



## INSTRUCTION MANUAL

144MHz FM TRANSCEIVER

**IC-228A**

**IC-228E**

**IC-228H**



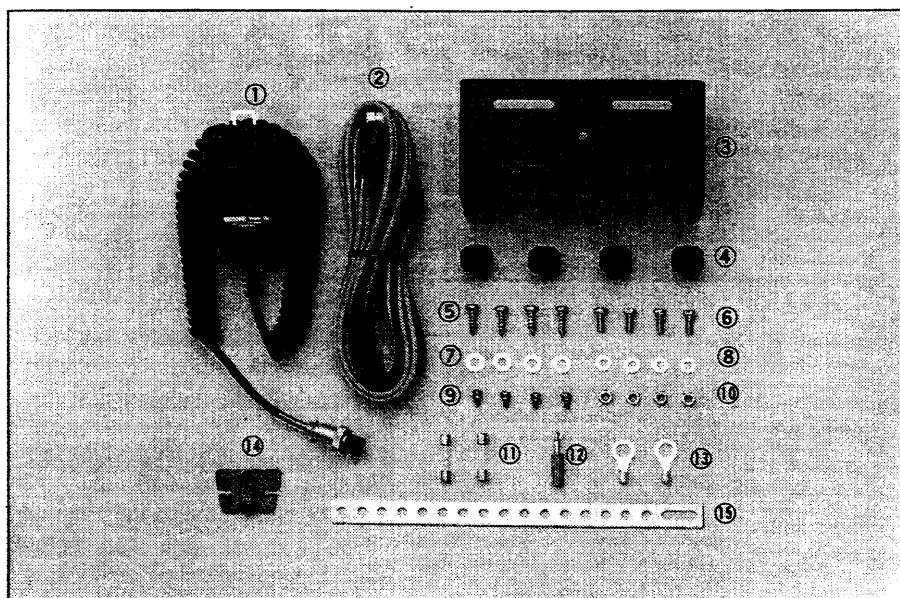
Icom Inc.

# FOREWORD

Thank you for purchasing the **IC-228A/E/H 144MHz FM TRANSCEIVER**. The IC-228A/E/H is compact and easy to operate with high output power and the latest technology.

Please read this instruction manual thoroughly before operating the transceiver and feel free to contact your nearest Icom Dealer or Service Center if you require assistance or information regarding the operation of your new transceiver.

## UNPACKING



①	Microphone * <sup>1</sup>	1
②	DC cable	1
③	Mounting bracket* <sup>2</sup>	1
④	Mounting bracket knobs	4
⑤	Self-tapping screws (A0 5 x 16)	4
⑥	Screws (M5 x 12)	4
⑦	Flat washers (M5)	4
⑧	Flat washers (M4)	4
⑨	Set screws (A) 4 x 8	4
⑩	Nuts (M5)	4
⑪	Fuses (15A)	2
⑫	External speaker plug	1
⑬	Cable lugs	2
⑭	Microphone hanger	1
⑮	Support bracket	1

\*<sup>1</sup> HM-14 for IC-228A/H (U.S.A. version)  
HM-12 for IC-228A/H (Australia, Asia versions)  
HM-15 for IC-228E/H (Europe, Italy versions)

\*<sup>2</sup> Style differs from IC-228A/E.

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# TABLE OF CONTENTS

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<b>1</b>	<b>PRECAUTIONS</b> .....	<b>1</b>
<b>2</b>	<b>FEATURES</b> .....	<b>2</b>
<b>3</b>	<b>PANEL DESCRIPTION</b> .....	<b>3</b>
3-1	FRONT PANEL .....	3
3-2	FUNCTION DISPLAY .....	5
3-3	REAR PANEL .....	6
3-4	MICROPHONE .....	6
<b>4</b>	<b>INSTALLATION</b> .....	<b>7</b>
<b>5</b>	<b>MODE CONSTRUCTION</b> .....	<b>10</b>
<b>6</b>	<b>BASIC OPERATIONS</b> .....	<b>11</b>
6-1	FREQUENCY SETTING .....	11
6-2	RECEIVING .....	11
6-3	TRANSMITTING .....	12
6-4	REPEATER OPERATION .....	13
<b>7</b>	<b>FUNCTION OPERATIONS</b> .....	<b>14</b>
7-1	CALL CHANNEL MODE .....	14
7-2	MEMORY MODE .....	15
7-3	SCAN FUNCTION .....	17
7-4	PRIORITY WATCH .....	20
<b>8</b>	<b>SET MODE</b> .....	<b>22</b>
8-1	SET MODE CONSTRUCTION .....	22
8-2	SUBAUDIBLE TONE FREQUENCY .....	23
8-3	OFFSET FREQUENCY .....	24
8-4	TUNING STEP .....	24
8-5	PROGRAMMED SCAN EDGES .....	25
8-6	BEEP TONE ON/OFF .....	26
8-7	DIMMER CONTROL .....	26
<b>9</b>	<b>OPTIONAL TONE SQUELCH UNIT</b> .....	<b>27</b>
9-1	UT-40 INSTALLATION .....	27
9-2	POCKET BEEP FUNCTION .....	28
9-3	TONE SQUELCH FUNCTION .....	29
<b>10</b>	<b>MAINTENANCE</b> .....	<b>30</b>
10-1	TROUBLESHOOTING .....	30
10-2	CPU RESETTING .....	31
10-3	MISCELLANEOUS MAINTENANCE .....	32
<b>11</b>	<b>INSIDE VIEWS</b> .....	<b>33</b>
<b>12</b>	<b>SPECIFICATIONS</b> .....	<b>35</b>
<b>13</b>	<b>OPTIONS</b> .....	<b>36</b>
	<b>SCHEMATIC/BLOCK DIAGRAM</b> .....	<b>SEPARATE</b>

# 1 PRECAUTIONS

Before using the transceiver, read all instructions carefully and completely.

**SAVE THESE INSTRUCTIONS** — This instruction manual contains important safety and operating instructions for the IC-228A/E/H.

**NEVER** connect the transceiver to an AC outlet. This will ruin the transceiver.

**NEVER** connect more than 16V DC power supplies or batteries to the transceiver. Check the source before connecting the power cable.

**NEVER** allow children to touch the transceiver during operation.

**NEVER** use or store the transceiver in places with temperatures below  $-10^{\circ}\text{C}$  ( $+14^{\circ}\text{F}$ ) or over  $+60^{\circ}\text{C}$  ( $+140^{\circ}\text{F}$ ).

**NEVER** expose the transceiver to rain, snow or any liquids.

**DO NOT** place the transceiver in excessively humid environments.

**AVOID** placing the transceiver in direct sunlight, such as on the dashboard.

**AVOID** using the transceiver in excessively dusty environments.

**BE CAREFUL!** The heatsink may become hot when operating the transceiver continuously for long periods.

# FEATURES 2

- **COMPACT AND HIGH OUTPUT POWER**

Many conventional functions included in a compact body, and 45W\* of powerful output on any frequency in the 2m band. (\*IC-228A/E : 25W)

- **SIMPLE PANEL DESIGN**

Front panel layout is extremely simple even with many functions available. Because of the convenient SET mode programs tone, offset, tuning step, scan edge, etc., for a simple design.

- **20 MEMORY CHANNELS PLUS A CALL CHANNEL**

The transceiver is equipped with a total of 20 memory channels and a call channel. Each memory channel can independently memorize an operating frequency and all information required to work a repeater.

- **PROGRAMMED SCAN AND MEMORY SCAN**

Two scans, the Programmed Scan and the Memory Scan, are provided on the transceiver. In addition, the Memory Skip function can be programmed in each memory channel to skip your unnecessary memory channel during Memory Scan.

- **PRIORITY WATCH**

During VFO mode operation, the Priority Watch watches memory channels in sequence, a memory channel or the call channel every 5sec. You can wait for a call from station while in contact with other station.

- **POCKET BEEP FUNCTION**

The convenient Pocket Beep function lets you know with a 30sec. beep and "SQL" flashing on the FUNCTION DISPLAY when subaudible tones identical to your own pre-programmed ones arrive at the transceiver. The Pocket Beep function requires an optional UT-40 TONE SQUELCH UNIT.

- **MONITOR FUNCTION**

The Monitor function opens the squelch (also Tone Squelch when the UT-40 is installed) without rotating the [SQL/MONITOR] CONTROL back and forth at the squelch threshold level. Only you push the control.

# 3 PANEL DESCRIPTION

## 3-1 FRONT PANEL

### TRANSMIT INDICATOR [TX]

Lights while transmitting. (p. 12)

### RECEIVE INDICATOR [RX]

Lights while receiving and when the squelch opens. (p. 11)

### CALL CHANNEL SWITCH [CALL]

Accesses and leaves CALL CHANNEL mode. (p. 14)

### VFO/MEMORY SWITCH [VFO/M]

Selects VFO or MEMORY mode. (p. 15)

### TUNING CONTROL

Changes the operating frequency in VFO mode. (p. 11)

Changes the memory channel in MEMORY mode. (p. 15)

Changes the programming contents in SET mode.  
(pgs. 23 ~ 26)

### MEMORY WRITE SWITCH [MW]

Push and hold this switch to activate the following functions:

- Memory writing (in VFO mode) (p. 16)
- Memory transferring (in MEMORY mode) (p. 16)
- Call channel programming (in CALL CHANNEL mode) (p. 14)

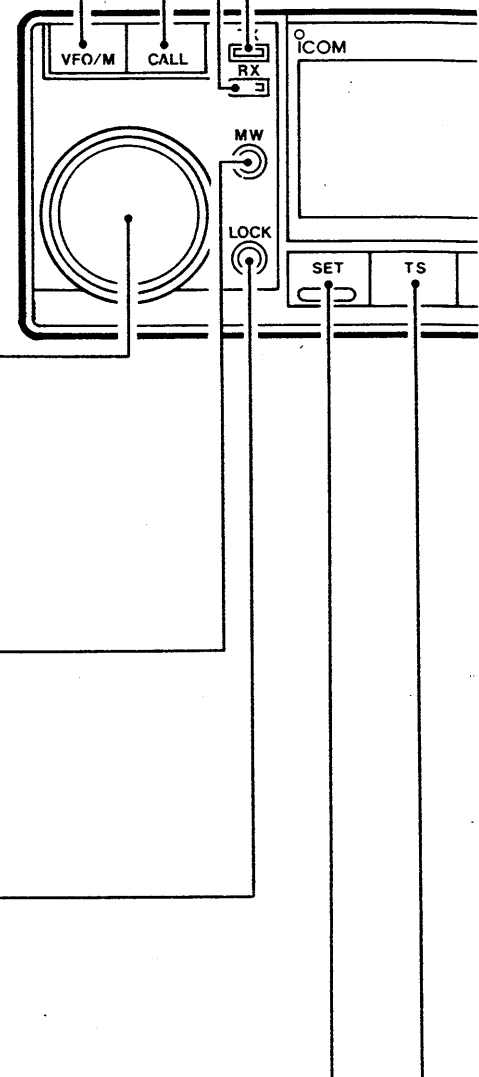
### LOCK SWITCH [LOCK]

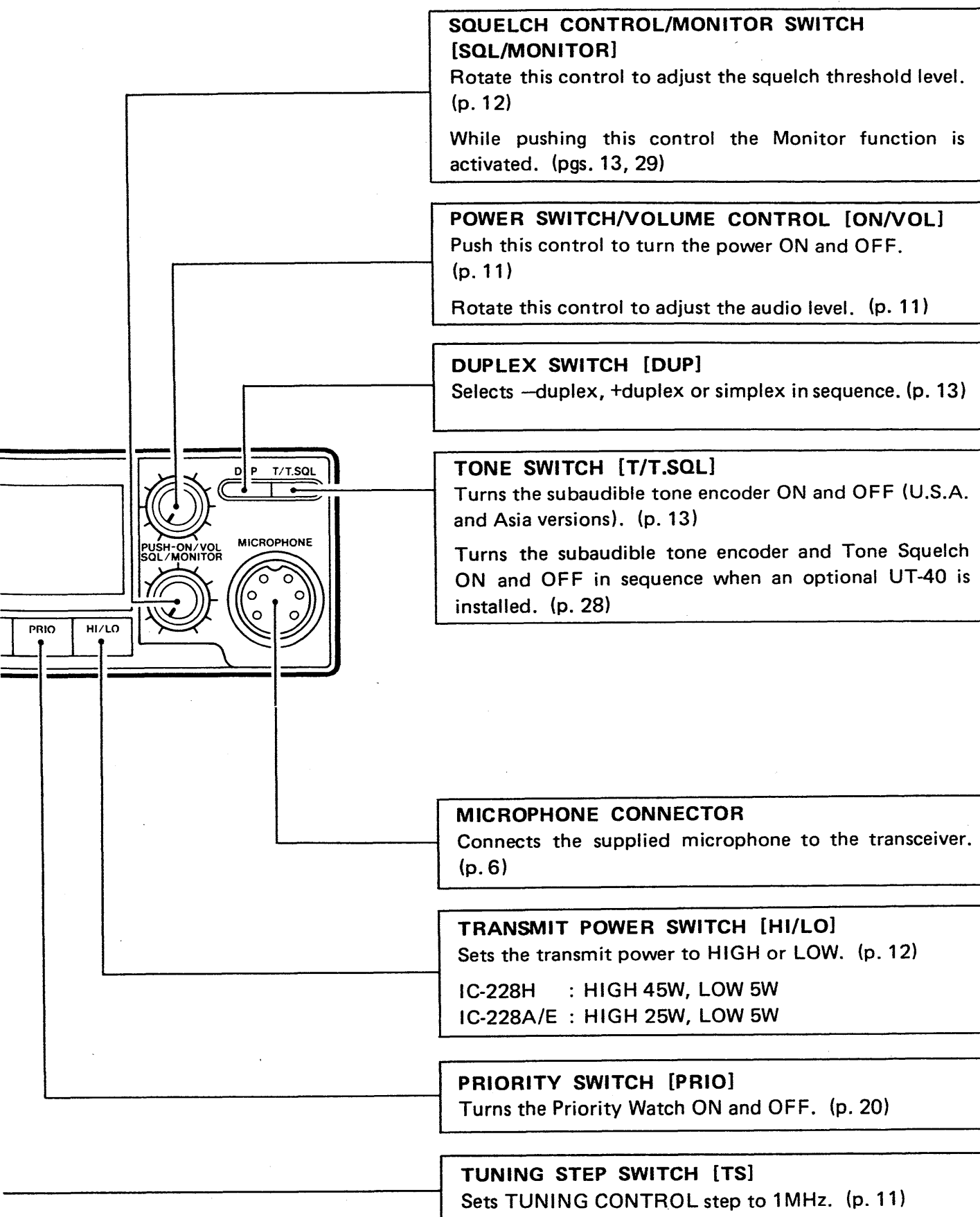
Deactivates the TUNING CONTROL and unlocked-type switches.

### SET MODE SWITCH [SET]

Selects and changes SET mode from VFO mode. (p. 22)

Sets a memory skip channel in MEMORY mode. (p. 19)





**Count on us!**



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