# OICOM

### INSTRUCTION MANUAL

144 MHz FM TRANSCEIVER

IC-2GXA IC-2GXE

IC-2GXAT IC-2GXET

**UHF FM TRANSCEIVER** 

IC-4GXA IC-4GXE

IC-4GXAT IC-4GXET

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.

Icom Inc.



### **IMPORTANT**

**READ ALL INSTRUCTIONS** carefully and completely before using the transceiver.

**SAVE THIS INSTRUCTION MANUAL.** This instruction manual contains important safety and operating instructions.

### MANUAL NOTES

This instruction manual uses the IC-2GXAT for most of the example displays. Please note that only the frequency differs from the IC-4GXA/E or IC-4GXAT/ET.

This instruction manual distinguishes models as "T" types and "non-T" types rather than using full model names.

"T" types	IC-2GXAT, IC-2GXET, IC-4GXAT, IC-4GXET
"Non-T" types	IC-2GXA, IC-2GXE, IC-4GXA, IC-4GXE

### **UNPACKING**

- Battery pack or battery case ... 1
   Wall charger ...... 1
   (Versions attached battery case do not included.)
- Flexible antenna .....1
- Handstrap .....1
- Belt clip and screws ....... 1 set

### **CAUTIONS**

▲ NEVER connect the transceiver to an AC outlet or to a power source of more than 16 V DC.

⚠ **NEVER** connect the transceiver to a power source using reverse polarity. This connection will ruin the transceiver.

▲ **NEVER** allow children to touch the transceiver.

**AVOID** using or placing the transceiver in areas with temperatures below  $-10^{\circ}\text{C}$  (+14°F) or above +60°C (+140°F).

**AVOID** placing the transceiver in direct sunlight.

**BE CAREFUL!** When transmitting for a long time with high output power, the rear panel will become hot.

**BE CAREFUL!** During external DC power operation, connected battery pack or battery case is charged. If the BP-130A BATTERY CASE is connected, remove dry cell batteries. Otherwise, battery leakage may occur.

**BE CAREFUL!** The use of non-lcom battery packs and chargers may impair transceiver performance and invalidate the warranty.

# TABLE OF CONTENTS

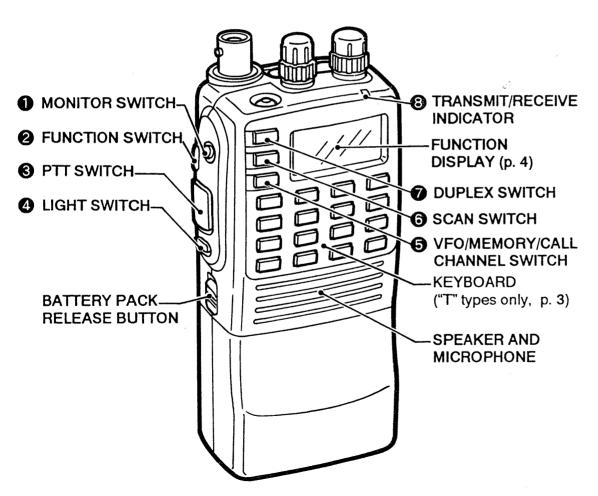
M U C	MPORTANT ANUAL NOTES NPACKING AUTIONS ABLE OF CONTENTS
1	PANEL DESCRIPTION 1 - 4  Front, side and top panels
2	PRE-OPERATION 5—8  Battery pack charging 8  Battery pack precautions 8  About the battery pack 9  Charging connections 9  Dry cell battery installation 9  Accessory attachment 9
3	FREQUENCY SETTING 9-1  VFO, MEMORY modes and call channel 1  Using tuning dial 1  Tuning step 10  Display lighting 10  Dial select step pre-setting 10  Lock function 10  Using digit keys 1  Using ▲/ ▼ keys 1
4	RECEIVING AND TRANSMITTING ··· 12 – 13 Receiving ····································

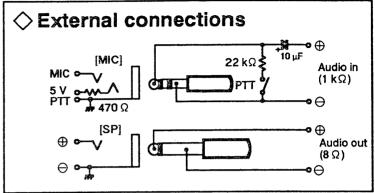
	Output power selection 1:
5	BASIC REPEATER OPERATION 14 Accessing 14
6	ADVANCED REPEATER  OPERATION 15-16  Auto repeater 19  Offset frequency 19  Subaudible tone frequency 19  Tone scan operation 19
7	DTMF MEMORY CHANNELS · · · · · · 1  ■ DTMF memory programming · · · · · 1  ■ DTMF memory transmitting · · · · · 1
8	CALL CHANNEL 18  Call channel recall 18  Call channel programming 18
9	MEMORY CHANNELS
10	SCANS 21-22  Scan types 2  Programmed scan operation 2  Memory scan operation 2  Skip channel setting 2  Scan resume condition 2

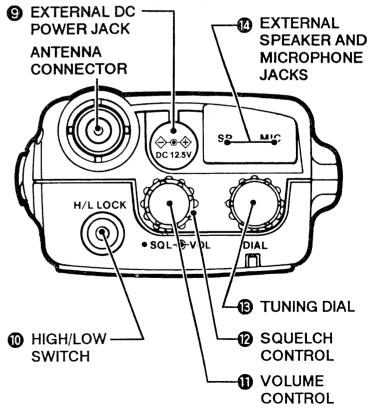
11 PAGER AND CODE SQUELCH 23  Function availability What is the pager function? Code channels Code programming Pager operation Code squelch operation	··· 2 ··· 2 ··· 2 ··· 2
12 POCKET BEEP AND TONE SQUELCH  Function availability  Pocket beep operation  Tone squelch operation	·· 2
13 OTHER FUNCTIONS 28  Power saver	·· 2 ·· 2 ·· 2 ·· 3
14 OPTIONAL UNIT INSTALLATION ······	3
15 MODE ARRANGEMENT CHART	3
16 TROUBLESHOOTING	3
17 SPECIFICATIONS	3.
18 OPTIONS 35	-3

# PANEL DESCRIPTION

### Front, side and top panels







### **1** MONITOR SWITCH [MONI]

Manually opens the squelch and monitors the transmit frequency. (pgs. 12, 14)

### **@** FUNCTION SWITCH [F]

While pushing [F], some switches perform secondary functions.

#### **© PTT SWITCH [PTT]**

Push and hold to transmit. (p. 12)

### **4** LIGHT SWITCH [LIGHT]

Turns the display lighting ON and OFF. (p. 10)

# **TOTAL CHANNEL**SWITCH

 $[V/M/C \cdot MW/M > v]$ 

- Selects VFO mode, MEMORY mode or a call channel in sequence. (pgs. 9, 18, 19)
- -[F] +[V/M/C MW/M►V]
   While in VFO mode: Writes VFO contents into a memory channel.
   (p. 19)

While in MEMORY mode: Transfers a memory channel contents into the VFO. (p. 20)

While on the call channel: Writes the VFO contents into the call channel. (p. 18)

### **③ SCAN SWITCH [SCAN · sel]**

- Activates and cancels tone scan, programmed scan or memory scan. (pgs. 16, 21)
- -[F] + [SCAN SEL]
   While in VFO mode: Selects a digit for the dial select step. (p. 10)

While in MEMORY mode: Selects or cancels skip channel setting. (p. 22)

#### **DUPLEX SWITCH [DUP • T/T.SQL]**

- Selects +duplex, -duplex or simplex. (pgs. 12, 14)
- -[F] + [DUP T/T.SQL] Activates and cancels the subaudible tone encoder, tone squelch or pocket beep function. (pgs. 14, 27)

#### **③TRANSMIT/RECEIVE INDICATOR**

- Lights up in green while the squelch is open. (p. 12)
- Lights up in red while transmitting.(p. 12)

# **© EXTERNAL DC POWER JACK** [DC 12.5V]

- Connects a wall charger or DC power source for charging. (p. 6)
- -Connects 6-16 V DC power source for operation. (p. 35)

#### (I) HIGH/LOW SWITCH [H/L · LOCK]

- Selects high or low output. (p. 13)
- [F] + [H/L LOCK] Activates and cancels the lock function. (p. 10)

### **10** VOLUME CONTROL [VOL]

Turns the power ON and OFF, and adjusts audio output level. (pgs. 9, 12)

### **@SQUELCH CONTROL [SQL]**

Adjusts the squelch level. (p. 12)

### **® TUNING DIAL [DIAL]**

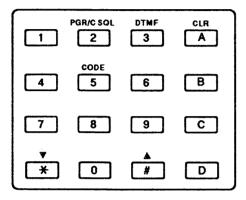
Selects an operating frequency, memory channel, etc. (pgs. 9, 19)

# © EXTERNAL SPEAKER AND MICROPHONE JACKS [SP], [MIC]

Connects an optional speakermicrophone or headset, if required. (p. 36)

### 1 PANEL DESCRIPTION

## **Keyboard** ("T" types only)



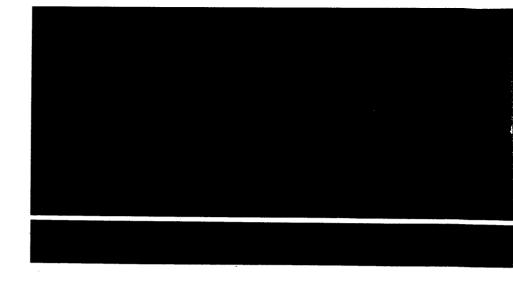
Each key encodes a DTMF code while transmitting. (p. 14)

Some keys have functions as tables at right.

Key	Function
to 0	- While in VFO mode: Sets the operating frequency. (p. 11) - While in MEMORY mode: Sets the 1's digit of memory channel number. (p. 19)
# \ \ \ \ \	- While in VFO mode: Changes operating frequency. (p. 11) - While in MEMORY mode: Sets a memory channel. (p. 19)
CLR A	<ul> <li>While in VFO mode: Clears frequency input before entry.</li> <li>(p. 11)</li> <li>Cancels the tone scan, programmed scan or memory scan.</li> <li>(pgs. 16, 21)</li> <li>While in SET mode: Sets the contents and exits SET mode.</li> </ul>

Key	Function while pushing [F]
PGR/CSQL	Activates and cancels optional pager and code squelch function. (pgs. 25, 26)
DTMF	Allows you to select a DTMF memory channel. (p. 17)
CODE 5	Allows you to program code channels for an optional pager and code squelch functions. (p. 25)

Count on us!



A-5302S-1EX Printed in Japan Copyright © 1994 by Icom Inc.

Icom Inc.

6-9-16, Kamihigashi, Hirano-ku, Osaka 547, Japan