

ICOM

INSTRUCTION MANUAL

DUAL BAND FM TRANSCEIVER
IC-2700H
IC-2700A
IC-2700E



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 for the IC-2700H/A/E.

FOREWORD

The IC-2700H/A/E is a compact, easy-to-operate, multi-function transceiver designed using Icom's state-of-the-art technology.

Sections beginning with a microphone illustration describe operations using the supplied microphone or optional HM-90/A WIRELESS MICROPHONE.

NOTE: See "Unpacking" on p. 87 for included accessories.

CAUTIONS

NEVER connect the transceiver to an AC outlet or to a power source of more than 16 V DC. These connections will ruin the transceiver.

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

NEVER place the transceiver where normal operation of the vehicle may be hindered or where it could cause bodily injury.

NEVER allow children to touch the transceiver.

DO NOT use or place the transceiver in areas with temperatures below -10°C ($+14^{\circ}\text{F}$) or over $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$) or, in areas subject to direct sunlight, such as the dashboard.

AVOID the use of chemical agents such as benzine or alcohol when cleaning, as they can damage the transceiver surfaces.

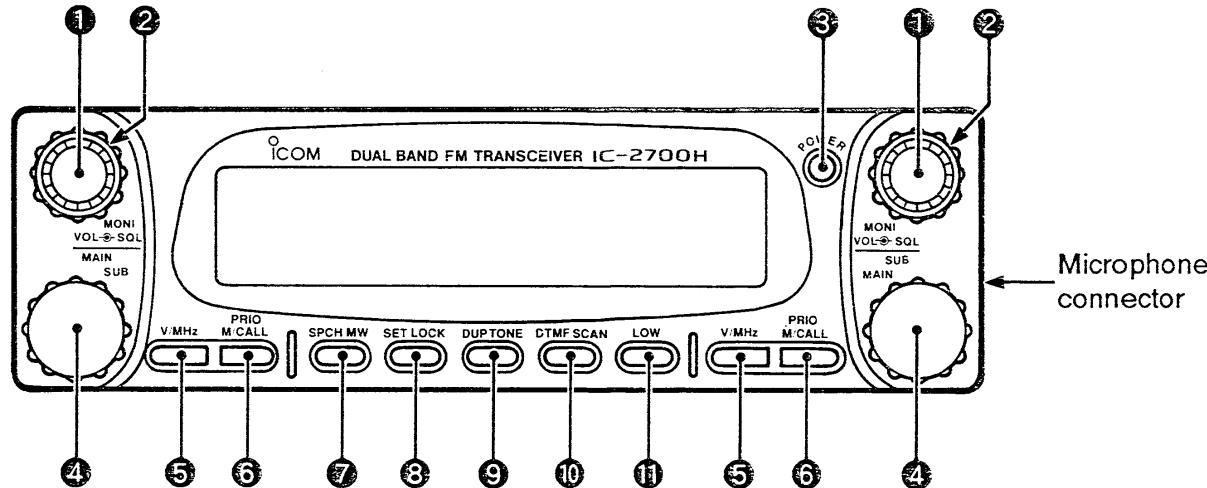
BE CAREFUL! The transceiver will become hot when operating it continuously for long periods.

TABLE OF CONTENTS

1 PANEL DESCRIPTION	1–8	7 MEMORY OPERATION	39–44	14 PAGER AND CODE SQUELCH	65–71
■ Front panel (remote controller)	1	■ General description	39	■ Pager function	65
■ Function display	3	■ Memory channel selection	39	■ Code channels	66
■ Rear panel	5	■ Programming a memory channel	40	■ Code programming	67
■ Microphone	6	■ Programming a memory channel via the microphone	41	■ Pager operation	68
■ Microphone keyboard	7	■ Transferring memory contents	42	■ Code squelch function	70
2 INSTALLATION	9–16	■ Memory area setting	43	■ Code squelch operation	71
3 MODE ARRANGEMENT CHART	17–18	■ Memory channel allocation	44		
4 SETTING A FREQUENCY	19–23	■ Auto channel advance	44	15 POCKET BEEP AND TONE SQUELCH	72–74
■ Pre-operation	19	8 CALL CHANNEL OPERATION	45–46	■ Pocket beep operation	72
■ Lock functions	20	9 SCRATCH PAD MEMORY	47–48	■ Tone squelch operation	73
■ Using a tuning dial	21	■ What is a scratch pad memory	47	■ Optional unit installation	74
■ Using [UP]/[DN] switches	21	■ Calling up a scratch pad memory	47	16 WIRELESS MICROPHONE	75–76
■ Tuning step selection	22	■ Transferring scratch pad memory contents	48	■ HM-90/A microphone	75
■ Using the keyboard	23	10 SCAN OPERATION	49–56	■ Charging the microphone	75
5 BASIC OPERATION	24–32	■ Scan types	49	■ EX-1513 installation	76
■ Receiving	24	■ Full scan and programmed scan	50	17 OTHER FUNCTIONS	77–82
■ Setting a squelch level	25	■ Scan edge selection	51	■ Audio output selection	77
■ Monitor function	25	■ Programming scan edges	52	■ Beep tone on/off	78
■ Audio mute function	26	■ Programming scan edges via the microphone	53	■ Time-out timer	78
■ Display dimmer setting	26	■ Memory scan	54	■ Auto power-off	79
■ Sub band access	27	■ Skip channel setting	55	■ Cooling fan setting	79
■ Sub band mute/sub band busy beep	28	■ Scan resume condition	56	■ Microphone address	80
■ Mono band operation	29	11 PRIORITY WATCH	57–58	■ Optional voice synthesizer	81
■ Para-watch	29	12 DTMF MEMORY	59–62	■ Demonstration display	82
■ Transmitting	31	■ Programming a DTMF code	59	18 MAINTENANCE	83–85
■ Selecting the output power	31	■ Clearing the DTMF memory contents	59	■ Troubleshooting	83
■ Crossband full duplex	32	■ Programming a DTMF code via the microphone	60	■ Fuse replacement	85
■ One-touch PTT function	32	■ Transmitting a DTMF code	61	■ Partial resetting	85
6 REPEATER OPERATION	33–38	■ DTMF speed	62	■ Resetting the transceiver	85
■ Operation	33	13 EXTERNAL DTMF REMOTE	63–64	19 SPECIFICATIONS	86
■ Tone information	34			20 OPTIONS	87–88
■ Subaudible tones	35			■ Unpacking	87
■ Offset frequency	36			■ Options	87
■ Tone scan	37				
■ Auto repeater	38				

PANEL DESCRIPTION

■ Front panel (remote controller)



① VOLUME CONTROLS [VOL·MONI]

- Adjust the audio level. (p. 24)
- Open the squelch and monitor the transmit frequency when pushed and held. (pgs. 25, 33)

② SQUELCH CONTROLS [SQL] (p. 25)

Vary the squelch level.

③ POWER SWITCH [POWER] (p. 19)

Turns power ON and OFF when pushed for 1 sec.

④ TUNING DIALS [MAIN·SUB]

- Select the operating frequency (p. 21), the memory channel (p. 39), the contents of the set mode display (p. 18) and the scanning direction (pgs. 50, 54).

- Select the main band when pushed. (p. 19)

- Activate the sub band access function when pushed and held (when the main band is not selected). (p. 27)

- Change the operating band for para-watch when pushed and held (when the main band is selected). (p. 29)

⑤ VFO/MHz SWITCHES [V/MHz]

- Select VFO mode. (p. 19)
- Select the 1 MHz tuning step in VFO mode. (p. 21)
- Select the 10 MHz tuning step when pushed and held. Some versions do not have the 10 MHz tuning step. (p. 21)

⑥ MEMORY/CALL CHANNEL SWITCHES**[M/CALL•PRIO]**

- Select memory mode or a call channel. (pgs. 39, 45)
- Activate the priority watch function when pushed and held. (p. 58)
- Cancel the priority watch function when the function is activated. (p. 58)

⑦ SPEECH/MEMORY WRITE SWITCH [SPCH•MW]

- Programs a memory channel or a call channel when pushed and held. (pgs. 40, 46) Also advances the memory channel number when continuously pushed after programming is completed. (p. 44)
- Transfers the contents of a memory channel, call channel or scratch pad memory to the VFO. (pgs. 42, 45, 48)
- Announces the accessed band frequency in a synthesized voice when an optional UT-66 VOICE SYNTHESIZER UNIT is installed. (p. 74, 81)
- Reverses the set mode selection order in set mode. (p. 18)

⑧ SET MODE SWITCH [SET•LOCK]

- Accesses set mode and advances the set mode display. (p. 18)
- Activates the frequency lock function when pushed and held. (p. 20)

⑨ DUPLEX/TONE SWITCH [DUP•TONE]

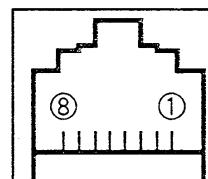
- Selects simplex, – duplex or + duplex. (p. 33)
 - Activates the optional subaudible tone encoder* (p. 34); pocket beep (p. 72) or tone squelch function (p. 73) when pushed and held.
- * U.S.A. and Korea versions : Built-in
Other versions : Optional except for 88.5 Hz.

⑩ DTMF/SCAN SWITCH [DTMF•SCAN]

- Activates the pager, code squelch, DTMF memory or DTMF remote functions. (pgs. 59, 63, 68, 71)
- Starts scan in VFO or memory mode when pushed and held. (pgs. 50, 54)
- Starts tone scan when pushed and held while an optional tone squelch is in use. (p. 37)

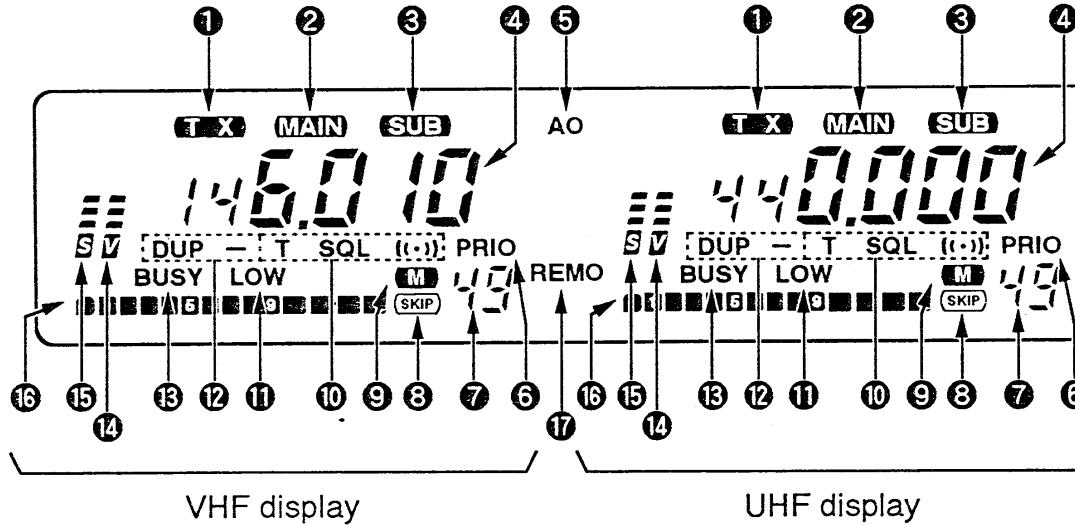
⑪ TRANSMIT POWER SWITCH [LOW] (p. 31)

Selects the transmit output power levels.

◆ Microphone connector (front view)

- ① + 8 V DC output
- ② Frequency up/down
- ③ Charge control input (for HM-90/A)
- ④ PTT
- ⑤ GND (Microphone ground)
- ⑥ MIC (Microphone input)
- ⑦ GND (ground)
- ⑧ Control data input

■ Function display



① TRANSMIT INDICATORS

Appear while transmitting. (p. 31) Flash while transmitting with the one-touch PTT function. (p. 32)

② MAIN BAND INDICATORS (p. 19)

Appear above a frequency readout to show the main band for transmitting and function control.

③ SUB BAND ACCESS INDICATORS

- Appear above a frequency readout to show the accessed band for function control (except transmitting). (p. 27)
- Flash while External DTMF Remote is in use. (p. 63)

④ FREQUENCY READOUTS

- Show the operating frequency, set mode contents, etc.
- The decimal point of the frequency flashes while scanning. (pgs. 37, 50, 54)
 - "P," "C" or "d" appears in place of the 100 MHz digit while the pager, code squelch or DTMF memory function is in use, respectively. (pgs. 59, 68, 71)

⑤ AUTO POWER-OFF INDICATOR (p. 79)

Appears while the auto power-off function is in use.

A-5282S-1EX
Printed in Japan
Copyright © 1994 by Icom Inc.

Icom Inc.
6-9-16, Kamihigashi, Hirano-ku, Osaka 547, Japan