the battery out of its specified temperature range will reduce the battery's performance and battery life. Please note that the specified temperature range of the battery may exceed that of the radio. In such cases, the radio may not work properly because it is out of its operating temperature range.

**CAUTION:** Shorter battery life could occur if the battery is left fully charged, completely discharged, or in an excessive temperature environment (above +50°C; +122°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 remaining capacity is about half, then keep it safely in a cool dry place at the following temperature range:  
-20°C (-4°F) to +50°C (+122°F) (within a month)  
-20°C (-4°F) to +40°C (+104°F) (within three months)  
-20°C (-4°F) to +20°C (+68°F) (within a year)

**BE SURE** to replace the battery with a new one after five years, even if still holds a charge. The inside battery material will deteriorate after a period of time, even with little use.

### • 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! NEVER** 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 radio (battery attached to the radio) 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.

**NOTE:** Charge the battery within the specified temperature range of +10°C to +40°C (+50°F to +104°F). Otherwise, the charging time will be longer, but the battery will not reach a full charge. While charging, at a point after the temperature goes out of the specified range, the charging will automatically stop.

## SAFETY TRAINING INFORMATION



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. This radio has been tested and complies with the FCC and IC RF exposure limits for "Occupational Use Only". In addition, your Icom radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields— RF and Microwave.
- The antennas, batteries, belt clips, speaker-microphone, and other accessories that are listed in "OPTIONS" of the INSTRUCTIONS sheet, are authorized for use with this product. Use of accessories other than those specified may result in RF exposure levels exceeding the FCC and IC requirements for wireless RF exposure.



**To ensure that your exposure to RF electromagnetic energy is within the FCC and IC 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 and IC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or 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 and IC RF exposure compliance requirements to be exceeded. The radio is transmitting when the LED indicator lights red. You can cause the radio to transmit by pressing the "PTT" switch.

- **ALWAYS keep** the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the Icom belt-clips listed in "OPTIONS" of the INSTRUCTIONS sheet when attaching the radio to your belt, etc., to ensure FCC and IC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from your mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates with the FCC and IC RF exposure limits of this radio.

### 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.

### Occupational/Controlled Use

The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.