

VHF DIGITAL TRANSCEIVERS

IC-F3360D series

UHF DIGITAL TRANSCEIVERS

IC-F4360D series

Thank you for choosing the IC-F3360DT/IC-F3360DS VHF DIGITAL TRANSCEIVERS or IC-F4360DT/IC-F4360DS UHF DIGITAL TRANSCEIVERS. **READ ALL PRECAUTIONS** carefully and completely before using your transceiver.

EXPLICIT DEFINITIONS

| WORD | DEFINITION |
|-------------------|---|
| ⚠ DANGER! | Personal death, serious injury or an explosion may occur. |
| ⚠ 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

• Radio caution

⚠ **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 to be charged by Icom chargers. Using third-party or counterfeit battery packs or chargers may cause smoke, fire, or cause the battery packs 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. Hearing experts advise against continuous high volume operation. If you experience a ringing in your ears, 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 electrical 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 places with temperatures below -30°C (-22°F) or above $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$). The basic operations of the radio are guaranteed within the specified operating temperature range. However, the Liquid Crystal Display may not operate correctly, or show an indication in the case of long hours of operation, or after being placed in extremely cold areas.

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.

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.

The GPS receiver may not work if the radio transmits near the 510 MHz. This is made in the internal circuit and does not indicate a radio malfunction.

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 the 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 pack. Do not use the battery pack if it has been severely impacted or dropped, or if it has been subjected to heavy pressure. The damage may not be visible on the outside of the case. Even if the surface of the battery pack does not show cracks or any other damage, the cells inside may rupture or catch fire.

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

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

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

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

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

⚠ **DANGER!** If fluid from inside the battery pack 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 pack 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 pack.

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

CAUTION: Always use the battery pack within the specified temperature range, for the radio (-30°C to $+60^{\circ}\text{C}$: -22°F to $+140^{\circ}\text{F}$) and the battery pack itself (-20°C to $+60^{\circ}\text{C}$: -4°F to $+140^{\circ}\text{F}$). Using the battery pack out of its specified temperature range will reduce the performance and the life. Please note that the specified temperature range of the battery pack 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 pack 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 pack must be left unused for a long time, it must be detached from the radio after discharging. You may use the battery pack until the remaining capacity is about half, then keep it safely in a cool and dry place at the following temperature range:

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

BE SURE to replace the battery pack 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 pack will activate, causing the battery to stop charging.

⚠ **WARNING! NEVER** charge or leave the battery pack in the battery charger beyond the specified time for charging. If the battery pack is not completely charged by the specified time, stop charging and remove the battery pack from the battery charger. Continuing to charge the battery pack beyond the specified time limit may cause a fire, overheating, or the battery pack may rupture.

⚠ **WARNING! NEVER** insert the radio (the battery pack 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 pack within the specified temperature range: BC-160 and BC-171 (0°C to $+45^{\circ}\text{C}$: $+32^{\circ}\text{F}$ to $+113^{\circ}\text{F}$), BC-119N and BC-121N ($+10^{\circ}\text{C}$ to $+40^{\circ}\text{C}$: $+50^{\circ}\text{F}$ to $+104^{\circ}\text{F}$). Otherwise, the charging time will be longer, but the battery pack 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.

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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.

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

CAUTION:

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

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.

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 >

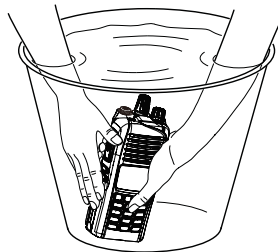
AT BE CY CZ DK EE
FI FR DE GR HU IE
IT LV LT LU MT NL
PL PT SK SI SE OE
GB IS LI NO CH BG
RO TR HR

RECOMMENDATION

CLEAN THE TRANSCIEVER 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 you suspect the waterproof protection may not be effective, especially after one of the following:

- The transceiver has been dropped
- The transceiver's case or the waterproof seal is cracked or damaged



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.